43th Annual AOGD Conference 2021

Date:

19th - 21st November, 2021

Organised by:

VMMC & Safdarjung Hospital
New Delhi - 110029

Safe Practices and Quality Care

Souvenir & Abstract Book

AOGD SECRETARIAT
Room Number 001, Ward 6,
Department of Obstetrics & Gynaecology
Vardhman Mahavir Medical College
& Safdarjung Hospital, New Delhi- 110 029
Email: aogdsjh2021@gmail.com
www.aogd.org
Tel: 01126730487

43th Annual Conference Association of Obstetricians and Gynaecologists of Delhi

DMC Credit: 6 hours
ICOG Credit: 8 Points

AOGD SECRETARIAT
Room Number 001, Ward 6, Department of Obstetrics & Gynaecology
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi - 110 029
Email: aogdsjh2021@gmail.com | www.aogd.org | Tel: 01126730487

AOGD 2021-22


Dr S N Mukherjee


Dr Urmil Sharma


Dr Kamal Buckshee


Dr Sheila Mehra


Dr Indrani Ganguli


Dr V L Bhargava

Patrons

Organising Faculty

43th Annual Conference
Association of Obstetricians and Gynaecologists of Delhi


Dr Pratima Mittal
Chief Advisor


Dr Achla Batra
Organising Chairperson


Dr Jyotsna Suri
Organising Co-chairperson


Dr Monika Gupta


Dr Saritha Shamsunder

Organising Secretaries


Dr Anita Kumar


Dr Divya Pandey

Organising Joint Secretaries


Dr Upma Saxena
Treasurer


Dr Ritu Aggarwal
Co-Treasurer

Committees


Dr Anjali Dabral


Dr Rupali Dewan


Dr Sunita Malik


Dr Vijay Zutshi


Dr Renu Arora


Dr Bindu Bajaj

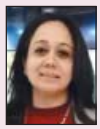

Dr Harsha S Gaikwad

Scientific Committee


Dr Rekha Bharti


Dr Sumitra Bachani


Dr Sarita Singh


Dr Garima Kapoor

Inauguration Committee


Dr Rekha Bharti


Dr Archana Mishra


Dr Sheeba Marwah


Dr Nishi Chaudhary

Souvenir Committee


Dr Vijay Zutshi


Dr Sheeba Marwah


Dr Anita Kumar

Paper & Poster Committee


Dr Upma Saxena


Dr Divya Pandey


Dr Ritu Aggarwal


Dr Anita Kumar

Workshop Co-ordination Committee


Dr Ritu Aggarwal


Dr Kashika


Dr Dipti Sharma

Dr Nishi Chaudhary

Hall Co-ordination Committee

Dr Yamini Sarwal

Dr Manjula Sharma

Dr Meenu Chaudhary

Talent Hunt Committee

Dr Sonam Topden

Dr Sunita Yadav

Dr K Usha Rani

Dr Kavita Aggarwal

Conference Co-ordination Committee

राष्ट्रीय स्वास्थ्य मिशन
डॉ. भारती प्रविण पवार
Dr. Bharati Pravin Pawar

सत्यमेव जयते
सर्वेसन्तु निरामया
स्वच्छ भारत
एक कदम स्वच्छता की ओर

स्वास्थ्य एवं परिवार कल्याण राज्य मंत्री
भारत सरकार
MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA

The Association of Obstetricians and Gynaecologists of Delhi is organizing the 43rd Annual Conference on 19th, 20th, and 21st November 2021 on a very pertinent theme, **"Safe Practices, Quality Services"**.

Maternal wellbeing is of utmost importance to a nation's prosperity. In continuum with the Government of India's commitment to reduce maternal and child morbidity and mortality, the Govt. of NCT of Delhi has undertaken initiative in implementing various Maternal and Child Welfare Programs.

Under the dynamic leadership of our Hon'ble Prime Minister Shri Narendra Modiji, the country has witnessed innovative ideas being translated into action in the field including those related to health and wellbeing of pregnant women.

I hope this conference will provide a platform to the members of the association to work collectively towards upliftment of women's health and wish good luck to its organizers and attendees.

BPw
(Dr. Bharati Pravin Pawar)

"दो गज की दूरी, मास्क है जरूरी"
Office: 250, 'A' Wing, Nirman Bhavan, New Delhi-110011, Tel. : 011-23061016, 23061551, Telefax : 011-23062828
E-mail : mos-mohfw@gov.in

राजेश भूषण, आईएएस
सचिव
RAJESH BHUSHAN, IAS
SECRETARY

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

I am pleased to know that the Department of Obstetrics and Gynaecology, VMMC and Safdarjung Hospital is organizing the 43rd Annual Conference of Association of Obstetricians and Gynecologists of Delhi on 19th, 20th and 21st November, 2021 with the theme "**Safe practices, quality services".**

India has the second largest global population and more than 2.5 crore pregnancies each year. On this context, Maternal Health is a key for development of family, society and the country. Care provided to women before, during and after pregnancy is crucial for the wellbeing of women, children and the entire family.

To err is human, but errors in healthcare can be a significant cause of injury and patient discomfort. Sustained commitment to quality and patient safety is an essential component for provision of optimal healthcare for women. Our aim is to create an environment where all caregivers feel safe in reporting errors, near misses and at risk behaviours by themselves and others. For quality service delivery, multidisciplinary training and adequate staffing have been embedded into all Government programs. Government of India has also setup the National Medical Commission with the aim of strengthening the quality of medical education and to promote a higher standard of health care delivery. The development of skill labs and creation of a new competency based curriculum is the core of the policy adopted by the Government.

I am certain that the conference will shed light on the latest developments in the field of Obstetrics and Gynaecology. I hope that the exchange of knowledge, experiences and insights amongst the esteemed delegates of this congregation will aid the experts in delivering quality care to their patients.

I wish this conference all success & hope that its deliberations would be mutually productive and fruitful.

Date : 09.11.2021
Place: New Delhi

(Rajesh Bhushan)

Room No. 156, A-Wing, Nirman Bhawan, New Delhi-110 011
Tele : (O) 011-23061863, 23063221, Fax : 011-23061252, E-mail : secyhfw@nic.in

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011
GOVERNMENT OF INDIA
MINISTRY OF HEALTH & FAMILY WELFARE
NIRMAN BHAVAN, NEW DELHI - 110011

आरती आहूजा, भा.प्र.से.
अपर सचिव
Arti Ahuja, IAS
Additional Secretary
Tele: 011-23061066 / 23063809
E-mail: ash-mohfw@nic.in

Dated the 11th November, 2021

MESSAGE

It gives me great pleasure to applaud The Association of Obstetricians and Gynaecologists of Delhi (AOGD) for organizing their 43rd Annual Conference from 19th- 21st November 2021. The theme for this Conference this year, **"Safe Practices, Quality Services"** is absolutely relevant, especially in view of the COVID pandemic.

Provision of quality services and adoption of safe clinical practices are instrumental in enhancing the overall maternal and child health status of the country. I am confident that the Conference will serve as a diverse platform for sharing the ever-growing knowledge and clinical competence in the field of Obstetrics and Gynaecology.

I wish the organizers and attendees a successful event.

(Arti Ahuja)

टीबी हारेगा, देश जीतेगा – अधिक जानकारी के लिए संपर्क करें 1800-11-6666 (टोल फ्री)
TB Harega, Desh Jeetega-For more Information contact 1800-11-6666(Toll Free)

डॉ. पी. अशोक बाबू, भा.प्र.से.
संयुक्त सचिव
Dr. P. Ashok Babu, IAS
Joint Secretary

सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली-११००११
GOVERNMENT OF INDIA
MINISTRY OF HEALTH & FAMILY WELFARE
NIRMAN BHAVAN, NEW DELHI-110011

MESSAGE

It is heartwarming that the Association of Obstetricians and Gynaecologists of Delhi, one of the largest State Associations of Obstetricians and Gynaecologists, is organizing the 43rd Annual Conference from 19th to 21st November, 2021.

The wellbeing of women marks the wellness of a nation. The Association of Obstetricians and Gynaecologists of Delhi has been tirelessly working to improve maternal and child wellness by providing quality care, promoting knowledge enrichment and dissemination. The theme of the conference, '***Safe Practices, Quality Services'***, closely matches their devout commitment to promoting women's health.

The Government of India is dedicated to improve maternal and child wellbeing and endeavours to reduce maternal and child mortality and morbidity. In this regard, various government programmes and initiatives have been designed which are helping to achieve high-quality care for women and newborns in line with the targets set under the Sustainable Development Goals.

I wish the organizers and delegates a very successful and productive time at the conference of the Association of Obstetricians and Gynaecologists of Delhi.

(Dr. P. Ashok Babu)

Room No. 243 (A), 'A' Wing, Nirman Bhawan, New Delhi - 110011
Tel. : 011-23061447 E-mail : jsrch-mohfw@gov.in

प्रो.(डॉ.) सुनील कुमार
एम.बी.बी.एस एवं एम.एस. (एम्स)
PROF. (Dr.) SUNIL KUMAR
MBBS & MS (AIIMS)
स्वास्थ्य सेवा महानिदेशक
DIRECTOR GENERAL OF HEALTH SERVICES

सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
स्वास्थ्य सेवा महानिदेशालय
Government of India
Ministry of Health & Family Welfare
Directorate General of Health Services

Message

Greetings to all Gynaecologists!

I am immensely delighted to know that Association of Obstetricians & Gynaecologists of Delhi (AOGD) is organizing the 43rd Annual Conference on 19th, 20th and 21st of November on an extremely important theme "**Safe Practices, Quality Services**".

A woman is the supporting pillar of the entire family and her health and wellbeing are therefore of the utmost importance for the entire family. Focus must be on strong determination for improving the health of women with special emphasis on intrapartum & postpartum women care, contraception provision, cancer screening and adolescent health.

I acknowledge the work and sweat put in by the organizers to gather all the esteemed speakers for this prestigious platform to illuminate and enlighten the delegates.

I extend a warm welcome to all the delegates on being part of this academic feast. I sincerely hope that the knowledge exchanged in this conference through interactive sessions, panel discussions and workshops will help the delegates in providing quality care to the patients.

I wish the conference great success.

(Sunil Kumar)

Room No. 446-A, Nirman Bhawan, New Delhi-110108
Tel.: 011-23061063, 23061438 Fax: 011-23061924 Email: dghs@nic.in

The Federation of Obstetric & Gynaecological Societies of India

President: Dr. S. SHANTHA KUMARI
Mob: + 91 9848031857 | **Email:** drshanthakumari@yahoo.com

Secretary General: Dr. MADHURI PATEL
Mob: + 91 9869042132 | **Email:** drmadhuripatel@gmail.com

FOGSI FOR ALL, ALWAYS
DHEERA
STOP VIOLENCE AGAINST WOMEN

Dr. Archana Verma
Vice President
Mob: 9891203527
E: archana.gogs@gmail.com

Dr. Basab Mukherjee
Vice President
Mob: 9830027759
E: basabm@gmail.com

Dr. Bipin Pandit
Vice President
Mob: 9820148959
E: bipinpandit@gmail.com

Dr. Fessy Louis T
Vice President
Mob: 9846055224
E: fessylouis@gmail.com

Dr. Kawita Bapat
Vice President
Mob: 9826055666
E: bapatkawita@gmail.com

Dr. Alpesh Gandhi
Immd. Past President
Mob: 9825063582
E: gandhialpesh@gmail.com

Dr. Hrishikesh D. Pai
President Elect
Mob: 9820057722
E: hdpai@hotmail.com

Dr. Suvarna Khadilkar
Deputy Secretary General
Mob: 9820078703
E: suvarnakhadilkar2@gmail.com

Dr. Parikshit Tank
Treasurer
Mob: 9833255870
E: pariktank@gmail.com

Dr. Niranjan Chavan
Joint Treasurer
Mob: 9820123513
E: nnchavan22@gmail.com

Dr. B. Aruna Suman
Joint Secretary
Mob: 9848042939
E: arunasuman18@yahoo.com

MESSAGE

Greetings from FOGSI to the **Association of Obstetricians and Gynecologists of Delhi,** for organizing the **43rd Annual Conference** in **mid-November 2021**, in a **hybrid mode**. We wish the **team lead** by **Dr Achala Batra** all the best for a fantastic event.

The conference will indeed serve as **an intellectual bonanza** for the young and aspiring Gynecologists from across the country.

AOGD members have served in gamut ways in promoting maternal and child wellness in the past decades. The conference is a continuum of this legacy.

The theme of the conference **"Safe Practices, Quality Services"** is very well chosen and there is no better way to acquire quality skills and knowledge than under the aegis of an educational conference.

I wish the delegates and organizers a novel and memorable learning experience.

With regards,

S. Shantha Kumari

Dr. S. Shantha Kumari
President FOGSI 2021-2022
Treasurer FIGO 2021-2023

www.fogsi.org
C-5,6,7,9,12,13, 1st Floor, Trade World, D-wing Entrance, S. B. Marg, Kamala City, Lower Parel (W), Mumbai-400013. India

Government of India
Ministry of Health & Family Welfare
Vardhman Mahavir Medical College & Safdarjung Hospital,
New Delhi–110029
Office of Medical Superintendent

// MESSAGE //

It's honour for me to be a part of the 43rd Annual AOGD Conference being organised by the Department of Obstetrics and Gynaecology, VMMC and Safdarjung Hospital. The conference is being organised in a hybrid mode from 19th to 21st November, 2021 with a very important theme of **"Safe Practices, Quality Services".**

As very rightly put by Michelle Obama, "Communities and countries and ultimately the world is only as strong as the health of their women". Healthy women indeed are a backbone needed for a strong nation. Obstetricians and Gynaecologists are one of the most important building blocks of healthcare system in a country with maternal and child health care indicators being used as references for a nation's progress. With improved provision and availability of health care services to the masses the quality of care has become the new target to be achieved. This conference is structured in such a manner that the delegates would enjoy the variety of sessions and at the same time it would be a great learning experience for them. I am hopeful the attendees would be pioneers in improving the quality of services and in general, the outcomes desired by a health care system.

I congratulate the organisers for bringing forward such an academic treat to the hospital moving past COVID times.

I wish the conference great success.

11.11.2021

(Dr. S.V. Arya)
Medical Superintendent

सत्यमेव जयते
प्राचार्य का कार्यालय
OFFICE OF THE PRINCIPAL
वर्धमान महावीर मेडिकल कॉलेज एवं सफ़दरजंग अस्पताल
Vardhman Mahavir Medical College & Safdarjung Hospital
नई दिल्ली- 110029 / New Delhi -110029
स्वास्थ्य सेवा महानिदेशालय, स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार
गुरु गोबिंद सिंह इंद्रप्रस्थ विश्वविद्यालय, दिल्ली से संबद्ध
Directorate General of Health Services, Ministry of Health & Family Welfare, Govt of India.
Affiliated to Guru Gobind Singh Indraprastha University, Delhi

MESSAGE

It gives me immense pleasure to know that department of Obstetrics and Gynaecology, VMMC & Safdarjung Hospital is organizing the 43rd Annual AOGD Conference on a very pertinent theme of **"Safe Practices, Quality Services"** from 19th to 21st November, 2021 in hybrid mode.

Rebecca Milner has very aptly stated, **"If you check the health of a woman, you check the health of society".** Obstetrics and Gynaecology is one dynamic branch amongst clinical sciences that caters to upgrading all aspects of women's health. A major hurdle to advancing women's health has been the delay in accessing healthcare facilities. Now, with women being motivated for institutional care, it is our duty to provide them the quality services. This conference aims at improving the readiness and response of the Obstetricians & Gynaecologists to enhance overall health of women.

I congratulate the organizing team for their hard work, and hope this conference turns out to be a great academic bonanza for everyone!!!

Dr. Geetika Khanna
Principal, VMMC & SJH

From the Patron

Delighted to learn that VMMC & Safdarjang Hospital are organising the 43rd Annual AOGD Conference during 19th to 21st November 2021. The Theme of the conference is **"Safe Practices, Quality Services"**. It is expected that each Obstetrician and Gynaecologist follow this principle, practise and promote the same in the best interest of our speciality. AOGD is quite busy and academically active in organising several workshops, seminars, CMEs and panel discussions on important subjects related to maternal and child health. The Scientific program has been nicely planned and prepared with utmost care. I understand that there will be several Preconference Workshops on important topics in the field of Obstetrics & Gynaecology. Senior teachers and eminent consultants will address the delegates on current important subjects. I am sure that the participants will benefit immensely from the high standards of scientific deliberations.

Wish the Conference a grand success.

Dr S N Mukherjee
Founder Member & Patron
AOGD

From the Organising Chairperson

Warm greeting to all esteemed AOGD members!

It gives me immense pleasure and happiness in inviting you to the **43rd Annual Conference of AOGD**. Corona caught us unaware but nevertheless, we have successfully completed our journey till now with dedication, hard work, and sincerity. I feel happy that we will be able to offer you the human touch in interaction and experience sharing on the first day of the conference which is in the hybrid mode.

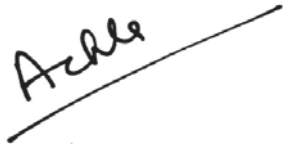
The theme this year is "**Promoting Women's Health by Strong Will and Quality Skill"**. The focus of the strong will was on adolescent health and cancer prevention. All year round, we excelled in spreading the knowledge through our beautifully designed CMEs by our various subcommittees. We left no stone unturned in improvising the skill of the health provider by touching all aspects of women's health. We also reached out to the public through our public forums. The monthly 'Theme Based Bulletins' has very fairly done justice to our goals.

I'm sure ample justice will be done to the theme of the Conference ***'Safe Practices, Quality Services'.*** We aspire to provide a common platform and forum for all delegates to discuss new avenues that will help in improvising the quality of our skills. The delegates will also be able to take the pulse of what is new in the field through the enlightening sessions. I hope you enjoy the conference as much as we have enjoyed organising it. The pre-conference workshops have been appreciated by everyone and we have more to offer as post-conference workshops too. All the workshop conveners have designed wonderful dedicated programs

The chief adviser Dr. Pratima Mittal has been a pillar of strength and I express my deepest gratitude to her. My team of office bearers is very dedicated and committed. It is because of them AOGD has been able to function efficiently and smoothly. I want to put on record my sincere appreciation for them. I wish to applaud all my subcommittee chairpersons who have brought out wonderful scientific programs throughout the year and will continue to do so.

Looking forward to meeting you all and hope we all together will make this conference a great success!

"It is the long history of humankind that those who learned to collaborate and improvise most effectively have prevailed." – Charles Darwin



Dr Achla Batra
Organising Chairperson, AOGD

From the Organising Co-chairperson

Dear Colleagues

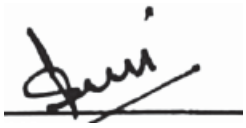
It gives me immense pleasure to welcome all of you for this most awaited academic feast of the year as the Organising Co-Chairperson of the 43rd Annual AOGD Conference.

Organization of a Conference of this scale in the online mode is a very big challenge. To keep up the interest of our delegates and to prevent screen fatigue, the programme has been well spread out with limited hours each day. The pre-conference workshops even though online will give our delegates the important practical tips through videos, role play and adequate audience interaction. For the main Congress, the scientific committee has chosen the topics with great thought and amalgamated the contemporary with the basics. The young budding gynecologists will get ample opportunity to hone their research and academic skills by presenting their scientific works and by participating in the most invigorating quiz.

The icing on the cake is the live inauguration and scientific programme on 19th November at Hotel Lalit. All of you are cordially invited to come and grace the occasion.

Notwithstanding the highly toxic air around us, this conference brings a breath of fresh air and is something which will refresh all of us. Hoping to see you all.

Take care and stay safe



Dr Jyotsna Suri
Organising Co-chairperson, AOGD

From the Organising Secretary

Dear Delegates,

Welcome to 43rd Annual Conference of AOGD!

It is with immense pleasure and satisfaction that I write this message for the Scientific Proceedings cum Abstract book of Annual Conference of AOGD. The fact that AOGD is an all-important and ever strong organisation for Gynaecologists in Delhi and NCR is exemplified with the overwhelming response to its 43rd Annual Conference. As I write this message the number of registrations has already exceeded 500! During our tenure at Safdarjung this year, AOGD has successfully carried out new initiatives even in difficult times of second wave of COVID pandemic. We began with the mission and theme '**Strong will and Quality Skills- Promoting Women's Health**' and have since conducted several relevant endeavours to enhance learning of our members as well as promoting women's health amongst masses. Carrying the journey forward, we planned this annual conference with the befitting theme as '**Safe Practices and Quality Services'**

In this age of knowledge explosion, it has become imperative to keep abreast with latest developments and newer techniques in the field of medicine. The format of the conference will provide ample scope for lively interaction of obstetricians and gynaecologists with eminent national and international faculty. With great efforts and utmost caution, we have managed to organise the first inaugural day for the conference in hybrid mode so that our members have an opportunity for much awaited face to face discussion based on evidence to clear all doubts and reach a consensus take home message.

The highlight of the conference is the Orations and Key note lectures by leading experts in medical field like **Professor Kypros Nicolaides** from Harris Birthright Centre, King's College Hospital, The Fetal Medicine Research Institute London, **Professor Ajay Rane**, Consultant Urogynaecologist from James Cook University, Australia, **Dr Rajesh Taneja**, renound Urologist from Apollo Hospital, New Delhi and **Dr Mala Srivastava**, Past President AOGD. We are sure you will find this conference extremely informative and valuable to upgrade your expertise.

It has been a herculean task accomplished by our scientific committee and editorial team to categorise the overwhelming response from our AOGD members in form of abstracts for paper and poster presentation. I hope you will benefit from abridged versions of various speakers' presentations as well through this souvenir issue. I also take this opportunity to convey my most sincere thanks to all the esteemed national faculty members and organising committee who have devoted their precious time and efforts in making this conference successful.

My special gratitude to Dr Achla Batra, Dr Pratima Mittal & Dr Jyotsna Suri for entrusting me with the most demanding responsibilities for conference organisation. I also thank my joint secretaries, Dr Divya Pandey and Dr Anita Kumar to help me out carry out my task. Last but not the least all important pillars of AOGD, the treasurer Dr Upma Saxena and our beloved editor Dr Rekha Bharti to bring out this beautiful piece of Souvenir issue for all of you.

I request one and all to join us in this annual festival of learning and fun and make this a memorable event.

With best wishes and regards

Dr Monika Gupta
Organising Secretary, AOGD

From the Organising Secretary

Dear Friends,

The Annual Conference is a much awaited event for all the members of Delhi, being the largest and most vibrant society of FOGSI. We welcome you to the **43rd Annual Conference of AOGD** in a hybrid mode so that atleast some physical interaction and networking is possible. We hope you enjoy the academic feast with 13 Peri-Conference Skill Updating Workshops and 3 days of the conference with the all the topics of current interest from national and international faculty participating.

Enjoy learning and networking at AOGD 2021!

Dr Saritha Shamsunder
Organising Secretary, AOGD

From the Editor's Desk

Greeting from the editorial team!

It is indeed a proud moment for us to compile conference souvenir for the **43rd Annual Conference** of our esteemed Association of Obstetricians and Gynaecologists of Delhi. We are thankful to the Organising team led by our President and organising chairperson, Dr. Achla Batra for timely providing us with material to be included in the souvenir. Dr. Monika Gupta, organising secretary, and Dr. Anita Kumar, joint secretary worked diligently to make sure that all the abstracts of oral papers and posters are included in this souvenir.

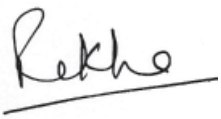
I am extremely grateful to Dr. Jyotsna Suri for her constant support and guidance. I also appreciate the hard work put in by the whole editorial team, Co-editors, Dr. Archana Mishra and Dr. Sheeba Marwah, Assistant Editors, Dr. Zeba Khanam, Dr. Saumya Prasad, Dr. Aakriti Batra, Dr. Shubham Bidhuri, Dr. Akanksha Dwivedi and Dr. Niharika Gularia.

We are thankful to the esteemed speakers for providing their write-ups in time. We appreciate the commendable research work of our budding gynaecologists that would be presented during the paper and poster presentation. We also express our gratitude to them for summarising their work in the abstract format provided for the effortless compilation of this souvenir.

I would also like to appreciate the hard work put in by Ms. Jaya in making sure that all abstracts are sorted out session-wise.

Last but not the least, I acknowledge and appreciate the praiseworthy work done by our publisher and printer, Mr. Rakesh Ahuja, and his entire team especially Mr. Rahul and Mr. Sandeep.

Happy Reading to all of you!



Dr Rekha Bharti
Editor, AOGD (2021-2022)
editorsaogd2021@gmail.com

Editorial Board 2021-2022
First Row: Archana Mishra, Sheeba Marwah, Saumya Prasad
Second Row: Zeba Khanam, Rekha Bharti, Niharika Guleria
Third Row: Akanksha Dwivedi, Aakriti Batra, Shubham Bidhuri

The Association of Obstetricians & Gynaecologists of Delhi

PROMOTE WOMEN'S HEALTH

43rd Annual AOGD Conference

19 20 & 21 NOVEMBER, 2021

Organized By: VMMC & Safdarjung Hospital

Safe Practices, Quality Services

CONFERENCE SCIENTIFIC PROGRAMME

CONFERENCES INTERNATIONAL

www.aogdconference.com

DAY 1 | FRIDAY, 19TH NOVEMBER 2021

Hall A

Time	Topic	Speaker	Chairperson
Labour- Newer Perspective			
9:30 - 9:50 AM	Respectful Maternity Care	Dr Archna Verma	Dr Sudha Salhan Dr S N Basu Dr Sadhna Gupta
9:50 - 10:10 AM	Labour Care Guide Overview & Demonstration	Dr Anjali Dabral Dr Divya Pandey	
10:10 - 10:30 AM	Reaching SDG Goal by Preventing PPH	Dr Sharda Jain	
11:00 AM - 12:30 PM	**Inauguration**		
12:30 - 12:45 PM	**FOGSI Presidential Address**		
1:00 - 1:30 PM	**Lunch**		
Too Small & Too Soon-The Rescue Toolbox			
1:30 - 1:50 PM	Imaging in FGR	Dr Ashok Khurana	Dr Sunesh Kumar Dr Parag Biniwale Dr Amita Suneja
1:50 - 2:10 PM	Prediction & Prevention of Preterm Labour	Dr Kiran Guleria	
2:10 - 2:40 PM	IKMC- Innovation Extended to Unstable Babies: Obstetrician & Neonatologist Viewpoint	Dr Pratima Mittal Dr Harish Chellani	
Brig Khanna Oration			
2:40 - 3:10 PM	Bladder Pain Syndrome	Dr Rajesh Taneja	Dr S B Khanna Dr J B Sharma Dr Reva Tripathi Dr Swaraj Batra
On the Edge: Obstetric Conditions			
3:10 - 3:30 PM	Dyspnea in Pregnancy	Dr Ratna Biswas	Dr Neera Aggarwal Dr Asmita Rathore Dr Vandana Gupta
3:30 - 3:50 PM	Acute Liver Failure in Obstetrics	Dr Ashok Kumar	
3:50 - 4:10 PM	Peri-Partum Acute Kidney Injury	Dr Jyotsna Suri	

Hall B

Time	Topic	Speaker	Chairperson
Let Her be Pain Free			
9:30 - 9:50 AM	Chronic Pelvic Pain: Overview	Dr Upma Saxena	Dr Malvika Sabharwal Dr Sanjivni Khanna Dr J C Sharma
9:50 - 10:10 AM	Medical Management of PID	Dr Anju Soni Dr Rekha Bharti	
10:10 - 10:30 AM	Surgical Management of PID	Dr Alka Kriplani	
11:00 AM - 12:30 PM	**Inauguration**		
12:30 - 12:45 PM	**FOGSI Presidential Address**		
1:00 - 1:30 PM	**Lunch**		
Mixed Bag			
1:30 - 1:50 PM	Is it Time for Universal Non Invassive Pre-Implantation Genetic Testing?	Dr Neeta Singh	Dr Chinmayee Ratha Dr Seema Prakash
1:50 - 2:40 PM	**Panel Discussion:** Demystifying Mullerian Anomalies: Diagnosis to Treatment	**Moderator:** Dr Aruna Nigam Dr Sumedha Sharma	**Panelists:** Dr Neema Sharma Dr Anuradha Singh Dr Nilanchali Singh Dr Megha Mittal Dr Abhinav jain
Brig Khanna Oration			
2:40 - 3:10 PM	Bladder Pain Symdrome	Dr Rajesh Taneja	Dr S B Khanna Dr J B Sharma Dr Reva Tripathi Dr Swaraj Batra
Family Welfare Update			
3:10 - 3:25 PM	Contraception: Newer Updates	Dr Shobha Gudi	**Experts:** Dr Sumita Ghosh Dr Jyoti Sachdeva Dr Bimlesh
3:25 - 4:10 PM	**Panel Discussion:** Pregnancy Termination for Medical Disorders: Addressing the Dilemma	**Moderator:** Dr Richa Sharma Dr Yamini Sarwal	**Panelists:** Dr Anita Rajorhia Dr Kiranmai Devineni Dr Sujata Das Dr Priyankur Roy

DAY 2 | SATURDAY, 20TH NOVEMBER 2021

Hall A

Time	Topic	Speaker	Chairperson
Infections in Obstetrics & Gynecology - Bundle Approach			
2:00 - 2:20 PM	Surgical Site Infections – Prevention & Management	Dr Manju Puri	Dr Sangeeta Gupta Dr Sunita Yadav Dr Devender Kumar
2:20 - 2:40 PM	Dealing with Sepsis in Obstetrics	Dr Monika Gupta	
Nurturing Special Pregnancy			
2:40 - 3:00 PM	Pregnancy following IVF	Dr Bindu Bajaj	Dr Banashree Das Dr Tarini Taneja Dr Poonam Goyal
3:00 - 3:20 PM	Pregnancy following Recurrent Pregnancy Loss	Dr Kanwal Gujral	
3:20 - 3:40 PM	Pregnancy after Uterine Surgery	Dr Chandra Mansukhani	
New Frontiers in Obstetrics			
3:40 - 4:00 PM	ERAS in Obstetrics-The New Frontier	Dr Jaydeep Tank	Dr Vidya Thobbi Dr Anita Sabharwal Dr Kishore Rajurkar
4:00 - 4:20 PM	Vaccination in Pregnancy	Dr Anjila Aneja	
Solving Pregnancy Dilemmas - Dialogue with Experts			
4:20 - 4:40 PM	Thrombocytopenia in Pregnancy	Dr Madhavi M Gupta Dr Ankur Jain	Dr Chitra Raghunandan Dr Kumari Usha Rani
4:40 - 5:00 PM	Managing Gravidas with Corrected Cardiac Anomaly	Dr Garima Kapoor Dr Preeti Gupta	
Pregnancy Hypertensive Disorders : Don't Let the Volcano Erupt			
5:00 - 5:20 PM	**KEYNOTE LECTURE:** **Prediction & Surveillance of Pre-Eclampsia**	**Dr Kypros Nicoloides**	Dr Suneeta Mittal Dr Ashok Khurana Dr Deepika Deka Dr Sohani Verma
5:20 - 5:40 PM	Prognostic Role of Full Pier & Biomarkers	Dr Prakash Mehta	
5:40 - 6:00 PM	Neurological Complications of Pre-Eclampsia	Dr Achla Batra	
6:00 - 6:20 PM	Dealing with Thromboembolism in Pregnancy	Dr Madhu Goel	

Hall B

Time	Topic	Speaker	Chairperson
Keeping Pace with Recent Advances			
2:00 - 2:20 PM	Breast Screening : Indian Guidelines	Dr Rajiv Sarin	Dr Veena Acharya Dr Harsha Khullar Dr Y M Mala
2:20 - 2:40 PM	Ovarian Cancer-Early Diagnosis	Dr Saritha Shamsunder	
Redeeming Quality of Lifeafter Menopause			
2:40 - 3:40 PM	**Panel Discussion:** Managing Challenging Clinical Scenarios	**Moderators:** Dr Jyoti Bhaskar Dr Harsha Gaikwad	**Experts:** Dr Uma Rai Dr Maninder Ahuja **Panelists:** Dr Ragini Agarwal Dr Meenakshi Ahuja Dr Shankuntla Kumar Dr Anita Kumar
Optimizing Fertility Outcome			
3:40 - 4:00 PM	Genital Tuberculosis	Dr Kavita Agarwal	Dr Sonia Malik Dr Sudha Prasad Dr Urvashi Sehgal
4:00 - 4:20 PM	Endometriosis	Dr Manju Khemani	
4:20 - 4:40 PM	Cancer Survivors	Dr Surveen Ghumman	
4:40 - 5:00 PM	Premature Ovarian Insufficiency	Dr Hrishikesh Pai	
5:00 - 5:20 PM	**KEYNOTE LECTURE:** **Prediction & Surveillance of Pre-Eclampsia**	**Dr Kypros Nicoloides**	**Dr Suneeta Mittal** **Dr Ashok Khurana** **Dr Deepika Deka** **Dr Sohani Verma**
Endometrial Carcinoma: Still in Enigma			
5:20 - 6:20 PM	**Panel Discussion:** Prevention & Progress of Endometrial Cancer	**Moderators:** Dr Sunita Malik Dr Sheeba Marwah	**Panelists:** Dr Sharda Patra Dr Archana Mishra Dr Bindiya Gupta Dr Mamta Dagar Dr Sarika Gupta

DAY 3 | SUNDAY, 21ST NOVEMBER 2021

Hall A

Time	Topic	Speaker	Chairperson
Decoding Fetal Medicine			
10:00 - 10:20 AM	Preconception Screening-What & When	Dr Anita Kaul	Dr Mandakini Pradhan Dr Sangeeta Gupta Dr Seema Thakur
10:20 - 10:40 AM	Prenatal Surgical Interventions	Dr Vatsala Dadhwal	
10:40 - 11:30 AM	**Panel Discussion:** Dealing with Fetal Anomalies (Pyelectasis/ Ventriculomegaly)	**Moderators:** Dr Sumitra Bachani Dr Renu Arora	**Panelists:** Dr Manisha Kumar Dr Chanchal Singh Dr Ashutosh Gupta Dr Shilpa Sharma
AOGD Presidential Oration			
11:30 AM - 12:00 PM	Work & Worship	Dr Mala Srivastava	Dr S N Mukherjee Dr Kamal Buckshee Dr V L Bhargava Dr Achla Batra
Gestational Diabetes - Solving the Conundrum			
12:00 - 12:20 PM	Insulin Therapy in Pregnancy	Dr Rajeev Chawla	Dr Uday Thanawala Dr Abha Singh Dr Indu Chawla
12:20 - 12:40 PM	Continuum of Care: Intrapartum to Postpartum	Dr S V Madhu	
12:40 - 1:40 PM	**Panel Discussion:** Controversies in Dealing with Hyperlycemia in Pregnancy	**Moderators:** Dr Pikee Saxena Dr Niharika Dhimman	**Panelists:** Dr Kiran Aggarwal Dr Taru Gupta Dr Shivani Aggarwal Dr Himshweta Srivastava
1:40 - 3:00 PM	**Competition Papers**		
Current Buzz: Let's Debate			
3:00 - 3:20 PM	PROM Termination at 34 Weeks?	Dr Anupama Bahadur Dr Pinkee Saxena	Dr Reena Yadav Dr Abha Sharma Dr Rinku Sen Gupta
3:20 - 3:40 PM	Antenatal Corticosteroids in Late Preterm Labour?	Dr Jayshree Sunder Dr K Aparna Sharma	
3:40 - 4:00 PM	**Slogan Competition** **Judges: Dr Pratima Mittal, Dr Vijay Zutshi, Dr Achla Batra**		
4:00 PM	**Valedictory**		

Hall B

Time	Topic	Speaker	Chairperson
Lets Talk About Vulva			
10:00 - 10:20 AM	Revised Vulval Carcinoma Staging-2021: Clinical Practice Implications	Dr Neerja Bhatla	Dr Rupinder Shekhon Dr Kanika Gupta
10:20 - 11:30 AM	**Panel Discussion:** Practice Essentials of Vulval Pathologies: Lessions to Learn	**Moderators:** Dr Vijay Zutshi Dr Sarita Singh	**Panelists:** Dr Shakun Tyagi Dr Sumita Mehta Dr Pakhee Agarwal Dr Neeti Khungar Dr Selvam
AOGD Presidential Oration			
11:30 AM - 12:00 PM	Work & Worship	Dr Mala Srivastava	Dr S N Mukherjee Dr Kamal Buckshee Dr V L Bhargava Dr Achla Batra
Urogynaecology Update			
12:00 - 12:20 PM	Tips and Tricks of Vaginal Surgery: Preventing Prolapse Recurrence	Dr Ajay Rane	Dr Ranjana Sharma Dr Srikala Prasad Dr Aparna Hegde
12:20 - 12:35 PM	Laser based devices in Urogynecology - Current Practices	Dr Amita Jain	
12:35 - 12:50 PM	Prolapse & Urinary Incontinence Mangement - Conservative Approach	Dr Geeta Mediratta	
12:50 - 1:40 PM	**Panel Discussion:** Evaluating & Managing Urinary Incontinence	**Moderators:** Dr Karishma Thariani Dr Rajesh Kumari	**Panelists:** Dr Sonal Bhatla Dr Sandhya Jain Dr Uma Rani Swain Dr Archana Kumari
1:40 - 3:00 PM	**Competition Papers**		
Current Buzz: Let's Debate			
3:00 - 3:20 PM	USG for Diagnosis of Adolescent PCOS?	Dr Rashmi Malik Dr Sunita Arora	Dr Shalini Rajaram Dr Gauri Gandhi Dr Dipti Nabh
3:20 - 3:40 PM	All Post-Menopausal Ovarian Cysts Need Surgery?	Dr Uma Vaidyanathan Dr Vidhi Chaudhary	
3:40 - 4:00 PM	**Slogan Competition** **Judges: Dr Pratima Mittal, Dr Vijay Zutshi, Dr Achla Batra**		
4:00 PM	**Valedictory**		

Schedule of Oral Paper Presentation

Session 1

Date: 15th November, 2021 **Time:** 09:00 am - 10:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Pragya Kumari Mishra	To evaluate the level of adiponectin to leptin ratio as a diagnostic marker in women with PCOS and its association with insulin resistance	VMMC & Safdarjung Hospital
2	Dr Ritam Kumari	Effect of metformin therapy on serum fractalkine levels in polycystic ovarian syndrome: A pilot study	UCMS & GTB Hospital
3	Dr Monisha Ravi	Association of anogenital distance with polycystic ovarian syndrome	VMMC & Safdarjung Hsopital
4	Dr Kamna Kataria	Comparison of depression, anxiety andquality of life in women with infertility due to polycystic ovarian syndromeversus unexplained infertility	VMMC & Safdarjung Hospital
5	Dr Neeraj Jindal	Comparison of letrozole alone with letrozole and HCG on pregnancy rates in PCOS women with anovulatory infertility: A randomised controlled trial	LHMC & SSK Hospital
6	Dr Vaishali Suraiya	Study of obstetrics and gynaecological emergencies in covid time	VMMC & Safdarjung Hospital

Session 2

Date: 15th November, 2021 **Time:** 10:00 am - 11:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Shaheen	Association between chlamydia trachomatis infection and recurrent pregnancy loss	VMMC & Safdarjung Hospital
2	Dr Rubab Aafreen	Cord blood parameters and fetal outcome in cases with meconium staining liquor	VMMC & Safdarjung Hospital
3	Dr Sukanya Sanapala	Preopperative clinical evaluation of cesarean section scar and its correlation with the intraoperative findings of cesarean section scar	VMMC & Safdarjung Hospital
4	Dr Swati Dhar	Efficacy and safety of low dose sublingual misoprostol for induction of labour in prelabour rupture of membranes beyond 34 weeks: A prospective observational study	LHMC & SSK Hospital
5	Dr Kagita Vasudha Bhargavi	Role of progesterone levels in prediction of clinical pregnancy in cryo embryo transfers	MAMC & LNJP Hospital
6	Dr Chinthala sai Charishma	To study the maternal risk factors for fetal growth restriction in preterm births.	MAMC & LNJP Hospital

Session 3

Date: 15th November, 2021 **Time:** 11:00 am - 12:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Tanu Sharma	Correlation of serum lipid profile in second trimester with adverse pregnancy outcome	Kasturba Hospital
2	Dr Neetika Pandey	Comparison of ultrasonographic parameters with modified bishop score in predicting outcome of labour induction	ESIC PGIMSR, Basaidarapur
3	Dr Neha Khatri	Changes in doppler parameters in severe fetal growth restriction and its association with perinatal outcomes in an indian tertiary care center	MAMC & LNJP Hospital
4	Dr Vaishali Gautam	Fetal middle cerebral artery pulsatility index as a predictor for failed induction of labour in late term pregnancy	VMMC & Safdrajung Hospital
5	Dr Bhagyashree Singh	Role of angle of progression for prediction of spontaneous onset of labour within one week anddelivery outcome in women with term pregnancy	VMMC & Safdarjung Hospital
6	Dr Bhawna Arora	The incidence of urogynaecological problems in postpartum women and relation to mode of delivery	AIIMS, Delhi

Session 4

Date: 15th November, 2021 **Time:** 12:00 am - 01:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Sakshi Lalwani	Role of simplified bishop score in predicting delivery outcome following induction of labor in term pregnancies	VMMC & Safdarjung Hospital
2	Dr Pooja	Role of uterocervical angle in prediction of preterm birth	VMMC & Safdarjung Hospital
3	Dr Payal Dey	Correlation of striae gravidarum quantitatively with perineal tear in women undergoing normal vaginal delivery	VMMC & Safdarjung Hospital
4	Dr Nasrin Fatima	A study of maternal plasma oxytocin levels and postpartum depression in low risk pregnant population	UCMS & GTB Hospital
5	Dr Hansveen Kaur Lamba	Single dose versus multiple doses of antibiotics for prevention of surgical site infection in women undergoing cesarean section: A randomized non-inferiority trial	MAMC & LNJP Hospital
6	Dr Lakhwinder Singh	Comparison of cervical shear wave elastography, bishop score, and transvaginal cervical length measurement for prediction of successful labor induction: A pilot study	AIIMS, New Delhi

Session 5

Date: 15th November, 2021 **Time:** 01:00 pm - 02:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Usha Yadav	Ultrasonographic assessment of position of iucd in immediate postpartum	ESIC PGIMSR, Basaidarapur
2	Dr Ankita Chola	Assessment of knowledge, attitude and practice of contraception among antenatal women in a tertiary care hospital	MAMC & LNJP Hospital
3	Dr Raksha R	Effect of various contraceptive methods on vaginal microflora	VMMC & Safdarjung Hospital
4	Dr Ashu Bhardwaj	Role of combined hormonal contraceptives and ormeloxifene in the management of abnormal uterine bleeding in fibroid uterus	VMMC & Safdarjung Hospital
5	Dr Bijoya Mukherjee	Antenatal evaluation of fetal renal and urinary tract disorders and their perinatal outcome	VMMC & Safdarjung Hospital
6	Dr Barkha Vats	Assessment of hematological parameters as marker of subclinical inflammation in hyperemesis gravidarum	LHMC & SSK Hospital

Session 6

Date: 16th November, 2021 **Time:** 09:00 am - 10:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Shreya Gautam	Correlation between blood flow in inferior thyroid artery and TSH levels in pregnant women with hypothyroidism	ESIC PGIMSR Hospital, Basaidarapur
2	Dr Monika Kanyal	Can women with gestational diabetes mellitus be screened for diabetes mellitus in early postpartum period?	ESIC PGIMSR, Basaidarapur
3	Dr Shivani Verma	NT PRO BNP levels in women with hypertensive disorders of pregnancy	VMMC & Safdarjung Hospital
4	Dr Priyanka Ahuja	Role of placental laterality as a predictive tool for preeclampsia	VMMC & Safdarjung Hospital
5	Dr Shweta Varun	Postpartum depression and its risk factors in women undergoing caesarean delivery at a tertiary care centre	VMMC & Safdarjung Hospital
6	Dr Mounika Kandapu	Association of ovarian response with anogenital distance in patients undergoing ovarian stimulation for in vitro fertilization/ intra cytoplasmic sperm injection	MAMC & LNJP Hospital
7	Dr Priyanka Jaiswal	Nomogram of intracranial translucency (IT) in indian population and its correlation to nuchal thickness (NT), role in aneuploidy screening and congenital malformation	Artemis Hospital Gurugram

Session 7

Date: 17th November, 2021 **Time:** 09:00 am - 10:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Sunaina Agarwal	Old trick, new approach: Can hysteroscopy replace HSG as a routine procedure in rpl for uterine cavity assessment?	ESIC PGIMSR, Basaidarapur
2	Dr Himal Singla	Clinical, sonographic and histopathological assessment of structural causes of abnormal uterine bleeding	VMMC & Safdarjung Hospital
3	Dr Aditi Chawla	Clinical assessment of levator hiatus distensibility in women with pelvic organ prolapse	VMMC & Safdarjung Hsopital
4	Dr Nutan Nutan	Correlation of cytogenetic result with indication for amniocentesis	AIIMS, New Delhi
5	Dr Surabhiwa Waghmare	Effect of age on pelvic diamond area and its association with prolapse	ESIC PGIMSR, Basaidarapur
6	Dr Anne Monga	Comparison of letrozole plus gonadotropins versus gonadotropins alone for controlled ovarian stimulation in PCOS women undergoing IVF-ICSI cycles - A randomized controlled trial	AIIMS, New Delhi
7	Dr Anjali Gautam	Comparison of thermal ablation and crotheraty for treatment of symptomatic cervical ectopy a rctstuy	UCMS & GTB Hospital

Session 8

Date: 17th November, 2021 **Time:** 10:00 am - 11:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Dalimi Mushahary	Analysis of psychological stress among healthcare workers working in covid labour room	VMMC & Safdarjung Hospital
2	Dr Vaishnavi Jayaram	Impact of covid-19 pandemic on perinatal depression in a tertiary care hospital in india	MAMC & LNJP Hospital
3	Dr Neelam Rajpurohit	Changing trend in caesarean section in a tertiary care hospital during and before covid pandemic	ESIC PGIMSR, Basaidarapur
4	Dr Monica Sharma	Kap study on covid vaccination amongst pregnant women	Maulana Azad Medical College
5	Dr Shruti Tanwar	Risk factors for psychosocial stress during pregnancy	VMMC & Safdarjung Hospital
6	Dr Rajlaxmi Mundhra	Pelvic organ prolapse - A hidden disease affecting sexual function	AIIMS Rishikesh
7	Dr Avir Sarkar	Quality improvement study to increase the practice of proper handwashing prior to vaginal examinations in the labor room	AIIMS, New Delhi

Session 9

Date: 18th November, 2021 **Time:** 09:00 am - 10:00 am

S. No.	Name	Abstract Title	Institute
1	Prof Archana Mishra	An assessment of knowledge of doctors and nursing staff about WHO intrapartum care guidelines	VMMC & Safdrajung Hospital
2	Dr Sumitra Bachani	Anxiety and depression among women with covid 19 infection during childbirth - A study from urban india	VMMC & Safdrajung Hospital
3	Dr Divya Pandey	Impact of who - Labour care guide on reducing caesarean section at a tertiary teaching centre	VMMC & Safdrajung Hospital
4	Prof Anupama Bahadur	Clinical utility of inositols: Lessons of adolescent PCOS	AIIMS, Rishikesh
5	Dr Nilanchali Singh	Synoptic operative report in cervical cancer surgeries: Experience from single oncology center in canada	AIIMS, New Delhi
6	Dr Archana Kumari	Inherited factor x deficiency in pregnancy: Series of two cases and review of literature	AIIMS, New Delhi
7	Dr Anju Singh	Malignant germ cell tumors in disorders of sex development: A missed opportunity	AIIMS, New Delhi
8	Dr SHAZIA RASHID	Indication and absence for ICU admission in obstetric patients and their outcome	UCMS -GTBH

9	Dr Rinchen Zangmo	Successful pregnancy outcome in wilson's disease with multidisciplinary team management	AIIMS, New Delhi
10	Dr K Aparna Sharma	Sero-prevalence of SARS-COV-2 antibodies among first trimester pregnant women during the second wave of pandemic in india	AIIMS, New Delhi

Session 10

Date: 18th November, 2021 **Time:** 10:00 am - 11:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Sakshi Aggarwal	Rise in pro and anti-inflammatory cytokines in asymptomatic and mild covid-19 pregnant patients than moderate to sever patients	MAMC and Lok Nayak Hospital
2	Dr Kiran Srichittala	The implementation of obsetric triage in obgyn emergyence in tertiary care centre from north india	MAMC and Lok Nayak Hospital
3	Dr Shweta Panwar	Preclampsia in covid-19: A study to compare feto-maternal outcome in covid 19 positive preeclamptic women	VMMC & Safdrajung Hospital
4	Dr Taslim Mansuri	Diagnostic accuracy of neutrophil to lymphocyte ratio in comparison with liver function tests for the diagnosis of intrahepatic cholestasis of pregnancy	VMMC & Safdrajung Hospital
5	Dr Soumya Darshan	Knowledge, attitude and practice of pregnant women towards genetic disorder and prenatal testings	Maulana Azad Medical College
6	Dr Ashita Aggarwal	Correlation of placental thickness with gestational age - A descriptive cross sectional study	Lady Hardinge Medical College

Session 11

Date: 18th November, 2021 **Time:** 11:00 am - 12:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Anshul Tripathi	Rate and microbiological characteristics of surgical site infections (SSI) following caesarean delivery	VMMC & Safdrajung Hospital
2	Dr Nitisha Verma	Perimortem cesarean section - How much are doctors actually aware?	Maulana Azad Medical College, New Delhi
3	Dr Raj Rathod	Maternal and perinatal outcomes in covid-19 positive pregnancy with thyroid dysfunction: A pilot study	Maulana Azad Medical College, New Delhi
4	Dr Suchandana Das Guota	Critical care in pregnancy and childbirth during covid 19 pandemic; a comparative study of the first and second wave in a tertiary care centre of north india	VMMC & Safdrajung Hospital
5	Dr Suvidya Singh	Fetomaternal outcomes in severe pre-eclampsia and eclampsia	Maulana Azad Medical College, New Delhi
6	Dr Yuganti C Sawarkar	Evaluation of serum soluble endoglin levels in preeclampsia: A case control study	UCMS & GTB Hospital, Delhi

Session 12

Date: 18th November, 2021 **Time:** 12:00 pm - 01:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Shipra Singh	Fetomaternal outcome following sweeping of membranes at 39 weeks in low-risk women	VMMC & Safdarjung hospital
2	Dr Meena Parihar	Cervical strip biopsy versus punch biopsy in women with abnormal pap test - A comparative study	Lady Hardinge Medical College
3	Dr M.D.S Vathsalya	Pregnancy outcome in women with iflammatory cervical smear	VMMC & Safdarjung Hospital
4	Dr Priyanka Naik	Do indian women with infertility need frequent cervical cancer screening ?	VMMC & Safdarjung Hospital
5	Dr Mamta Kumari	Diagnostic accuracy of p16ink4a & ki67 staining in liquid based cytology cell block in detecting pre-invasive and invasive lesions of cervix in cases positive by visual methods	VMMC & Safdarjung Hospital

Schedule of Poster Presentation

Session 1

Date: 16th November, 2021 **Time:** 10:00 am - 11:00 am

S. No.	Name	Abstract Title	Institute
1	Dr Manisha Manisha	Pelvic abscess complicating late pregnancy	MGM Medical College, Kishanganj
2	Dr Khyati	Unusual presentation of placenta accreta in primigravida	Max Smart Super Speciality Hospital
3	Dr Zeba Khanam	Aortoarteritis in pregnancy: A series of three case reports	VMMC & Safdarjung Hospital
4	Dr Anurag Chaudhary	Chorioangioma of placenta: A rare placental cause for adverse fetal outcome	Max Smart Super Speciality Hospital
5	Dr Amrita Rathee	Pregnancy and mechanical heart valve	VMMC & Safdarjung Hospital
6	Dr Vartika Sharma	Role of intravenous immunoglobulin versus steroids in a case of chronic itp with drug induced diasbetes: Management dilemma	AIIMS, New Delhi
7	Dr Kajal Baleja	Purpura fulminans: A rare life threatening condition with cutaneous manifestations	VMMC & Safdarjung Hospital
8	Dr Anapti Anil	Invasive pituitary adenoma in pregnancy: Diagnostic and management dilemma	AIIMS, New Delhi
9	Dr NIKU MANDAL	Chronic liver disease with decompensation in a pregnant lady managed by second trimester MTP	AIIMS, New Delhi
10	Dr Soni Kumari	Ordeal of a women with vaginal agenesis	VMMC & Safdarjung Hospital
11	Dr Deepali Garg	Fetal Chos: Exit is a resuce	AIIMS, New Delhi
12	Dr Yashi Nagar	Pemphigoid gestationis: A rare dermatological disorder specific to pregnancy	VMMC & Safdrajung Hospital
13	Dr Ayushi Negi	Steroid cell tumourof ovary presenting with secondary amenorrhea and new onset hirsutism	AIIMS, New Delhi

Session 2

Date: 16th November, 2021 **Time:** 11:00 am - 12:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Priyanka Das	Ovarian ligament plication as a treatment for patient with enlongated ovarian ligament with recurrent abdominal pain in the absence of ovarian torsion	AIIMS, New Delhi
2	Dr Baseerat kaur	Parotid area sign: A unique sign of fluid overload in hysteroscopy	Jaypee Hospital, Noida
3	Dr Divith Khagraj	Multiple leiomyomas with mullerian duct anomalies	VMMC and Safdarjung Hospital
4	Dr Aayushi Rathore	De-differentiated liposarcoma masquerading as broad ligament fibroid	VMMC & SJH Hospital
5	Dr Lovely Singh	Endometrioma in a case of mullerian duct anomaly	Vmmc and Safdarajang Hospital
6	Dr Priyanka Naik	Autosomal recessive polycystic kidney dieases: A case report	VMMC & Safdarjung Hospital
7	Dr Sonam Berwa	Rare case of pregnancy with ca ovary	AIIMS, New Delhi
8	Dr Akanksha Gupta	Prevention of congenital syphilis: Testing in early pregnancy may not be enough	VMMC & Safdarjung Hospital
9	Dr Ashu Bhardwaj	Case series on vascular retained product of conception: A management paradox	VMMC & Safdarjung Hospital
10	Dr Shalini Singh	Pregnancy with history of vascular thrombosis, an obstetricians row to hoe	AIIMS, New Delhi
11	Dr Nisha Nisha	An unusual case of postpartum fever: Acute pulmonary tuberculosis	AIIMS, New Delhi

Session 3

Date: 16th November, 2021 **Time:** 12:00 pm - 01:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Bhagyashree Dewangan	Case report: placenta increta in primigravida	Kasturba Hospital
2	Dr Kumari Jyoti	Antimicrobial susceptibility pattern of surgical site infection following caesarean delivery	VMMC and Safdarjung Hospital
3	Dr Preeti	A rare case report - Sirenomelia dipus	Kasturba Hospital, Delhi
4	Dr Ankita Agarwal	A case of non immune hydrops fetalis: Diagnosis and management	AIIMS, New Delhi
5	Dr Shivangi Mangal	Timely administration of pre-operative antibiotics: A quality improvement project	All India Institute of Medical Sciences, New Delhi
6	Dr Aditi Chawla	Fishborn analysis as a quality improvement tool to understand delay in early initation of breast feeding in vaginal and cesarean birth	VMMC & Safdarjung Hospital
7	Dr Himakshi Garg	Primary vaginal leiomyosarcoma: A rare gynaecological malignancy	AIIMS, New Delhi
8	Dr Armeen Ali	Myasthenia gravis in pregnancy	AIIMS, New Delhi
9	Dr Amol Sood	Perioperative management of a polycythemia patient undergoing hysterectomy for symptomatic adenomyosis	AIIMS, New Delhi
10	Dr Nimisha Agarwal	Isthomocele due to genital tuberculosis leading to delayed and massive secondary postpartum hemorrhage: A diagnostic dilemma	AIIMS, New Delhi

Session 4

Date: 18th November, 2021 **Time:** 01:00 pm - 02:00 pm

S. No.	Name	Abstract Title	Institute
1	Dr Arshiya Firdaus	A curious case of multiple failed attempts of cervicovaginoplasty: how far to go?	AIIMS, New Delhi
2	Dr Neelika Gupta	An uncommon case of mature cystic teratoma in a postmenopausal woman	AIIMS, New Delhi
3	Dr Manasi Deoghare	Surgical approach to co-existent uterovaginal and rectal prolapse	AIIMS, New Delhi
4	Dr Sharon khadiya	Successful management of a case of uterine arteriovenous malformation (AVM) or hypervascular RPOC with uterine artery embolization (UAE)	Aiims, New Delhi
5	Dr Rapaka Gowri	Glial heterotopia of uterine cervix as a rare cause of aub	AIIMS, New Delhi
6	Dr Swati Tomar	Successful pregnancy outcome in a case of unrepaired cloacal exstrophy: Case report and literature review	All India Institute of Medical Sciences, New Delhi
7	Dr Sharda Kumari	Successful hysteroscopic removal of retained placenta after failed multiple conventional methods: A case report	AIIMS, New Delhi
8	Dr Mrinalini Dhakate	Adrenal insufficiency in pregnancy - A complicated case managed successfully	AIIMS, New Delhi
9	Dr Jyothi Kanugonda	Birth of one and the re birth of the other - A case report	Kurnool Medical College, Kurnool
10	Dr Bandana Bharali	A rare case of high grade endometrial stromal sarcoma	MAMC & LNJP Hospital
11	Dr Aishwarya Yadav	Spinal tuberculosis with paraplegia in pregnancy: A management dilemma	LHMC & SSK Hospital
12	Dr Saima	Congenital pulmonary airway malformation (CPAM): A case report	AIIMS, New Delhi
13	Dr Shreenidhi RA	Atypical mayer-rokitansky-kãœster-hauser (MRKH) syndrome case report	AIIMS, New Delhi

List of Competition Papers

S. No.	Name	Abstract Title	Institute
1	Dr Guneet Kaur	Endocervicoscopy for evaluation of transformation zone in cases of incomplete colposcopy	VMMC and Safdarjung Hospital
2	Dr Kanika Kalra	A novel technique of vagino-hysteroscopy using alginate gel interface: A proof of concept study	UCMS & GTB Hospital
3	Pallavi Mourya	Procalcitonin and highly sensitive c-reactive protein as predictors of severe features in pregnancy induced hypertension.	VMMC and Safdarjung Hospital
4	Dr. Yasmin	Comparison of adnex model with gi-rads ultrasonic scoring system in evaluation of adnexal mass	UCMS & GTB Hospital
5	Dr Garima Singh	Preovulatory hysteroscopic hydrotubation prior to iui in unexplained infertility: A randomized controlled trial	VMMC and Safdarjung Hospital
6	Dr Purnima Singh	Expression of epithelial mesenchymal transition markers e-cadherin and vimentin in squamous cell carcinoma of cervix.	VMMC & Safdarjung Hospital
7	Dr Snigdha Soni	Comparison of quality of antenatal care delivered using a web based mobile application as compared to the standard care protocol: a randomised controlled trial	AIIMS, New Delhi
8	Dr Kritika Agnihotri	Effects of maternal exposure to air pollution particulate matter < 2.5 Micrometer (pm 2.5) On birth weight.	GTB Hospital
9	Dr. AYush Heda	Evaluation of efficacy and feasibility of implementation of enhanced recovery after surgery (ERAS) protocol in women undergoing gynaecological surgery	AIIMS Rishikesh

Orations and invited lectures

Interstitial Cystitis Treatment

Rajesh Taneja
All India Institute of Medical Sciences, New Delhi

Interstitial Cystitis is the medical term to describe the chronic inflammation of the bladder wall which gives rise to the following symptoms:

- The need to urinate frequently and urgently
- Experiencing a painful, burning sensation while urinating
- Decreased bladder control abilities
- Pain in the pelvic area
- Intense Pain during intercourse.

Interstitial Cystitis is not a life-threatening condition but it severely impacts the patient's ability to lead a normal life. The reason for the development of Interstitial Cystitis is still unknown, as a result of which the mode of **Interstitial Cystitis Treatment** is one of trial and error primarily aimed at controlling the symptoms in a patient.

The major methodologies of **Interstitial Cystitis Treatment** are given below:

Oral Medication: The heparinoid (heparin-like) drug, Pentosan Polysulfate Sodium otherwise known as Elmiron is the most common oral medication which is used in **Interstitial Cystitis Treatment**. Pain alleviation medication or some anti-seizure drugs are also used to manage the pain experienced by patients in this condition. Anti-Allergic drugs (antihistamines) may also be prescribed to control allergic symptoms that could be aggravating a patient's condition.

Bladder Distension: This procedure is a temporary one which provides relief in terms of reducing the urination frequency and alleviation of pain to patients for periods ranging from three weeks to six months. Bladder Distension is performed under general anaesthesia and basically involves stretching the bladder capacity.

Bladder Instillation: This procedure is more commonly known as a "Bladder Bath". Under this, the bladder is filled with a solution known as Dimethyl Sulfoxide (DMSO) that is held in the bladder for durations ranging from 5 seconds to 15 minutes before being drained out through a catheter. It is believed that as the medicated solution directly touches the bladder walls, it reaches the tissues more effectively to stem the inflammation and prevent the pain causing muscle spasms which also lead to the frequency and urgency in urination.

Surgery: Surgery is considered as an option in **Interstitial Cystitis Treatment** where the presence of Huner's Ulcers is found on the bladder walls. There are two main types of surgery: **Fulguration:** This involves the burning of the ulcers with a laser. **Resection:** This involves cutting around and removing the ulcers.

Bladder Augmentation: This is another surgical procedure where the damaged portions of the bladder are removed and a portion of the patient's large intestine is re-shaped and attached to the remaining healthier portion of the bladder.

Transcutaneous Electrical Nerve Stimulation (TENS): Mild electrical pulses are made to enter the body for two or more times in a day. It is believed that the electrical pulses increase the blood flow to the bladder, strengthen the pelvic muscles that control the bladder and trigger the release of hormones that block pain. TENS is popularly used in **Interstitial Cystitis Treatment** more for pain management.

Cystectomy: In extremely cases of **Interstitial Cystitis**, a Cystectomy may have to be carried out to remove the bladder completely with the diversion or re-routing of urine flow.

Having looked at the medical **treatment of Interstitial Cystitis**, it is imperative to mention here that for most patients, this condition involves some basic medication and more of lifestyle discipline and control in terms of:

- Diet Management by avoiding those foods which aggravate the symptoms in the patient. This again is variable as a set of food items which trigger off the symptoms in one person may not do so in another.
- Avoiding smoking, alcohol and recreational drugs.
- Exercise or Yoga to control and strengthen the bladder muscles and manage pain.
- Bladder Training through counselling by using relaxation methods to control the frequency of urination.

The most interesting characteristic of Interstitial Cystitis is that the symptoms are not consistent in their intensity in many cases they even disappear completely without any form of **Interstitial Cystitis Treatment.**

Work and Worship

Prof. Mala Srivastava
Senior Consultant & Professor GRIPMER, Sir Ganga Ram Hospital, New Delhi

Work is worship and duty is GOD.

Whenever we enter our institutions, we enter a temple of GOD. Our institution can be a school, a college, a hospital, an industry, an office or a court. Where ever we work, whatever is our duty if we perform our duties to the best of our capacity and with total dedication we are doing nothing less than worship.

When we enter our hospitals we enter our temple of GOD. The temple of learning, the temple of sharing, the temple of academics and temple of our work.

The proverb 'Work is Worship' explains the concept of work which helps in fulfilling the needs and purposes of life. Praying or worship in life is not useful until and unless we work for the service of society as well as nation.

Our entire life is full of struggle and difficulties. We have to win the battle of life through our sheer hard work and effort. The best way to live a healthy life in this increasingly competitive world is to stay committed, focused and dedicated to strict work routine as work is the real form of worship.

Work is worship is a famous motivational proverb. This proverb signifies the importance of doing work in our life. We cannot survive without doing work.

Hard work with full dedication makes us successful. When we do our work with dedication it gives us satisfaction and happiness. We can fight every challenge of life by doing hard work. Hard work helps us in achieving the goal of our life.

We should do our work sincerely without fearing the outcome. We get the blessing of God when we do our work with sincerity. People who love to do their work with honesty build a good society and nation.

Our journey of workplace starts with empty bag of experience, but a bag full of knowledge enthusiasm and luck. The goal is to fill the bag of experience before the bag of enthusiasm and luck gets empty.

Most of the time, when we work we don't get the rewards that we desire. But unknowingly, many times we get rewards much more than what we expect. These small-small rewards in our day to day life of our work and workplace are called BLESSINGS.

Life is short, but "ART OF SCIENCE" is long, so let's break away from silly egos – with our patients, colleagues, juniors and seniors. We learn to forgive quickly, love truly, laugh loudly and never avoid anything that makes you smile.

We always work for satisfaction, success, but we have to understand that every effort is not converted to success, nor does success come without effort. Always expect more from yourself than from others, because, if it is your work, your passion, your imagination, your diagram, your painting – others may not come upto your expectation. Expectation from others will hurt you a lot, but expectation from yourself will inspire you a lot, so always be inspired.

Best exercise is walking in life, walk away from arguments that lead to anger, walk away from thoughts that steal your happiness. The more you walk away from things that destroy your soul, happier you will be. Remember –

"When storm attacks, all big trees get uprooted, but simple grounded grass always survives"

Being simple and egoless makes us more powerful and stable. Let us try to be a pencil to write someone's happiness, let us try to be a nice eraser to remove their sadness.

We take inspirations from our great leaders Swami Vivekananda, Rabindranath Tagore and Mother Teresa. They all worked tirelessly, fearlessly, sincerely and devotedly. They are our role models.

To be successful, the first thing to do is to fall in love with your work – **Sister Mary Lauretta.**

Devotion to duty is the highest form of worship of God – **Swami Vivekananda.**

Role of Exoanal Ultrasound in Diagnosis and Management of OASI

Hans Peter Dietz
MD, PhD, FRANZOG, DDU, CU, Obstetrician, Gynaecologist and Urogynaecologist, 193 Burns Rd, Springwood NSW, Australia

"Until recently, imaging of the external and internal anal sphincters (EAS and IAS) has almost exclusively been undertaken by endo-anal ultrasound, using high resolution probes with a field of vision of 360 degrees. Since its introduction in the early 1990s, this method is firmly established as a core component of a colorectal diagnostic workup for anal incontinence and covered extensively in the colorectal and radiological literature. Not surprisingly, given the prominence of obstetric anal sphincter trauma in the aetiology of anatomical abnormalities of the sphincter, obstetricians have contributed to the popularisation of this technology. Due to the limited availability of ultrasound systems capable of endoanal imaging relative to other systems, practitioners have experimented with high-frequency curved array probes placed exoanally, i.e., transperineally, since the mid- 1990s. This involves placing a transducer on the perineum, but in the coronal rather than the midsagittal plane as is usual for pelvic floor imaging. While there were a number of small studies utilising this approach for comparative studies, none of them were large enough to allow for a conclusive evaluation of this technique and more widespread uptake of the technique was lacking. This was at least partly due to limited tissue discrimination.

Over the last few years there has been an increasing number of publications using volume (3D/ 4D) ultrasound to image the sphincter, which has the advantage of giving access to all three orthogonal planes at the same time. Since 2012 the author's unit has standardised and validated a tomographic method for demonstrating the entire sphincter, in order to improve repeatability and validity of the method. Now that imaging quality of 3D/4D systems has matured, tomographic translabial ultrasound has the potential to replace endoanal imaging altogether. The technique seems highly repeatable and is available on all ultrasound systems allowing multislice volume imaging. The examination is easily combined with an assessment of other forms of pelvic floor damage and can also demonstrate episiotomy scars, revealing that many episiotomies are performed sub-optimally. Hopefully this will allow maternal birth trauma, ie., levator and anal sphincter trauma, to become a key performance indicator of maternity services. This talk will demonstrate the technique, present recent research findings and provide a perspective on future developments in research and clinical care in this field."

An Overview of Labor Care Guide

Anjali Dabral, Divya Pandey
Department of Obstetrics and Gynaecology, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi

WHO recommendations for intra partum care for positive childbirth experience (2018) were introduced with emphasis on the supportive intrapartum care including pain relief, nutrition and hydration, mobility in labour and adopting birth position of choice along with, regular labour monitoring taking care of both mother and the fetus. The phases of labor were also redefined.

The latent, first stage is a period of time characterized by painful uterine contractions and variable changes of the cervix, including some degree of effacement and **slower** progression of dilatation up to 5 cm for first and subsequent labours. The **active first stage** is a period characterized by regular painful uterine contractions, a substantial degree of cervical effacement and more **rapid** cervical dilatation from 5 cm until full dilatation for first and subsequent labours. Every labor is unique and cervical dilatation rate of 1 cm/hour during active first stage is no more recommended for identification of normal labour progress. The use of medical interventions to accelerate labor in latent phase, not recommended **as long as fetal and maternal conditions are reassuring.**

For effective application of these new definitions and recommendations, WHO in December 2020, introduced **WHO Labor Care Guide (LCG)-the next generation partograph.**

Aims of LCG: (a) help in monitoring and documentation of the well-being of women, fetus and the progress of labour (b) guide skilled health personnel to offer supportive care throughout labour to ensure a positive childbirth experience for women (c) assist skilled health personnel to promptly identify and address emerging labour complications, by providing reference thresholds for labour observations that are intended to trigger reflection and specific action(s) if an abnormal observation is identified (d) to prevent unnecessary use of interventions in labour (e) support audit and quality improvement of labour management.

Main Features: As per the LCG, active phase starts at 5cm. There is addition of a very important part i.e. the

second stage of labour monitoring, which was missing in previous partograph designs. There is no action or alert line. It has 7 **sections**, which are adapted from the previous partograph design (figure 1) **Section 1:** Identifying information and labour characteristics at admission; **Section 2:** Supportive care; **Section 3:** Care of the baby; **Section 4:** Care of the woman; **Section 5:** Labour progress; **Section 6:** Medication; **Section 7:** Shared decision-making. These sections contain a list of labour observations. For every observation, an alert parameter has been defined. If the observation corresponds to any alert parameter, there is need to take action accordingly after a "shared decision making" i.e. decision taken after discussing the current situation with the women in labour or with her companion. Thus, the main emphasis is on **Action Oriented Labour** which includes: **assessing, recording** the observation and **checking** the values with alert column values and **deciding** the plan along with the women.

Assessment of Fetal well being: Intermittent Auscultation of FHR with either a hand held Doppler ultrasound device or a Pinard fetal stethoscope is recommended for healthy pregnant women in labour. The **interval should be** every 15–30 minutes in active first stage of labour and every 5 minutes in second stage of labour. Each auscultation should last for at least 1minute during a uterine contraction and for at least 30 seconds thereafter. Record the baseline as a single counted number in beats per minute and acceleration and deceleration

For whom and when to initiate LCG: It has been primarily for Low risk women and can be used for high risk pregnancies by additional monitoring. It is **initiated** when the woman enters the active phase of the first stage of labour (5 cm or more cervical dilatation), regardless of her parity and membranes status. Once initiated, it will support continuous monitoring throughout the first and second stage of active labour. Record all observations with admission of woman to labour ward. Rest is completed following subsequent assessments throughout labour. For all observations, horizontal time axis and a vertical reference values axis for determination of any deviation from normal observations (ALERT Thresholds). It also provides a second-stage section to continue the observations made during the first stage of labour.

Conclusion

The emphasis must be given on respectful maternal care and supportive intrapartum care, so as to give a positive experience to the labouring women. The duration of latent phase is not defined and expectant management in latent phase till maternal-fetal status reassuring. The active phase starts from 5 cm. Labor care guide i.e. the next generation partograph can replace WHO partograph after modifications as per local settings after appropriate research.

References

1. Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division: executive summary. Geneva: World Health Organization; 2019. Contract No.: WHO/RHR/19.23.
2. Friedman, E. A. Primigravid labor; a graphicostatistical analysis.1955.Obstet Gynecol 6(6): 567-589.
3. Zhang J, Landy HJ, Branch DW, Burkman R, Haberman S, Gregory KD, et al. Contemporary patterns of spontaneous labor with normal neonatal outcomes. Obstet Gynecol. 2010;116(6):1281–7.
4. WHO recommenations: intrapartum care for a positive childbirth experience. Geneva: World Health Organization;2018.
5. Vogel JP, Comrie-Thomson L, Pingray V, Gadama L, Galadanci H, Goudar S, et al. Usability, acceptability, and feasibility of the World Health Organization Labour Care Guide: A mixed-methods, multicountry evaluation. Birth. 2020 Nov 22.

Neurological Complication of Preeclampsia

Achla Batra
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Pre-eclampsia is accountable for 60,000 maternal deaths per year worldwide. The acute cerebral complications, such as eclampsia, intracranial hemorrhage, and cerebral edema account for at least 75% of such fatalities. At least half of maternal deaths due to preeclampsia are thought to have been preventable with earlier recognition, diagnosis, and treatment. Pre-eclampsia also accounts for nearly 50% of reversible, pregnancy-related ischemic strokes.

The reason for these complications is not clear; both impaired cerebral autoregulation as well as blood–brain barrier dysfunction causing increased blood–brain barrier permeability has been demonstrated in several animal models of preeclampsia. This results in cerebral oedema and haemorrhage

Neurological complications of PE are- Seizures, eclampsia, PRES, Arterial ischemic stroke, Reversible cerebral vasoconstriction syndrome (RCVS), Cervical artery dissection, Cerebral venous sinus thrombosis, Subarachnoid hemorrhage (SAH), and Intracerebral hemorrhage (ICH).

PRES: A Clinico radiological disorder of subcortical vasogenic brain oedema in patients with acute neurological symptoms, (seizures, encephalopathy, headache, and visual disturbances) predominantly involving the bilateral parieto-occipital region seen radiologically. White matter oedema in the posterior cerebral hemispheres is typical on neuroimaging. MRI is the diagnostic gold standard and it may be useful in the differential diagnosis. The goal of the therapy is to control elevated blood pressure and to prevent seizures or promptly manage it. MgSO4 therapy should be initiated as soon as preeclampsia, eclampsia or PRES is suspected because it resolves both hypertension and seizures. Early recognition of symptoms and immediate diagnosis, can guarantee a good prognosis with a complete resolution of neurological symptoms and cerebral lesions.

ICH: ICH is the most devastating, directly causing up to 70% of deaths from preeclampsia. Non-contrast-enhanced CT is the first investigation if patient presents with acute episode as it is readily available, it can detect acute intracranial hemorrhage with a sensitivity of greater than 90%, reveal the location of the bleeding, the size of the hemorrhage, mass effect on brain tissue, and herniations. After diagnosis of intracranial hemorrhage, magnetic resonance angiography (MRA), computed tomographic angiography (CTA), or digital subtraction angiography (DSA) can be used to examine the cause of bleeding. The main aim of management is to maintain cerebral perfusion pressure prevent secondary brain injuries deliver the baby and the placenta. Blood pressure should be reduced judiciously in the acute phase with a target of ≤160/110. However, caution must be applied in the use of antihypertensive agents as blood pressure reduction may lead to reduced cerebral perfusion, cerebral ischemia, and infarction. Intravenous labetalol is first line for the reduction of blood pressure in patients with stroke during pregnancy, Early emergency neurosurgical consultation is necessary to assess the nature, severity, location of injury.

In infratentorial bleeding: Neurosurgical intervention is generally recommended for infratentorial bleeding given the high risk of brainstem compression and herniation syndromes in the confined space of the posterior fossa. Clinical guidelines recommend posterior fossa decompressive evacuation for cerebellar ICH>3 cm in diameter, or for smaller haematomas associated with brainstem compression or hydrocephalus from ventricular obstruction.

In supratentorial bleeding: Conservative management, surgery is warranted in Patients with a GCS at presentation of 10–13, that is, not at either extreme of arousal, large ICH, superficial bleeds.

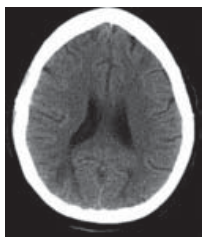
If undelivered, cesarean section under spinal anesthesia is preferred mode of delivery. General anesthesia has been reported to be associated with increased risk of stroke when compared with neuraxial anesthesia in preeclamptic wome. Continuous assessment of the degree of consciousness using the GCS score is essential in the management of stroke.

The prognosis of ICH has been noted to be poor with a case fatality at 1 month being over 40%. In those who survive; very few reach independent life after 1 year.

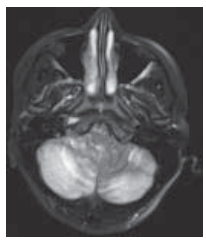
Eclampsia: Commonest neurological complication of Preeclampsia. The drug of choice for seizures is Magsulf, If not controlled then control of seizure by Benzodiazepine group of drugs (Diazepam, medazolam or lorazepam) should be used to control seizures followed by Levetiracetam or Phenytoin to prevent recurrence should be given. If still not controlled then intubation and anesthetic agents have to be given.

Take Home Points

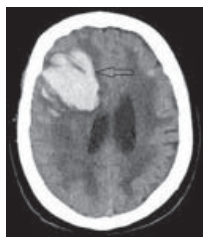
Hypertension should be treated aggressively to prevent neurological complications. Even though eclampsia can cause seizures with no ICH, one should keep a high index of suspicion for ICH in eclampsia specially when there is headache, focal deficit or loss of consciousness. All pregnant women with severe headaches should be screened by imaging to rule out neurological complication and take action timely before irreversible brain damage occurs.



CT- PRES



MRI-PRES



CT-ICH

Pregnancy Following In-vitro Fertilization

Bindu Bajaj
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Of all the rights of women, the greatest is to be a mother." — *Lin Yutang*

There is an innate urge in a woman to be a mother some day. ART (Assisted reproductive technology) fulfils this dream and pregnancy is achieved, but not all ART pregnancies end in a healthy baby and a healthy mother. Some pregnancies appear to disappear leaving the couple devastated both economically and emotionally.

The reasons why an ART pregnancy outcome differs from spontaneously conceived pregnancy lies not only in the multiple follicles, the raised estrdiol levels but also the media, the temperature and pressure around the developing embryo. It is increasingly being recognized that subfertility itself is at least partly responsible, and the technology plays an important role as well. To improve the perinatal outcome, the use of single- embryo transfer, avoiding hyper stimulated cycles with vastly elevated E2 levels, employing strict culture conditions, and freezing all embryos is being resorted to. Let us go through a probable course of an ART pregnancy-

Spontaneous Abortion: For Pregnancies conceived through IVF or ICSI, abortion rates are same as for natural pregnancy, in pregnancy conceived through thawed embryo there is slightly higher risk of abortion.

Ectopic Pregnancy: Risk of pregnancy after IVF is seen increased in tubal factor and if ZIFT (zygote intra fallopian transfer is done).This is rarely done now.

Heterotopic Pregnancy: It is more common than in spontaneous pregnancy-1/100 versus 1/30,000.

PTB, LBW, SGA: Singleton IVF pregnancy are at higher risk of preterm birth, LBW (low birth weight) and SGA (small for gestational age) compared with spontaneous. But, FET (frozen embryo transfer) is associated with reduction in all three above. It could be that in FET cycle, either ET (embryo transfer) is done in natural cycle or endometrium is prepared well artificially.

Vanishing Twins- Singletons conceived by ART are at increased risk of adverse maternal and perinatal outcomes compared to spontaneously conceived singletons.

Approximately 10–15% of singleton pregnancies after IVF began as twin gestations in early pregnancy. Although these pregnancies ultimately resulted in singleton live births, studies show that there is an increased risk for low birth weight <2500 g, very low birth weight <1500 g, and preterm birth in singleton survivors of vanishing twin pregnancies as compared to single gestations. These risks increase with spontaneous reductions that occurred after 8 weeks of gestation.

Multiple Pregnancies: Monozygotic twinning occurs in approximately 1.6–5.6% of single-embryo transfers, above the natural monozygotic rate of approximately 0.4%. Risk factors for monozygotic twinning are controversial. It is generally accepted that younger oocytes and good quality embryos are more likely to result in monozygotic twinning. In 2013, the American Society of Reproductive Medicine Practice (ASRM) Committee recommended that patients should be counseled that there may be a small increased risk of monozygotic twinning with blastocyst stage embryo transfer.

Although the multiple pregnancies conceived through ART and naturally do not show any difference in maternal and perinatal outcomes, yet, multiple pregnancy per se increases the risk to the mother and fetus. With multiple pregnancies comes an increased chance of hyperemesis gravidarum.

Women trying for ART pregnancies are in higher age bracket and are suffering from diabetes or hypertension to start with. It is seen that probability of hypertensive disorder in a singleton pregnancy is 6.5% and in twin pregnancy, triplets pregnancy-20%. With Severe maternal preeclampsia comes kidney and liver dysfunction, coagulopathy, cerebral edema, seizure, and stroke. Pregnancies complicated by preeclampsia also lead to fetal morbidity and mortality, with even higher risk for multi fetal gestations, especially related to increased preterm delivery before 35 weeks of gestation (34.5% twins vs. 6.3% in singletons) and placental abruption (4.7% twins vs. 0.7% singletons).

Caesarean Delivery: Caesarean delivery rates vary from country to country, 6%to 27.2% in general. For twin birth LSCS rate is about 44%. Potential complications of cesarean delivery include endometritis, wound complications, hemorrhage, injury to other organs, and thrombotic events, rate varies from 0.5% to 6%. There is an early recourse to caesarean in ART pregnancy considering the anxiety in both patient and care provider. Higher-order multiples also have a high incidence of abnormal presentation at time of delivery.

Postpartum Depression: Mothers of multiples were found to be at threefold increased risk for clinically significant postnatal depression as determined by the Edinburgh postnatal depression scale. One of the possible etiologies for postpartum depression is a mismatch between expectations and the reality of motherhood. This can be amplified for IVF patients it can impair other life areas such as decreased duration of breastfeeding, impaired bonding with the infant, care of the infant, and relationship with her partner who invest so much emotionally and financially even prior to conception.

Neonatal Risks: The most common fetal complication of multiple gestation is spontaneous preterm delivery, which is associated with increased perinatal morbidity and mortality and may result in long-term morbidity. More than half of twins and more than 90% of triplets are born either preterm (<37 weeks) or low birth weight (<2500 g).

Short-term complications of preterm delivery include hypothermia, respiratory abnormalities, cardiovascular abnormalities, intraventricular hemorrhage, glucose abnormalities, necrotizing entero colitis, infection, and retinopathy of prematurity.

One of the most significant long-term complications of preterm delivery is cerebral palsy, a permanent neurological disorder affecting motor skills and potentially affecting thinking, learning, and communication. The incidence of cerebral palsy in at least one child is approximately 1.5%, 8.0%, and 42.9% in twin, triplet, and quadruplet pregnancies, respectively, in comparison to 0.2% in singleton pregnancies.

IUGR: Low birth weight is correlated with preterm delivery, hypoglycemia, asphyxia, impaired thermoregulation, polycythemia, impaired immune function, and ultimately increased mortality. Long-term effects seen in singleton children who were growth restricted in utero include obesity, metabolic dysfunction, diabetes, and cardiovascular and renal dis- orders. Specific evidence in twin pregnancies is lacking and confounded by high incidence of preterm delivery.

Congenital Anamolies: The baseline risk of congenital anamoly in a pregnancy is 2-3%. This risk is increased by 30% with ART (more with ICSI) though this adds to a slightly increased risk.

Pubertal and neurodevelopmental development in children born with ART is akin to children from spontaneous pregnancy.

Cancer: Although there is overall slightly increased risk of childhood cancers but it is difficult to establish causal relationship to IVF as subfertility itself may have some role to play.

Obstetric Complications: obstetric complications are seen both in singleton and multiple pregnancies conceived through IVF. Singleton have an increased risk of Placenta praevia, abruption placenta, preeclampsia, Gestational diabetes, preeclampsia and increased probability of a caesarean delivery.

Morbidity and Mortality: Maternal mortality is the ultimate and most tragic maternal complication, multiple gestation contributes to 11.5% of maternal deaths in one study in Malawi.

There is a 40% increased risk of severe maternal morbidity i.e. sepsis, PPH, ICU admission although absolute risk is low 30.8 versus 22.2 per thousand in normal.

Long Term Outcomes: no difference has been seen between spontaneous and ART pregnancy conceived children with respect to general and mental health in the long term followup.

ART Techniques and Perinatal Outcomes

Oocyte Donation: women with conception following donated oocytes have four times risk of preeclampsia or pregnancy induced hypertension.

COS: OHSS in early pregnancy may result in preterm birth.

Surrogate Pregnancy: has similar pregnancy and perinatal outcomes as those of standard IVF and OD cycles.

Conclusion

Subfertility itself has an adverse effect on pregnancy outcome irrespective of any treatment received. ART is a way to fulfill the dream of becoming a mother but it is also fraught with increased risks in view of multiple factors that make it possible. The socio economic component is also a very challenging aspect which needs consideration.

iKMC: Innovation Extended to Unstable Babies: Obstetrician & Neonatologist Viewpoint

Harish Chellani, Sugandha Arya, Pratima Mittal
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Cochrane analysis (2016) has shown that KMC when done for stable babies, reduces mortality by 40%[1]. So the question remained; will it further reduce mortality if done even for unstable babies immediately after birth as majority of deaths among these low birth weight babies occur before KMC can be initiated. With this research question a multi-country randomized controlled trial- "iKMC study" was initiated by WHO in 2017[2]. A randomized, controlled trial was conducted in five hospitals in Ghana, India, Malawi, Nigeria, and Tanzania involving infants with a birth weight between 1.0 and 1.799 kg who were assigned to receive immediate kangaroo mother care (intervention) or conventional care in an incubator or a radiant warmer until their condition stabilized and kangaroo mother care thereafter (control). iKMC stands for immediate and continuous KMC which means KMC to be started soon after birth and to be given continuously (aiming upto 20 hours per day) during both unstable and stable periods.

India being one of the sites for this multi-country iKMC study, we planned the strategy to deliver this intervention. The population of the study were live born babies with birth weight 1 to <1.8 kg. These babies require admission to NICU for their monitoring and management. To provide iKMC in these babies, we need mothers to be with them soon after birth, then be with them 24X7 till discharge i.e. Zero Separation. So the biggest challenge to provide this intervention was to have mothers inside NICU with their babies 24X7. Since there was not enough space in NICU to have mother's bed inside, a new NICU was designed with enough space for mother's bed with each baby. This new NICU was named as mother-NICU (M-NICU) (Fig 1). M-NICU is a level II NICU with all facilities of newborn intensive care and facilities for mothers to stay with their babies inside NICU 24X7. The infrastructure of M-NICU included toilet, bathing area, and pantry, mother's examination cubicle to provide facilities for mothers to stay 24X7 in M-NICU. Like conventional NICU, all equipment for level II intensive care including radiant warmer (required if mother/surrogate not available for KMC), CPAP machine, oxygen and suction facilities, vital monitor, phototherapy unit etc. are available. Presence of mother inside M-NICU raised the apprehension of Paediatricians and Policy makers about possibility of increase in neonatal infections. Since KMC of stable babies has shown significant reduction of neonatal infections[1], there is possibility of protective effect of maternal microbial flora. It was observed that mothers can be easily trained to follow asepsis routines and they follow asepsis routines religiously once they know their importance for baby's wellbeing. Results of iKMC study have shown that there is 18% reduction in suspected sepsis in iKMC group as compared to control group who were cared in conventional NICU[2]. Moreover, the blood cultures grown in M-NICU are less resistant than those in NICU.

Fig 1: Mother in NICU

iKMC stands for immediate and continuous KMC after birth. Providing KMC immediately after birth and transporting the mother-baby dyad from delivery place to M-NICU in KMC position is a challenge in itself. Since delivery tables in labour rooms were narrow with no side-railings, it was difficult to provide KMC soon after delivery. Also, since mothers need to be observed for about two hours after vaginal delivery and 6 hours after caesarean section, and these small babies need early transfer to NICU for monitoring and management, it was not possible to transfer mother-baby dyad in KMC position. This challenge was overcome by having surrogates for providing KMC soon after birth and transporting baby in KMC position with surrogate to M-NICU. In M-NICU, surrogate provides KMC till mother reached M-NICU.

Many of babies <1.8 kg are preterm and have respiratory distress at birth requiring respiratory support in the form of CPAP. Providing CPAP in KMC position was a huge challenge (Fig 2). To maintain airway, a binder was being used to maintain neck in slightly extended position. Nasal Interface for Continuous Positive Airway Pressure was optimized. The major challenge was ensuring proper fixation with baby in KMC. To monitor heart rate and oxygen saturation, the SpO_2 probe was attached to baby so that any sudden changes in vitals can be picked up by alarms, while being in KMC position.

Fig 2: Providing CPAP in KMC position

Since these mothers in M-NICU have just delivered few hours back, medical care of mothers was an important challenge in M-NICU. To provide medical care to these mothers, essential care package was developed for immediate post-natal care, in which neonatal nurses were trained. Obstetricians took round for mothers every day and attended to mothers whenever there was a need. This type of care where mothers and babies are cared together in M-NICU has been termed as mother-newborn couplet care (Fig 3). A strong co-operation, co-ordination and collaboration between paediatricians and obstetricians is cornerstone of M-NICU.

Fig 3: Couplet care

After initiating KMC soon after birth, next challenge of iKMC is providing continuous KMC (aiming 20 hours a day). Most common reason for separation is mother being not available due to medical reasons or for daily routines like bathing, toilet etc. This challenge was again overcome with the help of surrogate who provided KMC in M-NICU when mother is not available. Another common reason for separation during iKMC is medical procedures and treatment of baby including phototherapy. While some procedures like glucose monitoring, gavage feeding, giving IV injections can be done even while the baby being in KMC position. However, some procedures like inserting IV cannula, fixing CPAP cannula, putting orogastric tube etc. do require separation and baby should be immediately placed in KMC position following the procedure. Separation of baby and mother for giving phototherapy can be prevented by use of Bili blankets if available.

Inspite of huge challenges involved in M-NICU, it provides lot of opportunities too. Due to presence of mother with baby 24X7 in M-NICU, it is possible to provide KMC continuously for long duration. In iKMC study, the median

daily duration of skin-to-skin contact in the neonatal intensive care unit was 16.9 hours (interquartile range, 13.0 to 19.7) in the intervention group and 1.5 hours (interquartile range, 0.3 to 3.3) in the control group[2].

The most important opportunity M-NICU provides is early exclusive breast milk feeding. Since mother is with her baby in M-NICU, Expressed breast milk (EBM) is readily available as first feed for initiation soon after birth. Skin to skin contact with baby results in better lactation and it is easier to maintain babies on exclusive breast milk feeding. Most of these babies are preterm and are not able to suckle on breast but Non-nutritive sucking (NNS) helps babies to develop reflexes faster and also improves milk output of the mother by stimulating prolactin reflex.

In resource limited countries like India, due to low nurse-baby ratio, it is difficult to provide quality care to neonates. Mothers in M-NICU contribute a lot in care of babies including paladai feeding, changing diapers, and even monitoring babies for danger signs. Since one mother cares for only her baby, the risk of cross-infection is much less as compared to nurses caring for 8-12 babies or more. M-NICU provides opportunity for Mother to be the primary care giver in M-NICU, thus providing family-centred developmentally supportive care to newborns. Also presence of mothers in M-NICU improves the quality of neonatal care by health personnel as they are being watched by mothers while performing their duties. Presence of mother in M-NICU gives ample opportunity to health care personnel to teach the mothers, healthy practices of neonatal care. By educating mothers during their stay in M-NICU, they are better prepared for taking care of neonates after discharge. Mothers in M-NICU have less anxiety and stress as compared to mothers staying away from their babies in post-natal ward. Last but not the least, M-NICU resulted in mother-newborn couplet care by Paediatrician and Obstetrician with better co-ordination of neonatal and maternal care.

Results have shown that neonatal mortality in M-NICU is reduced by 25 %[2]. This will save every year 1,50,000 neonatal deaths globally if this model of care is adopted. The study results also show that intervention babies in M-NICU had 35% less incidence of hypothermia and 18% less suspected sepsis as compared to control babies cared in conventional NICU. It clearly suggests that presence of mother / surrogates do not increase infection.

Health care providers have been separating small and sick babies from their mothers for decades believing that is best for them. The new evidence from this unit suggests we must establish the practice of zero separation of mothers and newborns globally. Presence of mother in NICU 24x7 is going to have paradigm shift in the care of low birth weight babies.

This will need certain policy changes i.e. allowing mothers/surrogates in M-NICU, policy for obstetric rounds inside M-NICU and giving essential care to mothers in M-NICU by neonatal nurses. Paediatricians, Obstetricians and policy makers need to be taken into confidence and convinced for this paradigm shift in care of small and sick newborns. It also involves strong collaboration between Paediatrics and Obstetrics department.

World Health Organization is in the process of reviewing the current recommendations on care of small and sick newborns in light of new evidence that has become available. However, it would require policy change to permit mother and surrogate is NICU 24x7, making a concept of zero- separation.

References

1. Conde-Agudelo A, Díaz-Rossello JL. Kangaroo mother care to reduce morbidity and mortality in low birthweight infants. Cochrane Database Syst Rev 2016; 8: CD002771.
2. WHO Immediate KMC Study Group. Immediate "Kangaroo Mother Care" and survival of infants with low birth weight. N Engl J Med. 2021;384(21):2028-2038.

Optimizing Fertility Outcome in Female Genital Tuberculosis

Kavita Agarwal
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Genital TB contributes to high incidence of infertility in females. Globally, 5-10% of infertile women are reported to have FGTB[1] and majority of the women are in the age group of 20-40 years but older women are also known to harbor it. However, the exact proportion is not known due to lack of awareness, underreporting of cases and non-specific symptoms. Extrapulmonary TB is a silent disease. Infertility is often the only presenting symptom of this disease followed by pelvic pain and menstrual irregularities.

Female Genital Tuberculosis (FGTB) is recognized mainly as a secondary manifestation of a primary tuberculosis (TB) infection in the lungs. Primary infection of female genital tract may occur, rarely, if partner has active genitourinary TB. Bacterial dissemination occurs via haematogenous, lymphatic and direct spread[2]. Haematogenous spread is generally from lungs while lymphatic spread occurs from primary abdominal lesion in the intestine or kidneys. The most prevalent site of bacterial infection for FGTB includes the fallopian tubes (95%–100%), endometrium (50%– 60%), myometrium (2.5%), ovaries (20%–30%), cervix (5%–15%) and vagina/vulva (1%)[3,4]. It can cause salpingitis, ectopic pregnancy, tubal block, peritubal adhesions, tubo-ovarian mass, pyometra, chronic endometritis, caseation, ulceration, distorted uterine cavity, endometrial adhesions, ashermann's syndrome leading to infertility.

Even during latent phase, M.TB antigens elicit an immune/ inflammatory reaction from host tissue leading to silent organ damage at molecular or cellular level. It leads to endocrine disruption and intense immunomodulation. TB is known to cause oophiritis. Adhesions over ovarian surface can lead to LUF. Women can demonstrate glandular hyperplasia due to chronic anovulation. It inhibits the basal production of progesterone and blunt the stimulatory effect of HcG leading to LPD and implantation failure[5]. They exhibit poor ovarian reserve, high basal levels of FSH, are poor responders. TB alters the immune response and is accompanied by fibrosis and adhesion formation. Early diagnosis may be rewarded with a favourable result before extensive genital organ damage occurs.

Diagnosis: Early diagnosis and early treatment is a clinical challenge. Conventional tests like bacteriological smear with acid fast bacilli staining, culture and histopathology will rarely diagnose this condition as they need a high bacterial load and this is a paucibacillary condition and because of monthly shedding of the endometrium. We also have Gene Xpert and true NAAT but they also have low detection rate for genital TB. This is attributed to a different technique required to lyse the endometrium to extract tubercle bacilli from endometrium compared to sputum sample. The most widely used test is DNA PCR with high sensitivity and specificity but it detects both live and dead bacilli. The presence of 1-5 bacilli/ml is sufficient for diagnosis by PCR. The Index TB guideline group decided that recommendation was not possible at this time regarding the use of PCR based tests in FGTB. Positive PCR cases need to be proceeded by imaging and endoscopy.

Case Definition by Index TB Guidelines

Presumptive EPTB: patients who need to be investigated for genital TB (presenting with infertility, menstrual irregularities, TO mass).

Confirmed TB: Presumptive cases with any of the laboratory tests positive (i.e. AFB smear, culture, histopathology or if laparoscopy has positive findings (Definitive tuberculosis- presence of tubercles, caseation or beaded tubes) and will be treated with ATT. Tissue specimens are obtained from endometrium, peritoneal wash or fluid, biopsy from the suspicious site.

Probable TB: Presumptive cases with no microscopic or histopathological confirmation but with strong clinical suspicion. Laparoscopy suggestive of straw coloured fluid in the pouch of douglas, hyperemia of tubes, blue uterus on chromopertubation. Laparoscopy suggestive of extensive dense pelvic and/or peritubal/ periovarian adhesions, hydrosalpinx, tuboovarian mass, thick fibrosed tubes, perihepatic adhesions (fibrotic sequelae of TB) after excluding other diseases and in absence of prior treatment of TB. Positive PCR with laparoscopy findings like flimsy adhesions, dilated tortuous tubes, cornual/ fimbrial block, fimbrial agglutination/phimosis.

ATT is not to be started if only PCR is positive and there are no definitive findings on Ultrasonography and endoscopy. ATT can be considered if patient is IGRA positive and NAAT positive as it can be early paucibacillary state of infection. IGRA can be positive in latent infection.

Management: Once diagnosis is made, every diagnosed has to be notified and they also receive some monetary benefit and free medication. Management plan should address the treatment of TB, restoration of pelvic anatomy and restoration of fertility. The standard antitubercular treatment is intensive phase daily of 2 months duration of 4 drug combination isoniazid, rifampicin, pyrazinamide, ethambutol based on the weight of the patient. This is followed by continuation phase of 4 months daily by isoniazid, rifampicin, and ethambutol.

Management of infertility can be commenced after intensive phase of ATT. In cases of genital TB with blocked tubes, IVF-ET is the only option provided ovarian function is normal and endometrial receptivity is not compromised by atrophy or synechiae. They have less no. of oocytes and poor egg quality and they may require egg donation. It has been reported that even after treatment, conception rates, successful pregnancy rates and birth rates were very low i.e. 19.2%, 16.6% and 7.2% respectively[6,7]. If the endometrium is damaged irreversibly

and there are repeated implantation failures, gestational surrogacy will offer the only hope of success.

Pre ART interventions to optimize outcome: Surgery is indicated in hydrosalpinx, pyosalpinx, TO masses, pelvic adhesions and peritonitis and ashermann syndrome. The results of surgery are not very encouraging with reported pregnancy rate of 5%. At the end of Hysteroscopic adhesiolysis, 70-80% cavity should be visible and at least, one ostia should be visible. Delink/ salpingectomy needs to be done for hydrosalpinx. The poor prognostic signs include poor response to stimulation, poor embryo quality, poor endometrial growth inspite of extensive adhesiolysis.

Interventions during ART: During IVF, they require high doses of gonadotropins. PRP instillation, improves both vascularity as well as proliferation.

Post transfer instructions: estrogen supplementation along with progesterone gives a better outcome. To be continue till 12 weeks of pregnancy and counselling.

Conclusion

Genital TB is emerging as an important cause of infertility. Even in the latent state, considerable damage can be found in the women's body. Recognition of the disease when it just begins to effect fertility, gives best results. High index of suspicion is required in initial stages as untreated cases can cause permanent sterility through tubal damage, poor ovarian reserve and endometrial destruction. Endoscopy compliments ART when we treat infertility in these patients. Pregnancy is high risk and needs careful monitoring. ATT is safe and must be given according to the new treatment guidelines.

References

1. Eftekhar M, Pourmasumi S, Sabeti P, Aflatoonian A, Sheikhha MH. Mycobacterium tuberculosis infection in women with unexplained infertility. Int J Reprod BioMed (2015) 13:749–54. doi: 10.29252/ ijrm.13.12.749.
2. Hopewell PC. Overview of clinical tuberculosis in Tuberculosis. in: Bloom B.R, editor. Pathogenesis, Protection, and Control. Washington DC: American Society for Microbiology (1994) 25–46. doi: 10.1128/9781555 818357.ch3
3. Gatongi DK, Gitau G, Kay V, Ngwenya S, Lafong C, Hasan A. Female genital tuberculosis. Obstet Gynaecol (2005) 7:75–9. doi: 10.1576/toag.7.2.075.27000.
4. Das P, Ahuja A, Gupta SD. Incidence, etiopathogenesis and pathological aspects of genitourinary tuberculosis in India: A journey revisited. Indian J Urol (2008) 24:356–61. doi: 10.4103/0970-1591.42618.
5. Kumar A, Rattan A. Antigonadotropic effect of mycobacterium tuberculosis.. Horm metan res. 1997:29(10)501-3.
6. Parikh FR, Nadkarni SG, Kamat SA, Naik N, Soonawala SB, Parikh RM. Genital tuberculosis—a major pelvic factor causing infertility in Indian women. Fertil Steril (1997) 67:497–500. doi: 10.1016/S0015-0282(97) 80076-3.
7. Tripathy SN, Tripathy SN. Infertility and pregnancy outcome in female genital tuberculosis. Int J Gynecol Obstet (2002) 76:159–63. doi: 10.1016/ S0020-7292(01)00525-2.

Reaching SDF Goal by Preventing PPH

Sharda Jain
All India Institute of Medical Sciences, New Delhi

MMR in developing world is 14 times more than developed world. Both FIGO & GOI are clear that if country wants to decrease MMR - PPH has to be stopped.

Out of 4 Ts of PPH (Tone – 70, Trauma-20 , Tissue-10 , Thrombin-1) by using good uterotonic agents we can stop 3/4th of maternal deaths due to PPH

To Stop ATONIC PPH Stable Uteronic is needed.

- Stability of uterotonics requiring cold storage is a grave concern in India
- Carbetocin addresses most of the concerns with oxytocin; which still requires storage condition of 2-8°C
- Room temperature Stabile (RTS) Carbetocin → now available in INDIA can overcome the concerns / limitation of cold storage requirement.
- Clinical data on RTS Carbetocin in **Indian population** is now available from WHO's **CHAMPION trial**
- Meta-analysis has shown **potential benefits** of Carbetocin vs Oxytocin

- Reduced blood loss
- Reduced requirement of additional uterotonics bcz of sustained action
- Reduced requirement of blood transfusion
- Lesser reduction in Hb levels
- RTS carbitocin has been included in **WHO essential medicine list for PPH**
- RTS Carbetocin → **useful DRUG for PPH prevention in India.**
- WE REQUEST ALL GYNAECOLOGITS FOR ITS WHOLE HEARTED SUPPORT FOR RTC CARBITOCIN both in vaginal delivery & cesarean section. In addition every gynaecologist should practice PPH drill weekly with their staff of labour room & skill them selves for using balloon therapy & acquire Surgical skill for Cesarean hysterectomy.

Pregnancy after Recurrent Pregnancy Loss

Prof. K. Gujral
Institute of Obst & Gynae, Sir Ganga Ram Hospital, New Delhi

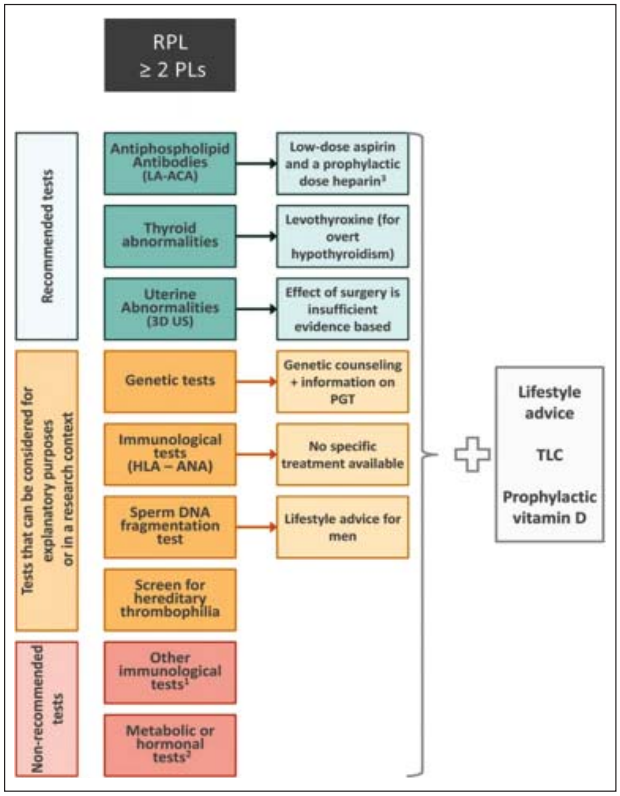
RPL is defined as the spontaneous loss of 2 or more pregnancies upto 20 weeks (ASRM), 24 weeks (ESHRE). Prevalence is 1-2% of pregnancies, recurrence risk 17-25% after 2 consecutive abortions, 25-46% after 3 consecutive abortions, Risk increases with increasing maternal age & subfertility, Overall live birth rate after 2 losses is around 75%, Even in untreated women, live birth rate is 42.86% after 3 losses, 23-37% after 5 losses.

Etiology revolves around APA, thyroid abnormalities, uterine anatomy defects, genetic, immunological, other endocrine disorders, thrombophilia, male factor etc. Care of pregnancy following RPL depends upon whether the loss was **Explained** (cause found) or **Unexplained** (cause not found). Nearly upto 50% fall in unexplained category. The number would depend upon the extent of detailed investigations. RCOG 2011, ASRM 2012, ESHRE 2018 all differ in their approach towards analyzing causes.

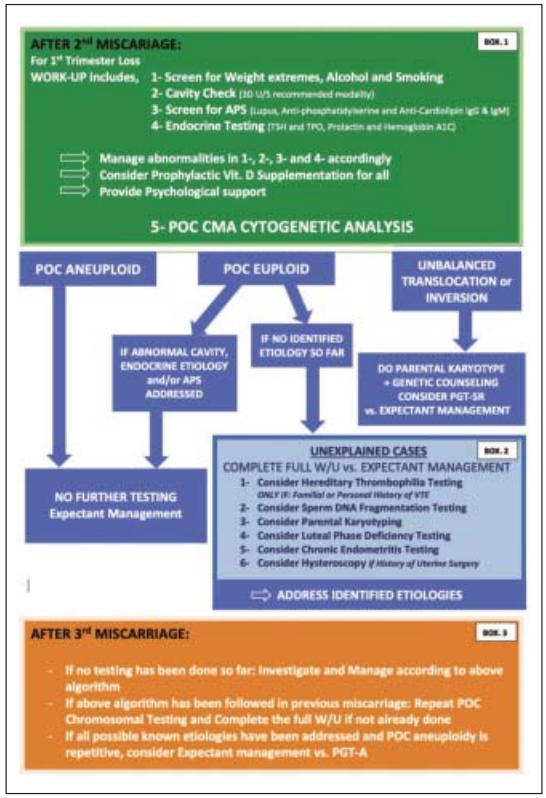
By a proposed new algorithm in 2020 adding POC, Chromosomal Microarray along with ASRM work-up truly unexplained losses can be reduced upto 10% along with a significant cost saving.

Two proposed management algorithm of a pregnancy after RPL are set below:

*



**



Role of interventions like LIT, IVIG, Glucocorticoids, vaginal progestaterone, intralipid therapy, Granulocyte colony-stimulating factor to improve upon live-birth rate is controversial.

Scan data shows improved live-birth rate with Aspirin starting preconceptionally and continuing throughout the pregnancy. An ongoing RCT on the role of low dose prednisolone therapy in women with unexplained RPL is awaited.

Suggested Readings

1. ESHRE Guideline Group on RPL, Bender Atik R, Christiansen OB, et al. ESHRE guideline: recurrent pregnancy loss. Hum Reprod Open. 2018 Apr 6;2018(2):hoy004.
2. A new algorithm for the evaluation of recurrent pregnancy loss redefining unexplained miscarriage. Papas RS, Kutteh WH. Curr Opin Obstet Gynecol. 2020 Oct;32(5):371-9.

Optimizing Fertility Outcome in Endometriosis

Manju khemani
Senior Director, Max Smart Super Specialty Hospital, New Delhi

Incidence of infertility varies from 30-50% in patients suffering from endometriosis. In healthy woman fecundity varies from 15% to 20% per month as compared to 2% to 5% per month in women affected with endometriosis. Women with endometriosis should be counselled about reproductive planning, including the possibility of decreased ovarian reserve and the risks of delayed childbearing.

The ovarian reserve is also negatively affected by endometriosis. At baseline, even prior to surgery, women with endometriomas have significantly lower anti-Müllerian hormone (AMH) levels than healthy women, and the decrease in AMH levels is greater with bilateral compared with unilateral endometrioma. Few IVF data suggest that poor oocyte and embryo quality contribute to decreased implantation and pregnancy rates. Despite these variations, IVF maximizes fertility for endometriosis patients, and most studies show that women with endometriosis have similar IVF outcomes to women with other causes of infertility.

Endometriosis is a chronic disease and there is no cure for it. Medical therapy has a role in eliminating pain but it has no role in treatment of infertility. Hormonal treatment with Dienogest, Gnrh analogue or progestin does not improve the fecundity of infertile women with Stage II/II endometriosis. According to Eshre guidelines 2021 In infertile women with endometriosis, clinicians should not prescribe ovarian suppression treatment to improve fertility.

Surgery is the main stay of treatment when patient has pain which is not controlled with medical therapy. After laparoscopy surgery for infertile women with AFS/ASRM stage I/II endometriosis or superficial peritoneal endometriosis, controlled ovarian stimulation with or without intrauterine insemination could be used to enhance non-ART pregnancy rate (grade C). Gonadotrophins should be the first line therapy for the stimulation (grade B). The number of cycles before referring ART should not exceed up to 6 cycles

Optimizing fertility for patients with endometriosis begins with reducing iatrogenic harm to the ovarian reserve. Surgical treatment of endometriomas is mainly performed by 2 types of procedures: cystectomy (excision of the cyst wall) and ablation (destruction of the inner surface of the cyst wall in situ). Regarding surgical technique, a review reported that pregnancy rates were higher in patients that underwent cystectomy when compared to fenestration/coagulation (RR 2.64; 95%CI 3019 1.49 to 4.69) and compared to laser vaporization (RR 0.92; 95%CI 0.30 to 2.80). Recurrence rate is also less after cystectomy. Spontaneous pregnancy rate was higher after laparoscopic stripping. Despite these favourable outcomes, there have been numerous reports of decreased ovarian reserve following cystectomy, up to 30% after excision of a unilateral endometrioma and up to 44% after excision of bilateral endometriomas. Therefore, for patients unlikely to conceive spontaneously, ablation may represent an alternative to excision that allows for better conservation of the ovarian reserve.

To optimize fertility when excising an endometrioma, the plane between the endometrioma and the ovarian cortex must be carefully delineated to minimize injury to viable ovarian tissue. Cyst wall is usually white in color any redness of cyst wall should warn surgeon of wrong plane. Dilute vasopressin may be used to reduce bleeding and demarcate the correct plane. Bleeding at hilum should be controlled with either sealant or suture as use of bipolar cautery further damages ovarian reserve. Results of one randomized trial demonstrated a smaller decline in postoperative AMH levels at 3 months in the hemostatic sealant compared with the bipolar group

(16% vs 41%). Excellent hemostasis must be achieved to prevent post op adhesion formation. In addition, the use of adhesion barriers, including oxidized regenerated cellulose (Interceed, Gynecare), carboxymethylcellulose (Seprafilm, Sanofi), and fibrin sheets, may reduce postoperative adhesions that distort anatomy and interfere with ovum capture. Before surgery it's wise to measure AMH and look for male factor. Patients with male factor. low AMH and age 35 will do better with IVF then with surgery.

Cyst resection for large endometriomas risks the excision of an even larger volume of functional ovarian parenchyma that is often attenuated to a thin layer surrounding the fibrous wall of the endometrioma. In these patients Donneze's three step technique laparoscopy drainage, first followed by GNRH analogue for three months and then cystectomy will cause less damage. The extensiveness of surgery can be reduced by 50% at this second-stage procedure.

Surgery of bilateral endometriomas may be particularly harmful to the ovarian reserve, with cumulative effects on both ovaries, such that 3% of patients may be immediately menopausal after surgery. IVF will be a better choice for these patients and treatment should be individualized.

At the time of surgery for endometriosis EFI should be calculated. It has been shown that patients with an unfavorable EFI (≤4) have more ART pregnancies than patients with a favorable EFI (≥5) and should be referred for ART shortly after surgery. Patients with a favorable EFI may attempt spontaneous pregnancy for 24 months before referral.

Repeated surgery for endometriosis does not appear to improve fertility outcomes and often results in damage to the ovarian reserve. Patients who are unable to conceive after a single procedure should be counselled to pursue IVF rather than repeat surgery. Patients who have undergone surgery and not desirous of immediate pregnancy should be put on Ocps to prevent recurrence. In fact, surgery should be done when patient is ready for pregnancy to prevent repeated surgeries.

spontaneous fertility of infertile patients with deeply infiltrating endometriosis found spontaneous pregnancy rates about 10%. Treatment should be considered in infertile women with deeply infiltrating endometriosis when they wish to conceive. First-line IVF is a good option in case of no operated deeply infiltrating endometriosis associated infertility. Pregnancy rates (spontaneous and following assisted reproductive techniques) after surgery (deep lesions without colorectal involvement) vary from 40 to 85%. After colorectal endometriosis resection, pregnancy rates vary from 47 to 59%.

Still unanswered question is what is the role of fertility preservation in endometriosis because of lack of robust data? Women considering oocyte cryopreservation should be counselled that fertility preservation does not guarantee pregnancy and be provided with age-related success rates. Live birth rate per warmed vitrified oocyte varies by age, and ranges from 5% in women aged 38 years and older to 7.4% in women aged less than 30 years at the time of COH. Therefore, to have a realistic chance of a live birth, women aged less than 38 years are recommended to cryopreserve 15 to 20 oocytes, and those aged 38 to 40 years should be advised to cryopreserve 25 to 30 oocytes.

Ovarian tissue cryopreservation is an option for patients who are unable or unwilling to undergo COH, or who require oophorectomy. It's still an experimental technology.

So for optimizing fertility each case has to be individualized according to symptoms, age, unilateral or bilateral endometrioma, AMH level and male factor.

Pregnancy after Uterine Surgery

Chandra Mansukhani
Senior Gynaecologist, Sir Ganga Ram Hospital, New Delhi

Introduction

Impact of any uterine surgery on pregnancy can be divided in two parts :-

- **Common uterine surgeries** - include cesarean section and myomectomy
- **Less common uterine surgeries** – uterine septum resection, synechiolysis, cesarean scar pregnancy and cervical excision and ablative procedures, USgHIFU

Pregnancy after Cesarean Section

Interpregnancy Interval: Delaying conception for at least 18 months following a caesarean delivery is important to allow for adequate healing of the hysterotomy among women planning a trial of labor after caesarean (TOLAC); shorter interpregnancy intervals, most strikingly <6 months, have been associated with uterine rupture during TOLAC. Women with interpregnancy intervals <6 months have increased risk for uterine rupture and should undergo a planned repeat caesarean delivery.

In contrast to rupture risk, a systematic review generally found that birth spacing does not appear to influence TOLAC success following spontaneous labor, but study designs varied and data were limited and inconsistent.

Timing of Repeat Surgery Birth

General Principles: Planned repeat caesarean birth is typically scheduled before the onset of labor to minimize the risk of an emergency delivery due to uterine rupture in the setting of labor and the associated risk for fetal demise. Patient and physician convenience is another, but less important, factor. Since fetal exposure to labor is associated with a lower rate of neonatal respiratory morbidity.

Previous low transverse uterine incision: In women with one or more previous lower uterine segment transverse hysterotomies, the optimum time for planned repeat caesarean birth appears to be in the 39th weeks of gestation (39+0 to 39+6 weeks). Scheduled delivery during the 39th week provides a good balance between the risk of adverse neonatal outcome with early intervention and the risk that spontaneous labor and its potential adverse consequences will ensue. The risk of post term (≥42+0 weeks) stillbirth is completely avoided if planned repeat caesarean birth is performed in the 39th week of gestation. There is consensus that planned delivery should be avoided in the 37th week of pregnancy.

American College of Obstetricians and Gynaecologists (ACOG) recommendation- do not perform nonmedically indicated deliveries before 39 weeks of gestation. This recommendation is supported by (NICHD) Maternal Fetal Medicine.

Multiple previous low transverse uterine incisions: There is increased risk of rupture compared with a single prior caesarean. Planned repeat caesarean at 39 weeks as in patients with a single previous caesarean, planned repeat caesarean birth at 38 weeks is likely to be associated with a lower risk of uterine rupture and there is no consensus on best practice.

Previous low vertical uterine incision: Planned repeat caesarean birth in the 39th of gestation. In an otherwise uncomplicated pregnancy, a woman with one previous unextended lower uterine segment vertical caesarean incision should receive the same care, as a patient with a prior low transverse incision.

Previous classical uterine incision: In the stable patient with a previous classical uterine incision, schedules delivery at 36+0 weeks, consistent with the ACOG recommendation for delivery at 36+0 to 37+0 weeks of gestation. Early delivery can also lead to complications from prematurity, and it may not prevent uterine rupture since it has been reported as early as the second trimester and upto 50% of uterine ruptures will occur prior to labor onset.

Unknown location of previous uterine incision: The location of the prior uterine incision is unknown, review her past obstetric history (gestational age of delivery, birth weight, fetal presentation, pregnancy and/or delivery complications, surgeon's comments about the delivery to patient and/or family). A classical hysterotomy should be suspected (e.g. delivery before 28 weeks of gestation) or the patient had known pathology of the uterine segment (e.g large leiomyoma).

Previous uterine rupture: Pregnant women who have had a uterine rupture and a previous caesarean, should undergo repeat caesarean birth to minimize the risk of another rupture. The schedules delivery between 34+0 and 35+6 weeks of gestation. The optimal gestational age of delivery in women with prior uterine rupture, delivery at 35 weeks was the optimal strategy. ACOG suggests managing these women similarly to those with a previous classical hysterotomy and thus scheduling delivery between 36+0 and 37+0 weeks of gestation.

Suboptimally dated pregnancies: ACOG has opined that there is no role for scheduled delivery in an woman with a suboptimally dated pregnancy in the absence of a medical or obstetric complication that warrants intervention. In these pregnancies, repeat caesarean birth should be performed as soon as feasible after onset of labour.

Vaginal Birth after Cesarean Delivery (ACOG Practice Bulletin No. 205)

Trial of labor after cesarean delivery (TOLAC) refers to a planned attempt to deliver vaginally by a woman who has had a previous cesarean delivery, regardless of the outcome. This method provides women who desire a vaginal delivery the possibility of achieving that goal- a vaginal birth after cesarean delivery (VBAC). VBAC is associated with decreased maternal morbidity and a decreased risk of complications in future pregnancies as well as a decrease in the overall cesarean delivery rate. Failed trial of labor associated with increased maternal and perinatal morbidity when compared with a successful trial of labor (ie, VBAC) and elective repeat cesarean delivery.

Pregnancy after Myomectomy

Interval to Conception: Patients who undergo myomectomy with significant uterine disruption should wait several months before attempting to conceive; recommendations for the interval to conception range from three to six months. A Japanese study used magnetic resonance imaging, reported that uterine myometrial healing was complete and blood flow to the area of hysterotomy was normal after three months of surgery.

Uterine rupture during pregnancy following myomectomy: Myomectomy is associated with an increased risk of uterine rupture during subsequent pregnancy. Whether reapproximation of the myometrium via laparoscopic suturing gives the uterine wall the same strength as multilayer closure at laparotomy is an area of controversy. Failure to adequately suture myometrial defects, lack of hemostasis within uterine defects with subsequent hematoma formation, or the excessive use of electrosurgery with devascularization of the myometrium have all been postulated to interfere with myometrial wound healing and increase the potential for rupture. Even with ideal surgical technique, individual wound healing characteristics may predispose to uterine rupture. Patients who have had myomectomy for pedunculated subserosal or mostly exophytic fibroids (types 5, 6, or 7) might be considered for a trial of labor.

Management of Patients with Prior Myomectomy

Route of delivery and timing of scheduled cesarean delivery: Conservative approach and suggest cesarean delivery prior to the onset of labor in patients who underwent an extensive or complicated myomectomy, at 36+0 to 37+0 weeks of gestation, patients with less extensive prior surgery may be delivered as late as 38+6 weeks. Merely entering the uterine cavity does not constitute an extensive myomectomy.

For patients who have had an intramyometrial myomectomy, we suggest a trial of labor with continuous intrapartum fetal monitoring, early access to obstetric anesthesia, and the ability to perform an emergency cesarean delivery, if it becomes necessary. Patients, who had a pedunculated fibroid removal would not be expected to have compromised the integrity of the myometrium and do not require special monitoring during labor.

Available data, suggest that the risk of uterine rupture after myomectomy is not significantly greater than that for a patient attempting trial of labor after cesarean. Pregnancy after myomectomy may increase the risk of intrauterine adhesions, miscarriage, preterm birth, abnormal placentation, cesarean section, and uterine rupture. Above all, uterine rupture during pregnancy is a cause of stillbirth, perinatal hypoxic brain damage, cerebral palsy, and intrauterine fetal death (IUFD) of the fetus.

A meta-analysis showed that the risk of uterine rupture was 0.4% following LTM and 1.2% in LSM. In addition, neonatal mortality related to uterine rupture occurred in 33%.

There has been controversy regarding the relationship between uterine rupture in the pregnancy following myomectomy and the myoma type, location, cavity involvement, suture layer, time interval, gestational age, operation type, and uterine contraction. A recent meta-analysis suggested that the risk of uterine rupture after myomectomy was 0.75%, and the rupture risk was constant regardless of the surgical technique or myoma size.

Most of the ruptures (80%) occurred during the preterm period (between 28 and 36 weeks' gestation) and without uterine contractions.

Thus, pregnant women with previous myomectomy should be counseled more carefully for the risk of the uterine rupture and should be encouraged for ANC care at tertiary care centers.

Pregnancy after Less Common Uterine Surgeries

Reproductive effects of cervical excisional and ablative procedures: Incompetence of the residual cervical

stump is to be expected after trachelectomy. The larger the excision, the greater the risk of adverse obstetric outcomes. Premature labour has been reported in 12%-28% of women post trachelectomy. The shortening of the cervix plays an important role in the risk of premature delivery, as shown in patients after cone biopsy. A single centre review of 31, pregnancies in women after radical vaginal trachelectomy, all of whom had post trachelectomy imaging prior to becoming pregnant and where 29 went beyond the first trimester indicated that the incidence of premature rupture of membranes and pre term birth was significantly different in women who had <10 mm residual cervix vs > 10 mm residual cervix (36.8% and 66.7% vs 0% and 22.2%, respectively, p = 0.028 and p=0.035 respectively). Routine cerclage has shown to be effective in achieving a full term birth post trachelectomy.

Women with early stage cervical tumours, potentially suitable for fertility sparing surgery. The live birth rate was 54.2%. 17.0% of babies born following an RVT are born extremely prematurely (<32 weeks). With a cervical cerclage in place, delivery is required to be by caesarean section and if there is no lower segment, then a classical caesarean is required. Women should be attended to by a high risk obstetric team.

Pregnancy after hysteroscopic myomectomy- Prior hysteroscopic removal of a submucosal fibroid may increase the risk of abnormal placentation, especially placenta accreta. Although the risk of placenta accreta after prior myomectomy appears to be low, data are sparse.

Pregnancy Outcomes after Ultrasound-guided High-intensity Focused Ultrasound (USgHIFU)

USgHIFU is a conservative treatment for uterine fibroids.

A retrospective observational study was conducted of 560 reproductive-age women with symptomatic uterine fibroids who underwent USgHIFU therapy, study concluded that patients undergoing USgHIFU treatment of uterine fibroids can achieve full-term pregnancies with few intrapartum or postpartum complications. More studies are required to compare fertility and perinatal outcomes.

Cesarean Scar Pregnancy

The vast majority of pregnancies are located in the uterus and occasionally in the fallopian tube; however, clinicians need to be vigilant and consider the possibility of implantation in other locations, such as the cesarean (hysterotomy) scar, abdomen, cervix, and ovary, as well as the combination of intrauterine and extrauterine pregnancy (heterotopic pregnancy). Incorrect diagnosis of the site(s) of pregnancy implantation and, in turn, inappropriate management, can result in rupture and life-threatening hemorrhage.

Successful term pregnancy after a cesarean scar pregnancy has been reported, recurrent scar implantation (reported in 5 to 40 percent of cases), uterine rupture (resulting in maternal or fetal death), and placenta accreta spectrum.

There is no consensus regarding the need for or type of preconception scar evaluation or the management of findings.

Prolapse And Urinary Incontinence Management - Conservative Approach

Geeta Mediratta
Senior Consultant, Sir Ganga Ram Hospital, New Delhi

General Principles

Mechanism of Action: Pessaries are used for the treatment of pelvic floor defects and their functional sequelae, such as pelvic organ prolapse (POP) and stress urinary incontinence (SUI). When used for POP, pessaries provide support to the vaginal hernia defect, including anterior, posterior, apical, and combined sites.Pessaries are held in place proximally by the uterus (or the vaginal apex following hysterectomy), laterally by the levator muscles, and distally by the pubic bone and the vaginal introitus.

Mechanism of Action of Vaginal Pessaries is related to improved urethral function. Urodynamic studies reveal increase in functional urethral length and urethral closure pressure, absence of urethral obstruction to flow resolution of detrusor instability in women with severe prolapse and detrusor instability.

Efficacy in POP

For POP or SUI: While pessaries are commonly used as first-line therapies for symptomatic POP and SUI, supporting data are limited. An attempted meta-analysis evaluating efficacy of pessaries for POP found only one trial, which reported similar symptom improvement for ring and Gellhorn devices in 134 women. Both pessaries were effective in approximately 60 percent of the patients who completed the trial.

Efficacy in SUI: A meta-analysis of eight trials assessing pessary treatment for SUI was unable to reach a conclusion regarding benefit because of different comparators, device types, and outcome measures. Three small trials suggested that a pessary might be better than placebo, but the results were inconclusive because of the small sample sizes.

Clinical Scenarios in which Pessary is Indicated: Include patient preference for nonsurgical treatment, presence of severe medical comorbidities that make the patient a poor surgical candidate, Need to delay surgery for several weeks or months and recurrent POP or SUI and patient preference for avoidance of repeat surgery. ***However, prior prolapse surgery and prior hysterectomy are risk factors for failure to fit a pessary. Pessaries also indicated in v***aginal ulcerations caused by severe POP. Reduction of POP through use of a pessary and application of vaginal estrogen cream both promote healing of the ulcers within three to six weeks, which is useful prior to surgical repair. POP in a current pregnancy is also an indication for pessary use. The benefit of surgical repair of POP in women desiring childbirth may be nullified by subsequent pregnancy and childbirth.

Contraindications include local infection, exposed foreign body, latex sensitivity, non compliance and sexually active women who are unable to remove and reinsert the pessary.

Detailed Description of Pessary Device Types

Support Pessaries	
Commonly Used	**Less Commonly Used**
Ring pessaries	Shaatz pessary Lever pessaries Gehrung pessary
Space Filling Pessaries	
Commonly Used	**Less Commonly Used**
Gellhorn Pessary Donut Pessary	Cube Pessary Inflatable Pessary (inflatoball) Spherical Pessary
Incontinence Pessaries	
Commonly Used	**Less Commonly Used**
Incontinence ring and dish	Bell shaped incontinence Pessary Cylindrical intravaginal device

Ring Pessaries: will fit 70 percent of women. It is the most commonly used pessary as it can treat all stages of POP as well as SUI. Additionally, it is comfortable and easily removed and inserted by the patient, and sexual intercourse may be possible when it is left in place.

Gellhorn Pessary: has a broad, firm, circular base with a stem protruding from the center. The broad base provides support to the vaginal apex, and the stem sits in the long axis of the vagina.

Advantages of Gellhorn Pessary include support for larger degrees of prolapse. It also reduces rectoceles and related symptoms and is retained by patients with a wide genital hiatus

Incontinence Pessaries

When fitted properly, an incontinence pessary compresses the urethra against the upper posterior portion of the symphysis pubis, causing an increase in urethral resistance that prevents leakage associated with sudden increases in abdominal pressure (ie, cough, Valsalva, or exercise).

Commonly used incontinence pessaries: Incontinence ring and dish - The incontinence ring pessary, as in letter L in the picture, has a knob that is placed beneath the urethra to increase urethral pressure to treat stress incontinence. The incontinence dish is more rigid and shaped like a dish and generally has minimal added benefit.

Outcomes

Most short: and medium-term studies note improved symptoms in women treated with a pessary. After two to four months of pessary use, observational studies have reported that 70 to 90 % of patients reported resolution of prolapse symptoms (bulge, pressure, splinting). 40 to 50 percent of patients reported resolution of associated urinary symptoms (stress and urgency incontinence and voiding difficulty)

Complications of Pessary are erosions, bleeding, extrusion, vaginal discharge, pain, constipation, incontinence, impaction and rarely rectovaginal fistula.

Venous Thromboembolism In Pregnancy

Madhu Goel
Associate Director, Fortis La Femme, New Delhi

Venous thromboembolism complicates approx. 0.5–2.2 per 1000 deliveries. Although the absolute VTE rates are low, pregnancy associated VTE is an important cause of maternal morbidity and mortality. During pregnancy, the risk of VTE is **increased five to tenfold**. In the postpartum period, the risk of VTE is increased **15- to 35-fold**. The risk of VTE is greatest during the **first 3–6 weeks postpartum**.

Risk Factors

There are certain factors which predispose a patient to VTE. These can be pre-existing like previous episodes of VTE, known thrombophilia, family h/o unprovoked or oestrogen related VTE in first degree relative, age > 35, parity >3, obesity, smoking, presence of gross varicose veins. Some obstetric factors like multiple pregnancy, current pre eecclampsia, cesarean section in labour, prolonged labour, stillbirth, preterm birth, PPH (>1l or requiring transfusion), ART increase the risk of VTE. Some are transient risk factors like any surgical procedure in pregnancy or puerperium except immediate repair of the perineum, e.g. appendicectomy, postpartum sterilisation, dehydration, OHSS, hyperemesis gravidarum, admission or immobilisation (>3 day bed rest), long distance travel, current systemic infection requiring IV antibiotics.

Thromboprophylaxis

The patient is evaluated for these risk factors at 4 points during pregnancy - first prenatal visit, at any antenatal admissions, immediate postpartum state and at postpartum discharge. Based on the unique risk profile of the patient and the gestational age, thromboprophylaxis is started and continued in the post partum period.

LMWHs are the agents of choice for antenatal and postnatal thromboprophylaxis. They are safe, effective, have reliable pharmacokinetics, practical to use, lower rates of adverse effects like bleeding, allergic reactions, symptomatic osteoporosis, thrombocytopenia etc. Routine monitoring of platelet count is not required. Monitoring of anti-Xa levels is not required. They are safe in breast feeding period. The route of administration is subcutaneous and can be self administered by the patient. The dose of LMWH is dependent on the weight of the patient.

Prophylaxis based on body weight	LMWH
< 50 kg	2500 units daily
50 – 90 kg	5000 units daily
91 – 130 kg	7500 units daily
131 – 170 kg	5000units12hourly
>170 kg	75 units/kg/day

Very high risk patients like patients with previous VTE with anti thrombin deficiency may require higher doses of thromboprophylaxis. In such cases dose has to be decided in consultation with the haematologist.

The patient should be instructed to stop heparin if she thinks she is in labour or develops vaginal bleeding. LMWH should be stopped 24 hours before induction of labour or elective LSCS. It can be restarted 4 hours after spinal anaesthesia or 4 hours after epidural catheter has been removed, when there is no immediate risk of PPH. Regional techniques should be avoided, if possible, until at least 12 hours after the previous prophylactic dose of LMWH.

Risk factors for VTE

Pre-existing risk factors	Tick	Score
Previous VTE (except a single event related to major surgery)		4
Previous VTE provoked by major surgery		3
Known high-risk thrombophilia		3
Medical comorbidities e.g. cancer, heart failure; active systemic lupus erythematosus, inflammatory polyarthropathy or inflammatory bowel disease; nephrotic syndrome; type I diabetes mellitus with nephropathy; sickle cell disease; current intravenous drug user		3
Family history of unprovoked or estrogen-related VTE in first-degree relative		1
Known low-risk thrombophilia (no VTE)		1[a]
Age (> 35 years)		1
Obesity		1 or 2[b]
Parity ≥ 3		1
Smoker		1
Gross varicose veins		1
Obstetric risk factors		
Pre-eclampsia in current pregnancy		1
ART/IVF (antenatal only)		1
Multiple pregnancy		1
Caesarean section in labour		2
Elective caesarean section		1
Mid-cavity or rotational operative delivery		1
Prolonged labour (> 24 hours)		1
PPH (> 1 litre or transfusion)		1
Preterm birth < 37[nd] weeks in current pregnancy		1
Stillbirth in current pregnancy		1
Transient risk factors		
Any surgical procedure in pregnancy or puerperium except immediate repair of the perineum, e.g. appendicectomy, postpartum sterilisation		3
Hyperemesis		3
OHSS (first trimester only)		4
Current systemic infection		1
Immobility, dehydration		1
TOTAL		

≥4- thromboprophylaxis from T1
3- From 28 weeks
2- postpartum-10 days

Anti embolism stockings – they are used for women who are hospitalized and have a contraindication to LMWH, for women who are hospitalized post-caesarean section (combined with LMWH) and considered to be at particularly high risk of VTE (e.g. previous VTE, more than four risk factors antenatally or more than two risk factors postnatally) and women travelling long distance for more than 4 hours. They should be of appropriate size, properly applied and provide graduated compression with a calf pressure of 14–15 mmHg

Clinical Presentation of Venous Thromboembolism

Venous thromboembolism can present as deep vein thrombosis or pulmonary embolism.

Deep Vein Thrombosis

The clinical presentation of DVT in pregnancy is identical to non pregnant patients. But there is a higher propensity for left sided DVT and left iliac vein thrombosis. Pelvic pelvic vein thrombosis is rare outside pregnancy. However, it is seen in 10% of cases in pregnancy. The 2 most common symptom of DVT are pain and swelling of extremity. The symptoms of iliac vein thrombosis are swelling of the entire leg with or without flank, lower abdomen, buttock, or back pain.

Diagnosis of DVT

In pregnancy the diagnosis of DVT can be missed as the signs overlap with many physiological changes in pregnancy and puerperium. If DVT is suspected, treatment should be started and the diagnosis confirmed by objective testing.

There are clinical prediction rules which help in the diagnosis of DVT. In pregnant patients the LEFt CPR is used.

LEFt clinical prediction rule - Left side(L), midcalf circumference >2cm (E=edema), first trimester presentation(Ft)

Some investigations may aid in the diagnosis of DVT. These are - D Dimer(it has negative predictive value), compression ultrasonography (CUS), doppler imaging, MRI, venography.

Diagnostic algorithm for suspected DVT in pregnancy

Pulmonary Embolism

Pulmonary embolism can be a life threatening condition. If PE is suspected, treatment should be started immediately. The classic symptoms of PE are dyspnoea, abrupt onset chest pain and cough. The most common signs are tachycardia, tachypnoea and crackles. In massive PE, the patient can suddenly have syncope, hypotension and a pulseless electrical cardiac activity. Anticoagulant treatment is started until an objective diagnosis is made and continued if the diagnosis is confirmed.

If the patient also has symptoms of DVT and compression ultrasound is positive, no other investigations are required.

If compression ultrasound is negative other investigations may be required for objective diagnosis. Chest X-ray may show wedge shaped peripheral infarct. VQ scanning is the preferred mode in pregnancy. If VQ is indeterminate or not available CTPA should be done. ABG, D-dimer, ECHO can be done, however they are not sensitive or specific.

Treatment

The standard treatment of VTE in pregnancy is LMWH. The initial dose of enoxaparin is 1 mg/kg every 12 hours or 100U/kg or 1.5mg/kg once daily. Depending on the severity of VTE additional treatments like thrombolysis, thrombectomy, IVC filter and venous stenting may be used

Routine measurement of platelet count, Anti Xa is not required. It is only necessary to monitor these if there are extremes of weight, other complicating factors like renal disease, recurrent VTE or the woman has had prior exposure to unfractionated heparin (UFH).

Unfractionated heparin- if the VTE occurs at term consideration should be given to UFH for the peripartum period as it is more easily manipulated and the time off anticoagulation for birth is more easily controlled. In massive PE intravenous UFH is the treatment of choice. **IV UFH** bolus of 80 units/kg, followed by a continuous infusion of 18 units/kg per hour is the recommended dose. The infusion is titrated every six hours to achieve target PTT (60-80 sec) **aPTT - 1.5 to 2.5 times normal**. Once the target aPTT level is achieved, it should be rechecked once or twice daily. IV UFH can be transitioned to **SC UFH or SC LMWH** if long-term or outpatient anticoagulant therapy is planned. The transition is traditionally done after the patient has received IV UFH for 5 to 10 days.

Warfarin – is a vitamin K antagonist. Usually not used as it can cause warfarin embryopathy (when used between 6-12 wks), CNS abnormalities during any trimester (corpus callosum agenesis; midline cerebellar atrophy) fetal hemorrhagic complications especially at delivery due to prolonged anticoagulant effect of warfarin as a result of fetal liver being immature and hence fetal levels of vit K dependent coagulation factors are low.

Oral direct thrombin inhibitors (dabigatran) and anti-Xa inhibitors (rivaroxaban, apixaban, edoxaban, betrixaban) should be avoided in pregnancy and lactation because there are insufficient data to evaluate safety for the woman and the fetus.

Post Natal Treatment of VTE

Anticoagulant therapy should be continued for at least 6 weeks postpartum and until at least 3 months of anticoagulant therapy have been given in total. The woman should be given a choice of LMWH or warfarin postnatally.

PROM: Termination at 34 Weeks?

Pinkee Saxena
Senior Specialist Obstetrics & Gynaecology, Deen Dayal Upadhyay Hospital, Delhi

Definition: Membrane rupture before labor that occurs before 37 weeks of gestation is referred to as "Preterm Prelabor Rupture of Membranes." It occurs in 3 % of pregnancies. It has 1 - 2 % risk of fetal death.

Risk Factors: Includes-history of pprom in a previous pregnancy, short cervical length, bleeding during pregnancy, low body mass index, low socioeconomic status, smoking & illicit-drug use.

Diagnosis: is made by direct visualization of the amniotic fluid passing from the cervical canal, arborization, and nitrazine testing. Ultrasound examination demonstrating oligohydramnios is also useful to confirm the diagnosis of PPROM but is not diagnostic if used alone. In addition, identifying the presence of liquor by Amnisure/ Actim Prom test can be done. Actim Prom detects the protein IGFBP-1, AmniSure detects the protein PAMG-1.

Discussion: PPROM patients are prone to pulmonary hypoplasia, respiratory distress syndrome, neonatal sepsis, fetal death, umbilical cord prolapse, placental abruption, intrauterine infection /chorioamnionitis.

There is an International Consensus that pregnancies affected by PPROM represent a daily challenge for the obstetrician. If a pregnant woman membranes rupture without contractions before 37 weeks of pregnancy there are two options: for the baby to be born as soon as possible, or to wait for labour to start naturally. Immediate delivery increases the chance of problems linked to prematurity, such as breathing difficulties and longer stays in the neonatal intensive care unit. Expectant management has risk of intrauterine infection /chorioamnionitis.

Cocharane data and other studies [1,2,3] showed no difference in the rate of infant infection or infant death before birth between the immediate delivery and expectant management. However, early birth increased the risk of infant death after birth, as well as breathing problems, with the newborn needing extra help to breathe. The babies of women who had a planned early birth were more likely to be admitted to neonatal intensive care,

had breathing problems and increased the rate of caesarean section, but decreased the risk of infection. They conclude that in preterm PROM waiting for labour to begin naturally is the best option for healthier outcomes, as long as there are no other reasons why the baby should be born immediately.

References

1. Bond DM, Middleton P, Levett KM, van der Ham DP, Crowther CA, Buchanan SL, Morris J. Planned early birth versus expectant management for women with preterm prelabour rupture of membranes prior to 37 weeks' gestation for improving pregnancy outcome. Cochrane Database of Systematic Reviews. 2017(3).
2. Delorme P, Lorthe E, Sibiude J, Kayem G. Preterm and term prelabour rupture of membranes: review of timing and methods of labour induction. Best Practice & Research Clinical Obstetrics & Gynaecology. 2021 Sep 3.
3. Tsakiridis I, Mamopoulos A, Chalkia-Prapa EM, Athanasiadis A, Dagklis T. Preterm premature rupture of membranes: a review of 3 national guidelines. Obstetrical & gynecological survey. 2018 Jun 1;73(6):368-75.

Chronic Pelvic Pain

(Prof) Upma Saxena
Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi

Definition and Incidence

Intermittent or constant non-cyclic pain in the lower abdomen below umbilicus or pelvis for >6 months which is unrelated to pregnancy. Prevalence ranged from 5.7% to 26.6%.[1] CPP is as common as low back pain or headache affecting one in six of the adult female population.[2]

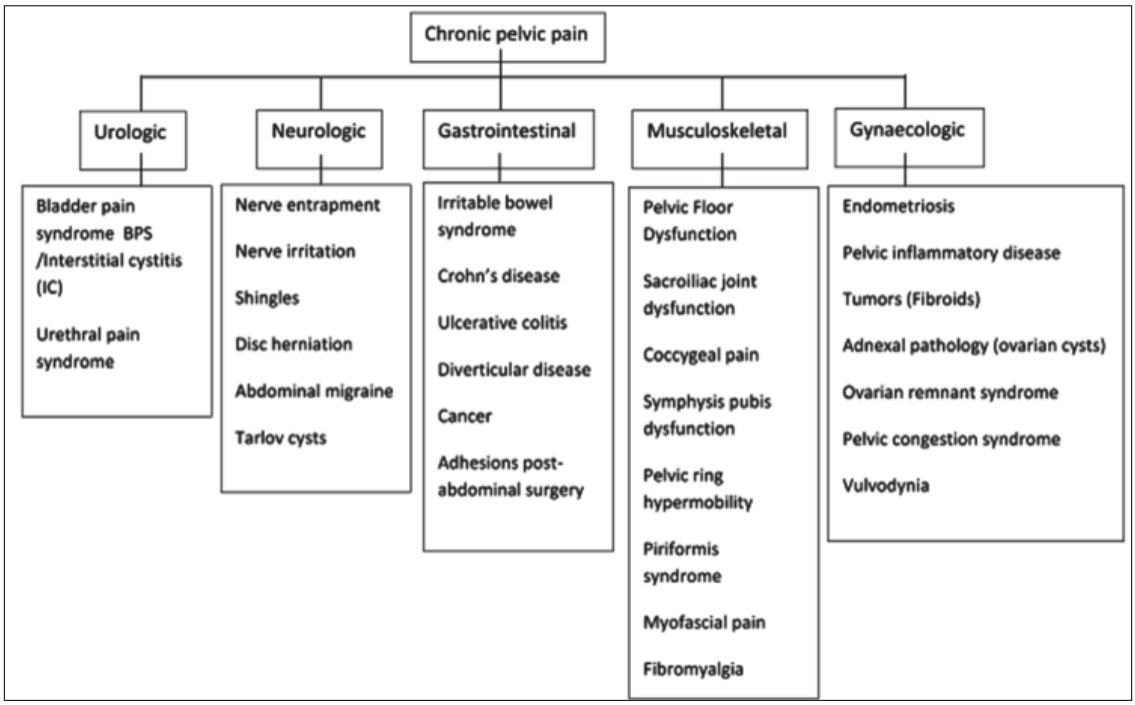
Magnitude of Chronic Pelvic Pain (CPP)

Prevalence of CPP in women aged 20 to 49 is 15%.11 million women have CPP - 9.2 million women consult Gynecologists. An estimated 12% of gynecologic outpatient referrals are for CPP. Etiology unknown in 35% - 60% of patients and 10% to 35% laparoscopies and 10% to 12% of hysterectomies performed for CPP.

CPP is a Symptom, Not a Diagnosis

Symptom can represent pathology in a somatic structure or viscera, central sensitization of pain, or both. It should be seen as a symptom with a number of contributory factors with frequently more than one component, Table 1. Assessment should aim to identify contributory factors rather than assign causality to a single pathology.

Table 1: Causes of Chronic Pelvic Pain



Regardless of whether there is or is not identifiable anatomic pathology, CPP can also represent a centralized pain syndrome (Central sensitization). Hence it is a diagnostic dilemma, frustration for doctor and patient, disability and distress and significant cost to health services.

Pathogenesis

Not well understood. It could be due to Undetected IBS, central sensitization of nervous system or vascular hypothesis- pain arises from dilated pelvic veins in which blood flow is markedly reduced

Chronic Pelvic Pain Syndrome

In some women, no diagnosis other than chronic pain can be established; as pain is likely due to central sensitization. Central sensitization describes any central nervous system (CNS) dysfunction that plays a role in augmenting and maintaining pain as well as leading to other CNS-mediated symptoms. This condition is generally characterized by multifocal pain and co-occurring somatic symptoms, such as fatigue, memory difficulties, and poor sleep.

Pelvic Congestion Syndrome

Pelvic congestion syndrome is characterized by symptoms of pelvic pain, pelvic pressure, deep dyspareunia, postcoital pain, and exacerbation of pain after prolonged standing. It is associated with radiologic findings of pelvic varicosities i.e. dilated uterine and ovarian veins that display reduced blood flow. Gonadotrophin-releasing hormone (GnRH) agonists are shown to effectively decrease pain during therapy, with GnRH agonists showing higher efficacy.[3]

Adhesions

Adhesions may be caused by endometriosis, previous surgery or previous infection. Adhesions may be a cause of pain, particularly on organ distension or stretching. There is no evidence to support the division of fine adhesions in women with chronic pelvic pain.[4]

Residual ovary syndrome- a small amount of ovarian tissue inadvertently left behind following oophorectomy which may become buried in adhesions.

Counselling- Patients should be counseled that the evaluation takes time, many etiologies are considered, treatment is not always curative, and consultation with other providers may be warranted. If not clearly gynaecological in origin then multidisciplinary team involving gastroenterologist, urologist, genitourinary medicine physician, physiotherapist, psychologist or psychosexual counsellor should be considered.

History

Adequate time should be allowed and women need to feel that they have been able to tell their story and that they have been listened to and believed.

Physical examination for women with chronic pelvic pain

General
▪ Vital signs ▪ General appearance, mood, affect, or emotional state ▪ Gait, posture
Back – patient sitting
▪ Spine curvature, evidence of previous injury or surgery ▪ Spinal (including sacrum and coccyx), paraspinal and sacroiliac joint tenderness
Abdomen – patient supine
▪ Appearance: Fat distribution, scars, or evidence of previous trauma or surgery ▪ Evidence of masses, hernia, inguinal adenopathy, pubic symphysis pain ▪ Light palpation or stroking: Evaluate for allodynia ▪ Single digit deep palpation: Differentiate focal versus diffuse pain, trigger points (focal area that worsens with abdominal wall flexion)
Extremity – patient supine
▪ Hip flexion, extension, internal and external rotation; hip abduction and adduction to evaluate for range of motion ▪ Muscle strength, tone, spasticity, or asymmetry

Red Flag Signs excluded. If there is a strong cyclical component to the pain it is likely to be of reproductive tract origin.

Pelvic examination is done with patient in lithotomy position

Investigation

- All sexually active women should be screened for sexually transmitted, Chlamydia trachomatis and gonorrhea.

Imaging Studies

- Transvaginal Ultrasound useful for assessing enlarged uterus and adnexal mass
- TVS and MRI are useful tests to diagnose adenomyosis.
- The role of MRI in diagnosing small deposits of endometriosis is uncertain.

Role of Diagnostic Laparoscopy

Diagnostic laparoscopy has been regarded in the past as the 'gold standard' in the diagnosis of chronic pelvic pain as it is the only test capable of reliably diagnosing peritoneal endometriosis and adhesions. However, it carries significant risks: an estimated risk of death and a risk of injury to bowel, bladder or blood vessel. One-third to one-half of diagnostic laparoscopies will be negative.

Principles of Management

For women with CPP associated with a probable peripheral etiology, initial treatment is aimed at addressing the presumed cause. Women with no identified cause of pain or with persistent pain despite treatment of presumed etiologies will need multimodal treatments with the goal to improve function. Combination of pharmacologic, nonpharmacologic therapy, and procedures can be used simultaneously.

Targeted Therapy

Nonsurgical

- Physical therapy
- **Trigger point injection** - Trigger point injections of saline, anesthetic, steroids,or opioids, in isolation or in combination with other treatment modalities, are recommended to improve pain and functional ability in patients with myofascial chronic pelvic pain.
- **Nerve block** - Peripheral nerve blocks (PNB) can also be used for diagnosis and treatment of nerve pain if it greatly reduces the pain supports the diagnosis and provides pain relief.

Surgical

- Surgical options should be considered when clinical suspicion for conditions that may be responsive to surgery is high.

Role of Neuromodulator

For CPP that is unresponsive to targeted therapy with suspected neuropathic pain, neuromodulators that alter circulating neurotransmitters imbalance should be used.

Role of Hysterectomy

Hysterectomy should be performed only when there is a predominant uterine pain component by history and/or examination and the woman has exhausted a large number of other multimodal treatments.

Summarize

Chronic pelvis pain is *multifactorial* in nature and it is important to consider psychological and social factors along with physical causes of pain. The assessment process should allow enough time for the woman to be able to tell her story as this may be therapeutic in itself. When pain is strikingly cyclical and no abnormality is palpable at vaginal examination, a therapeutic trial of ovarian suppression may be more helpful than a diagnostic laparoscopy. Non-gynaecological conditions will need *Multidisciplinary approach*. Even if no explanation for the pain can be found attempts should be made to treat the pain empirically using ***Multimodal approach*** according to a management plan developed in partnership with the woman.

Reference

1. Ahangari A. Prevalence of chronic pelvic pain among women: an updated review. Pain Physician 2014;17:E141–7. (Systematic Review)
2. Zondervan KT, Yudkin PL, Vessey MP, Jenkinson CP, Dawes MG,Barlow DH, et al.The community prevalence of chronic pelvic pain in women and associated illness behaviour. Br J Gen Pract 2001;51:541–7.
3. Giamberardino MA, Berkley KJ, Iezzi S, de Bigontina P, Vecchiet L. Pain threshold variations in somatic wall tissues as a function of menstrual cycle, segmental site and tissue depth in nondysmenorrheic women, dysmenorrheic women and men. *Pain* 1997;71:187–97.
4. Chronic Pelvic Pain: ACOG Practice Bulletin, Number 218. Obstet Gynecol 2020; 135:e98.

All Post-Menopausal Ovarian Cysts Need Surgery?

Vidhi Chaudhary
Ghaziabad, UP

Adnexal masses in postmenopausal women (i.e., masses of the ovary, fallopian tube, or surrounding tissues) are commonly encountered by obstetrician–gynaecologists and often present diagnostic and management dilemmas. Most adnexal masses are detected incidentally on physical examination or at the time of pelvic imaging. Overall ovarian cancer risk in postmenopausal will depend on the symptom and morphology of the cyst. The risk of malignancy in asymptomatic, simple cysts that are less than 5 cm, unilateral, unilocular and echo-free with no solid parts or papillary formations is less than 1%. A cyst can only be diagnosed as simple if it clearly meets imaging criteria for a simple cyst: anechoic, unilocular, a thin smooth wall, no solid component or septation and no internal flow and no internal flow by using color Doppler imaging. No follow up required if the simple cyst is less than 3cm. Recent large studies published in JAMA suggest that ovarian malignancy risk in women with simple cysts is like the overall population risk. Likelihood ratios associated with the detection of a simple cyst were 0.10 (95% CI, 0.01-0.48) in women 50 years or older, (no cancers were identified) and the absolute 3-year risk of cancer ranged from 0 to 0.5 cases per 1000 women. In cohort of 15,735 postmenopausal women from the intervention arm of the PLCO Cancer Screening Trial through 4 years of transvaginal ultrasound screening, simple cysts were seen in 14% of women the first time that their ovaries were visualized 1-year incidence of new simple cysts was 8%. Among ovaries with one simple cyst at the first screen, 54% retained one simple cyst and 32% had no cyst 1 year later. Simple cysts did not increase the risk of subsequent invasive ovarian cancer. Most cysts appeared stable or resolved by the next annual examination. Summating all evidences, Levine et al. In 2019 concluded that sonographic surveillance of benign findings may potentially increase surgical intervention and thereby unintended harm.

Consensus conference proposed robust recommendations supporting RCOG recommendations in the management of postmenopausal ovarian cyst retrieating the fact that not all cysts require surgical management. Is surgery required for all postmenopausal ovarian cysts? As per ACOG, RCOG guideline & Society of Radiologists in Ultrasound (SRU) Consensus Conference Update' The oncogenic risk of unilocular adnexal cysts is low, suggesting that the final choice about surgical treatment of these cysts should be based on the combination of each patient's overall risk profile as well as personal priorities such as women's wishes and surgical fitness.

Laser Based Devices in Urogynecology - Current Practices

Amita Jain
Senior Consultant Urogynecology, Medanta Institute of Urology & Robotic Surgery, Medanta - The Medicity Hospital, Gurugram

Background

"LASER" (Light Amplification by Stimulated Emission of Radiation) has been widely used for decades for both gynecological and urological indications like treatment of HPV-related genital lesions, prostate vaporization, and lithotripsy.

Limited ex-vivo studies have suggested that LASER has the potential to modify tissue characteristics. Clinically it has already been adopted for tissue remodeling of non-mucosal scars and wrinkles with relative success[1]. These findings have led to the concept that LASER technology could be used in the treatment of vaginal atrophy and

has already been utilized and marketed as therapy for vaginal "rejuvenation" and "Designer LASER Vaginoplasty" by the aesthetics industry. However, later in-vivo studies failed to provide definitive evidence of its safety and effectiveness due to several limitations like short follow-up time, absence of control groups, lack of standardized outcome measures, and the involvement of industry sponsorship.

In 2007 the American College of Obstetrics and Gynecology (ACOG) included "vaginal rejuvenation" and "designer vaginoplasty" in a list of procedures that were "not medically indicated" due to a "lack of evidence confirming safety and effectiveness." However the US Food and Drug Administration (FDA) licenced the CO2 LASER systems for "incision, excision, ablation, vaporization, and coagulation of body soft tissues and was used by specialities such as aesthetics, otolaryngology, gynecology, neurosurgery, and genitourinary surgery" in 2010. Other LASER manufacturers requested FDA approval, with similar licence terms approved for Er:YAG LASER (2011) and the Nd:YAG (2014).

After that, widespread adoption of the LASER technology was quick due to aggressive marketing by industries. In response to this, ACOG issued a warning in 2016 clarifying that the FDA had not approved the use of these devices for the treatment of Vulvovaginal atrophy. The Society for the Study of Vulvovaginal Disease (ISSVD) and the Society of Obstetricians and Gynecologists of Canada (SOGC) also raised their concerns. Finally, on the July 30th, 2018, the FDA issued a warning that the effectiveness and safety of energy-based devices (LASER and radiofrequency) for urinary incontinence, vaginal "rejuvenation" or cosmetic vaginal procedures has not been established.

Current Recommendations

The executive council of the International Society for ISSVD and the board of trustees of the International Continence Society (ICS) acknowledge the need to establish scientifically based recommendations on the new uses of LASER in their fields. This best practice document has therefore been developed to provide guidance on the use of LASER for the treatment of gynecological and urogynecological conditions and to educate providers about the weaknesses of the available data[2]. Following are the recommendations:

1. The mechanism of action of LASER on vaginal tissue in normal or diseased states is not known and cannot be used to justify treatment results. (LE: 3b/4, GR:C).
2. The histological changes present after LASER therapy are consistent with reparative changes after a thermal injury. They do not necessarily represent restoration of function, and cannot be used to justify treatment results (LE: 4, GR:C).
3. LASER cannot recommended as a means to improve the vaginal microbiome. However, the use of CO2 LASER does not negatively impact the vaginal microbiome (LE:2b, GR: B).
4. There is currently not enough scientific data demonstrating efficacy and safety of LASER for treating vulvovaginal atrophy in genital syndrome of Menopause (LE:2b/3b, GR:C).
5. There is limited evidence supporting the use of LASER for stress urinary incontinence and pelvic organ prolapse with limited data concerning its safety (LE: 4, GR:D).
6. There are no data supporting the recommendation of performing "vaginal rogation rejuvenation" or showing its safety and Er:YAG LASER for vaginal looseness or laxity has not been shown to be safe or efficacious(LE: 4, GR:D).
7. LASER therapy cannot be recommended as a means to improve pain in vulvodynia. Although the use of low-level LASER does not negatively impact symptoms in vestibulodynia (LE:2b, GR: B).
8. There are no data supporting the use of CO2 LASER in Vaginal Lichen sclerosus and there are no data concerning the long term safety of the use of CO2 LASER in its treatment (LE: 4, GR:C).
9. There is no medical indication for the use of LASER for vulvar bleaching/whitening /brightening, and there are no data concerning the safety of its use of LASER for this indication (LE: 4, GR:C).
10. Nd:YAG and CO2 LASER appear to be safe options for labiaplasty (LE:3b, GR: C), but there is no data supporting the use of LASER labiaplasty to enhance sexual function (LE: 4, GR:C).

Conclusion

The widespread use of lasers to treat urogynecological conditions may raise concern due to the lack of good-quality evidence in the form of multi-centre randomised placebo-controlled trials. The safety and effectiveness of available laser devices is yet to be established, on the other hand the inadvertent use may lead to serious adverse events such as vaginal burns, scarring, dyspareunia and chronic pain [3]. Therefore randomised placebo-

to be continued.....on Page 60

Continued from.....Page 58

controlled trials in addition to formal evaluation of the laser devices are required before this treatment modality can be recommended.

References

1. Stefano S, Stavros A, Massimo C. The use of pulsed CO2 lasers for the treatment of vulvovaginal atrophy. Curr Opin Obstet Gynecol. 2015;27:504–8.
2. Preti M, Vieira-Baptista P, Digesu GA et.al. The Clinical Role of LASER for Vulvar and Vaginal Treatments in Gynecology and Female Urology: An ICS/ISSVD Best Practice Consensus Document. J Low Genit Tract Dis. 2019 Apr;23(2):151-160.
3. Bhide AA, Khullar V, Swift S, Digesu GA. The use of laser in urogynaecology. Int Urogynecol J. 2019 May;30(5):683-692.

Medical Management of PID

Anju Soni[1], Rekha Bharti[2]

[1]Chairperson FOGSI HIV Committee, [2]Professor, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Pelvic inflammatory disorders are a spectrum of inflammatory disorders of the upper female genital tract comprising of endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis. The exact prevalence rate of PID is largely unknown secondary to the lack of standardized diagnostic tests. Scattered self-reported prevalence rates of 4-8% have been documented.

Acute PID is inflammation of the upper genital tract lasting for < 30 days. Subclinical PID is the upper genital tract infection without symptoms and is the most common finding in tubal factor infertility without an obvious history of acute PID. Chronic PID is PID lasting for > 90 days and is most commonly secondary to *actinomycetes sp.* and *Mycobacterium tuberculosis* infection.

Etiology

N. Gonorrhoeae **and** *C. Trachomatis* **are the most commonly implicated microorganism in acute PID.** *However, only 50% of women who suffer from PID will test positive for these organisms. In the 'test negative' cases there is ascending bacterial infection from the lower genital tract facilitated by loss of endocervical barrier and direct extension from inflammatory gastrointestinal tract disease.*

Other causative organisms include those forming the vaginal microbial biome, namely *G. Vaginalis, H. Influenzae, enteric gram-negative rods***, and** *Streptococcus agalactiae. Cytomegalovirus (CMV), T. Vaginalis, M. Hominis*, and *U. Urealyticum* are yet another less common yet important cause for PID. *M. Genitalium* may also have a role.

Pathogenesis in Acute PID

N. Gonorrhoea produces a *direct* inflammatory response in the fallopian tubes, endometrium, and endocervix. *Chalamydia* does not usually cause a direct acute inflammatory response but may damage tissues later in its infective course.

Preventing PID

A delay in diagnosis and treatment of PID may culminate into permanent tissue damage. Early diagnosis and treatment of lower genital tract infection have a definite role in preventing its ascending spread to the uterus, tubes, and ovaries.

The screen and treat approach is especially true for *Chlamydial* and *Gonorrhoeal* infections. However, this might not be well supported for *bacterial vaginosis* and infections caused *M. genitalium*.

Diagnosing PID

PID is a clinical diagnosis. No single historical, physical, or laboratory finding is both sensitive and specific for the diagnosis of acute PID. Combinations of tests detect more women but may miss out on infected women. Because of the potential for damage to reproductive health, there should be a low threshold for clinical diagnosis of PID.

A set of *minimum and additional clinical criteria* may aid in diagnosing acute PID. Minimum clinical criteria for diagnosing PID should include one or more of the following three clinical findings: Cervical motion tenderness; Uterine tenderness; Adnexal tenderness. Additional clinical criteria that support a diagnosis of PID include one or more of the following clinical findings: Oral temperature >38.3°C (>101°F); Abnormal cervical mucopurulent

discharge or cervical friability; Presence of abundant numbers of WBCs on saline microscopy of vaginal fluid; Elevated erythrocyte sedimentation rate; Elevated C-reactive protein; Laboratory documentation of cervical infection with *N. gonorrhoeae or C. trachomatis.*

Specific diagnostic modalities for PID include:

a. Endometrial biopsy- Histopathologic evidence of endometritis will be evident.
b. Transvaginal sonography and magnetic resonance imaging- Thickened, fluid-filled tubes with or without free pelvic fluid may be seen; visualization of tubo-ovarian complex.
c. Doppler studies- Tubal hyperemia will be evident.
d. Laparoscopy may be needed in certain cases. Endometrial biopsy for women undergoing laparoscopy without visual evidence of salpingitis may diagnose endometritis of PID.

Another diagnostic test for PID is the presence of signs of the predominance of leukocytes in vaginal secretions, cervical discharge, or cervical friability

Management

Antimicrobial treatment

Treatment should include empiric, broad-spectrum coverage of likely pathogens. Regimens used should always cover *N. gonorrhoeae* and *C. trachomatis* since a negative endocervical screening does not rule out upper genital tract infection by these organisms as discussed earlier. Anaerobic bacteria e.g., *Bacteroides fragilis* can cause tubal and epithelial destruction. *Bacterial vaginosis* is often present among women who have PID. Hence they too need to be covered. Metronidazol is one drug that effectively eradicates anaerobic organisms from the upper genital tract.

Cephalosporin of choice: The optimal choice is unclear. Cefoxitin, a second-generation cephalosporin, has better anaerobic coverage than ceftriaxone, and, in combination with probenecid and doxycycline, it has been effective in achieving short-term clinical response among women with PID. Ceftriaxone has better coverage against *N. gonorrhoeae***.** The addition of metronidazole to these regimens provides extended coverage against anaerobic organisms and will also effectively treat *bacterial vaginosis*, which is frequently associated with PID.

In-patient treatment: Hospitalization is required in the following conditions:

1. Surgical emergencies cannot be excluded
2. Tubo-ovarian abscess
3. Pregnancy
4. Severe illness, nausea, and vomiting, or oral temperature >38.5°C (101°F)
5. Unable to follow or tolerate an outpatient oral regimen
6. No clinical response to oral antimicrobial therapy

Other Management Considerations include sexual abstinence until therapy is complete, symptoms have resolved, and sex partners have been treated

Follow-Up

If no clinical improvement has occurred <72 hours after outpatient IM or oral therapy, then hospitalization, assessment of the antimicrobial regimen, and additional diagnostics, including consideration of diagnostic laparoscopy for alternative diagnoses, are recommended

All women who have received a diagnosis of *chlamydial* or *gonococcal* PID should be retested 3 months after treatment, regardless of whether their sex partners have been treated. If retesting at 3 months is not possible, these women should be retested whenever they next seek medical care <12 months after treatment.

Management of Partners

Persons who have had sexual contact with a partner with PID during the 60 days of preceding symptom onset should be evaluated, and presumptively treated for *chlamydia* and *gonorrhea*, regardless of the PID etiology or pathogens isolated. If the last sexual intercourse was >60 days before symptom onset or diagnosis, the most recent sex partner should be treated.

Pregnancy

Pregnant women suspected of having PID are at high risk for maternal morbidity and preterm delivery. These women should be hospitalized and treated with IV antimicrobials in consultation with an infectious disease specialist.

Intrauterine Devices (IUD)

The risk for PID associated with IUD use is primarily confined to the first 3 weeks after insertion. If an IUD user receives a diagnosis of PID, the IUD does not need to be removed. However, the woman should receive treatment according to these recommendations and should have a close clinical follow-up. If there is no clinical improvement within 48–72 hours, consider removing IUD.

Summary

Treatment of PID should be initiated as soon as the presumptive diagnosis has been made because prevention of long-term sequelae is dependent on the early administration of recommended antimicrobials.

Reference

1. Workowski KA, Bachmann LH, Chan PA, Johnston CM, Muzny CA, Park I, et al. Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR Recomm Rep. 2021 Jul 23;70(4):1-187.

Prenatal Surgical Interventions

Vatsala Dadhwal
All India Institute of Medical Sciences, New Delhi

Fetal therapy is a teamwork of maternal fetal medicine specialist, obstetrician, genetist, neonatologist and various paediatric subspecialities. There are now changing trends of fetal therapy from mere concept to viable treatment modality in from of anatomical repairs to ultrasound guided procedures, fetal endoscopy. Fetal therapy can be medical or surgical. Medical treatment is transplacental and sometimes direct fetal therapy. Examples of transplacental medical therapy are, fetal lung maturity via corticosteroid administration. Treatment modality for fetal infections, fetal thyroid disorders, congenital heart block and fetal arrythmias. However, problem with medical therapy is, there is no standard dosing, maternal side effects. Another modality of fetal therapy and most successful till date is intrauterine transfusion for various causes of fetal anaemia most commonly Rh isoimmunised pregnancy, others are - parvo virus infections and inherited red cell disorders. Survival after intrauterine transfusion is over 95% with as little as 2.97% procedure related complications. In management of complicated monochorionic twin pregnancies like, in twin to twin transfusion syndrome, fetscopic laser photocoagulation of vascular anastomosis improves survival of both and single twin. Selective fetal reduction by various cord occlusion techniques, like Radiofrequency ablation or bipolar cord coagulation are used for TRAP, improving the survival of normal fetus from 55% to almost 90%. Fetal therapy is also being used in form of shunts for various renal and thoracic lesions. In fetuses with severe congenital diaphragmatic hernia the survival almost doubles after minimally invasive fetoscopic tracheal occlusion using a balloon.

Open fetal surgeries are rarely used, with renewed interest after MOM's trial showed improved outcomes after inutero meningomyelocele repair. Ex utero intrapartum therapy (EXIT) for CHAOS and severe micrognathia has also shown promising results as it converts emergent crisis into a more controlled situation.

In conclusion some conditions are amenable to successful treatment in utero using a multidisciplinary team approach. Being invasive procedures, they are associated with complications like PTL, PPROM and fetal loss.

Competition Papers

Endocervicoscopy for Evaluation of Transformation Zone in Cases of Incomplete Colposcopy

Guneet Kaur, Vijay Zutshi, Sachin Kolte
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To evaluate the role of endocervicoscopy for visualization of transformation zone (TZ) in incomplete colposcopy.

Methods: This descriptive analytical study was carried out between October 2019 and March 2021 (18 months) after obtaining ethics committee approval. A total of 92 women were recruited in the study after obtaining a written informed consent. All screen positive women and those having unhealthy looking cervix on colposcopy with TZ type 3, were included in this study. Endocervicoscopy was performed in all women by vaginoscopic approach, using a 4mm continuous flow hysteroscope. The endocervical curettage was taken in all cases and sent for histopathological examination and patients were managed as per this histopathology report. Sensitivity, specificity, PPV, NPV of colposcopy and endocervicoscopy was calculated. P<0.05 was considered statistically significant.

Results: The mean age was 43.76 ± 13.02 years and most women had parity ≥3 (48.9%). Endocervicoscopy has a success rate of 100% for visualization of TZ completely. There were 28 women where colposcopy was normal but 5 out of these 28 women (17.8%) had findings on endocervix. Out of these 5 women, 3 were screen positive on pap smear (1 LSIL, 1 SCC, 1 AGC) and 2 had unhealthy looking cervix. In total there were two skip lesions in our study. The sensitivity, specificity, PPV, NPV and diagnostic accuracy of colposcopy was 95.6%, 56.5%, 68.7%, 92.8%, 76.1% and endocervicoscopy was 100%, 80.5%, 58.8%, 100%, 84.8% respectively.

Conclusions: Endocervicoscopy is a reliable method to detect the transformation zone in patients with TZ type 3 with a success rate of 100% and a short learning curve. Skip lesions can be detected and the precise localization of the lesions allows for the depth of cone excision to be tailored, thus leading to a more conservative treatment and preserving the future fertility of women.

A Novel Technique of Vagino-Hysteroscopy Using Alginate Gel Interface: A Proof of Concept Study

Kalra K, Jain S, Rajaram S, Gupta B, Singla A
University College of Medical Sciences
and GTB Hospital, Delhi, India

Objective: No-touch approach is the new standard for hysteroscopy. Most failures are reported due to cervical stenosis and suboptimal visualization due to irrigation fluid leakage. Our objective was to compare the feasibility of vagino-hysteroscopy using a novel bio-friendly device called Alginate Gel Interface (VAGI) with conventional vaginoscopic hysteroscopy (CVH).

Methods: In this proof of concept study, thirty women requiring diagnostic vagino-hysteroscopy were randomly allocated to two groups. In Group I (VAGI), an occluder made up of alginate was used at the introitus to facilitate hydrodistension. Group II underwent hysteroscopy by no-touch technique and manual closure of labia where necessary. Primary outcome was feasibility, defined as successful introduction of hysteroscope through cervical canal and visualization of uterine cavity. Secondary outcomes included operative time, hydrostatic pressures for optimum visualization, pain experienced by patient on VAS, maneuverability and surgeon satisfaction. Data analysis was done using Chi-square test and Fisher Exact Test for qualitative variables and Student's t-test for quantitative variables.

Results: VAGI was significantly more successful than CVH (80% vs 33.3%; RR 8, CI 1.45–8.93, p= 0.025). In Group I, optimum visualization was achieved at significantly lower pressures at all levels [vagina (p= 0.034), cervix (p= 0.01), uterus (p<0.001)]. Total operative time (p=0.007) and irrigation fluid required (p<0.001) were lesser in Group I than Group II. The two approaches did not differ in pain scores (p=0.267) and maneuverability (p=0.317). Surgeon satisfaction was significantly higher for VAGI (p=0.009). Alginate was well tolerated by all women. Subgroup analysis showed higher likelihood of success of VAGI across all subgroups but difference was statistically significant for women who were premenopausal (p=0.015), <45 years (p=0.024) and had history of vaginal birth (p=0.03).

Conclusions: VAGI is more successful, quicker and provides optimum visualization at much lower hydrostatic pressures than CVH. Use of alginate is patient friendly and also yields higher surgeon satisfaction rate.

Procalcitonin and Highly Sensitive C-Reactive Protein as Predictors of Severe Features in Pregnancy Induced Hypertension

Mourya P, Suri J, Rani A
VMMC and Safdarjung Hospital, New Delhi

Background: Pregnancy induced hypertension (PIH) affects about 5-10% of pregnant women and is one of the leading causes of maternal morbidity and mortality. Systemic maternal inflammatory response is proved to be enhanced in pre-eclampsia in various studies. Early identification of inflammatory marker such as procalcitonin (PCT) and highly sensitive C reactive protein (hs-CRP) may help in prediction of severe pre-eclampsia which can prevent its serious complications.

Objectives: To determine the role of hs-CRP and procalcitonin for prediction of the severe features in pregnancy induced hypertension.

Methods: 85 pregnant women with gestational age between 28 to 35 weeks with hypertension diagnosed after 20 weeks were included in the study group and 85 pregnant women with normal blood pressure taken as control. PCT and hs-CRP level was measured in all at the time of recruitment. These women were followed during the antenatal period and till time of discharge for development of severe features. Cut off value and the predictive ability of PCT and hs-CRP for developing severe features was determined.

Results: SBP & DBP significantly correlated with hs-CRP and PCT (p=<0.001). Procalcitonin and hs-CRP was elevated in PIH and even higher in patient with severe features (p<0.001 and p<0.009 respectively). At a cutoff ≥7.65 mg/L, hs-CRP predicted severe features of PIH with a sensitivity of 52.8%, and a specificity of 83.7%. At a cutoff ≥0.074 ng/mL, PCT predicted severe features of PIH with a sensitivity of 83.3%, and a specificity of 75.5%.

Conclusion: PCT and hs-CRP are useful markers for prediction of severe features in women with preeclampsia.

Comparison of Adnex Model with Gi-Rads Ultrasonic Scoring System in Evaluation of Adnexal Mass

Yasmin, Bindiya Gupta, Shalini Rajaram
Anupama Tandon, Priyanka Gogoi
University College of Medical Sciences & GTB Hospital, Delhi

Objective: To evaluate and compare the diagnostic accuracy of Assessment of Different Neoplasias in the Adnexa (ADNEX) Model and Gynecology Imaging Reporting and Data System (GI-RADS) in preoperative assessment of adnexal masses taking histopathology as gold standard.

Methods: In this analytical study, sixty patients more than 14 years of age undergoing surgery for adnexal masses were assessed with transabdominal and transvaginal ultrasound 2-3 days prior to surgery. In cases were surgery was not possible, biopsy was performed to confirm histology. Pregnant women, women with previously established ovarian pathology were excluded. Score probability of the Assessment of Different Neoplasias in the Adnexa (ADNEX) model and Gynaecology Imaging Reporting and Data System (GI-RADS) category was calculated based on the ultrasound parameters of adnexal mass.

Results: For ADNEX model sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy was 91.30%, 89.66%, 87.50%, 92.86% and 90.38% respectively. The diagnostic performance of GI-RADS category in terms of sensitivity, specificity, PPV, NPV and accuracy was 95.65%, 62.07%, 66.67%, 94.74% and 76.92% respectively. Overall the diagnostic performance of ADNEX model was better compared to GI-RADS in terms of specificity and positive predictive value with significant difference ($p<0.05$). The Area under curve (AUC) was 0.9685 and 0.9250 for ADNEX and GIRADS respectively ($p=0.124$).

Conclusion: To conclude, both ADNEX and GI-RADS system had satisfactory diagnostic performances and high negative predictive values. However, the ADNEX model showed better specificity and positive predictive value compared to GI-RADS.

Preovulatory Hysteroscopic Hydrotubation Prior to IUI in Unexplained Infertiliy: A Randomized Controlled Trial

Garima, Pandey D, Mittal P, Suri J
Vardhaman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To study the effect of preovulatory hysteroscopic hydrotubationdone prior to intrauterine insemination(IUI) on conception rate in women with unexplained infertility.

Methods: This was a prospective, open-labelled randomized controlled study done on 116 women with unexplained infertility undergoing IUI. The recruited women were randomly assigned to study and control groupbased on computer generated random number table. Ovulation inductionwas started as per protocol.Women underwent transvaginal sonography (TVS) till they achieved 2–3 dominant follicles of size ≥17–18 mm and endometrial thickness of ≥7 mm. Preovulatory hydrotubation was carried out with office hysteroscope (vaginoscopic method) using normal saline as distention mediaon the day of trigger in the study group while hydrotubation was not done in control group. Hydrotubation was confirmed by presence of free fluid in Pouch of Douglas on TVS, immediate post-hysteroscopy. Pain VAS scores were noted for women in study group undergoing hysteroscopy and compared with VAS score during HSG. After 36-38 hours of ovulation trigger, IUI was carried out. The two groups were compared for the conception rate (confirmed by UPT) after two weeks of IUI. Data was analysed using SPSS version 23.0.

Results: The mean pain VAS score during hysteroscopy was 0.66±0.5 in comparison to 3.36±0.66 during HSG which was significantly less ($p<0.001$). The conception rate was 21.31% in pertubation group than non-pertubation group 7.27% which was significantly higher ($p=0.038$).

Conclusions: Hysteroscopic hydrotubation improves the pregnancy rate when done in pre-ovulatory phase during an IUI cycle in women with unexplained infertility.

Expression of Epithelial Mesenchymal Transition Markers E-Cadherin and Vimentin in Squamous Cell Carcinoma of Cervix

P Singh, S Malik, C Ahluwalia
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objectives: To see the expression of epithelial mesenchymal transition (EMT) markers E-cadherin and vimentin in cervical cancer. To correlate the immunohistochemical expression of these markers with grade of cervical cancer.

Methods: An observational cross-sectional study was conducted on 1148 women attending gynaecology OPD with various complaint (bleeding p/v, discharge p/v, postcoital bleeding, irregular menses, dyspareunia) & they were screened for carcinoma cervix. In 39 cases obvious growth was seen & direct biopsies were taken. In rest of the women PAP/VIA was done and those found to be positive, they were sent for colposcopy where colposcopic directed biopsies were taken. Total 61 cases were found to be positive. Biopsy specimens (n=50) were sent for histopathology examination (HPE). Eleven out of 61 were found to be invasive carcinoma [squamous cell carcinoma (SCC)] & remaining cases showed various grades of CIN. Immunohistochemical (IHC) staining for EMT markers as done if HPE report was positive. If IHC staining showed positivity then immunoreactivity (IR) score was calculated for EMT markers.

Results: Out of 50 cases of carcinoma cervix, 13 were well differentiated, 17 were moderately differentiated & 20 were poorly differentiated. With increasing grades of carcinoma cervix, there is reduced expression of E-Cadherin, an epithelial marker and increased expression of vimentin, a mesenchymal marker and this was statistically significant (p value <0.001).

Conclusion: These EMT marker's expression can be used as a prognostic marker in cervical cancer that are in high risk of progression. This acquisition of markers of mesenchymal phenotype might help in predicting the aggressive behaviour of malignant tumours.

Comparison of Quality of Antenatal Care Delivered Using a Web Based Mobile Application as Compared to the Standard Care Protocol: A Randomised Controlled Trial

S Soni, S Sharma, S Kaushik, V Dadhwal
K A Sharma, D Sharma
All India Institute of Medical Sciences, New Delhi, Indian Institute of Technology, Roorkee, Uttarakhand

Objective: The objective of this study was to follow a group of antenatal women using an interactive web-based mobile application based on the new WHO model and compare that to the conventional method being used in terms of the content of antenatal care, patient satisfaction and the feasibility of using a mobile application as a means of follow up.

Methods: A prospective open label randomized controlled trial was carried out; all patients with a singleton/twin pregnancies with access to a smartphone, booked in the first trimester were recruited after taking due consent. The study population was followed up till delivery according to the WHO 8 visit protocol using the mobile application while the control group was followed up in the conventional manner. The assessment was carried out at three time periods- after first visit, at 24 weeks and 36 weeks, using a questionnaire.

Results: 71 cases and 72 controls were followed up; baseline demographic details being comparable between the two groups. Cases had a higher number of antenatal visits (7 ± 1.54) as compared to the controls (5.70 ± 1.77) ($p<0.001$), along with increased compliance to the WHO protocol ($p<0.001$). Various components of history taking, examination, investigations done and counseling provided were evaluated as components of content of antenatal care. The cases fared better than the controls in terms of provision of these services. The required antenatal investigations were performed in a higher proportion of the cases compared to the controls (73.2% vs 41.6%; $p<0.001$). Higher mean satisfaction score was seen among the cases (4.45 ± 0.49) as compared to the controls (3.88 ± 0.59) ($p<0.001$).

Conclusion: This study demonstrated the utility of an m-health application in improving the quality of antenatal care provided and facilitating standardized ANC visits resulting in a "positive-pregnancy experience".

Effects of Maternal Exposure to Air Pollution Particulate Matter <2.5 Micrometer (Pm2.5) On Birth Weight

Kritika Agnihotri, Kiran Guleria, Himsweta Srivastava
University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi

Objectives: Prenatal exposure to a variety of air pollutants like particulate matter ($PM_{2.5}$) makes a fetus is susceptible to growth restriction, low birth weight, preterm birth, stillbirth and malformations. Objective of this study was to estimate ambient and personal exposure - response relationship of prenatal exposure to air pollutant $PM_{2.5}$ on birth weight.

Methods: This prospective experimental study included forty-four women with singleton, low risk pregnancy <15week gestation at recruitment. Participants wore two personal sensors (Airspeck-P, for real time exposure levels and RESpeck for breathing and physical activity) for a continuous period of 24 hours in each trimester. Two stationary sensors (Airspeck-P) were placed, one in participant's house and one outside for ambient $PM_{2.5}$ exposures during same period. Serial scans were done for fetal growth and birth weight recorded. The personal and ambient $PM_{2.5}$ exposures were correlated with birth weight.

Results: With increase in $PM_{2.5}$ exposure, birth weight decreased proportionately [correlation coefficient -0.053 for personal (p-value 0.851), -0.324 for residential (p-value 0.259), -0.505 for ambient (p-value 0.094)]. The correlation was strongest for second trimester personal exposure (correlation coefficient -1.0).

Conclusion: $PM_{2.5}$ exposure during pregnancy is associated with low birth weight. Thus, it is crucial to adopt strategies to reduce the personal and ambient air ($PM_{2.5}$) pollution exposure of mothers to save the future generation.

Evaluation of Efficacy and Feasibility of Implementation of Enhanced Recovery after Surgery (ERAS) Protocol in Women Undergoing Gynaecological Surgery

A Heda, R Mahey, R Subramaniam, R Kumari, P Vanamail
G Kachhawa, J Natarajan, V Kulshreshtha, N Bhatla
All India Institute of Medical Sciences, New Delhi

Objective: To compare the efficacy and feasibility of ERAS protocol versus conventional approach in perioperative management of women planned for benign and malignant gynaecological surgeries.

Methods: This prospective randomized interventional study recruited 80 patients undergoing elective gynaecology/ oncologic surgery through laparotomy. Exclusion criteria were: uncontrolled systemic disease, morbid obesity, previous history of ≥2 abdominal surgeries. Adherence to 21/22 components was termed compliance. An additional 10 patients were recruited in ERAS group to account for protocol deviations.

Results: Out of 90 subjects, 50 were assigned to ERAS and 40 to conventional group. Both groups were comparable in baseline parameters including anaesthesiological risk and complexity of surgical procedures. Forty-two subjects (46.7%) underwent surgery for benign disease and 48 (53.3%) for malignancy. Mean compliance to the ERAS protocol was 91.3%. The ERAS group had an earlier time to tolerance of diet and passage of flatus and stools was noted with no difference in complication or 30-day readmission rate. Length of hospital stay was significantly lower (P=.035) for ERAS compared to conventional group (3.8±1.6 days versus 4.5±1.4 days), mainly contributed by subjects with malignancy (P=.028). Better pain scores, patient satisfaction rate, quality of life (WHO-QOL BREF) and quality of recovery (QoR-15) were found in ERAS group.

Conclusion: Patients undergoing more complex oncological procedures benefit the most by implementation of ERAS pathways. Its components may be modified according to patient characteristics, surgeon/anaesthesiologists' discretion and hospital logistics available without affecting the overall outcomes, to make it more pragmatic and suitable for use in low- and middle-income countries.

Free Communication

Oral Paper Presentation

Session 1

Date: 15th November, 2021 | **Time:** 09:00 am - 10:00 am

To Evaluate the Level of Adiponectin to Leptin Ratio as a Diagnostic Marker in Women with PCOS and its Association with Insulin Resistance

Pragya Kumari Mishra, Rekha Bharti, Pratima Mittal
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: Polycystic ovary syndrome (PCOS) is the most common reproductive disorder affecting 15-18% of women of reproductive age. The mechanism linking PCOS to metabolic abnormality is not completely understood. Adipokine ratio (Adiponectin to Leptin ratio) is implicated as a stronger indicator of insulin resistance (IR) than individual adipokines, and is speculated as a measure of IR and a marker of PCOS.

Objective: To evaluate Adiponectin, leptin and Adiponectin to Leptin ratio (A/L ratio) in women with PCOS and find out its association with insulin resistance.

Methods: This was a Cross sectional study conducted at outpatient clinic of Department of Obstetrics and Gynaecology in collaboration with department of Biochemistry, Safdurjung Hospital, New Delhi. Total of 120 women were recruited, 60 women with PCOS and 60 women without PCOS who presented after the index case in OPD. Fasting blood sugar, OGTT, Fasting serum Insulin, and Serum levels of Adiponectin and Leptin levels were measured. Insulin resistance was calculated by HOMA-IR.

Results: PCOS women had significantly lower serum Adiponectin & higher serum Leptin level and lower Adiponectin to Leptin ratio compared to non PCOS women, 2.15±3.07 ng/ml vs 10.7±27.91 ng/ml, p <.0001, respectively. There was no significant correlation found between A/L ratio with insulin resistance.

Conclusion: The levels of serum Adiponectin, leptin, A/L ratio are altered in PCOS women however, there's no correlation of A/L ratio with insulin resistance.

Effect of Metformin Therapy on Serum Fractalkine Levels in Polycystic Ovarian Syndrome: A Pilot Study

Ritam Kumari, Alpana Singh, B D Banerjee
Chander Grover, Kiran Guleria
University College of Medical Sciences and
Guru Teg Bahadur Hospital, Delhi

Objectives: To estimate and compare serum Fractalkine and serum hs-CRP levels before and after metformin therapy in PCOS patients.

Methods: Women with PCOS (n=30) were recruited from Gynaecology OPD and Dermatology OPD. Three millilitres of blood sample was collected before starting metformin therapy. Serum Fractalkine and serum hs-CRP levels were measured. The study subjects were then started on Tab Metformin 500 mg OD for one week followed by 500mg BD for one week followed by Tab Metformin 500mg TDS for next 4 months.

Results: We observed a fall in serum Fractalkine levels in study population (n=30) post metformin therapy, from pre therapy values of 0.52±0.29 to 0.38±0.21 ng/ml which was found to be statistically significant (p value 0.001). Similarly fall in hs-CRP levels was also recorded in pre and post therapy values from 0.71±0.37 to 0.58±0.27ng/ml, which was also statistically significant (p value 0.016). This study also showed improvement in clinical parameters (hirsuitism, acne, acanthosis, BMI) after metformin therapy along with a significant fall in insulin resistance parameters.

Conclusion: PCOS is a low grade chronic inflammatory state. The long existing chronic inflammation leads to development of insulin resistance further leading to hyperinsulinemia and hyperglycemia. Metformin therapy by correcting insulin resistance, corrects hyperinsulinemia and hyperglyemia. This leads to reduction in production of reactive oxygen species, ameliorating chronic inflammation. In present study shown by decreased levels of serum fractalkine and serum hs-CRP levels, along with fall in insulin resistance parameters.

Association of Anogenital Distance with PCOS

Ravi M, Batra A, Chawla A
Vardhman Mahavir Medical College and
Safdarjung Hospital, New Delhi

Objectives: To find if anogenital distance can be used as a surrogate marker for presence of PCOS. To measure and find the association of anogenital distance in women with PCOS and controls without PCOS and find the association of anogenital distance with the different phenotypes of PCOS.

Methods: Study population consisted of nulliparous women above age of 18 who attended the gynaecology OPD. Case group included those participants diagnosed with PCOS according to Rotterdam criteria and control group included those with regular menstrual cycles without hyperandrogenism clinically. Women with endocrine disorders, androgen excess disorders, genitourinary prolapse, perineal surgeries were excluded. Anogenital distance (AGD) from anus to clitoris (AGDac) and anus to fourchette (AGDaf) for cases and controls were measured and analysed.

Results: Mean AGDaf of cases was 31.28 ± 6.24 mmand of controls was 31.38 ± 4.62 mm (p value= 0.4681). Mean AGDac of cases was 78.44 ± 8.58 mm and of controls was 76.77 ± 7.87mm (p value= 0.2221). Mean ratio of AGDac/AGDaf of cases was 2.58 ± 0.5 and of controls was 2.49 ± 0.39 (p value= 0.2196). There was no significant difference in the parameters of AGD with PCOS. After classifying into NIH phenotypes A, B, C, and D constituted 25%, 6%, 4% and 65%, respectively. There was no significant difference in any of the parameters among the different phenotypes of PCOS.

Conclusion: Majority of PCOS women had AGDac in higher quartile compared to controls and higher number of women

with PCOS had ratio of AGDac/AGDaf ≥3, but the difference was not statically significant. Therefore, in this study, the hypotheses that anogenital distance can be used as a surrogate marker for presence of PCOS could not be proved.

Comparison of Depression, Anxiety and Quality of Life in Women with Infertility Due to Polycystic Ovarian Syndrome Versus Unexplained Infertility

Kamna Kataria, Garima Kapoor
Vardhman Mahavir Medical College and
Safdarjung Hospital, New Delhi

Objectives

Primary Objectives: To find and compare the occurrence and severity of anxiety & depression in women with infertility due to PCOS versus unexplained infertility. To determine the impact of psychiatric morbidity on the QOL.

Secondary Objectives: To determine if any correlation exists between PCOS phenotypes and anxiety/depression.

Methods: It was a cross-sectional, observational study. This study was conducted from October 2019 to March 2021, completed over the duration of 18 months.

Study Population: Women in the reproductive age group (21-40 years) attending Infertility Clinic and who met the eligibility criteria. 120 women with infertility due to PCOS and 100 women with unexplained infertility were recruited.

Methodology: Detailed history and examination was done. Biochemical investigations were sent. Psychiatric assessment was done by the PRIME-MD PHQ questionnaire, Beck depression inventory, Beck anxiety inventory and WHOQOL Brefquestionnaire. Women in the PCOS Group were further divided into different Phenotypes. Statistical analysis was done.

Results: Among PCOS group, 60% were suffering from a depressive syndrome (BDI: 15% had borderline clinical depression, 44.17% had moderate depression). In women with unexplained infertility (UI), 14% had a depressive syndrome according to the PRIME-MD PHQ scoring (BDI: 1% had borderline clinical depression, and none had moderate depression). Total prevalence of anxiety in PCOS group was more i.e. 63.33% (30.83% had moderate anxiety; GAD-7) as compared to UI group, 21% (none had moderate or severe symptoms). PCOS group had poorer quality of life (mean score of 66.84%) than UI group (mean score of 85.1%). (WHOQOL-Bref). Conclusion: Phenotype B and C had more prevalence of depression and anxiety.

Comparison of Letrozole Alone with Letrozole and HCG on Pregnancy Rate in PCOS Women with Anovulatory Infertility: A Randomised Controlled Trial

Neeraj Jindal, Manju Puri, Pikee Saxena
Lady Hardinge Medical College, and
Smt Sucheta Kriplani Hospital, New Delhi

Objectives: To study whether adding HCG to letrozole for ovulation induction increases the pregnancy rate in anovulatory infertile PCOS women.

Primary Objective: To compare the pregnancy rate in anovulatory infertile PCOS women treated with letrozole alone to letrozole with HCG.

Secondary Objective: To compare the D21 serum progesterone levels and luteal phase length in both groups.

Methods: 76 Women were randomly divided into two groups: Group A and Group B. Group A received letrozole alone and Group B letrozole with HCG trigger. Letrozole in the dose of 2.5 mg/day orally starting on D3 of menstrual cycle for 5 consecutive days given to both groups and Group B received 5000 IU of HCG injection along with letrozole at a follicle size of >18mm and pregnancy rates were compared in these two groups.

Result: In present study, overall ovulation rate was 80.2% and pregnancy rate was 34.4%. In our study, the pregnancy rate in letrozole only group was 33.3% and letrozole + HCG was 35.4% and there was no difference in the pregnancy outcome in both groups(p=0.5912). Also, there was no significant difference in the progesterone levels (D21) and luteal phase length in both groups.

Conclusion: Addition of HCG to letrozole ovulation induction does not appear to improve pregnancy rates and D 21 progesterone levels in anovulatory infertility in PCOS women during natural intercourse advised cycles. Thus, either intercourse on alternate days from Day 12 of the cycle or timed intercourse after HCG injection would not result in significant difference in pregnancy rates. Moreover it will increase the cost of treatment and stress and number of visits to the hospital to the patient.

Study of Obstetrics and Gynaecological Emergencies in COVID Time

Vaishali Suraiya, Divya Pandey, Sumitra Bachani
Rekha Bharti, Jyotsana Suri
Vardhaman Mahavir Medical College and
Safdarjung Hospital, New Delhi

Background: The problems of the adolescent period, which is beginning of the adulthood, needs to be known catered for a better reproductive health.

Objectives: To evaluate the gynaecological and obstetrics problems in adolescents female presenting in emergency.

Methods

Methodology: This retrospective observational study was done over six months on 221 Adolescent females (10-19 years) presenting in the Gynae emergency room. The details including clinical presentation and management was noted and categorised into obstetrics and gynaecological emergencies. The data was compiled and analysed statistically.

Results: Out of 221 adolescent females, 36.2% presented with gynaecological complaints while 63.8% came with obstetrics problems. Among obstetrics problems 18.4% presented with true labour pain, 16.3% with abortions which included threatened, incomplete and complete abortions, 9.9% with preterm labour pains, 8.5% with preterm rupture of membranes (PROM), 8.5% with postdatism, 6.3% with increased B.P records which included preeclampsia with and without severe features and gestational hypertension, 5.6% with anaemia, 3.5% with antepartum haemorrhage, 2.8% ectopic pregnancies, 2.1% with FGR and 2.1% with oligohydramnios. 4.9% presented postnatal which included

outside delivery, vaginal tear, severe anaemia and retained placenta. Among 80 adolescent females with gynaecological problem 19.9% had menstrual abnormalities, 17.7% had ovarian mass and rest presented with problem for which MLC was made.

Conclusion: There is need to focus on health of adolescent female in order to have a healthy adulthood.

Session 2

Date: 15th November, 2021 | **Time:** 10:00 am - 11:00 am

Association between Chlamydia Trachomatis Infection and Recurrent Pregnancy Loss

Shaheen, Upma Saxena
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: Chlamydia trachomatis infection is widely prevalent, sexually transmitted infection. It is found to be associated with Pelvic inflammatory disease, salpingitis, infertility and various adverse pregnancy outcomes like pre-term labor, premature rupture of membranes, spontaneous miscarriage. To be specific with role of Chlamydia trachomatis with recurrent pregnancy loss, many studies show conflicting results with no association of C. Trachomatis with recurrent pregnancy loss and also some studies show strong association of Chlamydia Trachomatis with recurrent pregnancy loss.

Objective: To determine association of Chlamydia trachomatis with recurrent pregnancy loss by comparing prevalence of Chlamydia Trachomatis infection in women with and without recurrent pregnancy loss.

Methods: This observational case control study was undertaken from November 2019 to September 2021 in department of Obstetrics and Gynecology, VMMC and Safdarjung Hospital. Total 200 participants were recruited which were further divided into- Study group- 100 participants with history of recurrent pregnancy loss. Control group- 100 participants with history of successful pregnancy outcomes and no history of miscarriage. ELISA was performed on serum of all participants to detect prevalence of anti-Chlamydia Trachomatis IgG antibodies. And PCR was performed on urine of all participants to determine prevalence of Chlamydia Trachomatis. Prevalence of C. Trachomatis compared in both the groups to determine association of C. Trachomatis infection with recurrent pregnancy loss. T test used to compare quantitative variables and chi square test was performed to compare qualitative variables P value.

Results: Prevalence of C. Trachomatis by PCR was found to be 17% in cases and 0% in control with a significant difference of p value 0.0001. Similarly, prevalence of C. Trachomatis by ELISA found to be 22% in cases and 4% in control group participants with a significant difference of p value-0.0001. Thus C. Trachomatis infection was found to be significantly higher in patients with history of recurrent pregnancy loss in comparison to those with no history of recurrent pregnancy loss.

Conclusion: This study showed a significant association of C. Trachomatis infection with recurrent pregnancy loss. Screening and treatment of pregnant women for this infection may be beneficial to prevent this adverse effect.

Cord Blood Parameters and Fetal Outcome in Cases with Meconium Staining Liquor

Rubab Aafreen, Anjali Dabral
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To analyse and compare the mode of delivery, cord blood parameters and fetal outcomes in cases diagnosed with different degrees of meconium staining liquor.

Methods: An observational study was carried out on 76 labouring patients presenting to the labour room of our hospital in the active stage of labour with term, singleton pregnancy with cephalic presentation diagnosed with meconium staining liquor (MSL). The consistency of liquor was noted as either thin or thick. The cases recruited were followed up for the mode of delivery (normal vaginal delivery, instrumental delivery or caesarean section), fetal cord blood parameters immediately after birth (cord blood pH and lactate) and the neonatal outcome (in terms of APGAR score, need for assisted ventilation, NICU stay or early neonatal death). The mode of delivery, cord blood parameters and neonatal outcomes of thin and thick MSL were compared.

Results: 39 cases were diagnosed with thin MSL. Of these 39 cases, maximum (74.4%) delivered by a normal vaginal delivery. Also, 76.9% cases had a normal cord blood pH and 82.1% had a normal cord blood lactate. The neonatal outcome was favourable in this group with only 5% cases with an APGAR score <7, 2.6% cases requiring assisted ventilation and 5.1% cases requiring NICU admission.(p value <0.001). 37 cases had thick MSL. LSCS rate was highest in this group (i.e.48.6%). Only 8.1% had a normal cord blood pH while 24.3% cases had a normal cord blood lactate. The neonatal outcomes were as follows- 24.3% had an APGAR score < 7, 43.2% required assisted ventilation, 43.2% required NICU admission and 13.5% had an early neonatal death (p value < 0.001).

Conclusion: Thin MSL should be closely monitored and can be followed up for normal vaginal delivery.

Preoperative Clinical Evaluation of Caesarean Section Scar and its Correlation with the Intraoperative Findings of Caesarean Section

Sukanya Sanapala, Anita Kumar, H P Anand
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: Caesarean section (CS) is one of the most common obstetric procedures worldwide. CS at maternal request and repeat caesarean section are most avoidable factors for raising caesarean section rate. Foetomaternal complications associated with repeat caesarean section is an important health problem worldwide. Vaginal birth after caesarean section (VBAC) is preferred in order to reduce these risks. VBAC has risk of scar dehiscence and rupture. There is no reliable objective method for decision making regarding mode of delivery in patients with previous caesarean section, Due to which it is possible that patients are taken up for caesarean section at the slightest indication leading to decrease in rate of successful VBAC. In this study clinical parameters pulse rate, scar tenderness, abdominal

scar parameters are taken to know the integrity of the scar and compared with the intraoperative findings, it will be easier and can be used in low resource settings too.

Objectives: Clinical evaluation of cesarean section scar preoperatively and intraoperatively and correlation of both of the characteristics.

Methods: This was a cross-sectional observational study. Assuming the prevalence of repeat LSCS to be 50% in pregnant females presenting hospital, with 95% confidence level (alpha = 5%) and absolute error 10%, and considering a non response rate of 10%, a sample size of 378 was calculated.

Result: 378 women with previous LSCS who are undergoing repeat caesarean section were recruited for the study. Preoperative maternal tachycardia was found in 20.63% of total females. Scar tenderness was present in 7.14% of the total cases. On per operative evaluation of scar 3.17% had grade 1, 84.92 % had grade 2, 11.11% had grade 3 scar and 0.79 % had grade 4 of scar. Scar tenderness was found to be significantly associated with scar dehiscence/ rupture. (P <0.0001).Of 378, 67% had no adhesions, 16% had flimsy adhesions and 27% had dense adhesions. Of all the abdominal characteristics studied, only depressed scar was associated with increased of both dense and filmsy intra- abdominal adhesions, of 77 women with a depressed scar, 23% had a frozen pelvis, compared with 2.4% of 301 who didn't have a depressed scar.

Conclusion: All women with previous LSCS should be strictly monitored for maternal tachycardia and scar tenderness during preoperative period. Development of any of these 2 parameters should raise a high index of suspicion of risk of scar dehiscence/ rupture. Women with depressed abdominal scar had more dense adhesions intraoperatively.

Efficacy and Safety of Low Dose Sublingual Misoprostol for Induction of Labour in Prelabour Rupture of Membranes beyond 34 Weeks: A Prospective Observational Study

Swati Dhar, Reena Yadav
Lady Hardinge Medical College
and Smt. Sucheta Kriplani Hospital, New Delhi

Background: Prelabour rupture of membranes (PROM) adversely effect fetomaternal outcome. This can be overcome by well timed labour induction, along with appropriate steroid cover and antibiotics. WHO currently recommends oxytocin as agent of choice in PROM. However Misoprostol may prove an effective alternative. Ease of sublingual administration would also promote patient comfort and prevent sepsis by decreasing number of per vaginum examinations.

Objective: To evaluate the effectiveness and safety of 2 5mcg sublingual misoprostol for induction of labor in patients with prelabour rupture of membranes beyond 34 weeks.

Methods: A prospective observational study was conducted on singleton live cephalic pregnancies from 34-40 weeks with PROM; excluding-congenital malformations, previous Caesarean section, antepartum haemorrhage, intrahepatic cholestasis of pregnancy, fetal growth restriction and maternal fever prior to induction. 25mcg of misoprostol was administered sublingually every 4h up to 5 doses according to uterine contractions, followed by oxytocin augmentation if needed. Main outcomes studied were vaginal deliveries within 24h, induction time-to-vaginal- delivery time, number of per vaginum examinations, hyper-stimulation syndrome, Caesarean section rate, APGAR and NICU admission rate.

Results: We studied 30 patients, 20 nulliparous and 10 multiparous women of which 8 were late preterm and rest 22 term pregnancies. 90% multipara and 86% primipara delivered vaginally within 24 h. Median induction -to-vaginal-delivery time was significantly shorter in multipara (9.5 h) than primipara (16 h) probably because of significantly better Bishop's Score in multipara. Caesarean section rate was 16.6% (25% in nullipara and 0% in multipara. Uterine hyper- stimulation occurred in 2 patients (6%), one resolved spontaneously and delivered while the other underwent Caesarean section. Number of PV examinations was significantly higher in primipara than multipara ie 1.8 versus 1. This still seems less compared to vaginal prostaglandins, promoting both patient safety (from sepsis) and comfort. 1 newborn had APGAR less than 7 and was admitted to NICU (1 d).

Conclusion: Sublingual misoprostol offers effective, safe, cost-effective and patient-friendly method for induction in TPROM and late PPROM in both primipara and multipara women. Further studies with larger sample size would further help in strengthening evidence regarding the same.

Role of Progesterone Levels in Prediction of Clinical Pregnancy in Cryo Embryo Transfers

Kagita Vasudha Bhargavi, Anjali Tempe
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Background: Infertility is a common problem affecting one couple in six. One percent of infertile patients need IVF or assisted reproductive techniques in some form. IVF success either in fresh or cycles or frozen cycles mainly depends on a)good embryos b) good receptive endometrium and c) technique of embryo transfer and lab work. Progesterone levels and estrogen priming are the main components of good luteal phase in the supplemented cycle in a frozen embryo transfer. However how much progesterone is required for good luteal phase is not clearly identified in the literature nor the levels.

Objective

1. To measure progesterone levels on the day of embryo transfer in cryo IVF cycle.
2. To correlate the same with the clinical pregnancy.

Methods: We performed a Prospective observational study from august 2019 to august 2021 for all women for cryo embryo transfer with a) prepared endometrium more than 6.5 mm and b) Atleast 2 good blastocysts or day 3 embryos for transfer are available.

Results: After taking fully informed consent, cryo ET cycles would be started on day 2 of menstrual cycle of patient. Progesterone levels on the day of embryo transfer measured and outcome of pregnancy noted after 14 days of transfer. It was observed that out of 40 embryo transfers, 16 women got UPT positive with mean progesterone levels as 59.21 ng/ml.

24 women got UPT negative with mean progesterone levels as 59.29 ng/ml.

Conclusion: The results showed that no statistical significance in progesterone levels between UPT positive versus negative patients.

To Study the Maternal Risk Factors for Fetal Growth Restriction in Preterm Births

Chinthalasai Charishma, Krishna Agarwal
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Background: Fetal growth restriction (FGR) refers to a condition where fetus has failed to achieve its genetically determined growth potential and this remains as one of the prime challenges in maternity care. The causes of FGR are heterogenous (maternal, placental, fetal or environmental). There are many maternal riskfactors that predispose to preterm and FGR independently. Very few studies have identified risk factors for combinations of preterm and FGR. Here we aim to find out whether risk factors for preterm FGR are different from the preterm non FGR.

Methods: It is a case control study in which a total of 204 subjects (102 cases and 102 controls) were analyzed. Singleton, live as well as still births that occurred between 28 weeks+0 days and 36 weeks+6 days of pregnancy were included in this study. FGR was defined as birth weight less than the 10th percentile as per INTERGROWTH 21 charts. Risk factors for preterm FGR were analysed by logistic regression analysis.

Results: The study revealed maximum number of cases (44.1%) belonged to age between 26 to 30 years. Logistic regression analysis identified four significant risk factors for preterm FGR; low socioeconomic status (OR 1.9), manual labour (OR 12.9), BMI.

Conclusion: The risk of preterm FGR is significantly increased by nine-fold when the mother has a low BMI. This may be a useful clinical tool to identify women at higher risk for having a preterm FGR baby at birth. Passive smoking and manual labour are the modifiable risk factors. Interventions to promote early attendance to ANC services, reducing poverty, educating to avoid smoking and manual labour may significantly decrease the burden of FGR and preterm birth.

Session 3

Date: 15th November, 2021 | **Time:** 11:00 am - 12:00 pm

Correlation of Serum Lipid Profile in Second Trimester with Adverse Pregnancy Outcome

Tanu Sharma, Shivani Aggarwal
Kasturba Hospital, Kalan mahal, Daryaganj

Objective: To estimate serum lipid profile during 2 nd trimester of pregnancy and evaluate the association of dyslipidemia during 2nd trimester with adverse pregnancy outcome as Pre eclampsia, Gestational Diabetes Mellitus, Preterm Birth, IHCP.

Methods: A prospective hospital based cohort study in which. 150 women attending the antenatal OPD of Kasturba Hospital were recruited after satisfying the inclusion criteria and lipid profile was analysed during the second trimester of pregnancy (LDL, HDL, VLDL, TC, TG). They were followed until delivery and all antenatal, natal and neonatal outcome were recorded. Women with serum lipid profile lying in dyslipidemia range were followed to look for adverse pregnancy outcome (Pre eclampsia, GDM, IHCP, Preterm birth) and association was determined.

Results: It was found that among 150 females, 9 females were found to have triglyceride levels beyond the normal range with an incidence of GDM(6.4%), preeclampsia (9.2%), preterm birth (10.6%), and IHCP (7.8%). 21 females were found to have LDL beyond the normal range, out of which the prevalence of GDM was found to be (38.1%), Preeclampsia (42.9%), preterm birth (38.1%) and IHCP (19%). Similarly the incidence of GDM (12.8%), preeclampsia (18.1%), preterm birth (16%) and IHCP (9.6%) was found in females with have serum cholesterol levels beyond the normal range.

Conclusion: The early stage of pregnancy is the main period during which pregnancy women experience endocrine and metabolic changes. It is also a critical period for placental formations and fetal development. Therefore, identification-of early markers of metabolic conditions that may adversely affect pregnancy outcomes is imperative. This identification can potentially lead to expeditious implementation of risk reduction intervention, ultimately improving maternal, fetal and neonatal health and resulting in effects that extend into adulthood and future generations. The determination of dyslipidemia during second trimester can help in effective risk reduction interventions and better follow up and monitoring to prevent the occurrence of adverse pregnancy and neonatal outcomes.

Comparison of Ultrasonographic Parameters with Modified Bishop Score in Predicting Outcome of Labour Induction

Neetika Pandey, Sangeeta Gupta
PGIMSR and ESIC, Basaidarapur, New Delhi

Objectives

1. To compare the predictive power of Bishops score with that of sonographic parameters.
2. To evaluate the sonographic parameters (cervical length, posterior cervical angle, and occipital position) in the prediction of successful induction of labour and vaginal delivery.
3. To determine the value of Bishop score in predicting successful induction of labour and vaginal delivery.

Methods: Prospective Observational study. Before induction of labor, transvaginal ultrasound is performed. The length of the cervix is measured from the internal os to the external os. The posterior cervical angle is measured with a protractor applied to a hard copy picture taken in a sagittal plane at the level of the internal os and approximated to the nearest 10°. For determination of the fetal head position the ultrasound transducer is first placed transversely in the suprapubic region of the maternal abdomen. The landmarks depicting fetal position are the fetal orbits for OP position, the midline cerebral

echo for occiput transverse (OT) positions and cerebellum or occiput for OA position. Cervical length and posterior cervical angle is measured using transvaginal ultrasound and fetal head position by transabdominal ultrasound. Digital examination of the cervix is performed by an obstetrician who is double blinded to the ultrasound measurements, and a score is assigned as per Modified Bishop score. Induction of labour is carried out. For the purpose of this study, successful labour induction is taken as vaginal delivery within 24 hours of induction.

Results: 125 patients were evaluated during the study period. Bishops and transvaginal parameters were compared and it was found that Bishops >2 have 98.13% sensitivity and 82.35% specificity. Cervical length 111 have 79.4% sensitivity and 99.1% specificity in predicting successful outcome of induction Occiput anterior position have been found to statistically significant in predicting mode of delivery.

Conclusion: Cervical length, Posterior cervical angle and Bishops scoring are more efficacious parameter in predicting outcome of labour after induction.

Changes in Doppler Parameters in Severe Fetal Growth Restriction and Its Association with Perinatal Outcomes in an Indian Tertiary Care Center

Neha Khatri, Krishna Agarwal
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, Delhi

Background: A fetus is labelled as small for gestation (SGA) when estimated fetal weight is less.

Methods: Prospective observational Study Group- Pregnant females with period of gestation between 28-34 weeks who are suspected to be small, growth lagging behind by 4 weeks or more on abdominal palpation, would be subjected to USG examination. Those who had abdominal circumference.

Results: The mean UA PI of the total population was found to be 0.96 ± 0.27. Umbilical artery absent and reversal of end diastolic flow was seen in 65 % of population. The mean time period between raised PI and AREDF was 1.2 weeks. The mean uterine artery PI of the total population was found to be 0.97 ± 0.37. The mean MCA PI of the total population was found to be 1.12 ± 0.37. Absent a wave in ductus venosus was seen in 3 cases and reversal was seen in 1 case. Umbilical vein pulsations were not seen in any case. Rest of the details will be discussed in conference.

Conclusion: Doppler changes in the umbilical artery, middle cerebral artery and ductus venosus give a fare idea about the placental functions and have been studied well. However mostly studies have looked at the cross-sectional data and there are only few studies which have looked at the serial changes in doppler parameters in pregnancies with severe FGR and to the best of our knowledge there is no study in Indian setting.

Fetal Middle Cerebral Artery Pulsatility Index as a Predictor for Failed Induction of Labour in Late Term Pregnancy

Vaishali Gautam, Harsha S Gaikwad
Vardhaman Mahavir Medical College
and Safdurjung Hospital, New Delhi

Objective: To correlate high fetal middle cerebral artery pulsatility index (MCA PI) in uncomplicated late term pregnancy with failed of induction of labour.

Methods: This prospective observational study was conducted on 70 women with uncomplicated late term pregnancy with period of gestation 40-41 weeks admitted for induction of labour. The enrolled women had undergone immediate preinduction ultrasound doppler. MCA PI values were noted for each enrolled women and then induction of labour was done with prostaglandin gel (PGE2) followed by oxytocin augmentation and followed till delivery. The outcome of induction was measured in terms of responders and non responders to induction of labour within 24 hours and the mode of delivery was noted.

Results: Out of 70 participants, 29 (41.4%) women achieved successful induction of labour within 24 hours of induction and 41 (58.5%) women do not respond to induction and had caesarean delivery due to failed induction. At a cut off value of MCA: PI ≤1.46, it predicts successful induction of labour with a sensitivity of 90% and a specificity of 78%, PPV and NPV of 74% and 91% respectively. Amongst 29responders, 22(75.8%) had normal vaginal delivery and 7(24.1%) had caesarean delivery because of some feto-maternal intrapartum complication. Total 48 women had caesarean delivery, 41 because of failed induction and rest 7 due to feto-maternal intrapartum complication.

Conclusion: The results demonstrated that at a cut off value of MCA: PI ≤1.46,would allow us to detect the group of women in late-term uncomplicated pregnancies, who are less likely to respond to induction or might have failure of induction and this information should be used to optimize the pre induction counselling and the clinical management of these women.

Role of Angle of Progression for Prediction of Spontaneous Onset of Labour within One Week and delivery Outcome in Women with Term Pregnancy

Singh B, Bachani S, Mittal P, Suri J
Vardhaman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To determine the relationship between angle of progression (AOP) on transperineal ultrasound at 37–40 weeks gestation and delivery outcome within 7 days.

Methods: This prospective observational study was conducted on 150 low risk pregnant women with period of gestation more than 37 weeks. These women had measurement of angle of progression with Transperineal ultrasound at recruitment and then AOP was measured till the delivery outcome. These women were observed for spontaneous onset of labour within one week, if women didn't deliver till 40 weeks, induced as per hospital protocol.

Results: Out of 150 women, 125 (83.3%) women had spontaneous onset of labour within one week of scan having AOP cutoff ≥ 92° and 25 (16.7%) women had to undergo induction of labour at 40 weeks period of gestation and had AOP cutoff <92°.Amongst 150 women of study population, total 130 (86.7%) women delivered vaginally (AOP ≥ 96°) and 20(13.3%) women underwent caesarean section (AOP < 96°).

Conclusion: An angle of progression ≥ 92° in women with term pregnancy has a 94.4% positive association with spontaneous onset of labour within a week. A large AOP ≥ 96° in primigravida and ≥ 90° in multigravida women has 94.4% and 97.3% positive association respectively for spontaneous onset of labour within a week of the scan. An AOP ≥ 96° has 100% association with vaginal delivery.

Surgical Approach to Co-Existent Uterovaginal and Rectal Prolapse

Bhawna Arora, Rajesh Kumari, JB Sharma, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Co-existing uterovaginal and rectal prolapse, though rare, can occur as both are a part of pelvic floor disorder. The management of concurrent uterovaginal and rectal prolapse is determined by various factors like age, desire for preservation of reproductive and/or coital functions, general medical status, severity of the condition, physical examination findings, surgeons' expertise and previous attempts at surgical correction. The management of these two can be done in single sitting using perineal, abdominal and laparoscopic approach. We are presenting two such cases.

Case Report: Presenting 2 cases of co-existent uterovaginal and rectal prolapse. 1st patient was 49 yr old, para 5, postmenopausal female, presented with complaints of something coming out of rectum since 12 yrs and mass descending per vaginum since 2 yrs. She also complained of mucoid discharge per rectum and involuntary passage of stools 6-7 times per day. She had had 5 full term normal vaginal deliveries, first 4 at home and last one in hospital. All deliveries were uneventful, with no h/o any prolonged labour, obstructed labour or precipitate labour. On examination, she was moderately built and her general physical examination was within normal limits. Local examination revealed 2nd degree cervical descent with 3+ cystocoele, 2+ rectocoele and enteroceole. No ulceration or bleeding was seen. Anal tone was reduced and there was complete prolapse of rectal mucosa 6 cm from anal verge, no bleeding present. 2nd case was 45 yrs, para 2 presented with complaints of mass coming out of vagina and rectum while straining since 2 yrs. She c/o passage of stools involuntarily 6-7 times per day associated with mucoid discharge per rectum. She had 2 uneventful full term normal vaginal deliveries at home. She had regular menstrual cycles with average flow. Here general physical examination showed no abnormality. On local examination, there was 3rd degree cervical descent, 1+ rectocele and 3+ rectocele and enterocele. Anal tone was minimal and there was complete prolapse of rectum 6 cm from anal verge, no bleeding or mass. Both patients underwent vaginal hysterectomy with anterior colporrhaphy and posterior colpo-perineorrhaphy with Delrome procedure in same sitting under spinal anaesthesia and were discharged on post-op day 6. They have been under regular follow-up since last 2 yrs and have been symptom free since then with no recurrence of either of the prolapses.

Clinical Relevance: In places where laparoscopic expertise is not available and when patients are not willing for uterine preservation, vaginal hysterectomy, anterior colporrhaphy and posterior colpoperineorrhaphy for uterovaginal prolapse and Delrome procedure for rectal prolapse is an effective option for treatment of concomitant uterovaginal and rectal prolapse and can be performed under spinal anaesthesia.

Session 4

Date: 15th November, 2021 | **Time:** 12:00 pm - 01:00 pm

Role of Simplified Bishop Score in Predicting Delivery Outcome following Induction of Labor in Term Pregnancies

Renu Arora, Sakshi Lalwani, Nupur Anand
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To determine the role of simplified bishop score in predicting delivery outcome following Induction of Labor in term pregnancies.

Methods: This prospective observational study was carried out between October 2019 and March 2021 (18 months) after obtaining ethics committee approval. A total of 550 women were recruited in the study after obtaining a written informed consent. All antenatal women at term gestation (37-41 weeks), with singleton pregnancy in cephalic presentation with no prior Cesarean Delivery (CD), fetal distress or any contraindication for vaginal delivery were enrolled in this study. They underwent labor induction with dinoprostone gel and delivery outcome like vaginal, instrumental or CD were assessed and co- related with Bishop Score and Simplified Bishop Score. AUROC, Sensitivity, specificity, PPV, NPV of both scores was calculated and then compared at a derived cut-off value of each.

Results: In our study, cervical dilation, effacement, consistency and fetal head station were significantly associated with cesarean delivery ($P<.05$). The simplified Bishop score which includes three components dilation, effacement and station (range 0 –9) was compared with the original Bishop score (range 0 –13) for prediction of failure of induction, resulting in Cesarean delivery. The mean Bishop and Simplified Bishop at induction were 5.54±0.92 and 3.41 ± 0.79, respectively. Removing the cervical position and consistency from the score improved the prediction of delivery outcome (ROC curves, AUC 0.904 vs 0.823, $p < 0.001$). Compared with the original Bishop score (≤ 4), the simplified Bishop score (≤ 2) had comparable or better positive predictive value (71.5% compared with 63.6%), negative predictive value (92.1% compared with 84.1%), sensitivity (80.4% compared with 58.2%) and specificity (87.7% compared with 87.2%).

Conclusion: The simplified Bishop score comprising of dilation, station, and effacement attains a similarly high predictive ability of delivery outcome following IOL at term as the original score

Role of Uterocervical Angle in Prediction of Preterm Birth

Pooja, Harsha S Gaikwad
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To find the correlation between preterm birth and uterocervical angle.

Methods: The current study was prospective observational study in which pregnant women between 28 to 32 weeks of gestation with no high risk factors for preterm birth attending the antenatal clinic were recruited and their uterocervical angle and cervical length were measured using image documents captured by transvaginal ultrasound. These women were followed till delivery. The primary outcome was the incidence of preterm birth <37weeks.

Results: Out of the 140 women included in the study, 90 women (approximately 64%) had UCA >90 degrees (obtuse) while 50 women had acute UCA (35%). Total 36 women delivered prior to 37weeks. The UCA was obtuse in larger proportion of women with preterm group (80.6% cases) in comparison to term group (56.7% cases). The mean UCA of both the groups was 108.52 and 93.74 degrees respectively with the median UCA being higher in the Preterm group. At a cut-off of UCA ≥104degree, it predicts PTB with a sensitivity of 69%, and a specificity of 79%, PPV of 53% and NPV of 88%.

Conclusion: At a cut-off of UCA ≥104degree, it predicted PTB with same diagnostic accuracy as cervical length. Uterocervical angle measured during antenatal period can be used as a predictor for preterm birth along with other screening methods such as cervical length.

Correlation of Striae Gravidarum Quantitatively with Perineal Tear in Women Undergoing Normal Vaginal Delivery

Payal Dey, H P Anand
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objectives: To score the striae gravidarum according to the Atwal numerical scoring system in women undergoing normal vaginal delivery and to record the degree of perineal laceration.

Methods: All gravid women undergoing normal Vaginal Delivery for the first time including VBAC and estimated fetal weight within 2.5-3.5 kg are enrolled. SG was scored according to the Atwal numerical scoring system. Delivery was conducted and episiotomy was given according to clinical judgement to those patients only with absolute necessity and was not given as a routine. The degree of perineal tear examined immediate postpartum following the delivery of the placenta. Patients requiring episiotomies were excluded from the study. Then data obtained is statistically analysed.

Results: There was a significant positive correlation between SG score and perineal tear, indicating that women with SG score >=6, have 64% sensitivity in predicting perineal tear with 100% positive predicting value. Stria gravidarum can be used a screening test in predicting perineal tear due to its moderately high sensitivity (64.6%) and very high specificity (100%). Although EFW should also be taken into equal consideration while predicting perineal tear in a woman as Neonatal BW >2.7kg have a 98.7% positive predictive value in predicting PT.

Conclusion: A very high specificity signify that patient without Stria have significant low risk of perineal tear, hence this test can help avoiding an unnecessary routine episiotomy in a woman, although the decision of episiotomy should always be at doctor's own discretion considering multiple factors like Obstetric indication, EFW, BMI of the patient or Perineal condition.

A Study of Maternal Plasma Oxytocin Levels and Postpartum Depression in Low Risk Pregnant Population

N Fatima, A Singla, R Kar, S Jain
University College of Medical Sciences
and Guru Teg Bahadur Hospital, Delhi

Introduction: According to ICD-10, Postpartum depression (PPD) is defined as low mood for >2 weeks, guilt, anhedonia, suicidal attempt occurring within 4 weeks of delivery. Postpartum depression and early breastfeeding cessation share a common neuroendocrine mechanism involving oxytocin where there is dysregulated pattern of oxytocin release and lower levels of plasma oxytocin among these women in the perinatal period.

Objective: To estimate and compare maternal plasma oxytocin levels in women with and without PPD.

Methods: A nested case control study with 200 low risk pregnant women with no medical and obstetrical complications was done. Women with current or previous history of depression and anxiety, stressful life events, lack of social support and history of chronic illness were excluded from the study. 2 ml of plasma sample for each women was taken at 34-36 weeks of gestation. Follow up was done at delivery, 2 weeks and 6 weeks postpartum and Edinburgh Postnatal Depression Scale (EPDS) was used to screen these women for postpartum depression (PPD). A score of 10 or more was used to define cases. Out of 200 postpartum women, 30 had a score of 10. 30 random women were selected from remaining 170 and were considered as controls. Maternal plasma oxytocin levels were then measured in these 60 samples and relation between plasma oxytocin levels and PPD was studied.

Results: In this study, the incidence of PPD was 15%. Plasma oxytocin levels at 34-36 weeks of gestation and the development of PPD was found to be statistically significant. The mean level of plasma oxytocin in the cases was 247.63 pg/ml (±51.45 pg/ml SD) and in controls was 286.31 pg/ml (±49.82 pg/ml SD). PPD was significantly associated with type of family, pressure to have a male child, no of pregnancies, mode of delivery, duration of stay at hospital and breast feeding activities at 2 weeks and 6 weeks postpartum.

Conclusion: This study found that women with lower levels of plasma oxytocin at 34-36 weeks of gestation are more likely to develop PPD at 2 weeks and 6 weeks postpartum. Thus, plasma oxytocin levels at third trimester can be used as a predictive marker for PPD and thereby help to reduce the disease burden with timely intervention and care.

Single Dose versus Multiple Doses of Antibiotics in Women Undergoing Cesarean Section: A Randomized Non-Inferiority Trial

K Agarwal, H K Lamba
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, Delhi

Objectives: The aim of the study was to compare the rates of surgical site infection in women undergoing cesarean section, given either a single dose of antibiotic 30-60 minutes before giving skin incision or multiple doses. There is enough evidence available from high income countries supporting a single dose of prophylactic antibiotic, but data is scanty from low and middle-income countries.

Methods: An open-ended randomized trial was undertaken on 400 women with 2 parallel treatment groups. Data was analyzed using statistical software SPSS version 25 by Mann- Whitney U test, Chi-squared test and Fischer's exact test.

Results: There was no significant difference between the single and multiple-dose regimen of antibiotic prophylaxis in cesarean sections when compared for postoperative surgical site infections. Secondary outcome variables, that is, side-effects of antibiotics were significantly more in the multiple dose group. Also, participants who developed surgical site infections had higher prevalence of anemia, longer incision to closure time and longer catheterization, which was statistically significant.

Conclusions: Single-dose regimen for antibiotic prophylaxis should be preferred over multiple-dose regimen, even in developing countries like ours, in low-risk women undergoing cesarean section, both elective and emergency.

Comparison of Cervical Shear Wave Elastography, Bishop Score, and Transvaginal Cervical Length Measurement for Prediction of Successful Labor Induction: A Pilot Study

Lakhwinder Singh, Jyoti Meena
All India Institute of Medical Sciences, New Delhi

Background: spontaneous onset of labor, with or without ruptured membranes for purpose of vaginal delivery. The favorability or ripeness of cervix is one of the most important factors for predicting the likelihood of successful induction of labor.

Objectives

1. To evaluate role of Cervical Shear wave elastography (SWE), Transvaginal ultrasound cervical length measurement (TVCL) and Bishop score in prediction of successful labor induction at term.
2. To correlate labor outcome in relation to Cervical SWE, TVCL, and Bishop score.

Methods: Study design: Prospective single arm cohort pilot study Study period: January 2019 to December 2020 Study Place: Deptt. of Obstetrics & Gynaecology and Deptt. of Radiodiagnosis, AIIMS, New Delhi Study population: 50 antenatal patients planned for induction of labor at term after meeting inclusion criteria All patients planned for induction of labor between 37-40 weeks period of gestation meeting inclusion criteria were subjected to cervical SWE, TVCL measurement and digital per vaginal examination to assess modified Bishop score prior to induction of labor. Patients were induced with intracervical instillation of Dinoprostone 0.5 mg in 3 gm of gel for maximum of 3 times 6 hourly in 24 hours if no uterine contractions and thereafter augmented with oxytocin to ensure adequate contractions if needed. The successful induction outcome was defined as vaginal delivery or onset of active labor within 24 hours of induction. Active labor was defined as presence of uterine contractions accompanied by cervical dilatation >4 cm.

Results Modified Bishop score and SWE values at internal os (in kPa) were significantly higher and lower respectively in patients who progressed into active labor or delivered vaginally compared to those who underwent cesarean section for failure to reach active stage of labor and were independent predictors of cesarean section for failure to enter active stage of labor.

Conclusion Shear wave elastography of cervix at internal os is a useful objective tool in pre-induction assessment of stiffness of cervix, and is an independent predictor of cesarean section due to failure to enter active stage of labor. This technique shows promise for prediction of successful labor induction.

Session 5

Date: 15th November, 2021 | **Time:** 01:00 pm - 02:00 pm

Ultrasonographic Assessment of Position of IUCD in Immediate Postpartum

Usha Yadav, Pratiksha Gupta
PGIMSR and ESIC, Basaidarapur, New Delhi

Background: Incorrectly placed copper T 380A leads to increased contraception failure.

Objective: To find an association between the ultrasonographic position of the copper T 380A in the immediate postpartum period and the adverse effects observed during the period of 6 months after its insertion.

Methods: This descriptive study was carried out in the Department of Obstetrics & Gynaecology of ESI hospital Basai Darapur from October 2019 to April 2021. The women eligible for immediate postpartum copper T 380A insertion delivered either vaginally or by LSCS, with previous regular menstrual cycles for at least 6 months before the current pregnancy, and those who were willing for follow-up visits were recruited. A clinical evaluation and ultrasonographic assessment of Intra-Uterine-Contraceptive-Device (IUCD) after insertion was carried out after enrolment. The complications (expulsions, vaginal discharge, menstrual irregularity, and lower abdominal pain) were subsequently assessed during a 6-month follow-up period. The primary objective was the ultrasonographic assessment of the placement of IUCD immediately after insertion. The incidence of complications and their association with the presence of malposition was also studied.

Results: 150 patients were evaluated during the study period. The complications among the IUCD users included menstrual irregularity (28.2 %), pain in lower abdomen (18.65 %), vaginal discharge (6.1 %), and expulsions (6.7 %). The IUCD expulsions,

menstrual irregularities, and pain were significantly more in patients with malpositions.

Conclusion: Malpositioning of IUCD is common immediately following insertion and is significantly associated with more complications during the follow-up.

Assessment of Knowledge, Attitude and Practice of Contraception among Antenatal Women in a Tertiary Care Hospital

Ankita Chonla, Sangeeta Gupta, Poonam Kashyap
Maulana Azad Medical College, New Delhi

Background & Objective: Reproductive health and family planning services have a great impact on maternal health in both antenatal and postnatal period. The aim of the study was to assess the level of awareness about different contraceptive choices and the practice of contraceptive methods adapted by antenatal women attending OPD in a tertiary care hospital.

Methods: Reproductive health and family planning services have a great impact on maternal health in both antenatal and postnatal period. The aim of the study was to assess the level of awareness about different contraceptive choices and the practice of contraceptive methods adapted by antenatal women attending OPD in a tertiary care hospital.

Results: Majority of the participants were between 25-30 years of age with 38% women being primiparous. 68% and 60% of the women were aware of the need and benefit of birth spacing, respectively. 54% women used contraception, out of which 36% opted for barrier methods, 2% for non-scalpel vasectomy and 42% for natural methods.46% women opted IUCD in the postpartum period and only 12% were willing for sterilization. Health care workers were the major source of information about contraception. Women who did not opt for any contraceptive did so because of wants of future pregnancy. Enrollment is still ongoing and final result will be presented later.

Conclusion: Measures need to be taken to enhance motivation for contraceptive usage amongst women.

Effect of Various Contraceptive Methods on Vaginal Microflora

Rakshar, R Dewan, S Muralidhar
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: The vaginal flora can be disrupted by several factors, including contraceptive usage. The objectives of the present study includeto evaluate and compare the composition of vaginal microbiota at 0, 3 and 6 months, in women using Injectable Medroxy Progesterone Acetate (MPA), Combined Oral Contraceptives (COC) and Copper-containing Intrauterine Contraceptive Device (IUCD) and also to determine the association between types of vaginal microbiota and vaginal symptoms in women using Injectable MPA, COC and IUCD.

Methods: A prospective observational cohort study was conducted over 18 months, in women aged 18-40 years. A total of 120 women initiating contraceptive methods, were divided into three groups, 40 each in women using Injectable MPA, COC and IUCD. They were followed up at 1, 3 and 6 months of contraceptive use.The various tests performed on vaginal swabs included-Vaginal pH, wet mount, Gram stain smear, Nugent's scoring, Lactobacillary grading (LBG)and culture of vaginal swab.

Results: Vaginal pH was >4.5 in 9 (27.27%) IUCD users. At 6 months, 10 (30.30%) showed intermediate Nugent's score and 5 (15.15%) had Nugent's score 7-10 in the IUCD group. LBG III was observed in 7(21.21%) IUCD users at six months. The difference in pH, Nugent's score and LBG between the three groups was statistically significant ($p<0.001$). At six months, bacterial vaginosis (BV) was diagnosed in 5(15.15%) IUCD users, vaginal candidiasis in 2 (6.25%) COC users and 2 (6.06%) IUCD users, trichomoniasis in 1 (3.03%) IUCD user. There were 2 (6.06%) IUCD users who had clinical and laboratory findings suggestive of aerobic vaginitis (AV).

Conclusion: Hormonal contraceptives have minimal impact on the vaginal microbiota, while Cu-IUCD alters vaginal pH, Nugent's score and LBG, in a significant number of women, making them more prone to vulvovaginal infections, with longer usage, and more frequently BV. Also, COC may increase the risk of vulvovaginal candidiasis.

Role of Combined Hormonal Contraceptives and Ormeloxifene in the Management of Abnormal Uterine Bleeding in Fibroid Uterus

Rupali Dewan, Ashu Bhardwaj
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: Uterine fibroids are a leading cause of hysterectomy worldwide. An efficacious and cost-effective medical treatment option may reduce hysterectomy-associated morbidity. The present study was undertaken to evaluate the efficacy of ormeloxifene in the medical management of AUB-L and compare it with combined hormonal contraceptives (CHC).

Methods: The present study was conducted between 2018-2021. It was a Prospective comparative study. A total of 76 women in the age group 35-45 years, having abnormal uterine bleeding due to leiomyoma (PBAC score >100) were included, and randomized into two groups. Women in one group were given Ormeloxifene 60 mg twice weekly for 6 months and in another group combined hormonal contraceptives containing ethinyl estradiol 30 µg with levonorgestrel 150 µg for 21 days starting from day 1 or 2 of the cycle, were given for 6 months. Participants were followed after 3months, 6 months and then at 9 months, that is 3 months after completion of treatment. Primary outcome measure was change in PBAC Score. Other outcomes noted were change in hemoglobin concentration, change in leiomyoma size and volume, changes in dysmenorrheal VAS score and satisfaction with treatment.

Results: There was statistically significant decrease in PBAC score in both the groups at each follow-up visit, however the improvement was significantly more in ormeloxifene group (p value <0.05). The decrease in mean PBAC scores was 80.63 % in group 1 at 6 months and 63.45% in group 2. Similar observation was made in mean hemoglobin concentration. However, there

was no statistically significant change in leiomyoma volume in either of the group at 6 months and at 9 months. Prolonged cycles were the most common side-effect seen with ormeloxifene.

Conclusion: Ormeloxifene is a non-steroidal, non-hormonal drug and an effective, safe and acceptable option for medical management of heavy menstrual bleeding associated with leiomyoma uterus.

Antenatal Evaluation of Fetal Renal and Urinary Tract Disorders and their Perinatal Outcome

Bijoya Mukherjee, Sumitra Bachani, Kajal Baleja Jyotsna Suri, Renu Arora, Divya Pandey
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To evaluate fetal renal and urinary tract disorders and study their perinatal outcome.

Methods: Antenatal women with singleton pregnancy between 12-28 weeks period of gestation with fetal renal and urinary tract disorders were recruited after an informed consent following Institutional Ethical clearance. Ultrasonographic evaluation was performed along with genetic counselling of the couple. Relevant noninvasive (Biomarkers, Non Invasive Prenatal Screen) and invasive (amniocentesis) tests were conducted. Fetus was periodically assessed and post-natal neonates were followed up at 1 week, 3rd month and 6th month of age.

Results: Total study population comprised of 35 women,16 primigravida and 19 multigravida. Amongst these nine fetuses had renal pyelectasis, eight had hydronephrosis, seven fetuses had multicystic kidney. Few other fetuses included bilateral polycystic kidney, bladder outlet obstruction(BOO), unilateral renal agenesis and enlarged echogenic kidneys. Amongst these, 11 (31%) women had anhydramnios and 16 (45%) fetuses had associated ultrasonographic soft markers. After appropriate information, education and counselling amongst nine women with fetal pyelectasis six underwent serum screening (Quadruple marker which revealed low risk for Trisomy screening) and three underwent amniocentesis all of which had normal QFPCR report. Vescicocentesis was performed in fetus with BOO which showed higher than normal limits for urine osmolality, chloride,sodium, beta-2 microglobulin, total protein and calcium. Medical termination of pregnancy (under gamut of PCPNDT) was opted by eight women, amongst them only two consented for fetal autopsy. All other women delivered at term, 27 neonates were live born amongst which six had early neonatal death while two neonates expired after one month of age. Amongst live neonates, two underwent surgical intervention in neonatal period (1 ureterostomy done for BOO but baby expired after1 week of surgery, 1 pyeloplasty for bilateral gross hydronephrosis after which there has been resolution of the condition and baby is alive).

Conclusion: Mild and moderate renal pyelectasis has good outcomes. Bilateral gross hydronephrosis and severe pyelectasis have poor resolution of the condition. Bladder outlet obstruction, multicystic kidney disease, and enlarged echogenic kidneys are predictors of poor survival outcome. Genetic counselling, appropriate prenatal tests, fetal autopsy, neonatal surveillance and appropriate interventions are essential for diagnosis and improving the perinatal outcome.

Assessment of Hematological Parameters as Marker of Subclinical Inflammation in Hyperemesis Gravidarum

Barkha, Reena, S Shukla
Lady Hardinge Medical College
and Smt. Sucheta Kriplani Hospital, New Delhi

Objectives

Primary Objective: To measure the hematological parameters in women with and without hyperemesis gravidarum.

Secondary objective: To assess the correlation between hematological parameters and CRP levels.

Methods: A total 40 pregnant women with hyperemesis gravidarum at 6-14 weeks gestation and 40 controls without any complaints with matched gestation age were recruited for this study. Complete blood count and CRP values recorded for each patient. Hematological parameters like red cell distribution width (RDW), platelet distribution width (PDW), mean platelet volume (MPV), neutrophil to lymphocyte ratio (NLR), platelet to lymphocyte ratio (PLR) and plateletcrit (PCT) were calculated and comparison of these indices was done between cases and controls group.

Results: The mean values of NLR(9.91,p value<0.001), PLR(260.86, p<0.001), PCT(0.32,p=0.003), RDW(17.32,p=0.003), PDW(15.08,p=0.353), MPV (12.52,p=0.129). The values of NLR, PLR, RDW and PCT are significantly altered in women with HEG (p value <0.05). The values of NLR and PLR are significantly correlated with CRP values. The diagnostic accuracy of PLR and NLR are 83.8% and 93.8% respectively.

Conclusion: Hematological indices like NLR and PLR can be used as effective markers in the diagnosis of hyperemesis gravidarum and their increased values show inflammation plays a crucial role in the pathogenesis of hyperemesis gravidarum.

Session 6

Date: 16th November, 2021 | **Time:** 09:00 am - 10:00 am

Correlation between Blood Flow in Inferior Thyroid Artery and TSH Levels in Pregnant Women with Hypothyroidism

Shreya Gautam, Pratiksha Gupta
PGIMSR and ESIC Hospital, Basaidarapur

Background: The measurement of the peak systolic velocity of inferior thyroid artery color-flow Doppler ultrasonography (CFDUSG) was proposed as a part of follow up protocol for management of pregnancy with hypothyroidism.

Objective: To study the relation of blood flow in inferior thyroid artery with fluctuations in TSH levels in pregnant women with hypothyroidism.

Methods: A Prospective, observational cohort study was carried out in Department of Obstetrics and Gynecology on 40 Pregnant patients with singleton pregnancies, who are newly diagnosed as hypothyroid on routine thyroid function testing, and fulfilled the inclusion criteria with TSH levels >2.5 Î¼IU/mL during first

trimester and >3 Î¼IU/mL during second and third trimester. Serum concentrations of thyroid stimulating hormone (TSH) was measured followed by ultrasound measurements of peak systolic velocity in bilateral inferior thyroid artery. The patients were re-evaluated 6 weeks after the beginning of medical treatment for TSH levels and ITA-PSV.

Results

1. After a follow up period of 6 weeks with treatment the TSH levels were found to decrease. A significant difference (Z = -5.512, p

Conclusion: The assessment of ITA-PSV by color Doppler analysis, can be accepted as a reliable measure of treatment of hypothyroidism in pregnancy and the effectiveness of medical treatment may be monitored with the gradual decrease of thyroid blood flow. The blood flow in the ITA normalizes in step with clinical and laboratory evolution (TSH), which usually always precedes the changes in parenchymal vascularization depicted by the ITA-PSV. In addition, with this first trial, though conducted on a small group of patients, we propose the inclusion of blood flow measurement at the ITA in the follow-up protocol for more reliable and effective management of hypothyroidism in pregnancy.

Can Women with Gestational Diabetes Mellitus be Screened for Diabetes Mellitus in Early Postpartum Period?

Monika Kanyal, Taru Gupta
PGIMSR and ESI Hospital, Basai Darapur, New Delhi

Background: Gestational diabetes mellitus causes development of diabetes mellitus in an estimated 10% women soon after delivery and in 20-60% within 5 to 10 years after index pregnancy. Despite rates being so high, less than 50% women are followed up post-partum. Numbers are even less for a developing country like India. So we proposed that an OGTT done in early post-partum period at delivery hospitalization is better and equally efficacious to screen patients for diabetes mellitus with gestational diabetes mellitus.

Methods: 50 women underwent OGTT at delivery hospitalization and repeated the test at 6 weeks postpartum.

Results: The immediate postpartum OGTT had 100% sensitivity, 95% specificity, 100% negative predictive value and 33% positive predictive value for detecting DM. The sensitivity for detecting any abnormality in blood sugar levels was 100%, 92% specificity, 100% NPV and 80% PPV. OGTT at delivery hospitalization and OGTT at 6 weeks postpartum have statistical significance (p=0.001).

Conclusion: A normal oral glucose tolerance test during the delivery hospitalization appears to exclude postpartum type 2 diabetes mellitus. However, the results of the test were mixed when differentiating between impaired glucose tolerance and diabetes mellitus. As a majority of women do not return for postpartum diabetic screening, an oral glucose tolerance test during the delivery hospitalization may be of use in certain circumstances in which postpartum follow-up is challenging and resources could be focused on women with an abnormal screening immediately after the delivery hospitalization. It also lessens the burden on health care workers by excluding those women who do well in immediate post partum OGTT.

NT Pro BNP Levels in Women with Hypertensive Disorders of Pregnancy

S Verma, S Malik, S Bansal
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To measure NT pro BNP levels in women with hypertensive disorders of pregnancy in comparison to normotensive women and correlate with maternal and neonatal outcome.

Methods: It is a prospective observational case control study which included 160 normotensive antenatal women in the control group and 160 antenatal women with hypertensive disorders of pregnancy in case group beyond 20 weeks period of gestation. Women with chronic hypertension, overt or gestational diabetes mellitus and preexisting cardiovascular disease were excluded. One ml of blood was withdrawn to measure NT pro BNP levels in both groupswith the help of a test card based on the principle of fluorescence immunochromatography.

Results: Compared with normotensive antenatal women (142.4 ± 33.07 pg/ml), women with hypertensive disorders of pregnancy were observed to have significantly higher mean value of NT pro BNP (803.65 ± 376.65 pg/ml) ($p<0.005$). The mean value of NT pro BNP levels was found to be significantly higher with increasing severity of hypertension ($p<0.05$). At a cutoff of NT pro BNP ≥790 pg/ml, it was seen to predict development of maternal complications with a sensitivity of 82% and a specificity of 65% ($p<0.001$). Similarly, NT pro BNP levels ≥834 pg/ml, predicts development of adverse neonatal outcome with a sensitivity of 70% and a specificity of 74% ($p <0.001$).

Conclusion: Women with hypertensive disorders of pregnancy are associated with elevation of NT pro BNP levels which are observed to be more significant with increasing severity of hypertension and correlate with development of adverse maternal outcomes. Measurement of NT pro BNP levels as a routine maternal evaluation in women with hypertensive disorders of pregnancy is useful to detect early signs of cardiac dysfunction.

Role of Placental laterality as a Predictive Tool for Preeclampsia

Priyanka Ahuja, Upma Saxena
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To study role of Ultrasound determined placental laterality as a predictor of preeclampsia.

Methods: This prospective study was conducted in the Department of Obstetrics and Gynaecology, VMMC & Safdarjang Hospital, New Delhi from Feb 2019 to July 2019. Three hundred pregnant women attending antenatal clinic both OPD and IPD between 16 to 20 weeks of gestation without any high risk factor were subjected to ultrasound examination as a part of routine antenatal examination and placental location was determined. These cases were followed up for the development of preeclampsia.

Results: Out of the 300 women studied 241 had central

placenta (Group A) and 59 had laterally located placenta (group B).Out of 59 women with lateral placenta, 29 (49.2%) developed preeclampsia while out of the 241 women with central placenta only 19 (7.88%) developed preeclampsia. This was statistically significant (p value<0.0001). The sensitivity, specificity, positive predictive value and negative predictive value of placental laterality as a predictor of preeclampsia was 64.18%, 83.19%, 53.16% and 88.64% respectively.

Conclusion: Placental laterality by ultrasound d at 16-20 weeks; is a simple, cheap and effective method, establishing its role as early predictor of pre-eclampsia.

Postpartum Depression and Its Risk Factors in Women Undergoing Caesarean Delivery at a Tertiary Care Centre

S Varun, R Bharti, P Mittal, P Verma, J Suri
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objectives: To find out prevalence of Postpartum Depression (PPD) and its risk factors at one week, four weeks and six months after caesarean delivery (CD).

Methods: This study was an Observational Cross sectional Study conducted in the Department of Obstetrics and Gynaecology of a tertiary Care Centre, over a period of 18 months. A sample size of 350 was calculated by taking prevalence of PPD after caesarean delivery as 21.7%. Women not willing to participate in the study, having difficulties with the Hindi and English language, known case of psychiatric illness, Twin delivery, Intrauterine demise, or child admitted in NICU were excluded from the study. The enrolled women were assessed at 1 week, 4 weeks and 6 months after caesarean delivery for screening of PPD using Edinburgh Postnatal Depression Scale. Socio-demographic and obstetric risk factors were assessed. Main outcome measures were EPDS score at 1 week, 4 weeks and 6 months and association of socio-demographic and obstetric risk factors with PPD. Statistical analysis was done using Statistical Package for Social Sciences (SPSS) software, IBM manufacturer, Chicago, USA, version 21.0.

Results: The rate of PPD (EPDS≥13) at 1 week, 4 weeks and 6 months was 17.43%, 15.43% and 12.29% respectively. The prevalence of Postpartum Depression within 6 months of CS was 18.3%. Nuclear family, intimate partner violence, conflicts at home, family history of psychiatric illness, lack of social support, multigravida, preterm delivery, elective caesarean, gender of the baby not as expected, low birth weight, post-operative complication and not exclusive breastfeeding were significantly associated with PPD in women undergoing CD.

Conclusion: Prevalence of PPD after caesarean delivery is 18.3% within six months postpartum. Most of the women (95.3%) develop depression within the 1st week of caesarean delivery. Women with low birth weight of baby are significantly associated with deterioration of EPDS score.

Association of Ovarian Response with Anogenital Distance in Patients Undergoing Ovarian Stimulation for in Vitro Fertilization/ Intra Cytoplasmic Sperm Injection

Mounika Kandapu, Renu Tanwar
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, Delhi

Objective: To assess the relationship between anogenital distance and ovarian response in patients undergoing controlled ovarian stimulation for in vitro fertilization/ intra cytoplasmic sperm injection.

Methods: It is a prospective cohort study. 40 women undergoing first cycle of IVF /ICSI were recruited in the study. Anogenital distance (1) AGD -AC (anus -clitoris) & (2) AGD-AF (anus- fourchette) was measured in all patients with the help of digital callipers on the day of oocyte retrieval and before proceeding for oocyte pick up. Based on the number of oocytes retrieved, the study population was divided into three groups; poor responders [≤ 3 oocytes] (n=13), normo responders [4-15 oocytes] (n=15) and high responders [> 15 oocytes] (n=12). AGD- AC and AGD- AF was compared among these three groups.

Results: Baseline FSH (P=0.03), AFC (P=0.01), number of oocytes retrieved and ovarian sensitivity index (p<0.001) were significantly different among the three groups of ovarian response. Both anogenital distance- AC and AF were positively correlated with AFC (r = 0.342 and r = 0.335; p=0.031 and 0.035), number of oocytes retrieved (r = 0.306 and r = 0.315; p=0.055 and p= 0.048) and ovarian sensitivity index (r =0.311 and r = 0.313; p =0.051 and p= 0.049). There was statistically significant correlation between anogenital distance and AFC and number of oocytes retrieved and OSI.

Conclusion: AGD-AC and AGD-AF measurements were positively correlated with AFC, OSI and the number of oocytes retrieved. Hence, Anogenital distance can be used as a biomarker of ovarian reserve, however to conclusively prove the hypothesis of our study, prospective cohort studies with large sample size are required.

Nomogram of Intracranial Translucency (IT) in Indian Population and its Correlation to Nuchal Thickness (NT), Role in Aneuploidy Screening and Congenital Malformation

Priyanka Jaiswal, Nutan Agarwal, Ashutosh Gupta
Neha Gupta
Artemis Hospital Gurugram

Objective: To measure Intracranial translucency (IT) in Level–I scan (11-13+6week), to develop nomogram and find it's correlation to Nuchal translucency (NT) & if any role in detection of chromosome & congenital malformation.

Methods: Prospective observational study was conducted on 100 pregnant women. IT was measured at time of level 1 scan (11-13+6 week) with NT. Nomogram for IT was developed & correlated to NT, aneuploidy screening & malformation. Nutan IT formula was proposed to calculate IT value in relation to CRL.

Results: Mean IT was1.2±0.13 (range 1-2.1) NT was 0.68±0.18 (0.38-1.69). Both increased with POG. Mean IT was 1.15, 1.19, 1.3 and 1.5 in relation to CRL 41-49, 50-59. 60-69 and 70-78 mm respectively, increased linearly. Rate of growth of IT was 0.01mm whereas NT as 0.02/ mm of CRL. In normal pregnancy IT and NT both increases with POG but in High risk cases NT and IT have a inverse correlation, IT<50% of NT is associated with risk of development of congenital malformation. IT was 1.09±0.09 mm & NT was 0.94±0.43 mm in high risk cases (dual or soft marker abnormal),2 had congenital and 1 had chromosomal abnormality.

Conclusion: Mean Intracranial translucency is 1.2 mm (11-13+6wks, It increases linearly as pregnancy advances like NT. Nt increses whereas IT decreases in high risk cases IT<50% of NT has risk of development of malformation. Proposed formula for calculation of IT is as IT = (CRL -- 45) x 0.01.

Session 7

Date: 17th November, 2021 | **Time:** 09:00 am - 10:00 am

Old Trick, New Approach: Can Hysteroscopy Replace HSG as a Routine Procedure in RPL for Uterine Cavity Assessment?

Sunaina Agarwal, Shubhi Vishwakarma
PGIMSR and ESI Hospital, Basaidarapur, New Delhi

Background: Recurrent pregnancy loss has been defined as ≥ 2 pregnancy losses. Hysteroscopy is considered the gold standard for evaluation of uterine cavity. We postulate that hysteroscopy might replace HSG as a first line treatment for patients in RPL with uterine pathology which has an added advantage of being an office procedure.

Objective: To calculate the efficacy of HSG in relation to hysteroscopy in detecting uterine causes of RPL.

Methods: 40 patients with history of ≥ 2 abortions underwent HSG followed by Hysteroscopy. Uterine septum, unicornuate, bicornuate uterus, hypoplasia was classified as congenital defects and polyps, synaechia, fibroids, intrauterine adhesions were classified as acquired defects. Percentages and numbers were used to represent the entered categorical variables.

Results: 60.53% had previous 2 abortions and 39.47% had more than two abortions. No significant difference was found in incidence of uterine factors for abortions between women with two or >2 abortions. 73.68% were normal on HSG while 36.84% of these were normal on hysteroscopy. On HSG, synechiae seen as diffuse filling defect in only 5.26% patients while 15.79% had on hysteroscopy. Adhesiolysis was successful in 5 patients while failed in one due to dense adhesions. Fibroid, polyp and unicornuate uterus were not diagnosed on HSG. However, fibroid was seen in 5.26%, polyp in 15.79% and unicornuate uterus in 5.26% patients with hysteroscope. Bicornuate uterus was diagnosed in 21.05% patients on HSG. All these were confirmed as septum in DHL. Sensitivity and specificity of HSG to detect uterine abnormality was 41.67% and 100% respectively while PPV and NPV was 100% and 50% respectively. Findings here suggest that though HSG detection of uterine abnormality is very likely to be correct but it cannot rule out the absence of pathology in a negative report, hence will very likely need the next best step or Hysteroscopy confirmation as well as therapeutic care.

Conclusion: Follow-up of RPL is long and distressing. Since both and hysteroscopy are similarly invasive, we recommend it as a routine procedure. Office Hysteroscopy should be promoted in India which has the potential to replace HSG in future.

Clinical, Sonographic and Histopathological Assessment of Structural Causes of Abnormal Uterine Bleeding

Singla H, Suri J, Mittal MK, Yadav AK
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Abnormal Uterine Bleeding (AUB) is one of the most common gynecological conditions in women of reproductive age group worldwide. FIGO (International Federation of Gynecology and Obstetrics) in 2011 published a pair of systems and clinical recommendations to diagnose and manage AUB. System 1 defines the of symptoms of AUB and system 2 classifies the causes of AUB under PALM- COEIN where PALM is structural causes and COEIN is the non-structural causes of AUB.

Objective: To assess the clinical presentation of structural causes of AUB, classify and sub-classify them by structured ultrasound and correlate the sonographic findings with the histopathological findings of the hysterectomy specimens.

Methods: This was a cross-sectional study conducted on 64 premenopausal women who had opted for hysterectomy for structural causes of AUB after obtaining informed consent. After a detailed gynecological evaluation, a structured ultrasound was performed before they underwent hysterectomy. The histopathological features of the hysterectomy specimens were evaluated and a final diagnosis of the structural cause of AUB was made after correlating the sonographic findings and histopathological features and the data was analyzed using Statistical Package for Social Sciences (SPSS).

Results: Heavy menstrual bleeding was the most common menstrual complaint (82.8%) in leiomyoma and adenomyosis. Leiomyoma sub-type 4 was the most common structural cause of AUB on sonography (26.2%). Intramural fibroid was the most common structural cause of AUB after correlating sonographic and histopathological findings (51.5%). Sonography had a high sensitivity and specificity in diagnosing leiomyomas, malignancy and the type of fibroid. Sonography was specific but not sensitive in diagnosing adenomyosis and polyp.

Conclusion: Sonography was a sensitive and specific modality for diagnosing leiomyoma and malignancy. But, accurate diagnosis of adenomyosis and endometrial polyp was difficult to make on sonography.

Clinical Assessment of Levator Hiatus Distensibility in Women with Pelvic Organ Prolapse

Chawla A, Batra A, Malik A, Ravi M
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To measure levator hiatus (LH) length during valsalva by clinical examination and to find its predictive value in assessing abnormal distensibility, as evaluated by measuring hiatal area during valsalva on transperineal 2D ultrasound.

Methods: This was an observational, cross sectional study of 157 consenting women who attended gynaecology OPD. Women with symptoms/signs of pelvic organ prolapse were included in the cases and women with benign/malignant lesions of genital tract, history of previous pelvic surgery and pregnant women were excluded. Length of LH was obtained by sum of length of genital hiatus and perineal body as measured by clinical examination using ICS-POP-Q system. Length of LH was then tested against hiatal area measurement taken by transperineal 2D USG. Both ultrasound and clinical measurements were tested for their predictive value for symptoms/signs of prolapse and stage of prolapse.

Results: Mean length of LH on valsalva was 6.75±0.78 cm in prolapse group versus 0.54±6.16 cm in non-prolapse group. Clinical LH >7cm was seen in 46.4% of the cases versus 15.6% of controls ($p<0.001$) and this was also significantly associated with urinary incontinence, constipation, pelvic pain and stage of prolapse ($p<0.05$). Abnormal hiatal distensibility (hiatal area>25cm2 on USG at valsalva) was found in 24.1% women in prolapse group and only 8.9% in cases ($p=0.030$). Significant association was found between abnormal hiatal distensibility and clinical LH>7cm ($p=0.027$). At a cutoff of 7cm, length of LH predicted abnormal distensibility with sensitivity of 55% and specificity of 67%.

Conclusion: A significant association was found between abnormal hiatal distensibility and clinical LH>7cm ($p = 0.027$). Length of LH obtained by clinical examination is a strong predictor of symptoms/signs of prolapse and positively correlates with the stage of prolapse and it may allow to determine the degree of excessive hiatal distensibility without requiring imaging assessment.

Correlation of Cytogenetic Result with Indication for Amniocentesis

Nutan, Swati Tomar, Garima Kachhawa
Reeta Mahey, Madhulika Kabra
All India Institute of Medical Sciences, New Delhi

Background: A significant number of pregnancies are associated with cytogenetic abnormalities of the fetus. Amniocentesis is an invasive prenatal diagnostic modality which provides valuable information about the genetic makeup of fetus.

Objective: To report our experience from a tertiary-care centre focusing on various indications and rates of abnormality detected after amniocentesis.

Methods: It is a cross sectional study involving retrospective analysis of pregnant women referred for amniocentesis. Details including age, genetic history and indication for diagnostic amniocentesis were analysed.

Results: A total of 281 amniocentesis were performed between 2014 through 2019. Mean age of women was 30.3±5.3 years. Median gravidity and parity were 3 and 1 respectively. Mean period of gestation at the time of the procedure was 19 weeks 2 days (± 2weeks 6 days). Amniocentesis was performed by single prick in %97 of cases and two or more pricks in %3. All procedures were performed under continuous transabdominal ultrasound guidance. The various indications for amniocentesis were abnormal biochemical screen (281/130; 46.2%), soft markers on ultrasound (72/281; 25.6%), history of genetic disease (49/281; 17.4%), advanced maternal age (22/281; 7.8%), abnormal parental karyotype (4/281; 1.4%) and maternal infections (4/281; 1.4 %). Out of 281 cases, the abnormal results were reported in 7.1% women (20/281). Trisomy 21 was the most frequent chromosomal abnormality detected (n=15; 75%). Amongst the abnormal results, both numerical (13/20; 65%) and structural abnormalities (7/20; 35%) were detected. Around 69.4% women were followed up for pregnancy outcomes. Medical termination of pregnancy was opted by 18 women for abnormal karyotype (n=8) and anomalous fetus on imaging (n=10).

Conclusion: The early detection of cytogenetic abnormalities of the fetus is the main stay of modern obstetrics and the basis of the inverted pyramidal type of antenatal care. Amniocentesis is a safer invasive technique for pregnancies complicated by abnormal biochemical screening and soft markers on ultrasound.

Effect of Age on Pelvic Diamond Area and Its Association with Prolapse

Surabhi Waghmare, Nupur Gupta
PGIMSR and ESI Hospital, Basaidarapur, New Delhi

Background: Uterine prolapse is the herniation of the uterus into or beyond the vagina as a result of failure of the ligamentous and fascial supports. Often coexisting with prolapse of the vaginal walls, involving the bladder or rectum. Many complex causes of pelvic floor weakness have been described, but the greatest risk factors are aging and female sex. Aging is one of the strongest risk factors for prolapse, and it is also associated with increased severity of prolapse.

Objective: To study the effect of age on pelvic diamond area using magnetic resonance imaging and its association with uterine prolapse.

Methods: Observational cross sectional comparative study. We did MRI of total 32 women, 16 women without prolapse and 16 women with prolapse between 35-65 yr of age. Deliveries performed through LSCS were excluded from the study. Staging of prolapse was done by POP-Q classification. MRI was done with a 1.5-T static unit (Gyroscan NT 1.5; Philips, New Delhi). Interischial diameter and pelvic diamond area were measured on MRI.

Results: In our study, We found that when the PD area of older groups with prolapse (54.15Â± 1.98) were compared to older group without prolapse (53.28 Â± 2.11), the difference in the PD area with P value of 0.41, was non significant Whereas when the PD area of older groups with prolapse (54.15Â± 1.98) were compared to younger group without prolapse (46.73 Â± 3.13), when students unpaired t test was applied, p value=0.0001, the area difference was found out to be significantly larger. we found that when the Interischial diameter of older groups

with prolapse (10.45 Â±0.49) were compared to younger group without prolapse (10.18 Â± 0.45), p=0.47 NS, and when the Interischial diameter of older groups with prolapse (10.45Â±0.49) were compared to older group without prolapse (10.01 Â± 0.47), the difference in the Interischial diameter was non significant, p=0.56.

Conclusion: The process of aging causes statistically significant increase in pelvic diamond area but is not associated with increased incidence of prolapse.

Comparison of Letrozole Plus Gonadotropins Versus Gonadotropins Alone for Controlled Ovarian Stimulation in PCOS Women Undergoing IVF ICSI Cycles - A Randomized Controlled Trial

Anne Monga, Reeta Mahey, Neena Malhotra, Neerja Bhatla, Garima Kachhawa, Rajesh Kumari
All India Institute of Medical Sciences, New Delhi

Background: One of the major concerns among PCOS women undergoing in vitro fertilisation (IVF) cycles is supraphysiological estrogen levels and risk of ovarian hyperstimulation syndrome (OHSS). In addition to use as first line ovulation induction agent; Letrozole has been described as an adjunct to gonadotropins for controlled ovarian stimulation in women undergoing IVF. As it controls the estrogen levels without affecting ovarian response during COH, it may decrease the chances of OHSS and may also reduce the total gonadotropin requirement.

Objective: To compare Letrozole plus gonadotropins versus gonadotropins alone in terms of oocyte yield, total gonadotropin requirement, OHSS rate, clinical pregnancy rate in PCOS women undergoing controlled ovarian stimulation in IVF-ICSI cycles.

Methods: Total 70 infertile PCOS patients were screened and 60 randomized: Group I (N-30): Letrozole 2.5 mg D2-6 + rFSH 150 IU from D2 of cycle; Group II (N- 30) rFSH from D2 dosage as per patient parameters. Both groups received GnRH antagonist (Inj Cetrorelix) 0.25 mg as flexible protocol once the lead follicle was >13 mm. Decision to trigger was taken when at least 2 follicles were >18 mm with rhCG (250mcg) or with GnRH agonist (Leupride acetate 2mg).

Results: Baseline parameters (age, BMI, AMH levels, LH/FSH ratio) were comparable in both groups. The number of oocytes retrieved were comparable in two groups (12.3Â±6.0 in Group I and 10.6Â±5.9 in Group II, P=.707). The total gonadotropin dose required for ovarian stimulation was significantly lower in Group I (1578Â±352 IU) as compared to Group II (2209 Â±633 IU) (P=.037). The clinical pregnancy rate was 40% in Group I and that in 27.5% in however the difference was not statistically significant (P=.356). Four patients in Group I and 1 in Group II had mild OHSS (P=.129).

Conclusion: Co-treatment with Letrozole in PCOS patients led to significantly lower gonadotropin requirement without affecting oocyte yield in women undergoing IVF. Further large number studies are warranted to establish its role in prevention of OHSS and cumulative live birthe rates among PCOS women. Addition of letrozole may prove a safe, cost-effective and patient friendly alternative to conventional protocol.

Comparison of Thermal Ablation and Cryotherapy for Treatment of Symptomatic Cervical Ectopy - A Randomized Control Trial

Anjali Gautam, Amita Suneja, Rashmi, Rachna Agarwal
University College of Medical Sciences
and Guru Teg Bahadur Hospital, New Delhi

Objective: To compare efficacy, feasibility, acceptability and safety of Thermal ablation and cryotherapy techniques in treatment of cervical ectopy.

Methods: A randomized controlled trial was conducted on 30 screen negative women with symptomatic cervical ectopy between November 2019 to October 2021. All women were treated with ablative techniques, patients were randomised into two groups, 15 women in Group A were treated with Thermal ablation and 15 women in Group B were treated with Cryotherapy. Both techniques were compared in terms of efficacy, feasibility, acceptability and safety for treating cervical ectopy.

Results: Both procedures could be done in all the patients without any difficulty with 100% feasibility. Time taken during Thermal ablation ranged from 60 seconds to 5 minutes (mean 2.58 ± 1.22 min) while Cryotherapy took 16 minutes in all patients. No patient in either group had any reaction (fainting, dizziness, nausea) or bleeding during or after the procedure. All patients experienced pain in both groups which was comparable (VAS score 4.1 vs 3.9, p- value = 0.77). 83% patients experienced variable discomfort in both groups which was also comparable (VAS score 3.6 vs 2.8, p-value = 0.39). Both groups reported comparable increased discharge upto 2 weeks post procedure. Both groups showed parallel improvement in vaginal discharge, backache and post coital bleeding at 4, 8 and 12 weeks follow up. Complete healing of ectopy in both groups was seen by 8 weeks (86.67% vs 93.33%, p-value=1).

Conclusion: Both procedures had 100% feasibility, equal acceptability and safety. Efficacy for Thermal ablation is at par with Cryotherapy for treatment of cervical ectopy in terms of improvement in associated symptoms and cure rate in terms of healing of ectopy. Thermal ablation takes significantly less time and multiple applications can be given in single sitting.

Session 8

Date: 17th November, 2021 | **Time:** 10:00 am - 11:00 am

Analysis of Psychological Stress among Healthcare Workers Working in COVID Labour Room

Dalimi Mushahary, Sheeba Marwah
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: COVID-19 has been a huge burden both economically and psychologically, all over the world. The rapid transmission rate of this virus and associated morbidity and mortality of patients has been a huge burden for healthcare workers.

Objective: To evaluate the psychological stress which COVID-19 has caused on hospital staff and frontline workers.

Methods: Present study was a cross-sectional observational study conducted in a Covid-19 dedicated Department of Obstetrics and Gynaecology of a tertiary care centre in New Delhi. Healthcare workers posted in COVID19 wards and labour room were asked to fill performa to assess the severity of psychological symptoms through scores like Insomnia Severity Index, Patient Health Questionnaire Nine item Depression Module PHQ 9, Generalised Anxiety Disorder Scale GAD 7 and Symptoms Checklist SCL K-9 and stress factors related to it.

Results: Out of 200 healthcare workers, 92% of HCW had anxiety working in COVID labour room which was quite evident with high GAD7 scores. Similarly, 92% had symptoms of depression and 57% had symptoms of insomnia as predicted by PHQ9 scores and insomnia severity index respectively. 21.5% had high SCL k9 score suggestive of psychological distress. A number of stress factors were found to be significant associated with these high scores. Quarantine at home was the most significant risk factor for anxiety (GAD7 score was high) (p value-0.0002, beta coefficient 2.059). High PHQ9 scores were seen in stress factors like children in family (p value-0.026, beta coefficient-3.133) and unsure future of pandemic (beta coefficient-3.908). healthcare workers who had quarantine at home had high insomnia severity index (p value-0.0006, Beta coefficient=1.436).

Conclusion: This study depicted significantly high psychological stress, insomnia, depression and anxiety in the health care workers in COVID labour room and ward.

Impact of Covid-19 Pandemic on Perinatal Depression in a Tertiary Care Hospital in India

Vaishnavi Jayaram, Madhavi M Gupta
Sangeeta Bhasin, Asmita M Rathore
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Background: The COVID-19 pandemic and lockdown has affected all aspects of medical care. Fear of contracting the illness, having family members affected by it and facing an array of difficulties due to lockdown has taken a toll on the mental health of all, especially the pregnant and postnatal women.

Objective: To assess the prevalence of women at risk for perinatal depression using Edinburgh Postnatal Depression Scale (EPDS) score and its association with the COVID-19 pandemic.

Methods: It is an observational cross-sectional study. 180 women attending OPD as well as admitted in inpatient wards of a tertiary care hospital in New Delhi were interviewed using a structured questionnaire. Questions pertaining to sociodemographic details, obstetric history, pregnancy outcome and various problems faced due to COVID-19 pandemic were asked. EPDS scoring was done using EPDS questionnaire.

Results: 42 out of 180 women scored >13 on the EPDS. Of them, 67% women faced a delay in timely ANC registration, 81% experienced delay in getting investigations, 72% faced difficulties in regular hospital follow ups and 63% went through financial difficulties due to the pandemic. More than half of them (57%) had apprehension in access to medical care due to fear of COVID 19. 62% women had a lack of family support during the course of their pregnancy due to lockdown and travel restrictions. Amongst women who were admitted, 90% found the new policy of prohibition of visitors cumbersome.

Conclusion: The present study found a high percentage of perinatal women with depressive symptoms. COVID-19 related variables significantly associated with symptoms suggestive of depression were perceived risk of infection, inability to access healthcare facilities and lack of family support owing to lockdown. Delay in timely investigations and follow ups, and prohibition of visitors in hospitals were also found to be significantly associated. Perinatal women form a vulnerable subset of the population as they go through an array of physical and mental health changes. Hence, a holistic approach needs to be adopted while proving care to them during these difficult pandemic times including routine screening for perinatal depression.

Changing Trend in Caesarean Section in a Tertiary Care Hospital During and before Covid Pandemic

Neelam Rajpurohit, Leena Wadhwa
PGIMSR and ESI Hospital, Basaidarapur, New Delhi

Background: Proportion of caesarean section to the total birth is considered is considered as one of most important indicators of obstetric care. According to WHO ideal caesarean section should be 10-15% to prevent maternal and perinatal morbidity and mortality.

Methods: This was retrospective study done at ESIC PGIMSR that included women between18-45 years age giving single birth. Women with severe disease (liver or renal failure) and who gave birth to a baby with birth defect were excluded from study. After applying inclusion and exclusion criteria 1202 women were included. The primary outcome was to determine the trends of caesarean section in a tertiary care institute during and before COVID pandemic and secondary outcome was to study maternal and neonatal outcome of caesarean section deliveries.

Results: The rate of caesarean section was increase in COVID era (57.3%) as compare to non COVID era (42.7%) and most common indication was MSL (11.3%) and it is value twice times as compare to non COVID era (6.4%). The complication of caesarean section such as need for blood transfusion is 6% as compare to 2.9% in non COVID era. The puerperal complication such as PPH decreases (1.7%) as comparison in non COVID era (2.5%) & rate of puerperal sepsis decreases twice (3%) in comparison to non COVID era (6%). Although the surgical site infection is not significant, it is less (1%) as compared to 1.9%in the non COVID era. Babies born in COVID era have ICU admission is 8%, as compared to ICU admission18% in non COVID era. The mean weight of newborn was same average of 2.6 kg in both era.

Conclusion: The present study shows caesarean section rate is high in COVID era but maternal and neonatal outcome is better as compared to non COVID era. Still more data will be required to have a greater view of trends.

KAP Study on COVID Vaccination Amongst Pregnant Women

Monica Sharma, Reena Rani
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, Delhi

Background: COVID-19 infection during pregnancy may result in rapid deterioration of health of pregnant women and could also affect the foetus. MoHFW has approved vaccination of pregnant women against COVID-19 with condition that the pregnant women may be informed about the risks of exposure to COVID-19 infection along with risk and benefits associated with COVID-19 vaccines.

Objective: To assess the knowledge, attitude and practice of pregnant women regarding COVID 19 vaccine.

Methods: It is a questionnaire-based study. Pregnant women visiting antenatal OPD in Lok Nayak are recruited. Questionnaire will be filled based on their understanding. Women were then counselled regarding the vaccination.

Results: Since the study is still ongoing, the results are under evaluation.

Conclusion: In the era of COVID 19 pandemic, it is necessary to understand the myths related to and beneficial effects of COVID-19 vaccine among pregnant women so as to protect the mother and the baby from the serious COVID infection. To help pregnant women make an informed decision to be vaccinated, they should be provided with information about risks of COVID-19 infection in pregnancy, the benefits of vaccination and likely side effects of vaccination.

Risk Factors for Psychosocial Stress During Pregnancy

S Tanwar, A Batra
Vardhman Mahavir Medical College
and Safdarjung hospital, New Delhi

Introduction: Psychosocial stress in pregnancy (PSP) is the stress experienced due to inability of women to cope with pregnancy. Mothers having PSP are prone to adverse pregnancy outcomes particularly preterm-birth and FGR. It has not been included in routine ante-natal check-up. There is a failure to recognize it.

Objective: To find the prevalence of high psychosocial stress in pregnant women not exposed to any major stress event and to determine the factors responsible for it.

Methods: This was a cross-sectional observational study including 350 women using a validated scale Perceived stress scale (PSS-10) which has a maximum value of 40.Women were divided into 2 groups, women with high psycho-social stress (Group A; PSS score=27 to 40) and women with low (PSS score=0 to 13) or moderate (PSS score=14 to 26) psycho-social stress (Group B). Univariate and multivariate logistic regression was used to find out the significant risk factors affecting stress.

Results: Mean score on PSS-10 was 15.79 ± 6.95 with the range of 4-36. It was high in 10% women, moderate in 55.71% women and low only in 34.29% women. On univariate analysis, higher age, unplanned pregnancy, low socio-economic status, addiction in husband, negative relationship with husband and negative relationship with friends/family were found to be significantly associated with high PSS score. However on multivariate analysis, addiction in husband and negative relationship with husband were found to be non-significant.

Conclusion: It is recommended that all ante-natal women should be routinely screened for psychosocial stress. It will enable the obstetrician to intervene timely to reduce stress levels and its associated complications thus, reducing the burden on healthcare sector.

Pelvic Organ Prolapse - A Hidden Disease Affecting Sexual Function

Rajlaxmi Mundhra, Anupama Bahadur, Jaya Chaturvedi
All India Institute of Medical Sciences, Rishikesh

Background: Pelvic organ prolapse (POP) influences many aspects of a women's life. It is a hidden disfigurement that makes a woman conscious in routine activities, affecting her idea of sexuality.

Objectives: To elucidate the sexual profile of women living with pelvic organ prolapse.

Methods: Women undergoing surgery for pelvic organ prolapse were interviewed to evaluate their socio demographic profile with subsequent impact on sexual function. Self-reported issues related to sexual frequency were noted. The PISQ-12 questionnaire was used to assess sexual function.

Results: Among the 60 cases of POP, 75% belonged to hilly areas. The mean age group of the study population was 51.5 years. 75 % women reported being more conscious and facing difficulties in routine works whereas rest 25 % had no issues in terms of body appearance as it was hidden underneath clothes. Difficulties faced during intercourse were mainly-pain during intercourse (70%), bleeding/discharge (46.67%), burning sensation (20%), unable to achieve orgasm (30%) and urinary leakage in 10%. Almost 68 % of women felt that sexual frequency was decreased in their husband also. The PISQ scores in women with first and second degree prolapse versus those with third degree and procidentia were 22.47±6.72 and 21.43±6.074 respectively.

Conclusion: Sexual function remains greatly affected with both husband and wife losing interest in sex due to associated pain and discharge. This study emphasizes the need to assess sexual profile in women with POP with a message that there is a definite scope of improvement in this regard.

Quality Improvement Study to Increase The Practice of Proper Handwashing Prior to Vaginal Examinations in the Labor Room

Avir Sarkar, Nilanchali Singh, K Aparna Sharma
Shivangi Mangal, Rinchen Zangmo, Nimisha Agarwal
Deepali Garg, Jyoti Meena, K K Roy
All India Institute of Medical Sciences, New Delhi

Objectives: Hand hygiene is an important element of the WHO multimodal strategy for healthcare associated infection control. However, compliance to proper hand hygiene among the healthcare workers (HCW) remains a challenge to sustain.

This Quality Improvement (QI) project aimed to improve the hand hygiene compliance of HCW, which would thereby help in reducing the risk of nosocomial infections acquired in the labor wards during the intrapartum period.

Methods: This QI projectaimed to improve the hand hygiene compliance in the Labor Room C3 ward of All India Institute of Medical Sciences, New Delhi prior to vaginal examinations from the baseline statistics by 75% over a period of 3 weeks. According to the baseline data collected in September 2021, pre-intervention hand hygiene compliance was zero percent. Three PDSA cycles were being conducted every successive week. The first intervention composed of displaying posters as a propaganda to enhance the practice of proper handwashing. The second intervention included nursing officers to promote the concept of hand hygiene. During the final intervention, all the concerned doctors were advised individually to comply with hand washing techniques during each pelvic examination. Post-intervention compliances were monitored and graphically plotted over the time frame.

Results: After each cycle of intervention, there was a marked improvement in the percentages of proper hand washing prior to vaginal examinations in the labor wards.

Conclusion: Suboptimal hand hygiene during intrapartum interventions can result in puerperal and neonatal sepsis. This project can inspire the HCW to participate in proper hand hygiene prior to each vaginal examination in the labor wards.

Session 9

Date: 18th November, 2021 | **Time:** 09:00 am - 10:00 am

An Assessment of Knowledge of Doctors and Nursing Staff about WHO Intrapartum Care Guidelines

Archana Mishra, Nupur Anand
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: There is a large variation among healthcare workers in labour practices in India related to monitoring, augmentation, management and neonatal care. Aiming to improve outcome of mother and baby World Health Organisation came up with guidelines latest intrapartum guidelines which are evidence based, universal, unaffected by variations in regions or demographics and most importantly feasible.

Objectives: Primary Objective: To assess the knowledge of doctors and nursing staff of WHO intrapartum care guidelines. Secondary Objective: To find out voids in information, myths and barriers in adoption of WHO intrapartum care guidelines.

Methods: Present study was a cross sectional study performed on 100 health care workers with the help of a prestructured questionnaire.

Results: Concept of respectful maternity care was known to 98% of nursing staff but only 36% know that birth companion should accompany the parturient. Duration Latent phase of labour in primigravida and multigravida was known to only 12% and 7% Health care workers. Definition of active phase of labour was known only to 41% HCW. 36% HCW recommended CTG in low risk patients however 59% thought that auscultation by stethoscope is enough but the technique was clear to only 5% HCW. However, 96% HCW adequate knowledge of active management of third stage of labour and 80% explained proper technique breast feeding to mother and 88% explained danger signs of mother and neonate.

Conclusion: Knowledge of WHO intrapartum guidelines was found to be inadequate in many fields and pre posting orientation classes is a must for improvement of quality care and positive birthing experience in mothers.

Anxiety and Depression Among Women with COVID 19 Infection During Childbirth - A Study from Urban India

Sumitra Bachani, Anjali Dabral, Monika Sahoo
Prabha S Chandra
Vardhman Mahavir Medical College
and Safdarjung Hospital, Delhi, NIMHANS, Bangalore

Background: The Corona Virus Disease 2019 (COVID-19) pandemic posed major challenges for pregnant and postpartum women the world over through direct and indirect consequences. Very few studies in literature have investigated the psychosocial impact of COVID 19 on women infected during the vulnerable pregnancy and postpartum phases.

Objectives

a. To find the prevalence of depression and anxiety among pregnant women admitted for labor who tested positive for COVID 19 infection and
b. To study the association of various sociodemographic, social support, obstetric factors as well as that of COVID 19 related worries to depression and anxiety.

Methods: In this prospective study, 243 COVID 19 positive pregnant and postpartum women were interviewed within the first week of admission and after 6-8 weeks of childbirth for sociodemographic, obstetric details and COVID-19 related worries. Depression and anxiety were assessed using PHQ-9 and GAD-7 questionnaires respectively. All women were asked a list of COVID 19 related concerns in the postpartum using the COVID anxiety scale constructed for use among women in the perinatal period. Data was analysed using SPSS software. Rates of depression and anxiety were calculated and univariate analysis was done to identify factors associated with moderate and severe anxiety and depression.

Results: The mean age of the women was 26.86Â±4.31 years. 69.13% women had mild and 11.3% had moderate depressive disorder. At 6 weeks follow up, amongst 187 women, 16.57% had minimal, 70.05% mild and 13.36% had moderate depression. Mild and moderate anxiety was seen in 49.79% and 5.34% of the women respectively. Fairly high levels of concerns related to support during the postpartum period, child care support, stigma of having COVID 19 infection, poor access to health facilities for self and infant in the postpartum and health of other family members. Interestingly breast feeding was not a concern which was indicated by the high rates of women who started breast feeding while still in hospital.

Conclusion: A complete understanding of the psychological wellbeing of a mother following her experiences of maternity care in the era of the COVID-19 pandemic is the need of the hour

for the provision of optimal maternity services and mitigating any negative impacts. There needs to be increased screening for common mental illnesses with timely identification of associated risk factors. If such mental health concerns are addressed early, it prevents the long-term consequences on maternal mental health and also maternal-infant relationship.

Effect of Use of WHO-Labor Care Guide (LCG) in Reducing Cesarean Sections at a Tertiary Centre

Divya Pandey, Rekha Bharti, Anjali Dabral
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: WHO –Labor Care Guide (LCG) was introduced in December 2020 for application of new WHO definitions of stages of labor.

Objective: To study the impact of LCG on caesarean section rate.

Methods: This randomised controlled study was done on 230 low risk antenatal women admitted in spontaneous labor at a tertiary teaching hospital over 4 months. As per the inclusion and exclusion criteria, 115 women were allocated to study and control group each. The labor monitoring was done by WHO-LCG in study group and WHO-modified partograph in control group respectively. The outcomes were mode of delivery and labor-outcome parameters like duration of active labor, maternal complications, duration of hospital stay, APGAR(5 minutes) score and NICU admission. The parameters in both groups were recorded and compared. SPSS 21.0 software was used for the statistical analysis.

Results: The CS rate was 1.8% in study group using LCG in comparison to 17.3% in control group ($p<0.05$). The duration of active phase was significantly smaller in study group ($p<0.05$). The two groups were similar in terms of maternal complications, duration of hospital stay and APGAR score.

Conclusion: WHO-LCG is a new simple labor monitoring tool with good outcome of labor in terms of reduction in primary CS rate due to labor abnormalities.

Clinical Utility Of Inositols: Lessons of Adolescent PCOS

Anupama Bahadur, Rajlaxmi Mundhra, Shivaani Arora
All India Institute of Medical Sciences, Rishikesh, Uttarakhand

Objective: To compare clinical, hormonal and metabolic effects of metformin versus combined therapy of metformin with myoinositol and d-chiroinositol in Adolescent girls with PCOS

Methods

Study Design: Prospective RCT Subjects: 50 PCOS adolescents

Place of Study: Dept of Obs and Gyne, Aiims, Rishikesh

Randomization: Total 42 patients were randomised in two Groups: 22 in group 1 (metformin alone 500 mg BD) and 20 in group 2 (metformin 500mg BD with MI 2g OD and DCI 50 mg OD) Criteria: Rotterdam's criteria

Results: Global acne score (5.75 Â± 3.32 to 3.1Â±1.16), FG score (7.05Â± 3.44 to 4.3Â± 3.59), BMI (24.38Â±3.55 to 22.26Â±2.47) and hip circumference (100.9Â±5.9 to 95.4 Â± 7.65) showed significant improvement under clinical effects in group 2 as compared to group 1 in 6 months In both the groups there was statistically insignificant improvement in hormonal parameters However, other metabolic parameters like cholesterol levels(155.75Â±39.37 to132.75Â±23.65), post prandial blood sugars (107.2Â±16.72 to 97.85Â±11.52)and insulin levels (74.95 Â± 58.6 to 39.15Â± 23.14) showed significant improvement in group 2 as compared to group 1.

Conclusion: Both MI and DCI are involved in several cellular pathways, especially those related to the insulin signal transduction. Clinical data via various studies have demonstrated that inositol supplementation could affect different pathophysiological aspects of disorders pertaining Obstetrics and Gynecology and that their results are both high-yielding and promising like treatment of PCOS or prevention of GDM. The knowledge on inositol use in our field should be increased, either by recapitulating available data in a meta-analysis or performing larger multicentre trials. Myoinositol and d-chiroinositol are newer insulin sensitizers as compared to metformin and their synergistic role has fewer metformin related side effects as compared to monotherapy with metformin There is definite improvement in clinical and metabolic parameters citing the promising role of combined therapy in treatment of Adolescent PCOS.

Synoptic Operative Report in Cervical Cancer Surgeries: Experience From Single Oncology Center in Canada

Nilanchali Singh
All India Institute of Medical Sciences, New Delhi

Background: Recording of patients operative data is important for patient management, training as well as for research purpose. It leads to standardized and comprehensive reporting of surgical events. It also mandates that the surgical residents have a better understanding of all the facets of procedure.

Objective: To analyze the reporting by the database.

Methods

Design: Patients with cervical cancer, operated at TBCC were included for the study. Alberta Cancer Registry was contacted for obtaining data from the Synoptic Operative Reports of these patients between December, 2009, when Synoptic reporting of cervical cancer was started, to February, 2020. Data of 473 patients was collected. The study design, analysis and results are described in accordance with the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines. Biomedical research is observational.

Methodology: This was a population-based retrospective study conducted in Tom Baker Cancer Center (TBCC), Calgary, Alberta. Comprehensive cancer care is provided through 17 oncology centers by the Alberta Health Services to a population of over four million residents. There are 2 academic institutions, TBCC, being one of them. The Alberta Cancer Registry (ACR) is a population-based registry, which prospectively collects data on patients demographics, tumor characteristics and treatment details of patients diagnosed and treated in the province. The operative details are recorded through a software called the Synoptic opersative reports. This system was designed and introduced in TBCC in 2009.

Results: The data comprises of 463 patients operated for Stage 1 and 2 cervical cancers and 10 patients operated for advanced and recurrent cervical cancer. 101 patients were operated for carcinoma in situ. Adenocarcinoma was the most common histology. Laparotomy was done in 308 patients whereas others had some form of laparoscopic procedure. The details of surgery from beginning of incision to closure were detailed. The template of cervical cancer comprised of 356 questions. There were separate templates for advanced and early stage cancer. However, with this meticulous detail, only 8 minutes (average) were taken by each user to complete the template.

Conclusion: Synoptic reports help to maintain the quality and consistency of operation notes by ensuring that all reports contain standardized fields.

Inherited Factor X Deficiency in Pregnancy: Series of Two Cases and Review of Literature

Archana Kumari, Rajesh Kumari, Reeta Mahey Shalini, Sonam, Neerja Bhatla
All india Institute of Medical Sciences, New Delhi

Background: Factor X deficiency is a rare inherited autosomal recessive coagulopathy. Pregnancies in women with Factor X deficiency are often associated with adverse outcomes like miscarriage, premature labour, antepartum or postpartum hemorrhage. The literature on this disorder is sparse and shows a limited number of successful pregnancies in women with factor X deficiency. While specific FX replacement product is not yet commercially available, fresh frozen plasma (FFP) or prothrombin complex concentrates can be used for prophylaxis prior to surgery or for treatment of bleeding symptoms. Here, we present two cases with severe FX deficiency who had a successful pregnancy outcome through the rationale use of FFP in one case and prothrombin complex concentrates in the other.

Case Report: Case report 1 A 32-year-old female was diagnosed with severe FX deficiency (FX level).

Clinical Relevance: There are only a few cases with FX deficiency described in the literature with successful pregnancy outcome. Pregnancy in a patient with FX deficiency is very challenging as it may get complicated by recurrent miscarriages, preterm labour, and retroplacental hematomas. One of our patient was treated with Prothrombin complex concentrate (Octaplex) which is rich in FX (and also contains antithrombin III, Factor IX A, Factor II, and factor VII apart from protein C and protein S). Another patient of ours was treated with fresh frozen plasma which is readily available and a cheaper alternative for factor replacement. PCC are now the preferred treatment since they are virally inactivated, and the risk of volume overload during treatment of severe hemorrhage is less compared with fresh frozen plasma. Consideration of pregnancy in patients with FX deficiency requires a detailed discussion of the potential risks associated with pregnancy and the uncertainty of presentation and outcome. In the present case reports, recommendations of an interdisciplinary team comprising specialists in obstetrics, transfusion medicine, hematology, anesthesia and neonatology and judicious use of PCC and FFP alleviated the hemorrhagic risks and helped achieve successful pregnancy outcome.

Malignant Germ Cell Tumors in Disorders of Sex Development: A Missed Opportunity

Anju Singh, Dipanwita Banerjee, Garima Kachhawa, Supriya Kumari, Rajesh Khadgawat, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Gonadal dysgenesis is associated with a higher incidence of germ cell tumors. Knowledge of these entities can be helpful for timely diagnosis and management, thus improving the outcome.

Case Report

Case 1: A 23 years old woman presented with pain abdomen for last 3 months. She had primary amenorrhea with female phenotype, poor breast development (Tanner 2), absent axillary hair, pubic hair (Tanner 4) and a 14-week firm abdominopelvic mass with restricted mobility. Local examination revealed clitoris of 1.5 cm, well-canalized vagina and an absent uterus. Serum FSH (101.08mIU/ml) and LH (46.67mIU/ml) were raised and the karyotype was 46XY. Imaging was suggestive of 8.5x6.5x9cms solid mass with increased vascularity and a uterine nodule. Serum LDH (1316 U/L) and Î²hCG (44.86mIU/ml) were raised while S.AMH-0.54ng/ml was reduced. Preop diagnosis Staging laparotomy showed 13x7.5x5cms tumor from left gonad and 3x2.5cms tumor from the right gonad. Complete tumor resection with B/L gonadectomy was done. Histopathology confirmed dysgerminoma.

Case 2: A 23 years old, diagnosed case of Turnerâ's syndrome (46XO) presented with history of pain abdomen for 2 months. She was short stature with widely spaced nipple, breast Tanner 3, axillary and pubic hair Tanner 3 and a huge solid-cystic abdominopelvic mass. On per rectal examination uterus was felt separately. Serum AFP(123146.5ng/ml), LDH(1060 U/ml), Ca-125(105.90U/ml) were raised. CT scan revealed uterus with right ovary and 23X10x17cms solid-cystic mass on left side with ascites, iliac lymph nodes and multiple tumor deposits. Diagnosis of endodermal sinus tumor was made and she received one cycle of chemotherapy (etoposide & cisplatin) as was having poor performance status. She is on follow-up.

Clinical Relevance: This case report signifies the importance of early diagnosis and evaluation of disorders of sexual development. Comprehensive screening and follow-up for patients with preserved gonads would ensure safe practice and quality services.

Indication and Outcome of Obstetric Patients Admitted to ICU in a Teaching Hospital Centre; One Year Study & Retrospective Review

Shazia Rashid
GMC, Srinagar

Background: Care of critical obstetric patients is challenging for cliniciansin view of complex pregnancy related diseases and considerations of conceptus.

Objectives: To review admission indications, clinical characteristics and outcome of obstetric patients admitted to ICU of Tertiary care hospital.

Methods: This retrospective cohort study was conducted on pregnant/ postpartum patients admitted to ICU over a 1 year period (July 2020-21).

Results: Data from 260 patients was analysed. Overall 79.3% patients were admitted in the postpartum period. Most common indication for admission was Hypertensive Disorder (32.7%), Obstetric hemorrhage & post intervention for morbid adhesions of placenta (30.3%), cardiac disease (4.2%) & DIC (3.7%) constituted most common indications.

Conclusions: Pregnancy related hypertensive disorders and obstetric hemorhage were the main reason for ICU admission. Hence efforts must be concentrated on increasing antenatal care and more resources be invested in specialised care.

Successful Pregnancy Outcome in Wilson's Disease with Multidisciplinary Team Management

K Aparna Sharma, Rinchen Zangmo, Deepali Garg, Shivangi Mangal, Niku Mandal
Department of Obstetrics and Gynaecology,
All India Institute of Medical Sciences, New Delhi

Background: Wilson's disease is a rare autosomal recessive disorder with a prevalence of 1:50,000-1:100,000 live births. Mutation of ATP 7B on chromosome 13q14 leads to impaired biliary excretion and ceruloplasmin incorporation causing copper accumulation mainly in the liver and brain resulting in liver cirrhosis and nervous system manifestations like movement disorders and ataxia.Untreated Wilson's disease usually causes subfertility and in cases where pregnancy does occur, it often results in spontaneous miscarriage. We present a case of a 26-year-old female with pregnancy with Wilson's disease.

Case: A 26-year-old primigravida presented to us at 21weeks gestation for routine antenatal checkup. Present pregnancy was a spontaneous conception after 2 years of marriage. She had history of massive splenomegaly and hypersplenism at the age of 13 years for which she underwent splenectomy at AIIMS. Liver biopsy was also taken in view of liver cirrhosis. Post-surgery she was diagnosed with Wilsons disease by presence of Kayser Fleischer ring and low serum Ceruloplasmin levels. She was then started on Penicillamine and Zinc acetate which were continued throughout till she was pregnant, when she stopped the drugs due to non-availability in the pandemic. was diagnosed with Osteomalacic Myopathy in 2013 and was started on Calcium and Vitamin D supplements. She was admitted for evaluation at presentation at 20 weeks, she could not get any antenatal investigations done because of the pandemic. All antenatal investigations were sent, and anomaly scan was done which were normal. Sample for 24-hour Urinary copper was sent and found normal. A multidisciplinary team management with involvement of Gastroenterologist, Neurologist, Endocrinologist and Obstetrician was done.Zinc acetate 50 mg thrice daily was restarted and continued throughout pregnancy. She was monitored for fetal growth by serial ultrasounds from 24 weeks of gestation, was diagnosed with fetal growth restriction at 32 weeks and kept on regular surveillance. She was admitted with preterm labour at 35 weeks of gestation and underwent caesarean section for fetal distress. Birth weight was 1.7 Kilogram, Apgar at 1 and 5 minutes of life was 7 and 9. Both mother and baby were discharged at day 7 of delivery with an uneventful course. Tab penicillamine was restarted and zinc acetate continued. Presentlyboth are doing well.

Conclusion: Multidisciplinary team management is the key to successful outcome in pregnancy with rare medical conditions like Wilson's disease.

Sero-prevalence of SARS-CoV-2 Antibodies among First Trimester Pregnant Women during the Second Wave of Pandemic in India

K Aparna Sharma, Nilanchali Singh, Anapti Garg, Purva Mathur, Kapil Yadav, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Background: The rapid spread of coronavirus disease-2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), raises particular concern for the health of a potentially vulnerable population, the pregnant women in particular. Data on the immune response to SARS-CoV-2 during pregnancy are lacking and the potential role and effect of SARS-CoV-2 vaccination in pregnancy is yet to be completely investigated.

Methodology: This is a cross-sectional observational study wherein, pregnant women were tested for SARS-CoV-2 immunoglobulin M and immunoglobulin G levels, irrespective of their infective status or presence or symptomatology.

Result: Of the 220 pregnant women tested, 160 (72.7%) were SARS-CoV-2 IgG positive, 37 (16.8%) were SARS-CoV-2 IgM positive and 27 (16.9%) were both IgG and IgM positive. The average antibody titre found was 10.49 BAU/ml (±14.0) and 0.6 (±0.55) for anti-SARS-CoV-2 IgG and IgM non neutralizing antibodies respectively. ROC analysis for SARS-CoV-2 IgG positivity showed a cut-off value of 1.19 with a sensitivity of 99.3% (0.99 AUC, 95% CI) and specificity of 98.3% (0.99 AUC, 95% CI) respectively. Similarly for SARS-CoV-2 IgM positivity showed a cut-off value of 1 with a sensitivity of 97.3% (0.99 AUC, 95% CI) and specificity of 98.9% (0.99 AUC, 95% CI) respectively.

Conclusion: First trimester sero-molecular screening suggests high prevalence of COVID antibodies in the study population of pregnant women in first trimester, without the patients being symptomatic.

Session 10

Date: 18th November, 2021 | **Time:** 10:00 am - 11:00 am

Rise in Pro and Anti-Inflammatory Cytokines in Asymptomatic and Mild COVID-19 Pregnant patients than Moderate to Severe Patients

Sakshi Aggarwal, Shakun Tyagi
Maulana Azad Medical College and Lok Nayak Hospital, Delhi

Objective: To differentiate the immune responses in asymptomatic, mild and moderate to severe COVI-19 infected pregnant patients.

Methods: An observational prospective study was carried out at a tertiary-care hospital on antenatal COVID-19 patients (n =25) over a period of 3 months. Subjects were divided into two groups, group 1 included asymptomatic or mild disease and group 2 had moderate to severe category. After recruitment, peripheral blood was collected and processed for markers.

Results: The sample mean age of patients in the study was 28. About 80% of patients were multigravida. Sampling was performed at the time of delivery with mean duration between Covid-19 positivity and sampling was 7 days. Based on the clinical, most cases which developed severe disease, there was deterioration in symptoms post-delivery. All moderate cases responded to steroid, anticoagulant and oxygen therapy and recovered within seven-days to three-weeks. Patients from all categories mostly had some high risk factor like hypertension, gestational diabetes, thrombocytopenia etc. present along with COVID-19. A significant (P>0.005) increase in pro-inflammatory cytokines including IL-1Î², IL -6, TNF-Î±, IL-17 a, IFN-Î±, IL-27 and IL-33 and anti-inflammatory cytokines including IL-2, IL -7, IL-9, and IL-15 in COVID 19 infected pregnant women was observed. Also levels of IL-6, IFN-Î±, IFN-Î³, TNF-Î± and IL-17a were expressed more in asymptomatic, however, mild patients showed more of IL-1Î², IL-6, IL-17a and IL-27 when compared to healthy patients. A surge of Il-8, Il-9, IL-15 and IL-33 was seen in both asymptomatic, mild and moderate to severe patients compared to healthy patients. But moderate to severe had decreased expression of all cytokines compared to asymptomatic and mild patients.

Conclusion: Rise of IL-6, TNF-Î± and IL-17Î± seen in asymptomatic COVID-19 infected pregnant patients could be due to rise of cytokines like IL-8, Il-15 and Il-33 in asymptomatic patients than mild patients.

The Implementation of Obstetric Triage in Obsgyn Emergency in Tertiary Care Centre from North India

Kiran Srichittala, Nalini Bala Pandey, Asmita M Rathore
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, new Delhi

Background: Obstetric triage is a systematic maternal and fetal assessment performed when a pregnant woman presents for care, to determine priority for full evaluation. No standardized system of triage exists in Maternity Care and local audit identified this to be problematic. We realized that integrated obstetrical triage process, prioritization and streaming the system needs to be evolved.

Objective: To establish triage system using triage tools for obstetric patients visiting Obs-Gynae emergency department of MAMC and associated Lok Nayak Hospital with target of 50% in 8 weeks duration.

Methods: Being a quality improvement study it was exempt for ethics review. The problem was initially analyzed using Fish bone technique (Harley et al 2016), which revealed that no existing triaging policy, no designated place, no display of markers and lack of awareness were the most important barriers. Obstetric triage tools adopted from Maternal and Fetal triage index 2015 was taken and modified. SOP of gynae emergency department were modified to incorporate new triage tool. training sessions were conducted. We started red, yellow and green color coding for triage. The staff were provided with display of guidelines. The change in practice was calculated by Triage percentage. Triage percentage= number of women triaged in ED X 100/10 files scanned in CLR The records of 10 patients admitted in labour room at a time admitted from gynecological emergency department were audited after every 3 days to know the percentage of triage and multiple Plan -Do -Study -Act (PDSA) were run to test the change ideas.

Results: We started obstetric triage system for brief duration from Dec 2019 till March 2020 and achieved triage percentage of 25% & 50% at the end of 4 weeks and 8 weeks respectively. We restarted our triage system in January 2021 till April 2021 after few hurdles due to COVID pandemic with 70% of triage percentage. After initial few days, it actually decreased overcrowding and provided improved quality care negating the initial perceptions otherwise.

Conclusion: Quality improvement methods resulted in significant positive change in compliance in triage protocol up-to 70% in 8 weeks.

Preclampsia in Covid-19: A Study to Compare Feto-Maternal Outcome in Covid 19 Positive Preeclamptic Women

Shweta Panwar, Sheebha Marwah
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To study maternal and neonatal outcomes in preeclamptic women infected with COVID-19. Background -COVID-19 pandemic has shown that the multisystem involvement in COVID infected patients is beyond the usual clinical manifestations of other respiratory viral illnesses. This study aims to evaluate the upshots of COVID-19 in women with preeclampsia. Corona virus entry occurs through two routes. The first occurs when the spike protein attaches to ACE2 receptor, SARS-CoV-2 enters the cell through the angiotensin converting enzyme 2 (ACE2) receptor, which is upregulated in normal pregnancy. The other pathway is the direct plasma membrane routes via transmembrane serine protease 2 (TMPRSS2), which allows for proteolytic cleavage of the spike protein and mediation of fusion with the cell membranes. SARS-CoV-2 downregulates ACE2 and covid infection during pregnancy may potienate the RAAS abnormalities that is increased Ang II relative to decreased Ang (1-7), that present in preeclampsia. Hallmark of preeclampsia is endothelial dysfunction, infection with SARS-CoV-2.

Methods: This descriptive study was conducted in department of Obstetrics & Gynaecology at VMMC & Safdarjung Hospital (May November 2020), wherein a retrospective review of the medical records of laboratory confirmed SARS CoV2 positive pregnant women (as per ICMR), with preeclampsia (as defined by ACOG guidelines), was done in the dedicated COVID labour ward. Primary outcome was incidence of preeclampsia in SARS CoV2 positive gravid females. Secondary outcomes were socio-demographic and maternal characteristics, severity of COVID-19 and feto-maternal outcome.

Results: During these seven months, 38/302 (12.58%) SARS COV2 positive women presented with pre-eclampsia, either before or at the time of admission; amongst which 47.37% were primigravidas. Severe preeclampsia was chronicled in 65.71% women. Around 1/5th women had severe COVID-19. All women

with severe COVID-19 required ICU stay, 5 requiring intubation. Three of these patients, succumbed to their illness. Out of the 40 babies born to these women (including 2 twin pregnancies), 36.84% were premature deliveries. Seventeen (42.50%) babies had low birth weight. Although 82.50% were live births, five (12.50%) were intrauterine demise and 2 were early neonatal deaths.

Conclusion: Gravid women with preeclamptic infected with SARS CoV2 have comparative more severe illness, requiring more intensive care requirement. Thus patient who present with preeclampsia along with COVID 19 have a more severe illness, intensive care requirement and higher maternal and neonatal morbidity compared to patients with COVID-19 without preeclampsia and preeclampsia in general. This can be explained by higher inflammation, multisystem involvement and augmented deteriorating effects of COVID-19 in the background of preeclampsia.

Diagnostic Accuracy of Neutrophil to Lymphocyte Ratio in Comparison with Liver Function Tests for the Diagnosis of Intrahepatic Cholestasis of Pregnancy

Taslim Mansuri, H P Anand
Vardhaman Mahavir Medical Collage
and Safdarjung Hospital, New Delhi

Objective: In this study, we aimed to find diagnostic accuracy of neutrophil to lymphocyte ratio in comparison with liver function tests for the diagnosis of intrahepatic cholestasis of pregnancy and adverse fetal-maternal outcomes.

Methods: NLR and aminotransferase (AST/ALT) levels in the blood samples of pregnant women with complaint of pruritus. 90 women with elevated transaminase were taken as cases and same number of women with normal aminotransferase levels taken as control. All were examined in this prospective case–control study.

Results: Not only was the mean NLR elevated in the pregnant women with cholestasis when compared to the controls, but it also predicted the severity of the cholestasis. The correlation between transaminase levels and NLR was significant.

Conclusion: Although TBA is still the diagnostic standard, NLR can be used as an initial screening tool due to its high specificity.

Knowledge, Attitude and Practice of Pregnant Women Towards Genetic Disorder and Prenatal Testings

Soumya Darshan
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Background: With a very large population and high birth rate, and consanguineous marriage favored in many communities, there is high prevalence of genetic disorder in India. Prenatal diagnosis for major genetic disorders and congenital disabilities with a poor prognosis and discontinuation of the pregnancy if the fetus is affected, is an accepted strategy for reducing the burden of genetic disorders. Ideally, pregnant women should be aware that they could find out the genetic status of their children as they are the ones who are the most affected by decisions concerning prenatal diagnosis. Knowledge, attitude and practice of pregnant women towards genetic disorder and their prenatal tests need to be assessed in order to facilitate use of tests, to enable them in making appropriate decision regarding continuation or termination of pregnancy when fetus is affected, to facilitate use of tests to improve health care system and policies.

Objective: To assess knowledge and attitude of pregnant women towards genetic disorders and prenatal tests.

Methods: This was a descriptive cross-sectional study conducted in Department of Obstetrics and Gynecologiy, Maulana Azad Medical College & Lok Nayak Hospital, New Delhi for a period of one year from 2019 to 2020. Study participants were 400 pregnant women in any of the three trimesters of pregnancy interviewed with structured questionnaires. Data was analyzed using SPSS version 25.

Results: Respondents mean age was 26 years. Majority of the respondents had post-secondary education, were experiencing their first pregnancy, and had no previous pregnancies or relatives with genetic diseases. More than half (92% and 94%) of the respondents had poor knowledge of genetic diseases and prenatal genetic testing. Majority (85.75%) were willing to undergo testing. 48.2% of the population stated that they would opt to terminate affected pregnancies. Knowledge of genetic diseases significantly corelated with decision to terminate affected pregnancies.

Conclusion: Pregnant women should also be educated about the genetic diseases especially down syndrome including the burden, risk factors, consequences and various modalities of risk assessment and diagnosis as well. There is room for improvement in subsidizing healthcare costs in the study area in order to facilitate use of tests.

Correlation of Placental Thickness with Gestational Age - A Descriptive Cross Sectional Study

Ashit Aaggarwal, Sana Sharfuddin, Murary Batsa Anup Pradhan
Lady Hardinge Medical College
Sikkim Manipal Institute of Medical Sciences

Objective: Determination of gestational age is an important part of antenatal check-up. It can be done using ultrasound examination with the help of various parameters. In first trimester crown to rump length (CRL) is used whereas combination of biparietal diameter (BPD) and CRL is used beyond 12 weeks. In 2nd and 3rd trimester - head circumference, BPD, abdominal circumference and femoral length are used. However, in doubtful situations where foetal biometry cannot be entirely relied upon placental thickness can be used for determination of gestational age.

Objective: To use placental thickness for determination of gestational age in second and third trimester pregnancies.

Methods: After IRB approval, descriptive cross-sectional study was conducted at a tertiary care centre. Pregnant patients attending antenatal care clinic and having gestational age above 12 weeks were included. Routine foetal biometry as well

as placental thickness was measured by ultrasound. Relationship between placental thickness and gestational age was analysed using Pearson and Spearmans correlation coefficient, P value.

Results: Placental thickness correlated well with gestational age as calculated by foetal biometry as well as from LMP. Placental thickness of 35.98 ± 4.12 mm corresponded to the gestational age of 37 weeks in 90% patients. The placental thickness positive correlated with the gestational age and foetal biometry (r=0.7; p<0.05).

Conclusions: Placental thickness correlated well with gestational age. Thus, it can be used for determination of gestational age of the foetus in cases where foetal biometry and last menstrual period cannot be relied upon.

Session 11

Date: 18th November, 2021 | **Time:** 11:00 am - 12:00 pm

Rate and Microbiological Characteristics of Surgical Site Infections (SSI) Following Caesarean Delivery

Anshul Tripathi, Rupali Dewan
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objectives

1. To determine rate and type of surgical site infection following caesarean delivery.
2. To study clinical and microbiological characteristics associated with surgical site infections following caesarean delivery.

Methods: This was a prospective observational study which was conducted on all the pregnant women undergoing caesarean section, either emergency or elective. It was done over a period of 2 months, which included a total of 963 women. All these women were followed for a period of 30 days for surgical site infections (SSI). SSIs were classified as superficial, deep and organ space infections as per Centre for Disease Control (CDC). In women who presented with SSI either incisional or organ space, discharge from surgical incisional site was collected with sterile cotton swabs and was sent for culture and sensitivity. Antibiotics were given as per antibiotic susceptibility of the isolated organism.

Results: The SSI rate was found to be 10.6% as per our study. The most common type of SSI was superficial incisional (49.51%) followed by deep incisional (41.7%), and organ space being least common (8.73%). Most common organism isolated from wound was Staphylococcus aureus (30.1%) which included MRSA (16.5%) followed by MSSA (13.6%). Risk factors associated with SSI were obesity, chorioamnionitis, PROM, diabetes mellitus, skin infections, previous LSCS as indication of LSCS, hypertensive disorder of pregnancy, prolonged surgery, extension of uterine incision and increased blood loss during surgery. These risk factors were found to be significantly associated with SSI.

Conclusion: A proper study and assessment of risk factors predisposing to SSI may help in reduction of rate of SSIs.

Perimortem Cesarean Section - How Much are Doctors Actually Aware?

Nitisha Verma, Nalini B Pandey
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Objective: To assess the awareness about cardiac arrest in pregnancy and various aspects of perimortem cesarean section(PMCS) among doctors.

Methods: 100 doctors from various hospitals in New Delhi were recruited. Doctors who specialized in branches like obstetrics, emergency medicine, anesthesia and intensive care, and pediatrics and neonatology were recruited, as they were most likely to be present during a cardiac arrest in pregnancy. They were asked to fill a predesigned questionnaire that assessed their knowledge and awareness about the salient features of cardiac arrest in pregnancy, and also perimortem cesarean section.

Results: The majority of doctors that answered the questionnaire (44%) were obstetrician - gynaecologists. Around 39% of doctors were not aware how to make a correct diagnosis of cardiac arrest in pregnancy i.e. absent carotids with no breathing. A good percentage of doctors (40-50%) were not aware about the unique difficulties faced in maternal cardiopulmonary resuscitation. Around 14(14%) of doctors were not aware what is a perimortem cesarean section, while 41(41%) did not know what is manual left lateral uterine displacement. Only 3 doctors had ever done a perimortem cesarean section, while 19 had assisted or seen it. According to AHA guidelines, PMCS should be done when there is no return of spontaneous circulation by 5 mins, and 44(44%) doctors did not know this. Only 18(18%) of doctors felt that they were strongly aware about cardiac arrest in pregnancy.

Conclusion: Perimortem cesarean section is done during maternal cardiac arrest, with the ultimate goal to successfully resuscitate both the mother and the foetus. Various case reports and studies have shown its value in aiding maternal resuscitation. Unfortunately, even though it is a procedure recommended by various international organizations, it is still performed very rarely in India due to lack of awareness and hesitancy. Thus, this study aims to assess awareness, while simultaneously creating awareness about this procedure.

Maternal and Perinatal Outcomes in Covid-19 Positive Pregnancy with Thyroid Dysfunction: A Pilot Study

Raj Rathod, Latika Sahu
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, New Delhi

Background: Uncontrolled thyroid disorder causes many adverse maternal outcomes like gestational hypertension, increased cesarean section rates. Fetal adverse outcomes like low birth weight, neuro-cognitive impairment. The novel coronavirus disease 2019 (COVID-19) is associated with adverse outcomes with increasing severity of disease. As no data is available regarding the impact of both COVID -19 and thyroid disorders in pregnancy, this study was conducted to fill the void.

Objective: To study any increased risk of adverse maternal and perinatal outcomes in COVID-19 positive pregnant patients with thyroid disorder.

Methods: All antenatal patients in third trimester or delivered patients admitted in our centre between April to december, 2020 with thyroid disorder with COVID-19 positive (Group-A) result were prospectively enrolled in the study. COVID -19 negative controls with thyroid disorder (Group-B) were enrolled retrospectively and compared for maternal and perinatal outcomes.

Results: Group A included 32 covid-19 positive pregnant women with thyroid disorder, out of which 23 were subclinical hypothyroidism (72%), 7 overt hypothyroidism (21%), and 2 hyperthyroidism (6.25%). All were either asymptomatic or mild COVID category. The cesarean rate was 37.5% in both groups. As per maternal adverse outcomes, Group-A had 5 cases of gestational hypertension (15%), 3 severe pre-eclampsia (9.3%), 3 anemia (9.3%) were as Group-B had 4 PIH (12.5%), 4 GDM (12.5%) cases. As per neonatal outcomes, 0, 1, 5 minute APGAR was normal in both the groups, and all tested negative for COVID in group-A. Average period of gestation at delivery was 38 weeks with an average birth weight 2.9 and 2.7 kg respectively in group-A and group-B. Group-A had NICU admission in 8 cases (25%), while only 1 NICU admission (3.12%) was noted in group B. No stillbirth or neonatal mortality noted.

Conclusion: Mild COVID infection with controlled thyroid disorder had favorable maternal and perinatal outcomes. No significantly increased maternal and perinatal adverse effects were noted in covid-19 positive group except for increased NICU admissions. With a multi-disciplinary approach, we were able to reduce maternal and fetal morbidity to a minimum and no mortality was noted.

Critical Care in Pregnancy and Childbirth during COVID 19 Pandemic; A Comparative Study of the First and Second Wave in a Tertiary Care Centre of North India

Suchandana Dasgupta, Sumitra Bachani
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: One and a half years after its first appearance in Wuhan China the SARS-CoV-2 pandemic is still raging in countries around the world. India experienced fewer morbidity and mortality during first wave than rest of the world however the second wave was devastating. During both the waves pregnant women were affected, some had severe illness and needed critical care, few succumbed to death. With evolving strategies new treatment protocols were added to the critical care for pregnant women with SARS-CoV-2 infection.

Objective: To compare the modalities of critical care received by antenatal and postpartum women during the first and second wave of COVID 19.

Methods: A comparative analysis of treatment strategies and outcomes of pregnant and postpartum women admitted in a tertiary care academic Institute during the first and second wave of the COVID 19 pandemic.

Results: Total of 257 and 94 pregnant or postpartum women were treated in the first and second wave respectively. Majority were asymptomatic in first wave however cough and difficulty in breathing with low saturation was seen in 12.37% women in second wave. National testing strategy changed from symptomatic to universal testing, more antenatal women(42%) were diagnosed positive in second wave. Changing strategies such as high flow oxygen, antiviral drug Remdesivir instead of Hydroxychloroquine, high dose methylprednisolone preceded by Dexamethasone (for fetal lung maturity), routine thromboprophylaxis, use of inflammatory markers for modifying the drugs helped mitigate deaths in moderate to severe cases in second wave. Maternal mortality was 1.94% in 1st wave and 3.09% in 2nd wave. Deaths in first wave occurred commonly in women with co morbidities such as chronic renal disease, carcinoma and severe preeclampsia. In second wave more women experienced cytokine storm, pulmonary complications and mortality was seen in young and healthy women.

Conclusion: The COVID 19 pandemic has not yet mitigated. The course of this disease in pregnant and postpartum women can be rapid and aggressive leading to death. Constant evaluation and improvisation of treatment protocols in the area of critical care for pregnant women can prevent severe morbidity and untimely demise.

Fetomaternal Outcomes in Pre-Eclampsia with Severe Features and Eclampsia

Suvidya Singh, Sangeeta Gupta
Maulana Azad Medical College
Lok Nayak Jai Prakash Hospital, Delhi

Objectives: To study the maternal and perinatal outcomes in severe HTN, severe Pre-Eclampsia and Eclampsia.

Methods: It was an ambispective observational study conducted in the Department of Obstetrics and Gynecology, Maulana Azad Medical College, New Delhi. All women diagnosed and admitted in our hospital with pregnancy with severe Hypertension/severe Pre-Eclampsia/Eclampsia during the defined study period were included and those with medical complications like diabetic disease, pre-existing heart disease, epilepsy were excluded.

Results: 60 cases based on inclusion criteria were taken. A total of 46 cases were collected retrospectively from case records between January 2019 to January 2020 and 14 prospective cases from February 2021 to July 2021. During the study period, there were 4071 deliveries. There were 52 cases of severe pre-eclampsia and 8 eclampsia cases. The proportion of severe pre-eclampsia cases being 1.2% and that of eclampsia being 0.2%. More than half of the patients in our study (63%) were unbooked/transferred. Among the severe preeclampsia group of patients, 65% delivered vaginally and 35% underwent Caesarean section. Among the eclampsia group of patients, 38% of patients underwent Caesarean section, 62% delivered vaginally. Maternal complications like HELLP occurred in 18 followed by abruption in 11, PPH in 11, renal dysfunction in 9, pulmonary oedema in 2. There were no maternal deaths. Neonatal mortality was seen in 4 cases (7%). IUFD or stillbirths were seen in 12.

Conclusion: The incidence of eclampsia can be reduced by better antenatal care, early recognition and prompt treatment of severe pre-eclampsia. For ignorant or undiagnosed patients

who present with convulsions, we can offer emergency services that will help to reduce both maternal and perinatal mortality due to eclampsia.

Evaluation of Serum Soluble Endoglin Levels in Preeclampsia: A Case Control Study

Y Sawarkar, R Agarwal, M Mehndiratta
A Suneja, R Aggarwal
University College of Medical Sciences
and Guru Teg Bahadur Hospital, Delhi

Objective: To compare serum soluble endoglin levels in preeclamptic patients versus normal controls.

Methods: The study was conducted between Nov 2019 to Oct June 2020 and February 2021 to April 2021, in Delhi. This study was conducted on a value of soluble endoglin in serum expressed in ng. The mean value reported in a previous study was considered for calculating the sample size. In study conducted by Nabiel et al, the soluble endoglin in preeclampsia and control were 25.76±3.9 and 14.98±2.39 pg/ml respectively. In order to detect this difference at α error = 5% and power of study =80%, a sample size of 15 cases is required in each group. But due to availability of time and resources, we propose to take 40 cases in each group. As per sample size calculation, 40 cases and 40 controls were enrolled in the study of which 40 were women with singleton pregnancy with diagnosis of pre-eclampsia for termination of pregnancy (dates confirmed by first trimester scan/sure of dates) meeting the inclusion and exclusion criteria were enrolled as cases and all normal healthy pregnant women matched for age and gestational age were taken as controls. Ethical clearance was obtained from Institutional Ethical Committee for human research. Samples were taken at the time of delivery or induction of labor. A detailed history, general physical examination and cardiovascular, respiratory and obstetrics examination of all the subjects were performed. PE was defined and classified as severe and non-severe based on ACOG Task Force on Hypertension in Pregnancy. Early onset PE was defined as onset of hypertension before 34 weeks and late onset PE as after 34 weeks. Last uterine and umbilical artery doppler findings was noted. Samples were stored at -20ºC. We analyzed and compared serum soluble endoglin levels between all cases and controls. Shapiro wilk test has been used to check normality. Statistical analysis was done as quantitative variables were compared using independent t-test. Qualitative variables were correlated using Chi-Square test. Receiver operating characteristic curve was used to find out cut off point of serum soluble endoglin levels for predicting cases and severe preeclampsia in cases. A p value of <0.05 was considered statistically significant. The analysis was done using Statistical Package for Social Sciences (SPSS) version 21.0.

Results: twenty-one PE cases were non-severe PE(52.5%) and nineteen were severe PE (47.5%). Of severe PE cases, 6 had HELLP (hemolysis elevated liver enzymes and low platelet counts), 1 had jaundice, 1 had deranged coagulation and 9 had pulmonary edema and 1 had oliguria. Early-onset PE (28%) was observed in 11 cases and late-onset PE (72%). Mean value of serum soluble endoglin was significantly higher in preeclamptic women 55.08 ± 21.42ng/ml as compared to controls 44.15 ± 12.02ng/ml in Indian population (p 0.006). Higher levels of serum soluble endoglin was seen in severe PE (59.20 ± 28.44ng/ml) compared to non-severe PE (51.36 ± 11.66ng/ml), though not significant (p 0.066). No significant difference (p=0.832) was seen in the mean value of serum soluble endoglin levels between early onset PE (50.93 ± 5.89) and late onset PE (56.66 ± 24.84). No significant difference (p value= >0.05)) was found when serum soluble endoglin was compared between HELLP (51.56±8.78ng/ml) and non-HELLP group (55.71±22.97ng/ml). sEng levels (54.23±6.68ng/ml) were higher in cases abnormal RI of uterine artery than in normal RI of uterine artery (52.01 ± 22.16 ng/ml) though not significant (p= 0.865). When mean value of serum soluble endoglin was compared in preeclamptic with normal PI of umbilical artery (52.62 ± 22.32ng/ml) and abnormal PI of umbilical artery (48.25 ± 9.47 ng/ml) no significant difference was found Abnormal uterine artery doppler was seen more in early-onset (33%) than in late onset PE (7%). However, abnormal umbilical artery doppler was seen more in late-onset PE (21%) than in early-onset PE (17%).

Conclusion: Preeclampsia cases had higher levels of serum soluble endoglin compared to controls and severe PE had higher levels of soluble endoglin compared to non-severe PE though not significant. Higher levels were associated with severe manifestations. There is definitive role of soluble endoglin in pathogenesis of preeclampsia due to its anti-angiogenic action.

Session 12

Date: 18th November, 2021 | **Time:** 12:00 pm - 01:00 pm

Fetomaternal Outcome Following Sweeping of Membranes at 39 Weeks of Gestation in Low-risk Women

S Singh, R Arora
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To compare the fetomaternal outcome of women who underwent sweeping of membranes at 39 weeks to women who did not.

Methods: A Randomised controlled trial was conducted with 200 low risk women attending ANC OPD, Randomisation of women was done by envelop method 100 in each group. Sweeping of membranes was done at 39 weeks in case group and gentle per vaginum examination was done in the control group. Women in both the groups were followed till 40+5 weeks of gestation, if there was no spontaneous onset of labour IOL was done. Caesarean sections were done asper indication and hospital protocol.

Results: The demographic details of the women in both the groups were similar. The 59 versus 36 women in the case and control respectively delivered before 40 weeks of gestation. 8 versus 22 women in case and control group respectively underwent caesarean section for failed IOL, 98% women in the control group experienced pain during sweeping of the membrane. No difference in the IOL rates, caesarean section rate and neonatal outcomes was observed. No incidental rupture of membranes was observed.

Conclusion: It was concluded that sweeping of membranes at 39weeks of gestation in low-risk women was an effective method in preventing post datism. Pain during sweeping of the membranes should be considered.

Cervical Strip Biopsy Versus Punch Biopsy in Women with Abnormal Pap Test - A Comparative Study

Meena Parihar, Prabha Lal
Lady Hardinge Medical College
and Smt Sucheta Kriplani Hospital, New Delhi

Objective: To compare the histopathological findings of colposcopically directed cervical strip biopsy with punch biopsy in women having abnormal PAP test report of High grade squamous intraepithelial lesion (HSIL), Atypical squamous cells cannot exclude high grade lesion (ASC-H) and to see agreement between two.

Methods: 30 cases of women with high grade lesion on PAP test (ASC-H and HSIL) were included in the study. Detailed history and examination including general physical examination, per abdomen, per speculum examination was done. All women with abnormal PAP report were subjected to colposcopic examination and guided strip biopsy (curette) and punch biopsy (biopsy forceps) from abnormal areas and sent it for histopathological examination. Final agreement between strip biopsy and punch biopsy was calculated from cohen kappa statistics.

Results: Among 30 cases on histopathology 43.33% of patients diagnosed as squamous cell carcinoma, 23.33% of cases diagnosed as cervical intraepithelial neoplasia 3 on and compared to punch biopsy. 57.14 % of CIN3 and 92 % of SCC were confirmed on punch biopsy. In our study 86.66% of strip biopsy were adequate for definitive histology evaluation. We showed that strip biopsies give a fair agreement (kappa value .2424) with punch biopsies when abnormal areas are adequately visualised by colposcopy in high grade lesion.

Conclusion: Diagnosis of abnormal cytology requires verification in tissue biopsy. Cervical strip biopsy, a new technique, is reported to be associated with less trauma, pain & has comparable histopathological findings to that of punch biopsy. Very few such studies are available in literature & none in Indian setting. Therefore, through this study we have tried to validate the positive claims emanating from the sparse literature that is presently available and explore this innovative technique for biopsy of cervical tissue.

Pregnancy Outcome in Women with Inflammatory Cervical Smear

M D S Vathsalya, Vijay Zutshi, Mukul Singh
Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, Division of Gynae Oncology, Metro Super Speciality Hospital and Cancer Research Centre, Delhi

Objective: To study the pregnancy outcome in women with inflammatory cervical smear.

Methods: This prospective observational study was conducted from October 2019 to March 2021 (18 months), among 150 antenatal women, attending tertiary care hospital in North India. Approval by ethics committee of the institution was obtained. One fifty women attending antenatal clinic at gestational age less than twenty weeks, irrespective of gravida and parity, and who fulfilled inclusion criteria were enrolled. After obtaining patients' written and informed consent, detailed history, clinical examination done and entered in predesigned proforma. Pap smear was taken either by conventional method using Ayre's spatula and endocervical brush or liquid based cytology by Rover's brush whichever was available. Details were noted and the samples were sent for examination to department of pathology, and reporting was done using Bethesda system 2014. Women with inflammatory pap smear were followed till abortion or delivery. Gestational age at delivery or abortion was noted. Post-delivery or post abortion, women were monitored for 48 hrs and observed for signs of infection. Number of admissions to NICU, and any evidence of sepsis in the newborn were noted.

Results: Inflammation on cytology was present in 100% pap smears. Mild, moderate and dense inflammation was present in 68%, 28%, 4%, respectively. Out of one hundred and fifty pap smears taken, seven (4.7%) showed microorganisms (candida-2.7%, bacterial vaginosis-2%), these women were excluded from the analysis and were given treatment according to standard protocol. Hundred and forty-three women (96%) with inflammatory smear were followed till delivery. Eight women (5.6%) delivered preterm and one hundred and thirty-five women (94.4%) delivered at term. Fourteen (9.7%) new born babies were sent to neonatal intensive care unit (NICU). Post-delivery, none of the mother and new born showed any signs of sepsis. There was no statistically significant difference in terms of pregnancy outcome (term and preterm) and inflammatory cervical smear. Fischer's extract test was used to explore the association between inflammation and period of gestation at delivery. There was no statistically significant correlation between inflammatory cervical smear and pregnancy outcome ($p>0.05$).

Conclusions: There is no correlation between inflammatory cervical smear and pregnancy outcome.

Do Indian Women with Infertility Need Frequent Cervical Cancer Screening?

Priyanka N, S Singh, G Khanna, A Batra
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To study and compare the frequency and patterns of abnormal cervical cytology in the infertile and fertile women.

Methods: A prospective cross sectional study conducted in a tertiary hospital, India from October 2019 to March 2021. A total of 305 fertile women aged between 20-45 years attending the OPD, and 305 infertile women were recruited. Pap smear were taken in both the groups and reported according to Bethesda system.

Results: The mean age of infertile and fertile women is 28.07 and 31.16 years respectively. Mean age of menarche in fertile and infertile women are 13.09 and 13.78 years respectively. Mean age of first sexual intercourse was 21.94 years in fertile and 21.03 years in infertile group. In infertile group 2.6% women and in fertile group 95.4% women were multiparous (≥2). The practice of perineal washing before and after intercourse was significantly higher in infertile group. Women with multiple sexual partners in both the groups were not found to have abnormal cervical cytology (p value = 0.384). Most of the infertile women had normal cervical cytology (89.8%). The abnormal cervical cytology was higher in fertile women. In infertile

women 0.7% had ASCUS and 0% HSIL while in fertile women 1.3% had ASCUS and 0.3% had HSIL. Nonspecific inflammation was seen to be 2.9% in infertile group and in 30.8% fertile group. Infections like HSV (0%, 0.3%), Gardnerella (3.0%, 6.9%), candida (2.0%, 3.0%) and granulomatous changes (0%, 0.3%) in infertile and fertile group, respectively.

Conclusion: Higher parity significantly increases the risk of abnormal cervical cytology ($p<0.001$). NILM was observed more in infertile women while infections and inflammatory smears were found to be more in fertile group ($p<0.001$). The pre malignant lesions observed in infertile and fertile group were ASCUS (0.7%, 1.3%) and HSIL (0%, 0.3%), respectively. Age of menarche, marriage, first sexual intercourse had no correlation with abnormal cervical cytology in both study groups. Sexual practice like multiple sexual partners, anal intercourse, perineal wash before and after intercourse had no impact on pap smear findings. We found only 1.6% of unsatisfactory smears due to low cellularity even by conventional pap.

Diagnostic Accuracy of P16INK4A & KI67 Staining in Liquid Based Cytology Cell Block in Detecting Pre-Invasive and Invasive Lesions of Cervix in Cases Positive by Visual Methods

Mamta Kumari Meena, Archana Mishra, Sachin Kolte
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To study the accuracy of VIA in detecting pre-invasive and invasive lesions of cervix, accuracy of LBC in detecting pre-invasive and invasive lesions of cervix and compare p16INK4a and Ki67 immunostaining with colposcopy for detecting pre-invasive and invasive lesions of cervix.

Methods: This Cross-Sectional Study was conducted over a period of 18 months.

Results: Diagnostic accuracy of VIA positive 52.9%, PPV 52.9% and false positivity rate 47.1% for ≥CIN1 and diagnostic accuracy of VIA positive 27.1%, PPV 27.1% and False positivity rate 72.9% for ≥CIN2. Liquid Based Cytology results were compared with biopsy findings Sensitivity, Specificity, PPV and NPV for CIN 1 or higher lesions was 86.5%, 100%, 100% and 86.8% and for CIN2 or higher lesions was 100%, 74.5%, 59.4% and 100% respectively. p16 immunostaining results with biopsy finding Sensitivity, Specificity, PPV and NPV for CIN 1 or more was 56.8%, 100%, 100% and 67.3% and for CIN2 or more 94.7%, 94.1%, 85.7% and 98% respectively. ki67 immunostaining results with biopsy findings Sensitivity, Specificity, PPV and NPV for CIN 1 or more was 56.8%, 100%, 100% and 67.3%. And for CIN2 or more was 89.5%, 92.2%, 81% and 95.9 respectively. Colposcopy results with biopsy findings sensitivity, specificity, PPV and NPV for CIN 1 or more was 86.5%, 100%, 100% and 86.8%. And for CIN2 or more was 100%, 74.5%, 59.4% and 100% respectively.

Conclusion: p16ik4a & ki67 in LBC cell block are accurate pre-invasive and invasive lesion of cervix with Sensitivity, Specificity, PPV, NPV of combined p16ink4a & ki67 for CIN1+ or higher lesions was 59.5%, 100%, 100%, and 68.8% and for CIN2+ or higher lesions was 94.7%, 92.2%, 81.8% and 97.9%.

Poster Presentation

Session 1

Date: 16th November, 2021 | **Time:** 10:00 am - 11:00 am

Pelvic Abscess Complicating Late Pregnancy

Manisha
MGM Medical College, Kishanganj, Bihar

Introduction: Pelvic and peritoneal abscess complicating pregnancy is rare. Although nongynaecological conditions contribute to the aetiologies of this unusual complication during pregnancy, rarely it may also be a complication of chronic pelvic inflammatory disease. As the classical clinical features are altered by the gravid uterus, the antenatal diagnosis of chronic PID is difficult. The delayed diagnosis and management may be detrimental to both mother and foetus. We present a case of peritoneal abscess secondary to chronic PID which was found incidentally at repeat caesarean section.

Case: A 32-year-old woman with gravida 2 Para 1 Living 1 with previous caesarean section at 29 weeks four days of gestation was referred with diffuse pain abdomen and giddiness. Her first pregnancy was three years back for which she underwent caesarean section for placenta previa. She continued to have episodes of pain abdomen in the postnatal and interpregnancy period for which symptomatic treatment was done. She was pale on examination. Her vital signs including temperature were normal. There was no guarding /rigidity except mild tenderness on abdominal examination. The uterus was corresponding to 28-week gravid-uterus size and was showing occasional contractions but no scar tenderness. Foetus was in breech presentation having regular heart rate. Obstetric ultrasound showed single live intrauterine foetus corresponding to 29- to 30-week gestation. She went into spontaneous preterm labour. She was posted for emergency caesarean in view of previous caesarean with breech presentation under spinal anaesthesia with the coverage of antibiotics. On opening the abdomen, multiple pockets of pus were noted in the peritoneal cavity, and the coils of intestine and omentum were found adherent to the fundus and anterior upper surface of the body of the uterus. Lower segment caesarean section was done, and live male baby weighing 1.37 kg was extracted as breech. Then the general anaesthesia was induced, and the exploration was done by extending the incision. The adhesion between loops of intestine and uterus was released. Loculated pus was drained from subhepatic and subphrenic spaces. The right salphinx and ovary looked congested and unhealthy covered all over by pus. The left tube and ovary were normal. Patient was discharged on 14th postoperative day in healthy condition. Histopathological examination of fallopian tube showed areas of haemorrhage and lymphoplasmacytic inflammatory infiltrate and that of the ovary showed chronic inflammatory infiltrate suggestive of pelvic inflammatory disease.

Clinical Relevance: PID should be considered in a differential diagnosis of abdominal pain even in pregnancy in spite of its rarity. Prompt and early diagnosis is mandatory for decreasing maternal and perinatal morbidity and mortality.

Unusual Presentation of Placenta Accreta in Primigravida

Khyati, Arpana Haritwal, Bela Makhija
Max Smart Super Speciality Hospital, Saket, Delhi

Introduction: Placenta accreta spectrum refers to an abnormal invasion of placental villi into the myometrium due to deficient decidua basalis. The exact cause for it is still not known with certainity, but the most acceptable theory is that there remains a defect in the decidual layer of endometrium in a previously traumatised area. This allows anchoring villi of placenta to reach and invade the myometrium. In this study, we report a case of Placenta Accreta in a primigravida, managed conservatively.

Case: A 36 year old, primigravida, reported with a history that she had been having continuous vaginal spotting and bleeding since early pregnancy. She was being managed conservatively for the same by numerous obstetricians, however the bleeding did not abate. She began to become anaemic, therefore she decided to abort her pregnancy. She underwent a second trimester abortion outside, and gives history of having being shifted to ICU and transfusion of 3 units of blood and 2 units of fresh frozen plasma. She was discharged when she stabilized. However, she continued to bleed and at this point she reported to our hospital. She was conscious and well oriented. She looked pale and dehydrated with a blood pressure of 110/70 mmHg and pulse rate of 108/minute. Respiratory and cardiovascular examination was unremarkable. Abdominal inspection did not reveal any surgical scar marks. It was soft and non tender. Speculum examination showed active bleeding. We sent her blood for routine investigations as well as for serum Beta hCG levels, which turned out to be 314.25mIU/mL. Transvaginal Ultrasound was done which reported a large mass with solid cystic areas measuring approximately 6 x 5 x 8.3cm in the endocervical canal and lower part of uterine cavity with prominent vascularity. Colour Doppler Flow Imaging was done which was suggestive of Placenta Accreta. Since the patient was nulliparous, it was important to try and preserve the uterus, therefore, conservative management was tried with intramuscular Methotrexate and an emergency backup plan for hysterectomy after proper counselling of the patient regarding her medical condition and the lines of treatment.

Clinical Relevance: Although Methotrexate is not a standard approved treatment by most International Organisations, it can be useful in select cases with proper counselling and under strict monitoring, where uterine preservation is desired and important.

Aortoarteritis in Pregnancy: A Series of Three Case Reports

Zeba Khanam, Yashi Nagar, Divya Pandey, Sumitra Bachani, Jyotsna Suri
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Takayasu arteritis is a chronic granulomatous large vessel arteritis with an underlying immunological/genetic

etiology. It affects 2.6-6.4 individuals in every one million population. Young females of Asiatic descent are the most commonly affected group. Pregnancy usually does not alter its course but may be complicated by severe hypertension, fetal growth retardation, and cardiovascular compromise. We present here a series of three such cases of Takayasu arteritis in pregnancy and discuss the intricacies encountered in their management.

Case 1: A 28-year-old multigravida with a previous cesarean section and a known case of stage V Takayasu arteritis was admitted at 35-weeks POG with deranged blood sugars, hypertension, and a history of lower limb claudication. Her long segment of the distal descending aorta was stenosed (75% occlusion) till celiac axis origin. Her infra-renal aorta was completely occluded till the origin of the inferior mesenteric artery with the reformation of the distal aorta by the arch of Riolan (collaterals from inferior and superior mesenteric artery). She was induced with dinoprostone gel at term. However, a lower segment cesarean section had to be done due to failed induction of labor through a midline vertical abdominal incision. In the immediate postoperative period, she developed accelerated hypertension and had to be started on multiple anti-hypertensives. She was discharged on postoperative day four with a healthy baby and stable vitals.

Case 2: Another 27-years-old primigravida with stage I Takayasu arteritis (thickening of the arch of aorta, brachiocephalic and right subclavian artery) and hypertension presented at three months amenorrhoea to the outpatient department with elevated lower limb blood pressure and low volume right carotid pulse. She was followed up throughout her pregnancy until delivery. Labour was induced due to superimposed preeclampsia. The patient had an uneventful intrapartum and postpartum period.

Case 3: The third woman, a 21-year-old nullipara and a known case of Takayasu arteritis presented with severe hypertension, sudden onset breathlessness, headache, and palpitation to the emergency department. She was diagnosed with acute left ventricular failure and bilateral renal artery stenosis and received intensive care unit care support before she delivered a macerated dead fetus vaginally. She underwent bilateral renal artery stenting and was discharged in a stable condition.

Clinical Relevance: Women with Takayasu arteritis may become gravely ill during pregnancy and childbirth. Successful management of such cases requires close collaboration of expert obstetricians, cardiologists, interventionists, and anaesthesiologists, all working towards the goal of optimized maternal and fetal wellbeing.

Chorioangioma of Placenta: A Rare Placental Cause for Adverse Fetal Outcome

Anurag Chaudhary, Ruchi Bhandari
Arpana Haritwal, Bela Makhija
Max Smart Super Speciality Hospital, Saket, New Delhi

Introduction: Chorioangioma is a benign angioma of placenta arising from chorionic tissue. Large chorioangiomas are usually associated with adverse fetal or maternal outcome such as fetal growth restriction, polyhydramnios, fetal anemia, intrauterine fetal distress, intrauterine fetal demise preterm delivery, Premature rupture of membrane and sometimes association with pre-eclampsia in the mother.

Case: 35 years old primigravida who had been having regular antenatal checkups including ultrasounds as per scheduled, and all ultrasounds were reported normal. Patient had an uneventful antenatal follow up. She was advised a scan at 28-32 weeks of gestation for fetal growth with well being which showed a large chorioangioma of 7.1x4.8x5.0cms. There was no fetal growth restriction, no polyhydramnios, no signs of fetal anemia and all doppler parameters were within normal range. Estimated fetal weight of 2.259 kgs. After this incidental finding close monitoring was done to assess any further growth of the chorioangioma with weekly ultrasound and doppler studies. After one week size of Chorioangioma had increased to 7.6x5.3x5.5cms and next ultrasound showed it to be 7.7x5.0x5.1cms. Patient was given steriod cover for fetal lung maturity. Patient had spontaneous rupture of membranes at 35 weeks 5 days of gestation, induced with misoprosolt and had vaginal delivery with a female child of 2.7 Kgs. After delivery, placenta was sent for histopathology and report showed features consistent with chorioangioma.

Clinical Relevance: Usually large Chorioangiomas are associated with the above stated complications. This placental growth became obvious only at 32 weeks it did not produce any complications and patient had an uneventful delivery. However large Chorioangiomas require strict monitoring by ultrasound and doppler to decide if interference is warrantied in the form of Amniocentesis, Laser Coagulation or Intrauterine fetal transfusion.

Pregnancy and Mechanical Heart Valve

Amrita Rathee, Sumitra Bachani, Sakshi Nischal
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Normal pregnancy is associated with significant hemodynamic changes which requires major cardiac adaptations. Changes in heart rate, peripheral vascular resistance, plasma volume and cardiac output are significant during this period. Moreover women with prosthetic heart valve are at an increased risk of thrombotic events. With the advancement of medical science and increased accessibility to health care services, more and more women with mechanical heart valve are choosing to become pregnant.

Case Report: We hereby report a case series of four antenatal women with mechanical valves booked and delivered in department of Obstetrics and Gynaecology at Safdarjung hospital. They were in the age group of 21-28 years, NYHA class II-III and managed under a multidisciplinary team with the help of senior obstetricians, cardiologists and Cardio-thoracic vascular surgeons. Amongst four women one had mitral valve replacement and the rest had double valve replacement. One of them had gestational hypothyroidism and one had cholelithiasis. They were risk stratified (WHO category),closely monitored, admitted for the changeover of anticoagulants and in case of necessity due to associated co morbidities. While on LMWH these women were monitored with levels of factor anti Xa. Unfractionated Heparin infusion was started 48 hours prior and continued till six hours prior to planned delivery. Labour was induced by prostaglandins while on UFH, they were delivered by vaginal or cesarean delivery and were observed in postnatal period in high dependency unit. Three

were discharged with live baby, adequate anticoagulation and cardiac evaluation. Unfortunately one woman developed Atrial fibrillation in the peripartum period. She was administered Betaloc and Amiodarone infusion for reversing the fibrillation. However after an emergency cesarean she had a cardiac arrest and despite best efforts could not be revived.

Clinical Relevance: Pregnant women with mechanical heart valves can have a favourable outcome with proper monitoring and multidisciplinary approach in a tertiary care institute.

Role of Intravenous Immunoglobulin Versus Steroids in A Case of Chronic ITP with Drug Induced Diabetes: Management Dilemma

Vartika Sharma, K Aparna Sharma, Deepali Garg,Rinchen Zangmo, Nilanchali Singh,Saima
All India Institute of Medical Sciences, New Delhi

Introduction: ITP is an acquired thrombocytopenia characterised by immune mediated destruction and impairment ofplateletproduction. Incidence ranges between1 in 1000 to 10000 pregnancy; accounting for 3% of the causes of thrombocytopenia in pregnancy. Its a diagnosis of exclusion and is further worsened by pregnancy induced hematologic adaptations (15-20% drop in counts). Overall risk of bleeding is usually low (1% for intracerebral haemorrhage), which increases if patient has <10000 count and history of previous bleeding. Steroids are mainstay of treatment, however, management dilemma arises when it is associated with steroid induced diabetes.

Case: A 26 years old woman, G5P1L1A3 was referred to Antenatal OPD at 25 weeks pregnancy from haematology clinic. She had history of purpural rashes all over body and menorrhagia with low platelet count of 4000/uL. Bone marrow biopsy revealed ITP an year ago. She was started on tab Wysolone and tab Azathioprine. When pregnancy was diagnosed later in second trimester, she was advised admission. On admission, her platelet count was 5000. She was started on escalated dose of wysolone 80mg. She developed diabetes and required insulin therapy with blood sugar monitoring. IVIG (1g/kg) was given to decrease steroid dosage. Platelets improved from 5000/uL to 1.4 Lakh/uL over three days. She received further doses of IVIG. She also required RDP transfusions. With IVIG, dose of wysolone could be reduced to 40 mg OD. Patient kept on continuous fetomaternal surveillance and induced at 37 weeks to deliver vaginally. She had uneventful peripartum period and was discharged on tab Wysolone 30 mg OD.

Clinical Relevance: Chronic ITP can lead to deleterious outcomes for both mother and baby and needs to be kept high in differentials of thrombocytopenia during pregnancy. IVIG might act as a wonder drug in cases of steroids induced diabetes. Multidisciplinary approach is needed.

Purpura Fulminans: A Rare Life Threatening Condition with Cutaneous Manifestations

Kajal Baleja, Rekha Bharti, Aprajita Chawla, Sunita Yadav
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Purpura Fulminans is a rare syndrome of intravascular thrombosis and hemorrhagic infarction of the skin that is rapidly progressive and is accompanied by vascular collapse and disseminated intravascular coagulation. The proposed pathophysiology is qualitative or quantitative deficiency in protein C. Acquired protein C deficiency predominates in the etiology of idiopathic and acute infectious purpura fulminans.

Case Report: We present a case of a 26 year old woman presented in emergency as G4P1L1A2, 33 weeks twin pregnancy with preterm premature rupture of membrane with severe anaemia, thrombocytopenia not in failure and preeclampsia without severe features. She was transfused 2 units packed cells and delivered spontaneously. On postnatal day 2 patient developed swelling of left leg with purplish discolouration of skin near groin for which Doppler was done and deep vein thrombosis was ruled out. Next day purplish discolouration extended to left leg, she was started on antibiotics. Patient was planned for debridement of gangrenous skin but the discolouration of skin rapidly progressed to involve whole of the left lower limb extending to the right lower limb. By postnatal day 5 all four limbs of the patient were involved including labia, mons and lower abdomen. Dermatology opinion was sort and patient was diagnosed as Purpura Fulminans. She developed hypotension with respiratory distress for which IV fluids and vasopressors were started and patient was intubated. She was planned for intravenous immunoglobins but by the time IVIG was arranged patient had cardiac arrest and could not be revived. Her serum protein levels were found to be low.

Clinical Relevance: Purpura Fulminans is a rare rapidly progressing disorder associated with high mortality. Immediate heparinization and infusion of FFP with early administration of activated protein C concentrates and Intravenous immunoglobulin (IVIg) therapy may prevent mortality.

Invasive Pituitary Adenoma in Pregnancy: Diagnostic and Management Dilemma

Anapti Anil, Deepali Garg, Nimisha Agrawal Shivangi Mangal, Nilanchali Singh, Rinchen Zangmo K Aparna Sharma
All India Institute of Medical Sciences, New Delhi

Introduction: During pregnancy, the pituitary gland experiences change in anatomy and physiology. Its size may expand an average of 120%. Due to elevated maternal oestrogen, the percentage of lactotrophs also increases up to 40%. Prolactinomas are the most prevalent functional benign pituitary tumors. The risk of tumor enlargement may occur in 3% of those with microadenomas, 32% in those with macroadenomas that were not previously operated on, and 4.8% of those with macroadenomas with prior ablative treatment. Pregnant women with large tumors and those with

extrasellar extension who have stopped bromocriptine are at a risk for tumor growth, and formal visual field testing should be done in each trimester.

Case: A 29-year-old female came to antenatal clinic at 13 weeks with pain abdomen and was admitted with us. She was a diagnosed case of invasive pituitary adenoma 3 years back and had progressive diminution of vision in both eyes. Patient had prolactin level of 17450 initially and was started on cabergoline since then. MRI was done s/o 7.9 X 7.2 X 6.7 cm solid cystic sellar suprasellar lesion, extension into sphenoid sinus and mass causing indentation and splaying of internal carotid artery. On right side primary optic atrophy was found and left side there was mild disc pallor. Multidisciplinary approach sought and visual field testing was done every trimester and on repeat MRI brain mild reduction of pituitary adenoma found. Patient was continued on cabergoline throughout pregnancy and delivered vaginally with no complications. Postpartum cabergoline was continued and baby was given top feeds.

Clinical Relevance: Managing prolactinoma during pregnancy is challenging as prolactin levels are not reliable to assess the progression of disease. Clinical trials highlighting the outcomes of medical therapy versus surgical therapies are scarce. Patient should be treated on individual basis with multidisciplinary approach.

Chronic Liver Disease with Decompensation In a Pregnant Lady Managed by Second Trimester MTP

Niku Mandal, Saima, Arshiya, Deepali Garg
Rinchen Zangmo, K Aparna Sharma

Introduction: CLD with decompensated feature has poor prognosis on both maternal and fetal outcome. Management involves a multidisciplinary team. Pregnancy as such isnot contraindicated in women with cirrhosis but Child Pugh class B or C cirrhosis is associated with higher risk complications. Here we report a case of 30 year old female with CLD with Portal HTN with Child Pugh class B who presented to us at 16 weeksof gestation.

Case Report: We report a case of a 30year old female G2P1L1 with known case of chronic liver disease with portal hypertension. Patient had her first antenatal visit at AIIMS OPD at 16 weeks POG. She was admitted for workup and risk evaluation. After admission all her routine investigation were sent, Gastroenterology consultation was sought and risk stratification done on which she was found to be in Child Pugh b classification, her recent endoscopy showed low grade oesophageal varices. With multidisciplinary approach, pros and cons for continuing with pregnancy v/s termination was explained to the patient and she opted for medical termination of pregnancy. MTP done with one tab 200mg Mifepristone followed 48 hours later with misoprostol 400mcg 3 hourly. She aborted with the 4th dose of Misoprostol. Post MTP Copper T insertion was done for contraception. Post abortion course was uneventful and patient was discharged in stable condition with an advise to follow up with the Gastroenterology department.

Clinical Relevance: CLD with decompensated feature can have adverse maternal and fetal outcome. Variceal bleeding is one of the most dreaded complication that increases with advancing gestation, so patient should be adequately counselled about contraception options to avoid unintended pregnancy, but if she conceives, with multidisciplinary approach timely termination of pregnancy should be done after counselling of the couple for the better maternal outcome.

Ordeal of a Woman with Vaginal Agenesis: A Case Report

Soni Kumara, Sarita Singh, Komal Dhaiya, Achla Batra
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Congenital vaginal agenesis is a rare malformation with incidence of one in 4000-5000 female new born. These patients present with primary amenorrhea, inability to accomplish intercourse, periodic abdominal pain. The surgical treatment techniques for vaginal agenesis include vaginal dilatation with dilator, vecchietti procedure, davydov and McIndoe technique & intestinal vaginoplasty. Complication due to McIndoe vaginoplasty can be hemorrhage ,infections, cheloid scar or fistula, dyspareunia ,vaginal stricture.

Case: A 29 years old unmarried female presented with primary infertility and dyspareunia, cohabitating since 10 yrs. At 14 yrs of age she presented with cyclical abdominal pain since 3-4 months and was diagnosed as vaginal agenesis with normal functioning uterus & bilateral ovaries, she underwent Mcindoe vaginoplasty in 2009 in local private hospital but developed urethrovaginal fistula post surgery. After 1 yr of surgery she presented with vaginal stenosis & hypomenorrhea because of irregular use of mould, and was referred to AIIMS where she underwent repeat surgery (Lower vaginal adhesions excision along with drainage of ovarian abcess). Again after 10 years, she presented at Safdarjung hospital with primary infertility with dyspareunia and was found to have vaginal shortening and hypospadias and a pinhole attenuated cervix.

Clinical Relevance: Reconstruction of vagina in women with vaginal agenesis with a normal functioning uterus, fallopian tube, and b/l ovaries is a challenging task. The intraoperative or early postoperative complications are distal urethrotomy, infected hematoma, rectovaginal fistula. The late postoperative complications rectovaginal fistula, stricture, urgency, rectocele. Women with vaginal agenesis can require multiple surgeries and are at high risk of urethral and rectal injury. Such cases should be referred to higher centre from beginning to decrease morbidity as the outcome is best after primary surgery and repeat surgeries become more difficult due to fibrosis and can lead to more complications thus increasing the lifelong morbidity of the women.

Fetal Chaos: Exit is a Rescue

K Aparna Sharma, Vatsla Dadhwal, Deepali Garg
Rinchen Zangmo, Anapti Garg
All India Institute of Medical Sciences, New Delhi

Introduction: Fetal congenital high airway obstruction syndrome (CHAOS) is complete or almost complete obstruction of the upper airway. It is a rare defect and exact incidence is unknown. This condition is caused by stenosis or atresia of larynx or trachea. If no intervention is done immediately after birth, leads to increased perinatal mortality. Antenatal ultrasound findings like bilateral enlarged, hyperechoic lungs, flattened and dilated airways and inverted diaphragm are suggestive of

CHAOS and antenatal fetal MRI is confirmatory. EXIT (ex utero intrapartum therapy) is done at the time of delivery, where controlled delivery of the fetus is done by giving uterine incision and fetal airway is secured before clamping the fetal umbilical cord. This is a challenging procedure and require a lot of planning, rehearsals and highly synchronized performance of multiple disciplines. There are real risks of antepartum and postpartum hemorrhage and fetal hypoxia due to placental detachment. We are presenting a case of antenatally detected CHAOS, where EXIT procedure led to successful outcome.

Case: A 31 year old, G2 P1L1 booked pregnancy with normal aneuploidy screen and second trimester anomaly scan developed fetal hydropic features at 32 week and ultrasound findings were suggestive of upper airway obstruction. Antenatal fetal MRI confirmed the diagnosis. EXIT procedure was performed at 38 week. Baby was delivered and intubated under direct vision before clamping the cord. Baby was diagnosed with subglottic stenosis, collapsed left lung and chylothorax. Baby performed well in postnatal life and slowly extubated. Mother and baby were discharged after 2 months of hospital stay. Child's surgery is planned at 2 years of age.

Clinical Relevance: EXIT procedure are life saving and need multidisciplinary team involvement.

Pemphigoid Gestationis: A Rare Dermatological Disorder Specific to Pregnancy

Yashi Nagar, Rekha Bharti, Amrita Rathee, Renu Arora
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Intrahepatic cholestasis of pregnancy, pruritic urticarial papules and plaques of pregnancy, atopic eruption of pregnancy, and pemphigoid gestationis are some dermatological disorder specific to pregnancy. Pemphigoid gestationis (PG) is a rare bullous autoimmune disorder specific to pregnancy with occurrence of 1 in 60,000. It is seen to be associated with significant fetomaternal morbidity. The maternal immunoglobins IgG target collagen XVII (BP 180) found in basement membrane of skin and amniotic epithelium. This activates the complement system leading to damage of dermo-epidermal junction causing blistering. Pemphigoid gestationis has been seen in patients with preexisting autoimmune disease.

Case: We present a case of 29 year old female G3P2L2 presented to safdarjung hospital at 34 weeks 5 days gestation with bullous lesions over arms and forearm, and plaques over periumbilical region. She was a case of pregestational type 1 diabetes mellitus for which she was on medical nutrition therapy and insulin. Dermatological consultation was done and she was diagnosed with pemphigoid gestationis. She was started on local steroid and oral antihistaminic (levocetrizine). Termination of pregnancy was done by Emergency caesarean section under spinal anesthesia; baby was admitted in NICU in view of low birth weight and respiratory distress and died on postnatal day 2. Patient was discharged on day 8 after control of blood sugar levels. The skin lesions were resolving but she still had large bullae for which she was advised to continue local steroids. She was followed on day 10 for suture removal and she had healthy stitch line with resolving skin lesions. Patient advised regular follow up in dermatology and endocrine OPD.

Clinical Relevance: Preexisting autoimmune disorders are risk factor for pemphigoid gestationis. Topical high potency corticosteroid and oral antihistaminics are first line treatment. Timely treatment is important for prevention of severe maternal and fetal morbidity.

Steroid Cell Tumour of Ovary Presenting with Secondary Amenorrhea and New Onset Hirsutism

Ayushi Negi, Parul Chandra, Anju Singh
Garima Kachhawa, Rajesh Khadgawat
All India Institute of Medical Sciences, New Delhi

Introduction: Androgen secreting tumors is a rare ovarian tumour with incidence of 0.2% presenting with features of hyperandrogenism like secondary amenorrhea, virilization, horseness of voice, hirsutism, clitoromegaly. Steroid cell tumours present with precocious puberty and virilising features.

Case: 22yr old presented to AIIMS endocrinology OPD with complaints of secondary amenorrhea associated with deepening of voice, abnormal hair growth on face and chest, perineal swelling since 2015 which has increased over last 7-8 months. On general physical examination breast was tanner 2 and modified Ferriman Gallwey score was 29, pubic hair tanner 5. On local examination clitoromegaly 2.5 cm (prader score-1) noted, PV showing vagina well canalized, cervix firm, regular, uterus A/V normal size, B/L fornices free, non tender. USG was suggestive of 3*2 cm solid cystic mass lesion in left ovary, on CECT pelvis 3.4*2.9cm solid cystic lesion with intense enhancementseen in left ovary. Tumour markers- CA 125 6.7 u/ml, CA19.9 37.43 u/ml, AFP 3.26 ng/ml, beta HCG 1.2 mu/ml, CEA 2.38 ng/ml and serum testosterone 10.2 ng/ml, LDH 331 u/l. Clinical diagnosis of androgen secreting tumor of was made and patient taken up for laparoscopy with peritoneal wash cytology and left salpingo-oophorectomy with B/L peritoneal biopsy. Histopathology report was s/o steroid cell tumor.

Clinical Relevance: Steroid cell tumors are extremely rare contributing to only 0.1% of all ovarian tumors and should be considered as a rare differential diagnosis in females presenting with features of virilization.

Session 2

Date: 16th November, 2021 | **Time:** 11:00 am - 12:00 pm

Ovarian Ligament Plication as a Treatment for Patient with Elongated Ovarian Ligament with Recurrent Abdominal Pain in the Absence of Ovarian torsion

Priyanka Das, K K Roy, Rakhi Rai, Rinchen Zangmo
Deepika Kashyap, Ashmita Saha, Anshul Kulshreshtha
All India Institute of Medical Sciences, New Delhi

Introduction: Elongated ovarian ligament can lead to adnexal torsion. Several cases of ovarian torsion have been reported where ovarian ligament was elongated and ovarian detorsion and ovarian ligament plication was done.

Case: A young girl presented with recurrent left lower abdominal pain especially after exercise with normal ovaries on ultrasound. Laparoscopy was performed in view of recurrent pelvic pain and found elongated left ovarian ligament with normal ovaries. Considering the possibility of recurrent torsion and detorsion of ovary due to elongated left ovarian ligament, left ovarian ligament plication was done. Patient remained pain-free till 1 year of follow up. No such case has been reported in literature where ovarian ligament was performed in the absence of torsion. Hence to conclude, elongated ovarian ligament could be a cause of recurrent pelvic pain due to possible torsion and a simple easy procedure of ovarian ligament plication can help in relieving pain.

Clinical Relevance: Ovarian ligament plication may help to relieve the pain abdomen in the absence of ovarian cyst or any other cause of recurrent abdominal pain considering a possibility of spontaneous torsion and detorsion due to elongated ovarian ligament.

Parotid Area Sign - A Unique Sign of Fluid Overload in Hysteroscopy

Baseerat Kaur, Jyoti Mishra
Jaypee Hospital, Noida, UP

Introduction: Operative hysteroscopy has emerged as an effective alternative to hysterectomy and has become standard surgical treatment for various gynaecological conditions. However, it may be associated with rare but serious complications. The operative hysteroscopy intravascular absorption (OHIA) syndrome may occur due to excessive fluid overload caused by intravasation of distension media leading to hyponatremia and volume overload. Parotid area sign is simple, effective and easy to perform test that require minimal equipment or training. The increase in distance between two fixed points on one side of cheek is measured: the midpoint of the philtrum and a point on the mastoid prominence. The philtrum-mastoid prominence distance was measured at the begining, during and at the end of procedure.

Case: A 46 year old female, para 4, presented to OPD with complaint of heavy menstrual bleeding for 9 months. Her menstrual cycles were regular with heavy flow and passage of clots. She was continuously bleeding for 3 months. She underwent Endometreial biopsy 6 months back reporting endometrial hyperplasia without atypia. She was diabetic and hypertensive, controlled on treatment. General physical and breast examination were normal. Abdominal examination was unremarkable. Per speculum examination revealed healthy cervix and vagina with bleeding coming out through os. On vaginal examination, uterus was bulky, retroverted, mobile with bilateral fornices free. Lab investigations were normal. PAP smear- NILM. Ultrasonography showed bulky uterus with thick endometrial lining(20 mm). The patient counselled and Hysteroscopy with Transcervical resection of endometrium(TCRE) with Mirena insertion planned. Pre-operative vitals were stable. On hysteroscopy, thick overgrown endometrium seen with normal bilateral ostia. Endometrium was resected using wire-loop resectoscope with uni-polar cautery. Distension media used was 1.5% glycine. When the procedure was nearly 90% complete, EtCO2 decreased, NIBP 90/70 mmHg, pulse rate 100/min, chest auscultation reveals diffuse crackles, abdominal distension present and swelling in bilateral parotid area noted (Parotid area sign). The procedure was stopped. Mirena inserted. Inj lasix 40mg IV given. The bladder was catheterized with urine output of 100ml. ECG was normal. Arterial blood gas (ABG) revealed hyponatremia with metabolic acidosis. The measured glycin deficit was approx 1 litre (glycine used minus efflux via resectoscope, perineal drapes, suction). The clinical detioration was ascribed to glycine fluid overload. The patient was shifted to intensive care unit. Serial ABG were performed and sodium correction given. Post-operative haemogram, LFT, KFT were normal. Parotid area swelling decreased. She was discharged after 48hours. HPE showed endometrial hyperplasia without atypia. She remained asymptomatic on follow-up visit.

Clinical Relevance: OHIA syndrome can be reduced, if not avoided, by close monitoring of fluid balance. Parotid area sign supplements the volumetric fluid balance method in the detection of fluid overload during resectoscopic surgery. It also enables us to detect fluid overload when volumetric fluid balance method fails to detect extraneous losses caused by spillage.

Multiple Leiomyomas with Mullerian Duct Anomalies

Divith Khagraj, Ananta Kanwar, Anjali Dabral
Vardhman Mahavir Medical Sciences
and Safdarjung Hospital, New Delhi

Background: Mullerian duct anomalies usually present early in life with symptoms of primary amenorrhoea, cyclic/noncyclic pelvic pain due to cryptomenorrhoea. Rarely women with primary amenorrhoea can present later in life as pain and mass per abdomen that are caused by multiple Leiomyomas.

Case: We report a case of 50 year old nulliparous female who presented to the Gynaecology outpatient department with complaints of primary amenorrhoea, mass per abdomen since 1 year and dull aching pain in abdomen since 6 months. She gave history of vaginoplasty at the age of 20 years. On examination non tender abdominopelvic mass corresponding to 20 weeks gravid uterus was felt in hypogastric and umbilical region with well-defined margins and restricted mobility. Ultrasound showed bulky uterus with multiple myomas with largest in uterine body/ fundus rest of myomas were scattered, 2-3 cm in size, and one myoma in left broad ligament. MRI showed large heterogeneous multilobulated, pedunculated mass in midline pelvis attached to right side of fundus 13.5x8.6x9.1 cm in size. ET was 2.5 mm, Mass had multiple cystic areas. A pedunculated fibroid 4.5x3.1x4.3 cm lesion in left iliac fossa adhered to posterior surface of left broad ligament. Upper 2/3rd of vagina was atretic and only lower third of vaginal canal was patent. Patient was taken up for Total Abdominal Hysterectomy with Bilateral Salpingoopherectomy. Intraoperatively bicornuate uterus with right fallopian tube & ovary with incompletely formed cervix was present. A right subserosal fibroid of 10x8cm with cystic changes was seen, left uterus had blind end with a subserosal fibroid of 4x4cm with left side fallopian tube and ovary. Mullerian anomaly of ESHRE classification U3aC4V4 was made. Histopathological examination reported uterus didelphys with multiple leiomyomas showing cystic degenerative changes.

Clinical Relevance: Mullerian duct anomalies can be associated with leiomyoma of the remnant ducts and can rarely present later in life as a mass per abdomen with pain due to pressure.

De-Differentiated Liposarcoma Masquerading as Broad Ligament Fibroid

Aayushi Rathore, Akanksha Gupta, Anjali Dabral
Anita Kumari, Rekha Bharti
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Dedifferentiated liposarcoma (DDLPS) is a rare variant of liposarcoma (1 in 330,000 persons/year) arising in the background of a pre-existing well-differentiated liposarcoma with a more aggressive clinical behaviour and greater propensity for local recurrence and metastasis.

Case: We report the case of 46 year lady, P2L2 with history of ductal carcinoma of right breast eight years back managed by modified radical mastectomy, 6 cycles of chemotherapy and 5 years of tamoxifene. She presented with heavy menstrual bleeding, vaginal discharge, heaviness in lower abdomen and backache. On examination a hard 16 weeks size abdominopelvic mass was felt in lower abdomen. Imaging studies suggested a 10 X 10cm left lateral wall fibroid uterus with areas of fatty, cystic and red degenerative changes further causing left hydroureteronephrosis and urethral compression indicating lipoleiomyoma. PET scan and MRI showed metastatic pelvic and vertebral lesions. On laparotomy a 10 X 10 cm encapsulated mass was found occupying the left ischiorectal fossa and rectouterine space which was densely adherent to left iliac vessels thereupon resulting in iliac vein injury while removal of mass which was repaired. Hence, TAH with BSO was done coupled with enucleation of mass leaving the capsule intact. Histopathology disclosed a tumour comprising of cartilage, spindle cells and fat with lipomatous differentiation and margins were found positive. On IHC, it was positive for vimentin and S-100 (positive for lipoblast) and negative for SMA favouring dedifferentiated liposarcoma. Biopsy from suspicious lesions in pelvic bone unveiled features of malignancy. Since her mammography revealed fibroadenosis (BIRADS 2), a diagnosis of dedifferentiated liposarcoma with bony metastasis was made and the patient was started on radiotherapy.

Clinical Relevance: Dedifferentiated liposarcoma typically originates in the retroperitoneum and extremities. Therefore its peculiar placement masquerading as broad ligament fibroid was unforeseen and posed a huge diagnostic and therapeutic enigma.

Endometrioma in a Case of Mullerian Duct Anomaly

Lovely Singh, Shailja Aggarwal, Anjali Dabral, Rekha Bharti
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: The association between obstructed mullerian duct anomalies and endometriosis is well established and the pathogenesis is attributed to theory of retrograde menstruation. Anomalies in mullerian ducts are congenital alterations with more prevalence than it is imagined varying from 0.5-6.7% in the general population and up to 16.5% in women with recurrent miscarriage. Main findings are amenorrhea, dysmenorrhea, pelvic pain, endometriosis, sexual difficulties.

Case: A 22 yr old women presented to SJH emergency complaining about acute pain abdomen associated with menstruation and abdominal mass since 1 year. On examination, a firm mass 10x16 cm in size with restricted mobility, non tender, smooth margin, and lower margin could not be reached. On P/V examination- same mass felt through all the fornices. USG was suggestive of large left adnexal cystic lesion with low-level internal echoes s/o endometriotic cyst. MRI was suggestive of spectrum of mullerian duct anomaly with unicornuate right uterus with non-communicating left obstructed rudimentary horn with hematometra and hematosalphinx and /or left endometrioma. Laparotomy was done in which left fallopian tube and left sided non-communicating horn of uterus were seen distended with menstrual blood. Excision of left uterine horn with left salphingectomy with left endometriotic cystectomy was done. Section from ovarian cyst sent for H/P/E was suggestive of ovarian endometriosis.

Clinical Relevance: The clinical presentation and treatment of mullerian duct anomalies are directly related to the anatomy of the defect. Ovarian endometrioma should be suspected when obstructive malformations and active endometrial remnants are present associated with symptoms of cyclical abdominal pain during menses. Appropriate management is crucial for optimizing post-operative outcome and to reduce recurrence.

Autosomal Recessive Polycystic Kidney Dieases: A Case Report

Priyanka Naik, Sarita Singh
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: Cystic kidneys are a frequent cause of end-stage renal disease in both children and adults. The two main forms of cystic kidney disease are autosomal dominant polycystic kidney disease (ADPKD) and autosomal recessive polycystic kidney disease (ARPKD). ARPKD is rare and commonly manifests in children, whereas ADPDK is common and usually presents in adults. Genetic analysis can improve the management of the condition, but the pathogenesis of polycystic kidney disease remains unclear. Cystic kidney diseases are defined by the presence of one or multiple cysts, which are benign lesions contained in a serous fluid-filled sac.

Case: A woman G2A1 at 29 weeks of gestation came with complaints of leaking per vagina for 2 days with anhydramnios. She was admitted, evaluated and treated for preterm premature rupture of membranes meanwhile USG was done to rule out any anomalies in the foetus as she had a previous history of gross congenital anomaly (GCA) in the foetus.in her anomaly scan, there was no GCA detected. On USG there were bilateral, symmetrically enlarged, echogenic kidneys filling the foetal abdomen. The urinary bladder was not visible and the amniotic fluid index was 0. There were no other anomalies noted and the fetal liver was normal. Both the parents were normal on evaluation and there was no family history of renal diseases on the maternal or paternal side. She was counselled about the recurrent GCA in the foetus and the need for further evaluation of the foetus for genetic diseases. Patient delivered spontaneously a 400grams foetus. In the previous pregnancy, she had similar complaints of leaking per vagina in the 2nd trimester with spontaneous expulsion of the foetus. The foetus had GCA that is bilaterally enlarged kidneys with right subclavian

aberrant artery suggestive of polycystic kidney disease(PCKD) Investigations: Autopsy of the foetus grossly showed bilateral polycystic kidneys, histopathological examination(HPE) of the bilateral kidneys showed enlarged numerous cysts and on microscopy a flattened to low cuboidal epithelium surrounded by fibrosis. Section of the liver showed variable sized cystic spaces with flattened lining in the portal tract. The gross and microscopic features were in favour of ARPKD.

Clinical Relevance: ARPKD belongs to a group of congenital hepatorenal fibrocystic syndromes and causes renal and liver-related comorbidities in children. The hyperechogenicity of the kidneys can be diagnosed after 17 weeks gestation and results from the presence of multiple micro cysts, dysplasia or tubular dilatation. The differential diagnosis should take into account family history and the presence of associated anomalies. If there are no other malformations in the fetus, the main diagnosis is polycystic kidney disease - recessive or dominant.

Rare Case of Pregnancy with Ca Ovary

Sonam Berwa, Jyoti Meena, K Aparna Sharma
Nilanchali Singh
All India Institute of Medical Sciences, New Delhi

Introduction: Carcinoma ovary in reproductive age group is rare and first presentation during pregnancy is very uncommon. Carcinoma ovary if present during pregnancy, are typically germ cell and borderline ovarian tumors. Low grade or high grade tumors are even rare and pose diagnostic and management dilemma.

Case: This is rare case of 27 years old female, G2P1L1 at 23 weeks POG with hypothyroidism presenting with ovarian mass first time detected in antenatal USG scan. It was unilocular cyst with solid component and increased internal and peripheral vascularity. On examination abdomen was distended and uterus was palpable upto 24 weeks. She was evaluated for left ovarian mass to rule out malignancy. Her tumor marker was raised with CA-125 value of 84.8, AFP- 81.37 with normal LDH, CEA. RMI index was 272.5, with high suspicion for malignancy. Because of pregnancy, CT scan could not be done, henceforth, MRI pelvis was performed which was suggestive of 4.9x3.9x3.9cm solid cystic lesion in left adnexa - ovarian in origin with possibility of borderline ovarian tumor with maintained planes with uterus, bladder and recto-sigmoid. Patient was planned for Surgical intervention. Exploratory laparotomy was performed-peritoneal wash cytology taken, left ovarian mass excision with salpingo-oophorectomy done, intraoperatively there was left ovarian solid cystic mass size of 6x6 cm, mobile- sent for frozen section- suggestive of low-grade serous carcinoma but invasion could not be assessed so omental biopsy taken and abdomen was closed. There were no inter-operative or post-operative complications. On histopathology it turned out to be low grade serous carcinoma diagnosed as low-grade serous carcinoma stage 1 with grade 1. At present patient is at 31 weeks period of gestation and continuing her pregnancy with a healthy fetus with regular follow-up. A multidisciplinary tumor board with surgical pathologists, medical oncologists and gynae oncologists have made further treatment plan for the patient.

Clinical Relevance: Adnexal mass during pregnancy is rare and management of it can be challenging for the patient as well as for doctor. Adnexal mass should be evaluated with imaging and tumor markers for the nature of mass. Expectant management is recommended for most pregnant patients with asymptomatic, nonsuspicious cystic ovarian masses. Surgical intervention during pregnancy is indicated for large and/or symptomatic tumors and those that appear highly suspicious for malignancy on imaging tests.

Prevention of Congenital Syphilis: Testing in Early Pregnancy May not be Enough

Akanksha Gupta, Aayushi Rathore
Rekha Bharti, Shobhna Gupta, Anjali Dabral
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Background: Congenital syphilis causes fetal or perinatal mortality in 40% of the infants affected. It can cause nonimmune hydrops, cholestatic jaundice, hepatosplenomegaly, rhinitis, skin rash, or pseudoparalysis of an extremity in newborn. Effective prevention of congenital syphilis depends on early identification of syphilis among pregnant women.

Case: We present a case of $G_3P_2L_2$ with previous caesarean delivery admitted at term with labour pains. Emergency caesarean section was done for fetal distress with meconium stained liquor. Baby was shifted to nursery in view of respiratory distress. Baby had papular rash on bilateral palms, soles, upper arms and abdomen. Patient had VDRL testing done in second trimester which was negative. During 8th month she developed maculopapular rash all over body including palms and soles. She gave history of single unprotected intercourse during current pregnancy in the 5th month. Husband had history of maculaopapular rash all over body prior to intercourse for which he did not take any treatment. There was no history of primary chancre in patient or husband. Examination of patient revealed pigmented macules with slight desquamation on both palms and soles, along with a atrophic scar on labia. She tested positive for VDRL with 1:32 titres and TPHA positive. Skin biopsy taken from the active lesion was reported as suggestive of secondary syphilis. Patient and her husband were started on inj benzathine penicillin. Baby also tested positive for syphilis and concurrently developed E Coli sepsis. Baby was also started on antibiotics. After 35 days baby was on breast feed and discharged in good condition.

Clinical Relevance: For prevention of congenital syphilis, serologic testing done during early pregnancy may miss infection acquired during pregnancy. Therefore, for elimination of congenital syphilis, repeat screening in the 3rd trimester should be done.

Case Series on Vascular Retained Product of Conception: A Management Paradox

Ashu Bhardwaj, Sarita Singh, Mily Pandey
Achla Batra, Puneet Garg
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To discuss the management options of retained products of conception (RPOC) with increased vascularity.

Methods: A retrospective analysis of three patients with

rpoc with increased vascularity was done. All these women presented with excessive bleeding per vaginum and were hemodynamically stable at presentation. Presentation, management and follow up data was collected.

Results: All the three cases of rpocs with increased were successfully managed. One underwent uterine artery embolisation. The other two cases were managed by careful dilatation and curettage.

Conclusion: In the patients of rpocs with increased vascularity, uterine artery embolisation offers a modern, safe and effective treatment option. However, it requires skilled interventional radiologist and availability of dedicated operation theatre. Care full dilatation and curettage can be tried in these patients, as a first line method, with adequate blood products arranged and a standby team to manage any catastrophic event. And thus, hysterectomy can be avoided as a primary option.

Pregnancy with History of Vascular Thrombosis, An Obstetricians Row to Hoe

Shalini Singh, Jyoti, Rajesh Kumari, Anju singh, Reeta Mahey, Neerja Bhatla
All India Institute of Medical sciences, New Delhi

Introduction: Obstetricians have to keep their heads high, when it comes to patients who are on anticoagulant and are high risk for vascular thrombosis. The myriad of barriers in antenatal care will range from pulmonary thromboembolism, deep venous thrombosis, antepartum hemorrhages, postpartum hemorrhages, warfarin embryopathy, FGR and still births. We hereby report a case series of three different patients with various etiology which differently illustrates the complications, which we need to stay vigilant for.

Cases

Case 1: Twenty seven year old G3P1011, with known case of Budd chiari syndrome, with history of Right hepatic vein outflow and IVC and Right hepatic vein angioplasty, with previous lower segment cesarean section, was managed on conservative management for covid infection and underwent ERCD without any intraoperative and postoperative complications and discharged on Day 3.

Case 2: Thirty year old G2P1001, with k/c/o Right tibial fibrous dysplasia, with Right anterior tibial artery thrombosis, depressive disorders previous full term lower segment cesarean section was managed for mild covid infection in antenatal period and underwent ERCD and discharged comfortably on post op day 5.

Case 3: Twenty year old G5P1031, with retrovirus positive, with CLD with portal hypertension, portal vein thrombosis with previous full term cesarean section underwent ERCD at term and discharged on day 4.

Clinical Relevance: This is how we managed all three different patients and ended up in successful maternal and fetal outcomes. With a vigilant Antenatal and intranatal care, such high risk pregnancy can be managed successfully.

An Unusual Case of Postpartum Fever: Acute Pulmonary Tuberculosis

Nisha, Vatsla Dadhwal, Neena Malhotra, Vidushi Kulshrestha, Richa Vatsa, Juhi Bharti
All India Institute of Medical Sciences, New Delhi

Introduction: Postpartum tuberculosis is defined as TB within 6 months after delivery. In postpartum period, delayed diagnosis is common as symptoms of active TB can be mistaken for symptoms related to the pregnancy itself.

Case: We report the case of 24years old, spontaneous conception, G2P1L0 with 37+3wks gestation with rheumatic heart disease (Severe mitral regurgitation) and history of cerebrovascular accident in 2016. She underwent elective caesarean because of breech in labour. Intraoperative period was uneventful. She started having high grade fever on post-operative day(POD) 3. On workup, there was no cause identified and she was managed conservatively on antibiotics. Later, on POD 10, she was found to have a collection of 5*2.9cm in uterovesical space. On POD 13, patient went into shock, started on noradraline and after stabilisation, she underwent laparotomy with peritoneal collection drainage. She recovered but again developed low grade fever after 1 week of laparotomy. Chest x ray showed collapsed lung with right side pleural effusion. She was treated on the line of hospital acquired pneumonia but fever persisted. Pleural fluid analysis was suggestive of tuberculosis. She was started on ATT and is doing well.

Clinical Relevance: Puerperal tuberculosis although rare, should be considered in the differential diagnosis of puerperal sepsis. A strong clinical suspicion leads to early diagnosis and consequent adequate treatment.

Session 3

Date: 16th November, 2021 | **Time:** 12:00 pm - 01:00 pm

Case Report: Placenta Increta in Primigravida

Bhagyashree Dewangan, Shivani Agarwal
Kasturba Hospital, Delhi

Background: Placenta increta is a type of morbidly adherent placenta characterised by invasion of placental villi into myometrium either completely or a part of it. Prevalence is 1-2/1000 live births and 0.01% in unscarred uterus and is rare entity in primigravida. The most important risk factor in Primigravida is associated previa. Other factors include myomectomy, curretage, myometrial ablation. The outcomes of syndrome are potentially life threatening and its conservative management becomes important to preserve future fertility.

Case: We report a rare case of unbooked patient 24 years Primigravida 34weeks +4days with history of Hysterosalphingography and Endometrial Sampling done two years back for primary infertility with complaint of pain abdomen with Breech presentation, married for 4Â½years, spontaneous conception and had normal investigations including 1st n 2nd trimester scan. Emergency LSCS was done. Intraoperatively, a live baby boy 2.3 kg extracted as Breech, cord clamped and cut, placenta could not be delivered spontaneously even after

10mins, manual removal tried but was unsuccessful. Uterus exteriorated, fundus examined. A blurred vascular bulge seen at right side fundoposterior part. Serosa was intact. Approximated blood loss was 1000cc. Blood arranged and transfused. Placenta left in situ, uterus closed. Bilateral uterine arteries ligated. Hemostasis achieved. Right tube was edematous, Left tube and bilateral ovaries were normal. Counts complete, abdomen closed in layers. Patient was shifted to HDU for conservative management.

Clinical Relevance: Primigravida without any risk factors may not be identified until third stage of labor when an adhered placenta is encountered. Obstetricians should always have suspicion of adherent placenta when any intrauterine procedures have been performed in patient in past and perform prenatal USG/MRI for diagnosis and multidisciplinary approach intraoperatively and postoperatively to prevent adverse fetomaternal outcome.

Antimicrobial Susceptibility Pattern of Surgical Site Infection Following Caesarean Delivery

Kumari Jyoti, Rekha Bharti, Anjali Dabral, Divith Khagraj
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Objective: To determine the antimicrobial sensitivity of bacterial isolates obtained from surgical site wound cultures following Caesarean delivery.

Methods: It was a cross sectional, observation study conducted over a period of two months in one of the obstetrics ward at Vardhman Mahavir Medical College and Safdarjung Hospial, New Delhi. Women with surgical site infections (SSI) after caesarean delivery were included in the study. Surgical site infection was defined as an infection occurring within 30 days after a caesarean section. A total of 172 women underwent caesarean delivery during the study period. Wound swab was collected from all the patients who developed SSI and Microbiology culture and antibiotic sensitivity were conducted. The main outcome measures studied were development of SSI, microoganisms isolated in culture and the antibiotic susceptibility of the bacterial isolates.

Results: Out of 172 participants who had caesarean deliveries, 15 (8.72%) women developed SSI. The common bacterial isolates were Methicillin-resistant Staphylococcus aureus (33.33%), E. Coli (13.33%), Pseudomonas (6.67%), Enterococcus (6.67%), Klebsiella pnemoniae (6.67%). Most of the isolates were resistant to the commonly used antimicrobials. Isolates were highly resistant to cephalosporins and amoxicillin and moderately resistant to fluoroquinolones. The antimicrobials that had high sensitivity to these isolates were Piperacillin and Tazobactam, Clindamycin, Vancomycin, Meropenem and Amikacin. Almost all bacterial isolates were sensitive to Piperacillin/Tazobactam and Clindamycin.

Conclusion: After caesarean delivery 8.72% women developed SSI, Methicillin-resistant Staphylococcus aureus was the most common isolate from wound cultures. Most of the bacterial isolates were sensitive to Piptaz and Clindamycin.

A Rare Case Report - Sirenomelia Dipus

Preeti, Vinita Sarbhai
Kasturba Hospital, Central Delhi

Background: Sirenomelia or mermaid syndrome is a rare and fatal congenital condition. The fusion of the lower extremities characterizes it to form one single lower limb and is associated with musculoskeletal, urogenital malformations. It affects 1 in 100,000 live births worldwide. It is not associated with chromosomal anomalies. Common risk factors include maternal diabetes mellitus, drug abuse and consanguineous marriage.

Case: We report a rare case of an unbooked 24 yrs old G2P1L1 at 36 weeks + 4 days with previous LSCS with breech with GHTN was admitted with complaint of pain abdomen. She had a non consanguineous marriage with no family history of genetic disorders. She had delieverd healthy term male baby 3 yrs back by EmLSCS. This was a spontaneous conception, was non diabetic and no h/o drug abuse. She had a single 3nd trimester scan at 28 weeks showing anhydraminos. No GCA scan available. Departmental scan done shows 36 week alive breech fetus with AFI=1cm. EMLSCS was performed and she delivered a baby of 1.8kg with unexpected sirenomelia who expired after 5 hours in NICU. On examination of baby single umbilical artery was present. Baby had normal trunk and fused lower limbs upto ankles. Sex could not be identified as genitalia was absent. No anal opening. A tail like structure seen at caudal end. Deformity was present at right wrist. Potters facies was present. Usg was suggestive of left renal agenesis.

Clinical Relevance: A diagnosis of sirenomelia should be easier to make during the first trimester because the amniotic fluid volume is relatively normal. During later periods, ultrasonographic diagnosis may be prevented because severe oligohydramnios in later gestation hampers vision. With increasing emphasis on early diagnosis of fetal abnormalities, this case highlights the importance of looking for anomalies in the first trimester itself.

A Case of Non Immune Hydrops Fetalis: Diagnosis and Management

Ankita Agarwal, Saima, Deepali Garg, K Aparna Sharma
All India Institute of Medical sciences, New Delhi

Introduction: Hydrops fetalis refers to abnormal fluid collections in at least two fetal serous cavities often associated with skin oedema. The widespread use of anti-D immune globulin has dramatically decreased the prevalence of RhD alloimmunization. We present a case of Non immune hydrops fetalis managed by single intrauterine blood transfusion.

Case: 37-year-old female G4P2L2A1 referred to AIIMS at 29 weeks POG with hydrops fetalis diagnosed on delayed anomaly scan. Her blood group was O positive. ICT done to rule out minor red cell alloimmunisation. ICT came out negative. Fetal echo was done to rule out cardiac disease. Cordocentesis was done and sample sent for enzyme assay, intrauterine infections ruled out. Patient received one intrauterine transfusion at 30 weeks of gestation. Monitoring done weekly with MCA-PSV and for features of hydrops. Patient had vaginal delivery at 37 weeks POG delivering 3.1 kg healthy male baby. This was one case of

idiopathic hydrops fetalis where we could not find any cause, most probably it was due to some undetectable fetal infection.

Clinical Relevance: Hydrops is associated with a broad spectrum of diseases. An attempt to determine the etiology of hydrops should be made at the time of diagnosis. A single intrauterine transfusion usually suffices in fetal anaemia due to fetal infections.

Timely Administration of Pre-Operative Antibiotics: A Quality Improvement Project

Shivangi Mangal, K Aparna Sharma, Juhi Bharti, Rinchen Zangmo, Gayatri Suresh, Kaloni
All India Institute of Medical Sciences, New Delhi

Background: Administration of pre-operative antibiotics in major surgeries is a chief step to prevent post operative surgical site infection along with hand washing, OT behaviour and conditions. Ideal time of administering antibiotics before any major surgery is within 1 hour of the incision or just before the incision. Antibiotics are repeated if the surgery is prolonged over 4 hours or if blood loss is more. This quality improvement project was aimed at improving the administration timing of pre-operative antibiotics before major gynaecological surgeries. During routine surgical cases, it was noticed in our unit that lot of patients were receiving antibiotics much before starting of the surgery or after the incision was made. It was then decided to amend the practices such that this crucial step could be rectified.

Methods: Aim statement was made to increase the number of patients who received antibiotics within 1 hour from baseline of 16.5 % to 90% in 4 weeks in department of Obstetrics and Gynecology of AIIMS, Delhi under unit 2. POCQI approach was used. Fish bone analysis done and outcome indicators were determined after forming a QI team and appropriate interventions including changing of pre-op orders, redefining SOPs and motivating residents were made.

Results: The number of patients who received antibiotics within 1 hour increased up to 100% in next 4 weeks after 2 PDSA cycles.

Conclusion: Pre-operative antibiotics are integral in prevention of SSIs and adherence to its appropriate timing is a step that all healthcare workers must abide with. Small changes made at critical tread can improve the outcomes easily.

Fishbone Analysis as a Quality Improvement (QI) Tool to Understand Delay in Early Initiation of Breastfeeding in Vaginal and Cesarean Birth

Aditi Chawla, Sarita Singh, Achla Batra
Vardhman Mahavir Medical College
and Safdarjung Hospital, New Delhi

Introduction: QI is a management approach that equips health care workers with skills that allow them to change how they work to ensure that they can apply evidence based practice. World Health Organization (WHO) recommends that breastfeeding should be initiated within one hour of delivery which is referred to as "early initiation of breastfeeding". The factors influencing breastfeeding practices need to be thoroughly assessed through QI and results can be implemented to the knowledge of the ongoing system. The objectives of this study were to determine the prevalence and practices of early initiation of breastfeeding (EIBF) and exclusive breast feeding (EBF) after caesarean delivery (LSCS) and vaginal delivery (VD).

Methods: This questionnaire based cross-sectional study was conducted at a tertiary healthcare with a total of 100 participants with singleton pregnancies. A fish bone diagram was constructed and demographic and breast feeding parameters were obtained, compared and analysed.

Results: Mean age was 26.4 years (SD 4.5 years). EIBF was seen in 57% with 25% initiating after 4 hours. EBF was seen in 62%. 43.3% patients with preterm initiated breastfeeding after 4 hours compared to 65.7% of term, initiated in less than 1 hour (p value 0.01). EIBF was in 80% of patients with vaginal delivery compared to 34% LSCS (p-0.0002). 40% preterm had EBF compared to 71.5% of term (p - 0.003). EBF was more after vaginal delivery compared to LSCS (p-0.0003). EBF was seen in 77.4% patient with EIBF (p-0.002).

Conclusion: Fishbone diagram as a QI tool helps to simplify and improve the understanding of various factors and identify modifiable factors affecting breast feeding practices.

Primary Vaginal Leiomyosarcoma: A Rare Gynaecological Malignancy

Himakshi Garg, Ritu Raj, Dipanwita Banerjee, Anju Singh, Sandeep Mathur, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Primary vaginal leiomyosarcoma (VLMS) is an extremely rare variant of vaginal cancers accounting for 1-2% of all malignant vaginal neoplasm .It is a tumour arising from smooth muscles of vagina and most commonly from the posterior wall.

Case: Mrs X, 42 years old lady, presented in with complaints of irregular spotting, vaginal discharge and mass descending per vaginum for last 5 months. Biopsy from vaginal mass at a private facility revealed smooth muscle tumour of uncertain malignant potential (STUMP). On per vaginum examination, a 6x5 cm fleshy mass with a wide stalk arising from posterior and right lateral wall of vagina was felt. Cervix, uterus and both adnexa were normal. There was incisional hernia at previous laparotomy scar which was done for sub-acute intestinal obstruction in 2006. Magnetic resonance imaging revealed a well-defined lobulated mass of 5.5x5.0x4.5cm arising from posterior vaginal wall extending to right lateral wall displacing the cervix anteriorly, rest was unremarkable. PET/CT showed metabolically active soft tissue lesion in vagina with no lymph node spread. Histopathological slide review at our hospital was suggestive of vaginal leiomyosarcoma. She underwent total abdominal hysterectomy, bilateral salpingo-oophorectomy and partial vaginectomy. To resect vaginal tumor with adequate margins, bilateral ureters were identified and dissected away upto the point of entry to the bladder. Posteriorly, recto-sigmoid was dissected below the vaginal mass and vaginal tumour resection with adequate margins was performed. Postoperative period was uneventful.

Clinical Relevance: This case report adds to the knowledge

and available literature about this rare malignancy. Rare diagnosis should be kept in mind while dealing with common gynaecological complaints as it can help in providing quality services and safe practices with minimum errors.

Myasthenia Gravis in Pregnancy

Armeen Ali, Simran Kauser, Rajesh Kumari
Reeta Mahey, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Myasthenia gravis is a rare autoimmune disorder affecting the neuromuscular junction characterized by nicotinic acetylcholine receptor autoantibodies, leading to progressive muscle weakness. Pregnancy with myasthenia gravis is a high-risk condition. It may affect both the mother and fetus with varying degrees of skeletal muscle weakness and progressive fatiguability. Disease exacerbations are more likely to occur during the first trimester and postpartum period.

Case: 28 years old female G3P 0+1+1+0 Rh-negative pregnancy with hypothyroidism and bronchial asthma with raised BP records, controlled on medications was booked as a high-risk pregnancy. At 29+3 weeks, the patient presented with preterm premature rupture of membranes (PPROM) and was admitted to labour room planned for steroid cover, antibiotics and neuroprophylaxis. The patient underwent emergency Caesarean section on day-4 of admission in view of anhydramnios with breech presentation and delivered a female baby of weight 1263 grams. The patient developed bilateral lower limb weakness on postpartum day 7. She revealed history of proximal muscle weakness for the past 2 years with worsening of symptoms postpartum. Patient was evaluated for the same after neurology review. Creatine phosphokinase (CPK) and LDH levels were within normal limits. The levels of anticholinergic receptor antibody were found to be elevated with levels 16 mmol/L (normal value of 0.4 nmol/L). Electrophysiological studies were suggestive of post-synaptic nerve-muscle junction disorder. There was no involvement of ocular, facial and bulbar muscles. Patient was started on oral pyridostigmine 60 mg thrice a day, dose increased to 90 mg four times a day along with prednisolone tablet 10 mg OD and tablet azathioprine 25 mg OD for 1 week followed by 50 mg OD. There was no evidence of neonatal MG in the baby on evaluation. Patient was discharged in a stable state and planned for thymectomy

Clinical Relevance: Pregnancy with myasthenia gravis is a high-risk condition and disease course in pregnancy is unpredictable. Hence, both the mother and baby should be carefully monitored for neuromuscular symptoms. Multidisciplinary approach is the key to successful outcome.

Perioperative Management of a Polycythemia Patient Undergoing Hysterectomy for Symptomatic Adenomyosis

Amol Sood, Nilanchali Singh, K Aparna Sharma, Nimisha Agarwal, Ankita Agarwal, Anapti Garg
All India Institute of Medical Sciences, New Delhi

Introduction: Adenomyosis is the presence of endometrial glands and stroma within the uterine myometrium. Estimated to occur in 20-35% women, it presents between 40-50 years of age, typically causing heavy menstrual bleeding and dysmenorrhea and less commonly, chronic pelvic pain. WHO defines polycythemia as hemoglobin > 16.0 gm/dL or hematocrit > 48% in women. We hereby describe the perioperative management of a patient with AUB due to adenomyosis, who was incidentally diagnosed with polycythemia. The case outlines challenges faced during the perioperative period because of this hematological condition.

Case: A 46 years old female, P4L4, presented with heavy menstrual bleeding and occasional dysmenorrhea for two years. On evaluation, she was diagnosed with adenomyosis. Initially, medical management was tried with oral progesterone, and placement of LNG-IUD. She required blood transfusion for severe anemia resulting from the heavy menstrual bleeding. After failed medical management for more than one year, a total abdominal hysterectomy was planned. In the first instance, surgery was deferred because of active hepatitis-E virus infection and non-alcoholic steatohepatitis (NASH) stage 2/4 diagnosed on workup of incidentally discovered transaminitis. The patient's transaminitis persisted for more than 7 months. Eventually she was eligible for surgery but was then preoperatively diagnosed with polycythemia with hemoglobin 17 gm/dL and hematocrit 54.7%. After deferring the surgery again, a detailed hematological evaluation was done. Since polycythemia posed a high risk of thrombosis and thromboembolism, after appropriate counselling, two isovolemic phlebotomies were done, wherein 400 mL blood was removed each time followed by infusion of 500 mL RL. For the same reason, preoperative LMWH 60 mg subcutaneous once a day was started four days before surgery. Maintenance fluids were started on the night before surgery to keep the patient well hydrated. Preoperative hemoglobin was 15.2 gm/dL and hematocrit 48.8%. Intraoperatively, drain was placed even after ensuring adequate hemostasis, as postoperative anticoagulants were planned. Postoperatively, pharmacological and non-pharmacological thromboprophylaxis was provided and the patient was discharged in a healthy condition.

Clinical Relevance: Polycythemia can pose a threat to patients during the perioperative period but can be managed successfully with adequate prophylactic measures and multidisciplinary care.

Isthomocele due to Genital Tuberculosis Leading to Delayed and Massive Secondary Postpartum Hemorrhage: A Diagnostic Dilemma

Nimisha Agrawal, Deepali Garg, Rinchen Zangmo, Nilanchali Singh, Snigdha, Shainy, P Ankita Agarwal K Aparna Sharma
All India Institute of Medical Sciences, New Delhi

Introduction: Secondary postpartum haemorrhage (PPH) is one of the major causes of maternal morbidity and mortality. Also called as late, it is a potentially life-threatening obstetric complication with major consequences. Incidence after caesarean delivery is usually 1 in 365. The most common factors leading to secondary PPH are retained products of conception, subinvolution of placental site and puerperal sepsis. A rare, yet important cause, with a rise in recent times, is caesarean scar

defect, also called as scar niche or isthmocele. An isthmocele is any indentation representing myometrial discontinuity or a triangular anechoic defect in the anterior uterine wall, with the base communicating to the uterine cavity, at the site of a caesarean section scar.

Case: We report a case of primiparous woman with secondary PPH after caesarean delivery due to uterine scar niche. The patient presented with intermittent bleeding per vaginum with single episode of heavy bleeding, which was managed conservatively. She was diagnosed with scar niche or isthomocele on trans-vaginal ultrasound. Medical management in form of combined estrogen and progesterone therapy was started along with antibiotic prophylaxis. However, the patient had massive bout of haemorrhage during hospital stay and had to undergo emergency hysterectomy due to failed medical management. The histopathological findings of the scar niche area, suggested genital tuberculosis. Also, peritoneal fluid ADA level was raised. She was started on anti-tubercular therapy in post-operative period. The patient stayed asymptomatic during follow-up.

Clinical Relevance: This is the first reported case of scar niche formation due to genital tuberculosis, with a catastrophic presentation. Although, a life-threatening condition was averted, she had to undergo hysterectomy despite having future child bearing aspirations. Hence, tuberculosis should be considered a cause of niche formation, especially in developing world, where the incidence of tuberculosis is high.

Session 4

Date: 18th November, 2021 | **Time:** 01:00 pm - 02:00 pm

A Curious Case of Multiple Failed Attempts of Cervicovaginoplasty: How Far To Go?

Arshiya Firdaus, Nilanchali singh
All India Institute of Medical Sciences, New Delhi

Introduction: The mean prevalence of female congenital malformations in general population is up to 7%. Patients with these anomalies usually present during pubertal age as primary amenorrhea, cyclical abdominal pain. Cervical agenesis is a rare Mullerian anomaly with an incidence of 1 in 80,000 females. It represents 3% of all uterine anomalies. It is rarely associated with a functioning uterus (4.8%). Cervical agenesis is often associated with vaginal atresia (less than 50%). We report a case of multiple attempts of cervico-vaginoplasty and dilatations.

Case: A 27 years old, unmarried female presented to our department with complains of secondary amenorrhea for five months with cyclical abdominal pain. When she was evaluated for primary amenorrhea at the age of 13 years, she was found to have cervico-vaginal agenesis with unicornuate uterus with right-sided rudimentary horn. Patient had history of multiple surgeries including abdominal cervicovaginoplasty performed twice. At both the occasions she had bladder injury, which was repaired intra-operatively. She had a history of multiple episodes of secondary amenorrhea after the surgery for which cervical dilatation was done multiple times and she resumed menses on and off. Present MRI was suggestive of hemato-metrocolpos with endometriotic cyst in left ovary. Patient wanted definitive treatment for the recurrent problem and decision for hysterectomy taken. The decision was not easy as the patient and family had strict reservations against hysterectomy, yet wanted a permanent solution. With detailed counseling and appropriate consent, hysterectomy with right rudimentary horn excision was performed. The operative challenges were manifold.

Clinical Relevance: Hysterectomy might remain the mainstay of treatment when multiple attempts of cervicoplasties fail. Decision-making is difficult for the physician, the patient and the family. Yet, without causing further harm to the patient, timely decision is a necessity.

An Uncommon Case of Mature Cystic Teratoma in a Postmenopausal Woman

Neelika Gupta, Atul Sharma
All India Institute of Medical Sciences, New Delhi

Introduction: Advanced age is a known risk factor for malignant transformation in Mature cystic teratoma. It is rare to encounter mature cystic teratoma in postmenopausal women.

Case: Our patient is Mrs. X, 65 year lady, who has completed chemo-radiation in 2017 for Carcinoma Cervix Stage IIIB. She was on post-treatment surveillance and had complaints of dysuria, hematuria and heaviness in lower abdomen for two months. On per abdomen examination, no mass was palpable. On per speculum, vagina was stenosed due to post-radiotherapy changes and on per vaginum examination, approximately 5*6 cms cystic mass was felt in left fornix and uterus was not felt separately. Tumour markers were CA-125- 8.4 U/ml, CEA- 3.42 ng/ml, CA 19.9- 20 U/ml, LDH- 196 U/L, AFP- 2.7 ng/ml. CECT abdomen & pelvis showed 7*6.2*5.9 cm well defined lesion with dense calcification seen in pelvis, s/o dermoid cyst. She underwent exploratory laparotomy with peritoneal wash cytology with bilateral salpingo-oophorectomy. Intraoperatively: 7*6*5 cm complex left ovarian mass with calcifications and teeth seen; uterus postmenopausal size, bilateral tubes and right ovary healthy. Postoperative period was uneventful. Histopathological examination confirmed left mature cystic teratoma with no immature components.

Surgical Approach to Co-Existent Uterovaginal and Rectal Prolapse

Manasi Deoghare, Bhawna Arora, Rajesh Kumari JB Sharma, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Co-existing uterovaginal and rectal prolapse, though rare, can occur as both are a part of pelvic floor disorder. The management of concurrent uterovaginal and rectal prolapse is determined by various factors like age, desire for preservation of reproductive and/or coital functions, general medical status, severity of the condition, physical examination findings, surgeon's expertise and previous attempts at surgical correction. The management of these two can be done in single sitting using perineal, abdominal and laparoscopic approach. We are presenting two such cases.

Case: Presenting 2 cases of co-existent uterovaginal and rectal prolapse. 1st patient was 49 yr old, para 5, postmenopausal female, presented with complaints of something coming out of rectum since 12 yrs and mass descending per vaginum since 2 yrs. She also complained of mucoid discharge per rectum and involuntary passage of stools 6-7 times per day. She had had 5 full term normal vaginal deliveries, first 4 at home and last one in hospital. All deliveries were uneventful, with no h/o any prolonged labour, obstructed labour or precipitate labour. On examination, she was moderately built and her general physical examination was within normal limits. Local examination revealed 2nd degree cervical descent with 3+ cystocoele, 2+ rectocoele and enteroceole. No ulceration or bleeding was seen. Anal tone was reduced and there was complete prolapse of rectal mucosa 6 cm from anal verge, no bleeding present. 2nd case was 45 yrs, para 2 presented with complaints of mass coming out of vagina and rectum while straining since 2 yrs. She c/o passage of stools involuntarily 6-7 times per day associated with mucoid discharge per rectum. She had 2 uneventful full term normal vaginal deliveries at home. She had regular menstrual cycles with average flow. Here general physical examination showed no abnormality. On local examination, there was 3rd degree cervical descent, 1+ rectocele and 3+ rectocele and enterocele. Anal tone was minimal and there was complete prolapse of rectum 6 cm from anal verge, no bleeding or mass. Both patients underwent vaginal hysterectomy with anterior colporrhaphy and posterior colpo-perineorrhaphy with Delrome's procedure in same sitting under spinal anaesthesia and were discharged on post-op day 6. They have been under regular follow-up since last 2 yrs and have been symptom free since then with no recurrence of either of the prolapses.

Clinical Relevance: In places where laparoscopic expertise is not available and when patients are not willing for uterine preservation, vaginal hysterectomy, anterior colporrhaphy and posterior colpoperineorrhaphy for uterovaginal prolapse and Delrome's procedure for rectal prolapse is an effective option for treatment of concomitant uterovaginal and rectal prolapse and can be performed under spinal anaesthesia.

Successful Management of A Case of Uterine Arteriovenous Malformation (AVM) or Hypervascular RPOC with Uterine Artery Embolization (UAE)

Sharon Khadiya, Anubhuti Rana, Rajesh Kumari Garima Kachhawa, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Uterine arteriovenous malformation (AVM) is a rare but life-threatening condition which accounts for 1-2% of profuse bleeding from female genital tract. Uterine AVM can be congenital but mostly are acquired. The diagnosis of AVM is usually made when there is unexpected excessive, intermittent bleeding particularly after delivery or surgical procedures performed on uterus with confirmation on ultrasonography with colour doppler. Traditional therapies of AVM include management of symptomatic bleeding, blood transfusion for severe anemia, uterine artery embolization (UAE) or hysterectomy. UAE is effective, minimally invasive and with possibility of preserving uterine function owing to extensive collateral blood supply compared with surgical options.

Case: 24 years old, P2L2 presented to our hospital with continuous bleeding per vaginum for 18 days, after MTP pill intake at 6 weeks period of gestation. Investigations for anaemia and beta HCG were sent. Reports revealed moderate anemia with hemoglobin 7.2g/dl and beta HCG11.5 mIU/ml. Ultrasound pelvis with colour doppler revealed 4.5 x 3.2 cm echogenic endometrial echo with serpiginous vascularity in myometrium with low resistance arterial and venous waveform likely AVM. MRI pelvis revealed 4x2.3cm heteroechoic mass with increased vascularity likely hypervascular RPOC. Conservative management with oral antibiotics, haematinics and blood transfusion was done. But, bleeding was not controlled. Decision of bilateral UAE was taken. Patient underwent successful bilateral UAE. Post procedure there were no complications and ultrasound revealed 2x3cm RPOC with no significant vascularity. Patient was given inj. DMPA and was discharged in stable condition. On follow up, her beta HCG came to normal limits-1.01mIU/ml and she resumed normal cycles after 1 month. There was no recurrent episode of abnormal uterine bleeding in follow up visits over next 4 months.

Clinical Relevance: Uterine AVMs / hypervascular RPOCs can be successfully managed by bilateral UAE, which is safe and effective first line therapeutic option.

Glial Heterotopia of Uterine Cervix as A Rare Cause of AUB

Rapaka Gowri, Dipanwita Banerjee, Anju Singh, Garima Kachhawa, Sandeep Mathur, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Glial heterotopia is rare entity where in glial elements are found in abnormal locations especially nose, orbit and rarely in uterus. While it is congenital in other places, it is mainly due to implantation of fetal tissue in uterus.

Case: Mrs. X, 22 year old, presented with AUB and a histopathology report of cervical dermoid. She had regular cycles with prolonged heavy bleeding since 7 years managed with tranexemic acid. She got married 2 years ago and started having postcoital bleeding. On evaluation, she was found to have a cervical growth and underwent Diagnostic hysteroscopy, EA and partial excision of cervical growth at a hospital in Muradabad 1 year back. Histopathology was s/o cervical mature teratoma. After this she was started on oral progesterone cyclically but her symptoms didn't improve so came to AIIMS. On examination a 3 x 2cm polypoidal cervical growth, firm to hard in consistency was seen arising from ectocervix, not bleeding on touch. Imaging was s/o heteroechoic mass in endometrial cavity 1.2x 1.2cm, ?polyp and a 2.4x 1.5cm heteroechoic mass arising from just above the internal os splaying the cervical canal. She underwent cervical mass excision, hysteroscopic polypectomy of endometrial polyp from right posterolateral wall of size 2.5x2.5 cm. HPE of both cervical and endometrial polyp showed predominantly mature glial tissue along with heterologous cartilaginous elements. The glial component was positive for GFAP (immunohistochemistry [IHC] marker for glial tissue) and negative for SMA, S100 and Desmin. Retrospectively patient revealed that she had an induced medical abortion followed by suction evacuation at 3 months pog i/v/o unwanted pregnancy 7 years ago.

Clinical Relevance: Glial heterotopia is a very rare cause of AUB and to be noted especially when preceded by a pregnancy. Cervical dermoid being a close differential can be ruled out by the use of IHC.

Successful Pregnancy Outcome in a Case of Unrepaired Cloacal Exstrophy: Case Report and Literature Review

Swati Tomar, Garima Kachhawa, Reeta Mahey Anju Singh, Neerja Bhatla
All India Institute of Medical Sciences New Delhi

Introduction: Cloacal exstrophy is a rare complex congenital birth defect which occurs due to abnormal development of the cloacal membrane during embryonic period. To the best of our knowledge, this is first documented case of successful pregnancies in an unrepaired cloacal exstrophy.

Case: Mrs X, 26-year-old woman G3P0+0+2+0 presented at 19-week for routine antenatal care in 2019. She was a known case of cloacal exstrophy with history of continuous dribbling of urine and involuntary passage of stools since birth. She was married for last 8 years. Her first two pregnancies were conceived spontaneously and ended in first trimester missed abortions which were managed medically. Examination of respiratory, cardiac and neurological systems was unremarkable. On abdominal examination, there was complete absence of umbilicus and lower anterior abdominal wall. On local examination, dorsal bladder mucosa was exposed with dribbling of urine from ureteric orifices. Pubic rami and labia majora were widely separated by a midline defect and clitoris was bifid. Distal rectum, anal canal and anal opening were exposed and there was no definitive anal sphincter. A small vaginal opening of around 4 cm in length was present on extreme left side. A small cervix was palpated at tip of finger. Obstetric examination revealed an enlarged uterus corresponding to 20 weeks of gestation deviated to left side. Foetal anomaly scan revealed a normal viable foetus corresponding to 19 weeks of gestation in left horn of bicornuate uterus. At 33-week gestation, she went into spontaneous preterm labour and was delivered by emergency caesarean section (CS) in view of malformed pelvis and breech presentation. Post-operative course was uneventful. After 2 years of this pregnancy, she presented at 28 weeks gestation in 2021 with preterm labour. She underwent emergency CS with tubal ligation and delivered a female baby. However, the post-operative course was complicated by wound infection.

Clinical Relevance: This case highlights the challenges faced in a congenital anomaly not corrected in the childhood. Due to rarity of condition, there is no recommended standard management strategy during pregnancy and delivery. Such pregnancies should be managed at a tertiary care center with a multidisciplinary team. Delivery should be conducted by senior obstetrician through elective CS as anatomy is grossly distorted.

Successful Hysteroscopic Removal of Retained Placenta after Failed Multiple Conventional Methods: A Case Report

Sharda Kumari, K N Jyoti, Reeta Mahey, Garima Kachhawa, Anju Singh, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Retained products of conception (RPOC) is an uncommon cause of postpartum haemorrhage (PPH). Here, we present a case of successful hysteroscopic removal of retained products of conception with focal accreta after multiple failed conventional methods.

Case: Mrs X, 33 years P0+1+1+0 presented to us on postpartum day(PPD)-69 with continuous bleeding per vaginum. She had preterm vaginal delivery at 7 months at remote hospital in Kashmir followed by retained placenta. She had past history of one missed abortion followed by D & C. Dilatation and curettage were done on same day. On postpartum day (PPD) 2, She had PPH and underwent check curettage second time and was discharged on day 10 in stable condition. On PPD-20, she had secondary PPH, underwent third D&C in the same hospital, received two units of PRBC and referred to other hospital. Imaging suggested focal adherent placenta. Fourth D & C was done followed by vaginal packing and balloon tamponade and five units PRBC was transfused. She also received two doses of injection methotrexate on PPD-43 and 49 with serum b-hCG in falling trend. On examination, she was haemodynamically stable with uterus soft and up to 12 weeks size, and MRI pelvis was suggestive of retained placenta of 9.2*6.2 centimetres with focal accreta and serum b-HCG of 128 mIU/ml. Bilateral uterine artery catheterisation was done pre-operatively. She underwent hysteroscopic removal of placental tissue using resectoscope and under USG guidance. Post procedure, beta-hCG levels dropped to 13.4mIU/ml and patient was discharged in stable condition on day 5. Histopathology revealed infarcted chorionic villi with calcification.

Clinical Relevance: Operative hysteroscopy may help for complete removal of retained placental tissue in patients with failed attempts of conventional blind curettage as it helps for direct visualisation.

Adrenal Insufficiency in Pregnancy - A complicated Case Managed Successfully

Mrinalini Dhakate, Anubhuti Rana
All India Institute of Medical Sciences, New Delhi

Introduction: Adrenal insufficiency is a rare disorder encountered during pregnancy, but is associated with significant maternal and fetal morbidity, if not managed properly. So, early recognition and timely management is very important. In pregnancy, there is physiological surge if glucocorticoids, making its diagnosis more difficult. This case demonstrates a case of adrenal insufficiency managed successfully during antenatal and perinatal period.

Case: We report the case of3 0yr old, spontaneous conception, booked at AIIMS, G2P1L1 with 36+5 weeks with adrenal insufficiency with known case of type 2 diabetes mellitus (on metformin and insulin) with hypothyroidism with previous 1 lower segment caesarean section. Patient was diagnosed to

have adrenal insufficiency 8 years back, when she developed multiple episodes of fatigue and weakness. She was started on Tab wysolone 5mg od since then with cortisol levels maintained in normal range. Her entire pregnancy was uneventful,except that she was admitted at 36+5 with deranged sugars and some dose modification of insulin was done. She underwent elective LSCS at 37+3 week in view of ERCS refusing TOLAC. Patient received intravenous hydrocortisone 100mg stat prior to caesarean. Post caesarean, she received i.v hydrocortisone 50mg 6hrly on day1 which was gradually tapered to 25 mg 6 hourly day2 post caesarean. It was replaced by tab wysolone 10mg once a day on day 3 post caesarean and from day 4 onwards, she was started on her pre-pregnancy dose of 5mg once a day. Postpartum period was uneventful.

Clinical Relevance: Multidisciplinary approach plays a pivotal role in managing adrenal insufficiency in pregnancy. Usually most deliveries occur without complications but adrenal crisis may occur at any point of time. So, this case highlights the importance of pre and post-operative steroid therapy with hydrocortisone to prevent such complications.

Birth of One and The Re Birth of the Other - A Case Report

Jyothi Kanugonda, Jai Shree, Anju Singh, Reeta Mahey
J B Sharma, Neerja Bhatla
Kurnool Medical College, Kurnool
All India Institute of Medical Sciences, New Delhi

Introduction: Cardiovascular diseases significantly contribute to maternal morbidity and mortality, especially in developing countries. They account for 1-3% of complicated pregnancies, uncorrected valvular disease due to rheumatic heart disease (RHD) being the most common. The cardiovascular changes during pregnancy worsen the symptoms of heart disease and predispose to decompensation. A multidisciplinary approach involving obstetricians, cardiologists, cardiothoracic surgeons, pediatricians, and anesthetists are essential for successful maternal and fetal outcome.

Case: Mrs. X, 25 years, primigravida at 31+2 weeks with singleton pregnancy presented to us in the emergency with progressive shortness of breath (NYHA III), left-sided chest pain, bilateral pedal edema, syncopal attacks, and orthopnea for 4-5 days. Before this, she was booked at a private hospital and antenatal visits were uneventful. On examination, she had mild pallor, bilateral pedal edema, basal crepitations, ejection systolic murmur, and end-diastolic murmur. Per abdomen, her uterus was enlarged to 28 weeks size, relaxed, with fetus in cephalic presentation with fetal heart sound heard of 150 beats per minute. On investigations, she was found to have moderate anemia (hemoglobin-8 gm/dl) and urgent echocardiography was suggestive of critical mitral stenosis, with the mitral valve area of 0.8 cm2 and left ventricular ejection fraction 40-50%. Antenatal growth scan confirmed the diagnosis of fetal growth restriction (FGR) with the estimated fetal weight of 800 grams and umbilical artery doppler was suggestive of absent end-diastolic flow. The Final diagnosis of severe mitral stenosis due to RHD in heart failure with stage II FGR was made. Initially, the patient was managed medically, but despite all the care, she deteriorated and the decision for combined emergency LSCS with valve replacement was taken. She underwent emergency cesarean section with Mirena insertion with mechanical aortic and mitral valve replacement with tricuspid valve annuloplasty. She delivered a female baby of 820 grams with an APGAR score of 8,9. The patient stood the procedure well and was extubated on postoperative day 1 and was out of the woods after 10 days of ICU care. After a prolonged hospital stay for the baby's sake, she was discharged after 2 months on oral anticoagulants with a healthy baby.

Clinical Relevance: Pre-conceptional counseling and timely treatment before conception give favorable maternal and fetal outcomes. Many heart diseases get to diagnose in pregnancy and tertiary care with a multidisciplinary approach saves the lives of the mother and the child.

A Rare Case of High Grade Endometrial Stromal Sarcoma

Bandana Bharali, Deepti Goswami
Maulana Azad Medical College
and Lok Nayak Jai Prakash Hospital, Delhi

Introduction: High grade endometrial stromal sarcoma is a relatively rare clinical entity with a reported incidence of less than 1% of uterine malignancies. Herein we describe such a case clinically presumed to be uterine leiomyoma.

Case: A 55-year-old lady presented with complaint of lump abdomen for 4 months. On examination a lobulated irregular firm non-tender mass was palpable in midline extending to left iliac fossa abdominally; posterior lip of cervix was replaced by fibroid, giving the clinical impression of multiple uterine fibroids with cervical fibroid. There was no ascites. No nodularity was felt on rectovaginal examination. Ultrasound showed a solid cystic mass of left adnexa which was supported by CECT. But tumour markers were within normal range. MRI revealed the complex solid cystic mass was arising from posterior myometrium, with features suggestive of leiomyosarcoma. Debulking surgery was planned, uterus was 24 weeks in size encasing bilateral ureters, bladder and rectum, adhesiolysis and dissection was done with removal of uterus with cervix, tubes and ovaries. Final histopath revealed high gade endometrial stromal sarcoma. Post operative imaging showed evidence of residual disease and patient was referred to medical oncology GCRI, Ahmedabad in view of COVID 19 situation.

Clinical Relevance: Leiomyomas are diagnosed clinically and by imaging which can however be treacherous. MRI has the highest sensitivity in differentiating uterine sarcomas from benign leiomyomas. If medically operable, hysterectomy with or without BSO is the initial treatment of choice, lymphadenectomy is controversial. Uterine sarcomas are a rare malignancy, often clinically masquerading as leiomyomas. Malignant etiology is often picked up by MRI, however final diagnosis is made after histopathological examination.

Spinal Tuberculosis with Paraplegia in Pregnancy: A Management Dilemma

Aishwarya Yadav, Anuradha Singh, Kiran Aggarwal, Shivani Kothiyal
Lady Hardinge Medical College
and Smt. Sucheta Kriplani Hospital, New Delhi

Introduction: Acute onset paraplegia in pregnancy is uncommon in Obstetric practice. Gullian barre syndrome, acute transverse myelitis and Potts spine are few probable diagnosis. Since India has higher Incidence of tuberculosis (2.8 million cases annually) Potts Disease should also be thought of in pregnancy. Management of spinal tuberculosis leading to paraplegia in pregnancy poses an obstetric dilemma specially at term as Immobilization of spine and maintaining supination is difficult. Beside diagnostic dilemma, there is Obstetric difficulty in delivering these women.

Case: A 26 year old female, G2 P1 L1 presented at 40 weeks of gestation . In last 1.5 months, Patient gave history of fever before developing bilateral progressive lower limb weakness since 15 days, she also complained of back ache and neck pain radiating down to spine since the deficit and had been non ambulatory since last 2 weeks. There was no upper limb or cranial nerve involvement, no bladder bowel incontinence, saddle analgesia or band like sensation. There was no history or respiratory distress or sensory deficit. Differential diagnosis of Gullian barre syndrome and Potts spine were thought of. MRI was done which revealed an anterior para vertebral abscess at the level of D2-D3 vertebrae causing compression of neural foramina and spinal canal. Neurological examination revealed grade B Motor deficits in both lower limbs. The patient was catheterised in lieu of immobilisation of spine. As there is lack of supporting literature giving concrete evidence regarding mode of delivery, An Orthopaedic consultation was taken. Normal vaginal delivery was advised with due care to immobilise the spine. Patient was delivered via Caesarean section in view of acute foetal distress. Spinal decompression was not done, patient was managed conservatively and started on Anti Tubercular drugs. 28 days postpartum, patient had improvement in motor function. Intra and postpartum period was uneventful and the patient suffered no complications.

Clinical Relevance: Spinal paraplegic lesions in pregnancy are difficult to manage as there is lack of supporting literature and guidelines regarding mode of delivery. Moreover, there is risk of urinary tract infections, pyelonephritis, decubitus ulcers and autonomic hypereflexia which is a life threatening complication in Potts spine. Neuraxial and spinal anaesthesia cannot be given so as to maintain immobilisation of the spine, if patient is taken for Caesarean section for obstetric indication, it is done under general anaesthesia which poses further risk. If normal vaginal delivery is done, due care has to be taken to not injure the spine. Prompt diagnosis and management is key to optimal feto maternal outcome.

Congenital Pulmonary Airway Malformation (CPAM): A Case Report

Saima, K Aparna Sharma, Rinchen Zangmo Deepali Garg, Vatsla Dadhwal
All India Institute of Medical Sciences, New Delhi

Introduction: Congenital pulmonary airway malformation (CPAM) is a rare developmental dysplastic lesion of the fetal trachea-bronchial tree & usually sporadic, isolated and has no familial recurrence. It can present as solid or cystic mass. Antenatal ultrasound is a valuable, safe, widely available and easily reproducible imaging tool in the diagnosis of CPAM. CVR is used to quantify size and risk for hydrops in severe cases. This case report demonstrates a macrocystic CPAM and its sonographic appearance as well as its follow up, management and the possible differential diagnosis.

Case: A 20-year-old G1P0A0 woman with a gestational age of 25 weeks was referred as her anomaly scan was suggestive of cyst in lung. The antenatal ultrasound scan showed a single, live, intrauterine fetus corresponding to a gestational age of around 25 weeks and 5 days. There was a focal, anechoic cystic structures 15x10mm in diameter noted within the pulmonary tissue in the left lower hemi-thorax. The ultrasound diagnosis of macrocystic congenital pulmonary airway malformation was made. After explaining the condition and nature of the disease, cyst aspiration was done after giving a course of dexamethasone. Patient was kept on continuous fetal surveillance for cyst refilling, CVR & development of hydropic features.

Clinical Relevance: Congenital pulmonary airway malformation (CPAM) is an uncommon fetal anomaly with a very wide range of ultrasound appearances. Timely detection and diagnosis is important for early decision and management. Antenatal ultrasound plays a vital role in identification and screening of CPAM. Most common differential diagnosis is bronchopulmonary sequestration.

Atypical Mayer-Rokitansky-Kuster-Hauser (MRKH) Syndrome: A Case Report

Shreenidhi RA, Reeta Mahey, Anjali Ramanswamy Rohitha, Smitha Manchanda, Neerja Bhatla
All India Institute of Medical Sciences, New Delhi

Introduction: Mayer-Rokitansky-Kuster-Hauser syndrome (MRKHS) has prevalence of 1 in 5000 live female births. The syndrome is of three types: Typical Isolated uterovaginal agenesis; Atypical Mullerian agenesis along with malformations of kidneys or ovaries and MURCS (Mullerian aplasia, renal aplasia, and cervicothoracic somite dysplasia). Hereby, we are reporting a rare variant of atypical MRKH with polymastia, unilateral absence of axillary hair and ectopic ovary.

Case: A 23-year-old female presented in OPD with complaints of primary amenorrhea. She had no h/o cyclical abdominal pain; abnormal hair growth; weight gain. She had normal intelligence, with an unremarkable past, medical history and surgical history. Her mother and sister have unremarkable menstrual history. Clinically- female phenotype with height 150cm; weight-43Kg and BMI- 19.11. kg/m2. Polymastia on the right side with 2 breasts- one normally located and the other one in the midclavicular line; both Tanner stage 2 along with congenital absence of axillary hair on right side. The breast

(Tanner 3) and axillary hair are normally developed on the left side. External genitalia was normal with tanner 3 pubic hair distribution, blind vagina, absence of uterus on per rectal examination. Hormone profile- within normal limit. Abdominal ultrasound revealed normally located left ovary with normal stromal follicular differentiation adjacent to a small dysplastic uterine horn in the left adnexa. Right ovary was not visualized in pelvis and an upper abdominal ultrasound revealed presence of 2.9*1.5 cm hypoechoic lesion with few internal cystic areas in sub-hepatic region suggestive of ectopic right ovary. Both kidneys were normal. MRI revealed cervicovaginal agenesis with bilateral small dysplastic uterine horns with thin endometrial cavity lying in right and left iliac fossae, right ovary was ectopic in subhepatic location.

Clinical Relevance: This case adds to the existing literature of about possible clinical manifestations of atypical MRKHS; reporting third ever reported case of abnormality of mammary line development; second ever reported cases of unilateral polymastia/ polythelia; first ever reported case of unilateral absence of axillary hair; ectopic location of right ovary in sub-hepatic region. Individualized management pertaining to sexual and fertility options is emphasized as this patient will need ovarian plication along with vaginoplasty once she needs treatment for sexual and fertility issues.

Faculty Names

Dr Abha Sharma
Dr Abha Singh
Dr Achla Batra
Dr Ajay Rane
Dr Alka Kriplani
Dr Amita Jain
Dr Anita Kaul
Dr Anita Kumar
Dr Anita Rajorhia
Dr Anjali Dabral
Dr Anjila Aneja
Dr Anjum Ara
Dr Anju Soni
Dr Anshuja Singla
Dr Anshul Grover
Dr Anuradha Singh
Dr Aparna Haritwal
Dr Aparna Hegde
Dr Archna Kumari
Dr Archna Mishra
Dr Archna Verma
Dr Aruna Nigam
Dr Ashok Khurana
Dr Ashok Kumar
Dr Ashutosh Gupta
Dr Asmita Rathore
Dr Banashree Das
Dr Bharti Uppal
Dr Bimlesh Yadav
Dr Bindiya Gupta
Dr Bindu Bajaj
Dr Chanchal Singh
Dr Chandra Mansukhani
Dr Chinmayee Ratha
Dr Chitra Raghunandan
Dr Deepika Deka
Dr Deepika Meena
Dr Deepti Nabh
Dr Devender Kumar
Dr Devender Kumar
Dr Divya Chauhan
Dr Divya Pandey
Dr Garima Kapoor
Dr Gauri Gandhi
Dr Geeta Mediratta
Dr Harsha Gaikwad
Dr Harsha Khullar
Dr H Chellani
Dr Himshweta Srivastava
Dr Hrishikesh Pai
Dr Ila Gupta
Dr Indu Chawla
Dr Jaydeep Tank
Dr Jayshree Sunder
Dr Jayshree Sunder
Dr J B Sharma
Dr J C Sharma
Dr Juhi Bharti
Dr Jyoti Bharsker
Dr Jyoti Bhaskar
Dr Jyoti Sachdeva
Dr Jyotsna Suri
Dr Kamal Buckshee
Dr Kamna Dutta
Dr Kanika Gupta
Dr Kanika Jain
Dr Kanika Kumari
Dr Kanwal Gujral
Dr K Aparna Sharma
Dr Karishma Thariani
Dr Kavita Agarwal
Dr Kiran Aggarwal
Dr Kiran Guleria
Dr Kiranjeet Kaur
Dr Kiranmai Deviani
Dr Kishore Rajurkar
Dr Kumari Usha Rani
Dr Kypros Nicoloides
Dr Madhu Goel
Dr Madhvi M Gupta
Dr Mala Srivastava
Dr Malvika Sabharwal
Dr Mamta Dagar
Dr Mandakini Pradhan
Dr Maninder Ahuja
Dr Manisha Kumar
Dr Manjeet Arora
Dr Manju Khemani
Dr Manju Puri
Dr Meenakshi Ahuja
Dr Meenakshi Sharma
Dr Meenakshi Singh
Dr Megha Mittal
Dr Monika Dayal Sharma
Dr Monika Gupta
Dr Muntaha
Dr Neelima Chaudhary
Dr Neema Sharma
Dr Neena Bahl
Dr Neera Aggarwal
Dr Neerja Bhatla
Dr Neeta Singh

Dr Neeti Khungar
Dr Neha Pruthi
Dr Neha Varun
Dr Niharika Dhimman
Dr Nilanchali Singh
Dr Nupur Gupta
Dr Pakhee Aggarwal
Dr Parag Biniwale
Dr Pikke Saxena
Dr Pinkee Saxena
Dr Poonam Goel
Dr Pragati Dwivedi
Dr Prakash Mehta
Dr Pratima Mittal
Dr Preeti
Dr Preeti Singh
Dr Priyanka Sharma
Dr Priyankur Roy
Dr Ragini Aggarwal
Dr Rajeev Bahl
Dr Rajeev Chawla
Dr Rajesh Kumari
Dr Rajesh Taneja
Dr Rajiv Sarin
Dr Raka Guleria
Dr Ranjana Sharma
Dr Rashmi Malik
Dr Ratna Biswas
Dr Reema Kumar Bhatt
Dr Reena Yadav
Dr Reeta Mahey
Dr Rekha Bharti
Dr Renu Arora
Dr Renuka Malik
Dr Renu Mishra
Dr Renu Tanwar
Dr Reva Tripathi
Dr Richa Sharma
Dr Rinku Sen Gupta
Dr Ritu Sharma
Dr Rupinder Shekhon
Dr Sadhna Gupta
Dr Sandhya Jain
Dr Sangeeta Bhasin
Dr Sangeeta Gupta (ESI)
Dr Sangeeta Gupta (MAMC)
Dr Sanjivni Khanna
Dr Sarita Singh
Dr Saritha Shamsunder
Dr S B Khanna
Dr Seema Prakash
Dr Seema Thakur
Dr Selvam
Dr Shakun Tyagi
Dr Shalini Rajaram
Dr Shankuntla Kumar
Dr Sharda Jain
Dr Sharda Patra
Dr Sheeba Marwah
Dr Shilpa Sharma
Dr Shivani Aggarwal
Dr Shivani Aggarwal
Dr Shobha Gudi
Dr S N Basu
Dr S N Mukherjee
Dr Sohani Verma
Dr Sonal Bhatla
Dr Sonia Malik
Dr Srikala Prasad
Dr Sudha Prasad
Dr Sudha Salhan
Dr Sujata Das
Dr Sumedha Sharma
Dr Sumita Ghosh
Dr Sumita Mehta
Dr Sumitra Bachani
Dr Suneeta Mittal
Dr Sunesh Kumar
Dr Sunita Arora
Dr Sunita Malik
Dr Sunita Seth
Dr Sunita Yadav
Dr Surveen Ghumman
Dr Sushma Rani
Dr S V Madhu
Dr Swaraj Batra
Dr Swasti
Dr Tarini Taneja
Dr Taru gupta
Dr Uday Thanawala
Dr Uma Rai
Dr Uma Rani Swain
Dr Uma Vadyanathan
Dr Upma Saxena
Dr Urvashi Sehgal
Dr Vandna Gupta
Dr Vatsla Dadhwal
Dr Veena Acharya
Dr Vidhi Chaudhary
Dr Vidushi Kulshreshtha
Dr Vidya Thobbi
Dr Vijay Zutshi
Dr Vinita Gupta
Dr V L Bhargava
Dr Yamini Sarwal
Dr Y M Mala

43th Annual Conference
Association of Obstetricians and Gynaecologists of Delhi

Organising Team

AOGD SECRETARIAT

Room Number 001, Ward 6, Department of Obstetrics & Gynaecology
Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi - 110 029
Email: aogdsjh2021@gmail.com | www.aogd.org | Tel: 01126730487