Royal College of Obstetricians & Gynaecologists

India North
International Representative Committee

# AICC RCOG NORTH ZONE ANNUAL CONFERENCE 2022

Date | **21st August 2022**

Theme:

**As Her Life Matters: Let's Upskill and Update**

# Souvenir & Abstract Book


**RCOG North Zone India Secretariat**

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# Message from Chairperson

**Dr Ranjana Sharma**
**Chair, AICC RCOG North Zone**

Dear friends

It is my great privilege to welcome you all to the Annual Conference of All India Coordinating Committee of RCOG North Zone 2022. The theme of the conference this year is **"As Her Life Matters: Let's Upskill and Update".**

Through these conferences we endeavour to bring the most current and high-standard scientific content and clinical care protocols for safeguarding women's health to your door step. This year, once again, the stars have aligned to enable us to bring together a galaxy of shining stars to our conference to deliberate and discuss our focal subject matter with us. We realised the power of the digital world and feel fortunate that it has become an accepted mode of delivery of scientific content to professionals sitting far away. This year may perhaps be the last opportunity for our conference to stay entirely virtual, and so the Organising Committee decided to make full use of the medium. As you may have noticed from our line-up of Speakers, we will be graced by industry stalwarts from the entire India, along with 22 renowned international speakers from across the globe.

Dear delegates, I also invite you to the nine post-conference workshops as physical events on Obstetric Emergencies, Optimising Perinatal Outcome, Hysteroscopy, Laparoscopy, Colposcopy, Menopause, Infertility, Sexual Health and OBG ultrasound for Beginners. Eight of these will take place at Le Meridien, New Delhi on the 21st of August, and the Colposcopy Workshop will take place at Safdarjung Hospital on the 23rd of August. The workshops have been specially chosen to enhance our skills in line with this year's theme. And the physical events have made sure to incorporate all COVID protocols.

Our Conference Organising Committee has made a formidable effort to put the programme together. My sincere hope and humble request from you is to kindly attend the conference and the workshops in large numbers, learn from them, enjoy them, and encourage the team.

Our Souvenir committee under Dr Chanchal Singh's guidance has compiled the beautiful, encouraging messages from our Patrons, Guests, well-wishers and members along with the available excerpts of the scientific deliberations at the conference.

I thank our patrons for continuous guidance, our organising team with all the sub-committees, our IT partners, Clirnet, for their tireless efforts for months to give this shape to the conference.

I once again thank the galaxy of the faculty members from India and abroad from different time zones for their contribution and you, the delegates, for making it a worthwhile exercise.

I look forward to seeing you in the sessions, and interacting with you in person after such a long time. Now without much further ado, Welcome and let us begin the 2022 Annual AICC RCOG NZ Conference!

Thanks, and best wishes

Ranjana Sharma

# Message from Vice Chairperson

**Dr Anita Kaul**
**Organizing Vice Chairperson**

Dear friends,

It was a pleasure putting together the scientific programme, a hybrid of online talks from experts around the globe, and the onsite skill-enhancing workshops. RCOG North Zone team is sure that the participants will benefit from this conference and take forward the mission of 'Lets Upskill and Update'.

**Anita Kaul**

Organizing Vice Chairperson

# Message from Organising Secretaries




Dear Colleagues,

Welcome to AICC RCOG North Zone Annual Conference 2022!

On behalf of the All India Coordination Committee of Royal College of Obstetricians & Gynaecologists North Zone (AICC RCOG NZ), we are delighted to invite you to the AICC RCOG NZ Annual Conference 2022. In keeping with the current times, it is the proud privilege of the Fellows and Members of the North Zone of AICC RCOG to organize this prestigious event in hybrid mode on 20th & 21st August, 2022. The main conference is in virtual mode, followed by a plethora of in-person post-conference workshops.

The theme of conference is "As Her Life Matters : Let's Upskill and Update". It will feature renowned International and National Faculty, who are champions in their field. They will share their vast experience and latest developments, that will upskill our professional practice and help us provide better care to women all over the country.

The scientific program has been meticulously planned, keeping in mind the interest of the delegates, and to aid them channelising their undivided attention towards sessions in Obstetrics or Gynaecology or both. This is made possible by having three separate halls that a delegate may enter & exit as per their pursuits. There are also two keynote lectures by stellar speakers in their respective specialities that cover the cardinal topics

in vast realm of women's health. A true academic feast not to be missed!

A record number of abstracts have been received by the scientific committee for presentation as free papers, posters or video sessions. This enthusiasm by the participants shows the distinction and charm of this academic bonanza. The abstract committee and editorial team burnt the midnight oil (with satisfaction and glee!) to compile the abstracts from presentations to bring out an abridged version of various speaker's presentations through this souvenir.

We take this opportunity to express our sincere gratitude to all the esteemed International and National faculty members, workshop organising committees members and support staff , who have devoted their precious time and tireless efforts in making the conference seamless and succesful.

Our special thanks to Dr Ranjana Sharma and Dr Anita Kaul for bestowing their trust upon us with the most demanding responsibilities of conference.

To all the delegates and attendees, we thank you for encouraging us with your participation and engagement. We look forward to an exciting and interactive conference with you.

| Dr Shelly Arora | Dr Mamta Dagar | Dr Pakhee Aggarwal | Dr Vidhi Chaudhary |
|---|---|---|---|
| Organising Secretary | Organising Secretary | Organising Jt Secretary | Organising Jt Secretary |

# Message from

**Dr Eddie Morris**

Dear Colleagues

It gives me great pleasure to welcome you to the AICC RCOG North Zone Annual Congress on 20th August 2022. I am extremely grateful to the Fellows and Members of the North Zone of AICC RCOG, led by Dr Ranjana Sharma, who have organised an excellent conference, which offers an impressive scientific programme and a full range of workshops.

The theme of this year's conference - "As Her Life Matters: Let's Upskill and Update "particularly resonates with me as in order to meet the healthcare needs of women and girls, we all need to constantly refresh and update our knowledge and skills. The AICC North Zone has always been very active in providing courses and meetings to support RCOG fellows and members and we are very appreciative for all their hard work and dedication to improving the health of women and girls. I am delighted to see colleagues from the AICC and the three other AICC zonal committees involved as well as my fellow officers. With such a strong Indian and international faculty, this AICC RCOG North Zone Annual Congress offers many opportunities for upskilling and networking with colleagues.

With best wishes for a great conference.

**Eddie Morris**

RCOG President

# Message from

**Dr Jyotsna**

Dear Friends and Colleagues,

Greetings from UK. Welcome to another fantastic hybrid Annual conference organised by AICC North Zone. I see that a lot of hard work has gone in creating a balanced and education experience for those attending this Annual Conference. There is a wide array of important topics being presented by national and international experts in their field.

Her Life Matters because as the saying goes 'if you check the health of a woman, you check the health of society'. It is extremely important to keep abreast of new developments and evidence in women's health.

I am looking forward to this Annual conference and hope that you all are too.

Regards and best wishes,

Jyotsna

# Message from

**Dr Bhaskar Pal**

Dear colleagues

I am delighted to know the AICC RCOG North Zone is organizing their annual conference in on August 20, 2022 on the virtual platform. The conference is rich in academic content with an excellent list of international and national speakers covering a wide range of important and contemporary topics. The theme of the conference is "As Her Life Matters : Let's Upskill and Update";there are nine workshops including a hands-on workshop on colposcopy towards achieving the theme. The North Zone has a large and efficient team, led by Dr Ranjana Sharma, and the hard work put in by the team is evident from the scale of the conference.

I hope to meet most of you at the AICC RCOG Conference at Mumbai on November 4-6, 2022. May I remind you with immense happiness that the 2023 AICC RCOG Conference is scheduled in the North Zone.

I wish this conference a great success and am delighted to be a part of it.

**Bhaskar Pal**

Chair, AICC RCOG

# Message for RCOG North Zone Annual Conference From the Past Chairperson

**Dr Sohani Verma**

It is indeed a great pleasure for me to write this message and convey my heartiest congratulations to Dr Ranjana Sharma, Dr Anita Kaul and all team members for organizing a superb Annual Conference of RCOG North Zone India.

The theme of this conference – "As Her Life Matters: Let's Upskill and Update" is indeed very inspiring and reflects the vision and commitment of organizing team for continued professional development. The masterly designed virtual conference with a galaxy of highly renowned international speakers from different parts of world will be a truly wonderful opportunity to update everyone on a wide range of contemporary and challenging issues. A total of nine physical workshops on the following day again reflect the hard work and enthusiasm of all members of RCOG North Zone. It is indeed a matter of great pride for me to see the present team carrying forward North Zone legacy in a most wonderful manner.

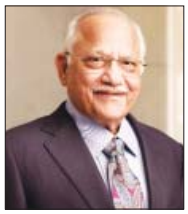
I wish the conference a great success.

Warm regards

**Dr Sohani Verma**
Past Chairperson RCOG North Zone India (2012-2017)
Sr Consultant Obstetrician Gynaecologist
Infertility & ART Specialist
Indraprastha Apollo Hospitals, New Delhi

Apollo HOSPITALS

**Dr. PRATHAP C REDDY**
Chairman, Apollo Hospitals



August 9, 2022

# MESSAGE

I am delighted to learn of the forthcoming Annual Conference 2022 of the AICC RCOG North Zone. This Conference has become a seminal event for clinicians and practitioners in the field of Obstetrics and Gynecology. As my colleagues would aver, the health and wellbeing of our women is one of the central determinants of the development of a society and country. Through conferences like these, practitioners in the field can keep themselves updated with the latest advancements in the field, in order to provide care of utmost quality to their patients.

I am particularly pleased at the theme of the Conference – '*As Her Life Matters: Let's Upskill and Update*', which is a timely reminder, that though we practice our clinical specialty in the most contemporaneous of ways, we all need to upskill and further hone our skills in the best interest of our patients.

The organizing team, led by the dynamic Dr Ranjana Sharma, deserves our commendation for hosting this Conference for the benefit of delegates, who can join in through a multitude of ways. I am sure the deliberations by the eminent speakers will go a long way in furthering this clinical specialty of import.

I wish the AICC RCOG North Zone team much success.

Prathap Reddy

Dr Prathap C Reddy

Royal College of Obstetricians & Gynaecologists

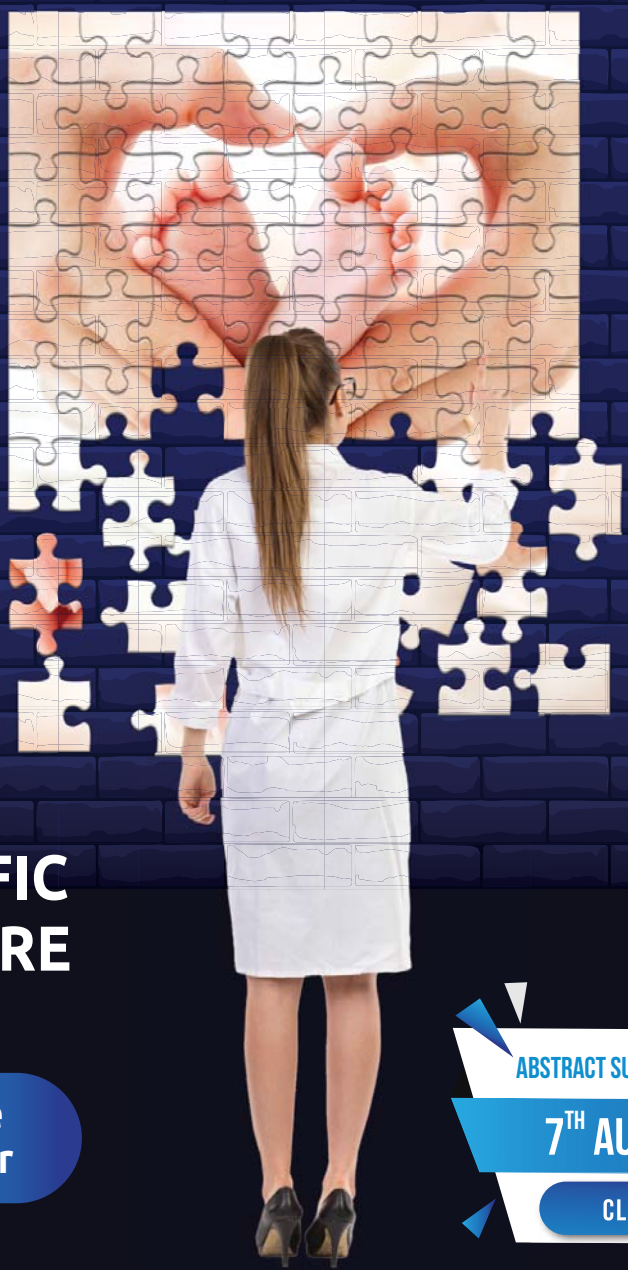
India North
International Representative Committee

# AICC RCOG NORTH ZONE ANNUAL CONFERENCE

**20th August 2022 | 12:00 PM - 08:00 PM (Virtual)**

## Theme

**As Her Life Matters : Let's Upskill and Update**



**SCIENTIFIC BROCHURE**

**Click Here To Register**

ABSTRACT SUBMISSION EXTENDED TILL

**7TH AUGUST 2022**

CLICK TO SUBMIT

https://aiccrcognzindia.com

# Invitation

**Dear Friends**

On behalf of the All-India Coordination Committee of Royal College of Obstetricians & Gynaecologists North Zone (AICC RCOG NZ), we are delighted to announce and invite you to the AICC RCOG NZ Annual Conference 2022. It is the proud privilege of the Fellows and Members of the North Zone of AICC RCOG to organize this prestigious event virtually on 20th August 2022.

The theme of conference is "As Her Life Matters: Let's Upskill and Upgrade". It will feature renowned International and National Faculty, who will deliberate on the latest developments and controversies that will impact our professional practice. The meticulously planned scientific program aims to provide an academic feast to attendees, via lectures, 2 keynotes addresses, 10 post-Conference workshops, e-Posters and Paper Presentations.

It is a fantastic opportunity to immerse in academia and listen to stalwarts from all over the world from the comfort of your own home.

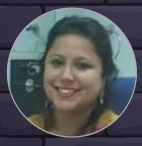
Please block your dates and we hope you will join us to participate in this scientific extravaganza. For more information and regular updates on this conference, please visit our website: www.aiccrcognzindia.com.

We look forward to an exciting and interactive conference with you.

Warm Regards,
**Annual Conference Organising Committee,**
**AICC RCOG North Zone**

**Ranjana Sharma**
Organising Chairperson

**Anita Kaul**
Organising Vice Chairperson



**Shelly Arora**
Organising Secretary

**Mamta Dagar**
Organising Secretary

**Pakhee Aggarwal**
Organising Joint Secretary

**Vidhi Chaudhary**
Organising Joint Secretary

# Organising Committee

## Patrons

Urmil Sharma
Sheila Mehra
R P Soonawala
Prathap C Reddy
Ashok Chauhan

## Advisors

Ranee Thakar
Jyotsna Acharya
Bhaskar Pal

## Organizing Chairperson

Ranjana Sharma

## Organizing Vice Chairperson

Anita Kaul

## Organizing Secretaries

Shelly Arora
Mamta Dagar

## Organizing Joint Secretaries

Pakhee Aggarwal
Vidhi Chaudhary

## Inaugural

Akshatha
Jasmine Chawla
Jyoti Bhaskar
Puneet Kocchar

## Souvenir

Chanchal
Mamta Dagar
Pakhee Aggarwal
Vidhi Chaudhary
Shelly Arora

## Scientific Committee

Akshatha Sharma
Anita Kaul
Anjali Aneja
Anjila Aneja
Arbinder Dang
Asmita Rathore
Chanchal Singh
J B Sharma
Jayasree Sundar
Jharna Behura
Jyoti Bhaskar
Kaberi Banerjee
Mala Arora
Mamta Dagar
Mamta Mishra
Mamta Sahu
Neema Sharma
Nirmala Agarwal
Pakhee Aggarwal
Pooja Thukral
Poonam Tara Sharma
Ranjana Sharma
Sangeeta Gupta
Saritha Shamsunder
Seema Sharma
Shelly Arora
Sohani Verma
Sweta Gupta
Tanya Buckshee
Uma Pandey
Usha M Kumar
Vidhi Chaudhary
Zeenie Girn Sarda

## Abstract

Ranjana Sharma
J B Sharma
Anita Kaul
Mamta Dagar
Vidhi Chaudhary
Shelly Arora

## Finance

Nirmala Agarwal
Anjila Aneja
Mamta Dagar
Sweta Gupta
Kaberi Banerjee

## Registration

Mamta Dagar
Shelly Arora
Manisha Saxena
Mr Asif Muniri
Ms Prachi Goenka

## Hall Management

Pooja Thukral
Astha Dayal
Pulkit Nandwani
Jasmine Chawla
Pakhee Aggarwal
Zeenie Girn Sarda
Pratibha Malik
Shweta Gupta
Vidhi Chaudhary
Gayatri Juneja
Shefali Tyagi

## Advertisement & Promotion

Uma Pandey
Shipra Kunwar
Bhawna Khera
Zeenie Sarda

## WORKSHOPS

### 1. HYSTEROSCOPY - OFFICE TO OPERATING ROOM

**Convenors:** Meena Naik | Shefali Tyagi | Ridhi Narang

### 2. OBSTETRIC EMERGENCIES DRILLS- VIDEO WORKSHOP

**Convenors:** Mamta Dagar | Shelly Arora

### 3. OBG ultrasound for Beginners : Be the eyes and seek the truth (OPUS ultrasound Simulation course) Limited seats (15 only)

**Convenors:** Anita Kaul | Asmita Rathore

### 4. BE THE ONE TO HELP HER *Un - Pause* (Me - No - Pause Workshop)

**Convenors:** Anjila Aneja | Jyoti Bhaskar

### 5. LAPAROSCOPY - Learn from the Masters

**Convenors:** Meena Naik | Neema Sharma | Zeenie Girn Sarda

### 6. HEALTHY START TO HEALTHY LIFE: Optimising Perinatal Outcome

**Convenors:** Jayasree Sundar | Jharna Behura | Chanchal

### 7. INFERTILITY : Fertility and Genomics

**Convenors:** Sohani Verma | Sweta Gupta

### 8. SEXUAL HEALTH : Sexual health for practicing gynaecologists

**Convenors:** Seema Sharma | Pooja Thukral | Bhawna Khera | Gayatri Juneja

### 9. Comprehensive Colposcopy Workshop (With Hands On Session) 23rd August 2022, Safdarjung Hospital, New Delhi

**Convenors:** Saritha Shamsundar | Archana Mishra

Royal College of Obstetricians & Gynaecologists

India North
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# AICC RCOG NORTH ZONE ANNUAL CONFERENCE

## SCIENTIFIC PROGRAM

**20th August, 2022 | 12:00 PM - 08:00 PM**

| TIME (IST) | HALL A (Obstetrics) | HALL B (Gynaecology) | HALL C (OBGYN Combined) |
|---|---|---|---|
| 11:00-12:00 PM | **Registration + Exhibition** | | |
| | **Welcome address**<br>Speaker - **Ranjana Sharma** (Chair, AICC RCOG North Zone) | | |
| | **Early FGR management**<br>Speaker<br>**Christoph Lees**<br>(UK)<br>Discussants<br>**Sohani Verma**<br>**Sangeeta Gupta**<br>**Chanchal Singh** | **Recurrent Pregnancy Loss- Evidence based Approach**<br>Speaker<br>**Lesley Regan**<br>(UK)<br>Discussants<br>**Mala Arora**<br>**Kiran Guleria**<br>**Aparna Sharma** | **Recurrent POP: Prevention and Management**<br>Speaker<br>**Ajay Rane**<br>(Australia)<br>Discussants<br>**J B Sharma**<br>**Vineet Mishra**<br>**Madhu Ahuja** |
| | **Audience Interaction** | | |
| | **Hyperemesis Gravidarum: Causes, Consequences, Care**<br>Speaker<br>**Marlena Fejzo**<br>(USA)<br>Discussants<br>**Achla Batra**<br>**Jasmine Chawla**<br>**Shweta Gupta** | **Assessment and management of VIN**<br>Speaker<br>**David Nunns**<br>(UK)<br>Discussants<br>**Shalini Rajaram**<br>**Nina Madnani**<br>**Vinita Jaggi Kumar** | **HIPEC in Gynae Cancer**<br>Speaker<br>**Soma Shekar**<br>(India)<br>Discussants<br>**Neerja Bhatla**<br>**Rupinder Sekhon**<br>**Pakhee Aggarwal** |
| | **Audience Interaction** | | |

| TIME (IST) | HALL A (Obstetrics) | HALL B (Gynaecology) | HALL C (OBGYN Combined) |
|---|---|---|---|
| | **Prediction and surveillance of Preeclampsia in high risk women**<br>Speaker<br>**Stefan Verlohren**<br>(Germany)<br>Discussants<br>**Sushma Sinha**<br>**Vatsala Dhadwal**<br>**Akshatha Sharma** | **Pelvic Anatomy & Laparoscopic Internal Iliac Artery ligation**<br>Speaker<br>**Shailesh Puntambekar**<br>(India)<br>Discussants<br>**Urvashi P Jha**<br>**Usha M Kumar**<br>**Meena Naik** | **MHT as primary prevention**<br>Speaker<br>**Mary Ann Lumsden**<br>(UK)<br>Discussants<br>**Meeta Singh**<br>**Jyothi Unni**<br>**Jyoti Bhaskar** |
| | **Audience Interaction** | | |
| | **Mobility Break** | | |
| | **Inauguration**<br>Chief Guest - **Tim Draycott**<br>Guests of Honour - **Urmil Sharma** \| **Hrishikesh Pai** \| **Uday Thanawala** | | |
| | **Mobility Break** | | |
| | **KEYNOTE ADDRESS**<br>**Personalised Timing of Birth at Term**<br>Chairperson - **Kamal Buckshee** \| **Anita Kaul** \| **Asmita Rathore**<br>Speaker - **Kypros Nicolaides (UK)** | | |
| | **Audience Interaction** | | |
| | **Prediction of PTL in uterine anomalies**<br>Speaker<br>**Jon Hyett**<br>(Australia)<br>Discussants<br>**Reva Tripathi**<br>**Manju Khemani**<br>**Jharna Behura** | **Approach to patient of Hirsutism & Hyperandrogenism**<br>Speaker<br>**Jyotsna Acharya**<br>(UK)<br>Discussants<br>**Deepti Goswami**<br>**Anita Sabharwal**<br>**Kuldeep Singh**<br>(Cosmetic Surgeon) | **Borderline Ovarian Tumours**<br>Speaker<br>**M M Samsuzzoha**<br>(India)<br>Discussants<br>**Amita Suneja**<br>**Saritha Shamsundar**<br>**Seema Singhal** |
| | **Audience Interaction** | | |

| TIME (IST) | HALL A (Obstetrics) | HALL B (Gynaecology) | HALL C (OBGYN Combined) |
|---|---|---|---|
| | **Sepsis after childbirth: Challenges and Solutions**<br>Speaker<br>**Manju Puri**<br>(India)<br>Discussants<br>**Archana Verma**<br>**Jyotsna Suri**<br>**Deepika Agarwal** | **Dual Stimulation – Hope or Hype?**<br>Speaker<br>**Anil Gudi**<br>(UK)<br>Discussants<br>**Neena Malhotra**<br>**Sweta Gupta**<br>**Tanya Buckshee** | **Acute Liver Failure in Pregnancy**<br>Speaker<br>**Tasneem Pirani**<br>(UK)<br>Discussants<br>**Mamta Dagar**<br>**Arbinder Dang**<br>**S L Broor**<br>(gastroenterologist) |
| | **Audience Interaction** | | |
| | **Mobility Break** | | |
| | **Antenatal Steroids : Latest recommendations**<br>Speaker<br>**Surabhi Nanda**<br>(UK)<br>Discussants<br>**Jayasree Sundar**<br>**Pooja Thukral**<br>**Vidhi Chaudhary** | **Adnexal Masses – Laparoscopy or Laparotomy?**<br>Speaker<br>**Bhaskar Pal**<br>(India)<br>Discussants<br>**Manavita Mahajan**<br>**Neema Sharma**<br>**Zeenie Sarda Girn** | **Improving maternal health: Challenges and Solutions**<br>Speaker<br>**Uma Ram**<br>(India)<br>Discussants<br>**Nirmala Agarwal**<br>**Narendra Malhotra**<br>**Uma Pandey** |
| | **Audience Interaction** | | |
| | **KEYNOTE ADDRESS**<br>**Evolution of Robotic surgery in Gynaecology**<br>Chairperson - **Ranjana Sharma \| Bhaskar Pal \| Suneeta Mittal \| Alka Kriplani**<br>Speaker - **Arnold P Advincula (USA)** | | |
| | **Audience Interaction** | | |

| TIME (IST) | HALL A (Obstetrics) | HALL B (Gynaecology) | HALL C (OBGYN Combined) |
|---|---|---|---|
| | **New and old ways of the approach to gestational diabetes**<br>Speaker<br>**Anita Banerjee**<br>(UK)<br>Discussants<br>**Sarita Bhalerao**<br>**Mamta Mishra**<br>**Pulkit Nandwani** | **Medical Management of Endometriosis**<br>Speaker<br>**Hugh Taylor**<br>(USA)<br>Discussants<br>**Sanjivni Khanna**<br>**Kanwal Gujral**<br>**Anjila Aneja** | **Critical Appraisal of research paper- Understanding the basics of Medical Statistics**<br>Speaker<br>**Daljit Sahota**<br>(Hong Kong)<br>Discussants<br>**Prathima Radhakrishnan**<br>**Shubha Sagar Trivedi**<br>**Kavitha Nagandla** |
| | **Audience Interaction** | | |
| | **Risk Assessment in Obstetrics**<br>Speaker<br>**Julian Robinson**<br>(USA)<br>Discussants<br>**Ashok Kumar**<br>**Ratna Biswas**<br>**Seema Sharma** | **Role of Ultrasound contrast in Gynecology Practise**<br>Speaker<br>**Nitin Chaubal**<br>(India)<br>Discussants<br>**Ragini Agarwal**<br>**Varun Duggal**<br>**Puneet Kochhar** | **An update on Medical management of uterine fibroids**<br>Speaker<br>**Jackie Maybin**<br>(UK)<br>Discussants<br>**Jaideep Malhotra**<br>**Indu Chawla**<br>**Puja Dewan** |
| | **Audience Interaction** | | |
| | **cfDNA Triplets and vanishing twins**<br>Speaker<br>**Liona Poon**<br>(Hong Kong)<br>Discussants<br>**S N Basu**<br>**Poonam Tara**<br>**Saloni Arora** | **BRCA in women Health - Breast Cancer and Beyond!**<br>Speaker<br>**Divya Agarwal**<br>(India)<br>Discussants<br>**Ratna Puri**<br>**Priya Ganesh**<br>**Mala Srivastava** | **Non-invasive embryo selection/preimplantation genetics –where are we?**<br>Speaker<br>**Akhil Garg**<br>(Spain)<br>Discussants<br>**Seema Thakur**<br>**Astha Dayal**<br>**Shweta Mittal Gupta** |
| | **Audience Interaction** | | |
| | **Valedictory & Vote of thanks** | | |

# Faculty List

## International Faculty

Ajay Rane (Australia)
Akhil Garg (Spain)
Anil Gudi (UK)
Anita Banerjee (UK)
Arnold P Advincula (USA)
Christoph Lees (UK)
Daljit Sahota (Hong Kong)
David Nunns (UK)
Tim Draycott (UK)
Hugh Taylor (USA)
Jackie Maybin (UK)
Jon Hyett (Australia)
Julian Robinson (USA)
Jyotsna Acharya (UK)
Kavitha Nagandla (Malaysia)
Kypros Nicolaides (UK)
Lesley Regan (UK)
Liona Poon (Hong Kong)
Marlena Fejzo (USA)
Mary Ann Lumsden (UK)
Stefan Verlohren (Germany)
Surabhi Nanda (UK)
Tasneem Pirani (UK)

## National Faculty

Achla Batra
Akshatha Sharma
Alka Kriplani
Amita Suneja
Anita Kaul
Anita Sabharwal
Anjila Aneja
Aparna Sharma
Arbinder Dang
Archana Verma
Ashok Kumar
Asmita Rathore
Astha Dayal
Bhaskar Pal
Chanchal Singh
DeepikaAgarwal
Deepti Goswami
Divya Agarwal
Hrishikesh Pai
Indu Chawla
J B Sharma
Jaideep Malhotra
Jasmine Chawla
Jayasree Sundar
Jharna Behura
Jyothi Unni
Jyoti Bhaskar
Jyotsna Suri
Kamal Buckshee
Kanwal Gujral
Kiran Guleria
Kuldeep Singh
M M Samsuzzoha
Madhu Ahuja
Mala Arora
Mala Srivastava
Mamta Dagar
Mamta Mishra
Manavita Mahajan
Manju Khemani
Manju Puri
Meena Naik
Meeta Singh
Narendra Malhotra
Neema Sharma
Neena Malhotra
Neerja Bhatla
Nina Madnani
Nirmala Agarwal
Nitin Chaubal
Pakhee Aggarwal
Pooja Thukral
Poonam Tara
Prathima Radhakrishnan
Priya Ganesh
Puja Dewan
Pulkit Nandwani
Puneet Kochhar
Ragini Agarwal
Ranjana Sharma
Ratna Biswas
Ratna Puri
Reva Tripathi
Rupinder Sekhon
S L Broor
S N Basu
Saloni Arora
Sangeeta Gupta
Sanjivni Khanna
Sarita Bhalerao
Saritha Shamsundar
Seema Sharma
Seema Singhal
Seema Thakur
Shailesh Puntambekar
Shalini Rajaram
Shelly Arora
Shubha Sagar Trivedi
Shweta Gupta
Shweta Mittal Gupta
Sohani Verma
Soma Shekar
Suneeta Mittal
Sushma Sinha
Sweta Gupta
Tanya Buckshee
Uday Thanawala
Uma Pandey
Uma Ram
Urmil Sharma
Urvashi P Jha
Usha M Kumar
Varun Duggal
Vatsala Dhadwal
Vidhi Chaudhary
Vineet Mishra
Vinita Jaggi Kumar
Zeenie Sarda Girn

# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### HYSTEROSCOPY WORKSHOP

**21ST AUGUST 2022**
**08:00 am - 01:00 pm**
Venue : **Le Meridien Hotel, New Delhi**

DR. RANJANA SHARMA, CHAIRPERSON, AICC RCOG NZ | DR. SHELLY ARORA, SECRETARY, AICC RCOG NZ | DR MEENA NAIK, CONVENOR | DR. SHEFALI TYAGI, CO-CONVENOR | DR RIDHI NARANG, CO-CONVENOR

| | |
|---|---|
| 08:00 - 08:45 AM | REGISTRATION \| TEA \| EXHIBITION |
| 08:45 - 09:00 AM | WELCOME AND INTRODUCTION |
| **SESSION 1** | **BASICS OF HYSTEROSCOPY**<br>Chairpersons : Dr Urvashi P Jha \| Dr. Pakhee Aggarwal |
| 09:00 - 09:20 AM | Instruments, Equipments & Assembly<br>Speaker : Dr Shefali Tyagi |
| 09:20 - 09:40 AM | Distention Media & Energy Sources for Hysteroscopic Surgery<br>Speaker : Dr. Ridhi Narang |
| 09:40 - 10:10 AM | Office Hysteroscopy - How To Do It ?<br>Speaker : Dr. Meena Naik |
| 10:10 - 10:30 AM | Complications & Trouble Shooting<br>Speaker : Dr. Shefali Tyagi |
| **SESSION 2** | **OPERATIVE HYSTEROSCOPY**<br>Chairpersons : Dr. Alka Sinha \| Dr. Tanya Buckshee Rohatgi |
| 10:30 - 10:45 AM | Endosee advance : direct visualization can transform your Practice<br>Speaker : Dr Mamta Dagar |
| 10:45 - 11:15 AM | Hysteroscopy In AUB – See And Treat<br>Speaker : Dr Neena Bahl |
| 11:15 - 11:45 AM | Hysteroscopy In Infertility<br>Speaker : Dr. Meena Naik |
| 11:45 - 12:00 PM | Discussion With The Experts |
| **SESSION 3** | |
| 12:00 - 01:00 PM | HANDS ON SESSION ON HYSTEROTRAINERS<br>Facilitators - Dr. Meena Naik \| Dr. Anjali Taneja \| Dr. Zeenie Sarda Girn<br>Dr. Shefali Tyagi \| Dr. Ridhi Narang |

Partner: CooperSurgical

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### OBSTETRIC EMERGENCIES DRILLS- VIDEO WORKSHOP

**21ST AUGUST 2022**
**9:00 am – 1:00 pm**
Venue : **Le Meridien Hotel, New Delhi**

DR. RANJANA SHARMA, CHAIRPERSON AICC RCOG NZ | DR MAMTA DAGAR, CONVENER | DR. SHELLY ARORA, CONVENER SECRETARY AICC RCOG NZ

| | |
|---|---|
| 08:00 - 08:45 AM | Registration & Tea |
| 01:45 - 02:00 PM | Welcome & Introduction |
| Discussants: | Dr Mitra Saxena \| Dr Manju Khemani \| Dr Geeta Mediratta<br>Dr Manavita Mahajan \| Dr Arbinder Dang |
| 09:00 - 09:45 AM | PPH Video Drill & PPT<br>Speaker - Dr Jasmine Chawla<br>Discussion (15 Mins) |
| 09:45 - 10:30 AM | Eclampsia Video Drill & PPT<br>Speaker - Dr Sangeeta Gupta & Dr Reena Rani<br>Discussion (15 Mins) |
| 10:30 - 11:15 AM | Shoulder dystocia Video Drill & PPT<br>Speaker - Dr Manju Puri<br>Discussion (15 Mins) |
| 11:15 - 12:00 PM | Cord Prolapse Video Drill & PPT<br>Speaker - Dr Shelly Arora & Dr Shweta Gupta<br>Discussion (15 Mins) |
| 12:00 - 12:45 PM | Maternal Collapse Video Drill & PPT<br>Speaker - Dr Mamta Dagar<br>Maternal Resuscitation (Hands on)<br>Speaker - Dr Alok Kumar<br>Discussion (15 Mins) |
| 12:45 - 01:00 PM | Documentation and Debriefing<br>Speaker - Dr Harpreet Kaur |

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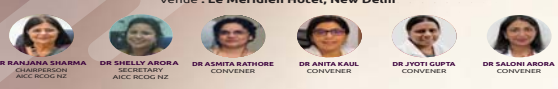
# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### OBG ULTRASOUND FOR BEGINNERS

( OPUS SIMULATOR-BASED WORKSHOP )
BE THE EYES TO SEEK THE TRUTH
**21ST AUGUST 2022**
**09:00 am - 01:30 pm**
Venue : **Le Meridien Hotel, New Delhi**



DR RANJANA SHARMA, CHAIRPERSON AICC RCOG NZ | DR SHELLY ARORA, SECRETARY AICC RCOG NZ | DR ASMITA RATHORE, CONVENER | DR ANITA KAUL, CONVENER | DR JYOTI GUPTA, CONVENER | DR SALONI ARORA, CONVENER

**Course faculty:**
Dr Anita Kaul | Prof Asmita Rathore | Dr Saloni Arora | Dr Jyoti Gupta

**Director of Simulator courses:**
Dr Anita Kaul

**Invited Guest faculty:**
Dr Supriya Seshadari (Bangalore)

**Course design:**
Hands-on, on simulator alongside ppt content
*3 delegates to one OPUS device*

**09:00 - 10:30 AM** — **US basics**
1. Knobology
2. Methodology: TAS & TVS
3. Basic pelvic anatomy

**10:30 - 11:30 AM** — **Early Pregnancy Scan**
1. Intra uterine pregnancy: Normal, abnormal (miscarriage/Retained products of conception**)
2. Ectopic pregnancy

**11:30 - 01:00 PM** — **The 6-step approach to basic obstetric scan - ISUOG**
1. Fetal number
2. Fetal lie and presentation
3. Fetal cardiac activity
4. Placental localisation
5. Assessment of amniotic fluid
6. Fetal biometry

**ALL SESSIONS WILL START WITH AN INTRODUCTORY PRESENTATION BY THE FACULTY FOLLOWED BY EXTENSIVE HANDS- ON PRACTICE ON THE SIMULATOR .**

**Hand-out / Soft copy of report writing will be given to Delegates**

Partner: SAMSUNG ELECTRONICS

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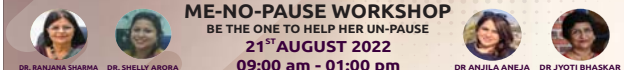
# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### ME-NO-PAUSE WORKSHOP

BE THE ONE TO HELP HER UN-PAUSE
**21ST AUGUST 2022**
**09:00 am - 01:00 pm**
Venue : **Le Meridien Hotel, New Delhi**



DR. RANJANA SHARMA, CHAIRPERSON, AICC RCOG NZ | DR. SHELLY ARORA, SECRETARY, AICC RCOG NZ | DR ANJILA ANEJA, CONVENER | DR JYOTI BHASKAR, CONVENER

| | |
|---|---|
| **SESSION 1 - PANEL DISCUSSION** | |
| 09:00 - 10:00 AM | SEXUAL LIFE AFTER MENOPAUSE: IT GOES BEYOND GSM<br>Moderator: Dr Jyoti Bhaskar<br>Panelists : Dr. Sonal Bathla \| Dr Chitra Setya<br>Dr Ragini Agarwal \| Dr Meenakshi Ahuja<br>Dr Mithee Bhanot \| Ms Kamna Chhibber |
| **SESSION 2** | |
| 10:00 - 11:05 AM | Chairpersons : Dr Achla Batra \| Dr Mala Srivastava \| Dr Vandana Gupta |
| 10:00 - 10:15 AM | POI<br>Speaker : Dr Anjila Aneja |
| 10:15 - 10:30 AM | POSTMENOPAUSAL VULVA<br>Speaker : Dr Saritha Shamsunder |
| 10:30 - 10:45 AM | OSTEOPOROSIS AND SACROPENIA : OUR APPROACH.<br>Speaker : Dr Neema Sharma |
| 10:45 - 10:55 AM | QUESTION AND ANSWER |
| 10:55 - 11:05 AM | ZUMBA |
| **SESSION 3 - PANEL DISCUSSION** | |
| 11:05 - 12:00 PM | PERI MENOPAUSAL BLEEDING AND CONTRACEPTION<br>Moderator : Dr S. N Basu<br>Panelists : Dr Madhu Ahuja \| Dr Mamta Sahu<br>Dr Dipti Nabh \| Dr Sujata Bhat<br>Dr Renu Lakhtakia \| Dr Raka Guleria |
| **SESSION 4 - WORKSTATIONS** | |
| 12:00 - 01:00 PM | PRE MHT ASSESSMENT<br>Dr Mamta Sahu \| Dr Renu Lakhtakia<br>MHT : KNOW THE DRUGS<br>Dr Jyoti Bhaskar \| Dr Mithee Bhanot<br>DILEMMAS IN MHT PRESCRIPTION<br>Dr Anjila Aneja \| Dr Kiranjeet Kaur |

Sponsor: la femme

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### LAPAROSCOPY WORKSHOP

**21ST AUGUST 2022**
**01:00 pm - 06:00 pm**
Venue : **Le Meridien Hotel, New Delhi**

DR. RANJANA SHARMA, CHAIRPERSON, AICC RCOG NZ | DR. SHELLY ARORA, SECRETARY, AICC RCOG NZ | DR MEENA NAIK, CONVENOR | DR NEEMA SHARMA, CO-CONVENOR | DR ZEENIE SARDA GIRN, CO-CONVENOR

| | |
|---|---|
| 01:00 - 01:45 PM | REGISTRATION \| LUNCH \| EXHIBITION |
| 01:45 - 02:00 PM | WELCOME AND INTRODUCTION |
| **SESSION 1** | **BASICS OF GYNAE LAPAROSCOPY**<br>Chairpersons : Dr Anjila Aneja \| Dr Usha M Kumar \| Dr Jasmine Chawla |
| 02:00 - 02:10 PM | Instrumentation , Equipments and Ergonomy in gynae laparoscopy<br>Speaker : Dr Zeenie Girn |
| 02:10 - 02:20 PM | Laparoscopic Pelvic Anatomy<br>Speaker : Dr Neema Sharma |
| 02:20 - 02:30 PM | Safe Entry And Gaining Access<br>Speaker : Dr Zeenie Sarda Girn |
| 02:30 - 02:40 PM | Electrosurgery In Laparoscopy - Safety & Optimal Use<br>Speaker : Dr Meena Naik |
| 02:40 - 02:50 PM | Endosuturing, Tissue Approximation & Tissue Retrieval<br>Speaker : Dr Neema Sharma |
| 02:50 - 03:00 PM | Risk Management In Gynae Endoscopy- Medicolegal Aspects<br>Speaker : Dr. Shefali Tyagi |
| **SESSION 2** | **VIDEO SESSION: LEARN FROM EXPERTS**<br>Chairpersons : Dr Urvashi P Jha \| Dr Sanjivni Khanna \| Dr Alka Sinha |
| 03:00 - 03:10 PM | Tackling Tubal Pathology<br>Speaker : Dr Neema Sharma |
| 03:10 - 03:20 PM | Ovarian Masses<br>Speaker : Dr Alka Gujral |
| 03:20 - 03:30 PM | Dealing With Fibroids<br>Speaker : Dr Alka Kriplani |
| 03:30 - 03:40 PM | Dealing with Endometriosis<br>Speaker : Dr Puneeta Bhardwaj |
| 03:40 - 03:50 PM | Laparoscopic Hysterectomy-simplified<br>Speaker : Dr Meena Naik |
| 03:50 - 04:00 PM | Discussion - QUESTION & ANSWER |
| **SESSION 3 PANEL DISCUSSION** | **TROUBLE SHOOTING , MANAGING COMPLICATIONS & SAFETY IN GYNAE LAPAROSCOPY** |
| 04:00 -04:45 PM | Moderators - Dr Zeenie Sarda Grin \| Dr Meena Naik<br>Experts: Dr Urvashi P Jha \| Dr Sanjivni Khanna<br>Panelists- Dr Anjali Taneja \| Dr Manavita Mahajan \| Dr Neena Bahl \| Dr Mamta Mishra<br>Dr Pakhee Aggarwal \| Dr Gursimran Kaur \| Dr Kanika Jain |
| 04:45- 05:00 PM | TEA BREAK |
| **SESSION 4** | **HANDS-ON SESSION ON ENDOTRAINERS** |
| 05:00 - 06:00 PM | Facilitators : Dr Meena Naik \| Dr Anjali Taneja \| Dr Zeenie Sarda Grin<br>Dr Neema Sharma \| Dr Ridhi Narang \| Dr Shefali Tyagi |

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### Perinatology Workshop
### Healthy Start to a Healthy Life : Optimizing Perinatal Outcomes

21ST AUGUST 2022
2:00 pm - 5:30 pm
Venue : Le Meridien Hotel, New Delhi


DR. RANJANA SHARMA
CHAIRPERSON
AICC RCOG NZ


DR. SHELLY ARORA
SECRETARY
AICC RCOG NZ


DR JAYASREE SUNDAR
CONVENER


DR JHARNA BEHURA
CONVENER


DR CHANCHAL
CONVENER

| | |
|---|---|
| 02:00 - 02:05 PM | **Welcome to the workshop**<br>Speaker - Jayasree Sundar |
| **Session 1** | Chairpersons: Dr Sharda Patra \| Dr Vidhi Chaudhary |
| 02:05 - 02:15 PM | **Routine Induction of Labour at 39 weeks – the panacea to perinatal complications?**<br>Speaker - Jharna Behura |
| 02:20 - 02:30 PM | **VBAC – Where do we stand today?**<br>Speaker - Jayasree Sundar |
| 02:35 - 02:50 PM | **Timing of delivery in Fetal growth restriction**<br>Speaker - Aparna Sharma |
| 02:55 - 03:20 PM | **Preterm birth Can we predict and prevent it?**<br>Speaker - Chanchal<br>**Dealing with the unpreventable – optimal management of preemies**<br>Speaker - Naveen Gupta (Neonatologist) |
| **Session 2**<br>03:00 - 05:00 PM | **Hands-on Stations (OSCE-styled stations – 15 minute each)**<br>Station 1: CTG – Normal and abnormal traces<br>Dr Jharna \| Dr Meenakshi Sahu \| Dr Manisha Saxena<br>Station 2: CTG interpretation in growth restriction and abnormal Dopplers<br>Dr Poonam Tara \| Dr Mamta Mishra \| Dr Payal Chaudhary<br>Station 3: Twin vaginal delivery – honing the fading skills<br>Dr Rinku Sen Gupta \| Dr Meenakshi Banerjee \| Dr CS Mythreyi<br>Station 4: Expecting the unexpected: assessing mental health in pregnancy<br>Dr Shelly Arora \| Dr Jatinder Pal Kaur \| Dr Megha Bansal<br>Station 5: Unexpected stillbirth: how to ensure an informative, complete postnatal evaluation<br>Dr Seema Thakur \| Dr Manisha Kumar \| Dr Aditi Shastri<br>Station 6: Neonatal resuscitation<br>Dr Naveen Gupta \| Dr Anil Batra \| Dr Sweta K |

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022 (PHYSICAL)

### FERTILITY AND GENOMICS

21ST AUGUST 2022
1:45 pm - 5:30 pm
Venue : Le Meridien Hotel, New Delhi


DR SOHANI VERMA
MENTOR


DR SWETA GUPTA
CONVENER


DR. RANJANA SHARMA
CHAIRPERSON,
AICC RCOG NZ


DR. SHELLY ARORA
SECRETARY,
AICC RCOG NZ


DR SARABPREET SINGH
CO-CONVENER


DR ASHISH FAUZDAR
CO-CONVENER

| | |
|---|---|
| 1:00 - 1:45 PM | **Lunch & Registration** |
| 1:45 - 2:00 PM | **Welcome Address**<br>Speaker - Dr Ranjana Sharma \| Dr Sweta Gupta |
| 2:00 - 2:30 PM | **Infertility and Genetics**<br>Chairpersons - Dr Sohani Verma \| Dr Ranjana Sharma \| Dr Anita Kaul<br>Speaker - Dr Veronica Arora<br>Question & Answer |
| 2:30 - 3:00 PM | **Male Fertility & Genetic Testing**<br>Chairpersons - Dr K D Nayar \| Dr S N Basu \| Dr Sushma Sinha<br>Speaker - Dr Rima Dada<br>Question & Answer |
| 3:00 - 3:30 PM | **AI for ERA and PGT**<br>Chairpersons - Dr Renu Tanver \| Dr Arbinder Dang \| Dr Ratnaboli<br>Speaker - Dr Sweta Gupta<br>Question & Answer |
| 3:30 - 4:00 PM | **Video demonstration: Embryo biopsy**<br>Chairpersons - Dr Mala Arora \| Dr Tanya Bakshi \| Dr Pikee Saxena<br>Speaker - Dr Sarabpreet Singh |
| 4:00 - 4:15 PM | **Tea** |
| 4:15 - 5:30 PM | PANEL DISCUSSION<br>**Trouble shooting for PGT / PGD, case scenarios**<br>Moderator - Dr Seema Thakur \| Dr Ashish Fauzdar<br>Panelists - Dr Harpreet Kaur Sidhu \| Dr Puneet Kochhar<br>Dr Pratibha Malik \| Dr Vidhi Chaudhary<br>Dr Sabina Singh \| Dr Shweta Gupta |
| 5:30 PM | **Vote of thanks**<br>Speaker - Dr Sarabpreet |

Partner: Redcliffe life Diagnostics, Crysta IVF

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP (PHYSICAL) 2022

### WORKSHOP ON SEXUAL HEALTH FOR PRACTICING GYNAECOLOGISTS

21ST AUGUST 2022 | 1:45 pm - 6:00 pm
Venue : Le Meridien Delhi


DR. RANJANA SHARMA
CHAIRPERSON,
AICC RCOG NZ


DR. SHELLY ARORA
SECRETARY,
AICC RCOG NZ


DR. SEEMA SHARMA
CONVENER


DR. POOJA THUKRAL
CO-CONVENER


DR. BHAWNA KHERA
CO-CONVENER


DR. GAYATRI JUNEJA
CO-CONVENER

| | |
|---|---|
| 1:45 - 2:00 PM | **Welcome Address**<br>Speaker - Dr. Ranjana Sharma |
| 2:00 - 2:15 PM | **Sexual cycle and its implications**<br>Chairpersons - Dr. Asmita Rathore \| Dr. Manish Mahajan \| Dr. Mala Arora<br>Speaker - Dr Seema Sharma |
| 2:15 - 3:15 PM | PANEL DISCUSSION<br>**Non Consummation of Marriage- Approach to the Couple**<br>Moderator - Dr Apurba Dutta<br>Panelists - Dr Vidya Pancholia \| Dr Sunil Jindal<br>Dr Poonam Mishra \| Dr Manish Mahajan |
| 3:15 - 3:45 PM | **Testosterone and its uses for the Gynaecologists**<br>Chairpersons - Dr. Archana Dhawan \| Dr. Mala Srivastava \| Dr. Gayatri Juneja<br>Speaker - Dr Sunil Jindal |
| 3:45 - 4:00 PM | **Use of tampons and menstrual cups in the millennial era**<br>Chairpersons - Dr. Ranjana Sharma \| Dr. Ragini Agarwal \| Dr. Poonam Mishra<br>Speaker - Dr. Vidya Pancholia |
| 4:15 - 5:15 PM | PANEL DISCUSSION<br>**Decreased libido in all age groups**<br>Moderator - Dr Bhawna Khera<br>Panelists - Dr Ragini Agarwal \| Dr Tripti Sharan \| Dr Nidhi Jha |
| 5:15 - 6:00 PM | **Live Station on Common Pharmacotherapeutic Agents**<br>( Estrogen \| Testosterone \| Flibanserine \| Sildenafil \| Tadalafil )<br>Moderator - Dr. Gayatri Juneja |
| 5:15 - 6:00 PM | **Live Station on Common procedure in Sexual Medicine**<br>( Vaginal Dialators \| Botox \| PRP \| Etc)<br>Moderator - Dr. Pooja Thukral |

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022

in association with

### Department of Obstetrics & Gynecology
Safdarjung Hospital & Oncology Committee of AOGD

### Workshop on Comprehensive Colposcopy
(With Hands On Session)

23rd AUGUST 2022
9:00 am - 4:00 pm
Venue : Old LT1, Behind New OPD Building, Safdarjung Hospital, New Delhi


DR RANJANA SHARMA
CHAIRPERSON
AICC RCOG NZ


DR SHELLY ARORA
SECRETARY
AICC RCOG NZ


DR SUNITA MALIK
Chairperson, Oncology
Committee of AOGD


DR ANJALI DABRAL
HOD, Dept of ObGyn,
Safdarjung Hospital


DR SARITHA SHAMSUNDER
CONVENER


DR ARCHANA MISHRA
CO-CONVENER & MOC

| | |
|---|---|
| **SESSION 1** | **SETTING UP A COLPOSCOPY CLINIC**<br>Chairpersons : Dr Ranjana Sharma \| Dr Pakhee Aggarwal |
| 09:00 - 09:15 AM | **Equipment and Instruments for Colposcopy**<br>Speaker : Dr Sujata Das |
| 09:15 - 09:30 AM | **Portable Colposcopes**<br>Speaker : Dr Archana Mishra |
| 09:30 - 09:35 AM | **Question & Answer** |
| **SESSION 2** | **HOW TO DO COLPOSCOPY AND MAKE A DIAGNOSIS**<br>Chairpersons : Dr Bindu Bajaj \| Dr. Jyotsna Suri |
| 09:35 - 09:50 AM | **Indications for Colposcopy and Procedure**<br>Speaker : Dr Anita Kumar |
| 09:50 - 10:05 AM | **Making a Colposcopic Diagnosis**<br>Speaker : Dr Sweta Balani |
| 10:05 - 10:20 AM | **Cervical Biopsy-Types and Technique**<br>Speaker : Dr Mamta Dagar |
| 10:20 - 10:30 AM | **Question & Answer** |

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# AICC RCOG NZ ANNUAL CONFERENCE

## POST-CONGRESS WORKSHOP 2022

in association with

### Department of Obstetrics & Gynecology
Safdarjung Hospital & Oncology Committee of AOGD

| | |
|---|---|
| **SESSION 3** | **TREATMENT METHODS**<br>Chairpersons : Dr Shelly Arora \| Dr Upma Saxena |
| 10:30 - 10:45 AM | **Cryotherapy**<br>Speaker : Dr Aruna Nigam |
| 10:45 - 11:00 AM | **Thermal Ablation**<br>Speaker : Dr Seema Singhal |
| 11:00 - 11:15 AM | **Large Loop Excision of the Transformation Zone**<br>Speaker : Dr Saritha Shamsunder |
| 11:15 - 11:30 AM | **Cold Knife Conization**<br>Speaker : Dr Vijay Zutshi |
| 11:30 - 11:40 AM | **Question & Answer** |
| **SESSION 4** | **Guidelines for Screening & Treatment**<br>Chairpersons : Dr K.Usha Rani \| Dr Sunita Yadav |
| 11:40 - 11:55 AM | **WHO Algorithms for Screening & Treatment**<br>Speaker : Dr Sunita Malik |
| 11:55 - 12:00 PM | **Question and Answer** |
| **INAUGURATION** | |
| 12:00 - 01:00 PM | **Inauguration** |
| 01:00 - 01:30 PM | **Lunch** |
| 01:30 - 03:30 PM | **Hands On Session on Portable Colposcopy,Digital Video Colposcopy, Thermal Ablation, LLETZ**<br>Facilitators : Dr Saritha Shamsunder \| Dr Anita Kumar \| Dr Sujata Das<br>Dr Mamta Dagar \| Dr Sweta Balani \| Dr Archana Mishra<br>Dr Nishi Chaudhary \| Dr Sumedha Gupta \| Dr Shubham Bidhuri<br>Dr Saloni Chhadha \| Dr Priyanka Pangtey |
| 03:30 PM | **Vote of thanks** |

# Abstracts

## Papers Presentation

### Role of Maternal Anogenital Distance Measurement In Prediction of Perineal Tears During Vaginal Delivery

**Singh K, Jain S, Agarwal R, Priya B**

**Objective:** Anogenital distance is a less explored yet important parameter related to occurrence of perineal tears. Our objectives were a) determine the cut-off value of anogenital distance (AGD) in predicting ≥ 2nd degree perineal tears b) analysis of risk factors for perineal tears c) Compare Pelvic Floor Muscle Strength (PFDI-20) and pelvic floor muscle strength (OXFORD grading) at 6 weeks postpartum.

**Design:** An observational case control study

**Method:**160 primigravida at ≥37 weeks in early labour were recruited, cases were females with ≥2nd degree perineal tears and controls were patients with intact perineum or sustaining upto 1st degree tears. Anthropometric data such as AGDac {anus to clitoris distance} and AGDaf {anus to fourchette distance} and labour parameters like fetal position, duration of second stage, induction of labour, birth weight and head circumference were noted. ROC curves were plotted for AGDac and AGDaf to obtain the cut-off values for predicting ≥2nd degree perineal tears.

**Result:** Cut-off value of AGDac was 77.05mm and AGDaf was 33.75mm for ≥2nd degree perineal tears. AGDaf was better predictor for ≥ 2nd degree perineal tears while AGDac was a better predictor for OASIS in ROC curve analysis. Fetal head position and baby birth weight were significant risk factors for perineal tears. In PFDI-20 at 6 weeks postpartum women with ≥2nd degree perineal tears had more bowel symptoms and symptoms pertaining to prolapse while pelvic floor muscle strength testing was comparable in cases and controls.

**Conclusion:** AGD measurement appears to be a promising parameter to predict the occurrence of ≥ 2nd degree perineal tears and therefore delivery should be conducted carefully in women with shorter AGD to avoid long term consequences.

### Placental Vitamin D Receptor (VDR) target gene expression in Idiopathic fetal growth restriction

**Priya Sharma, Richa Aggarwal**

**Objectives:** To find the placental expression of Vitamin D receptor genes in pregnancy with idiopathic FGR and compare with healthy controls.

**Design:** Case control study

**Methods**: All pregnant women ≥28 weeks of gestation diagnosed as Idiopathic FGR, i.e. no cause found after detailed workup, were recruited as cases. Gestational age matched healthy pregnant women were enrolled as controls. Maternal blood sample for Vitamin D levels measurement was taken prior to delivery. After delivery, a small portion of placenta was stored in phosphate buffer solution at -80$^0$C for RNA extraction to study VDR target gene expression. TGFB3 gene in the VDR pathway was selected for further validation by Real time rtPCR.

**Results: Majority of our patients** were **Vitamin D deficient**, 70% cases and 60% controls. The mean VDR mRNA Δct value in cases was 5.09±0.86 as compared to controls 4.53±1.03 implying reduced **VDR mRNA gene expression** in cases**.** The mean TGFB3 mRNA Δct value was 8.11±1.81 in cases as compared to 6.73±1.64 in controls, statistically significant (p-value 0.003) suggesting reduced TGFB3 mRNA gene expression in cases. Maternal Vitamin D levels were found to have no correlation with VDR mRNA and TGFB3 mRNA expression (correlation coefficient 0.008, 0.194 respectively).

CONCLUSION: Women with Idiopathic FGR had reduced VDR mRNA and TGFB3 mRNA expression, suggesting defect in VDR pathway which had no correlation with Vitamin D levels.

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

**N. Fatima, A. Singla, R. Kar, S. Jain**

**Objective**: To estimate and compare maternal plasma oxytocin levels in women with and without Postpartum depression(PPD).

**Design:** A nested case control study was done among low risk pregnant population attending the antenatal clinic of GTB Hospital.

**Methods:** 200 low risk pregnant women with no medical, psychiatric or obstetrical complications were enrolled after informed and written consent. 2 ml of blood sample was taken at 34-36 weeks of gestation and followed up at 2 weeks and 6 weeks postpartum with Edinburgh Postnatal Depression Scale (EPDS) to screen for postpartum depression (PPD). A score of 10 or more was used to define cases.Plasma oxytocin levels were then estimated using sandwich ELISA. Breastfeeding activities between the two groups were also studied and compared. Unpaired t-test or Mann-Whitney U test were used to compare the oxytocin levels.Bi-variate correlation was used to compare oxytocin levels and EPDS score at 2 weeks and 6 weeks postpartum. Binary multivaraiable logistic regression was applied to find independent predictors of PPD. Chi-square test was used for describing qualitative characteristics of patients between cases and controls.

**Results:** The prevalence of PPD was 15% .Plasma oxytocin levels at 34-36 weeks of gestation and the development of PPD was found to be statistically significant(p=0.005). A sensitivity of 100% for a specificity of 30% was observed if the

cutoff value of plasma oxytocin was taken as ≦313.75 pg/ml. Nuclear family,higher number of living children,pressure to have a male child,multigravidity and a previous female child were significantly associated with PPD. Cessarean section and longer hospital stay were also significantly associated with PPD. Significant association was noted between breast feeding activities and PPD. Though they exclusively breastfeed but as compared to women without PPD, the duration and frequency of feeding were less in women with PPD.

**Conclusion:** Women with lower levels of plasma oxytocin at 34-36 weeks of gestation are more likely to develop PPD.Measuring plasma oxytocin levels at third trimester and also identifying the risk factors can help reduce maternal morbidity and mortality and disease burden.

## Fetomaternal Outcome in Asymptomatic Pregnant Women with Chronic HBV Infection

**Kalpana Pandey**

**Objective** The aim of this study is to assess the adverse fetomaternal outcomes in asymptomatic chronic hepatitis B infection in pregnancy. Hepatitis B treatment of the pregnant patient requires a thorough assessment of disease activity and close monitoring for flares, regardless of initiation of antiviral therapy. We discuss, in this article, the current and emergent strategies which aim to reduce the rate of transmission of hepatitis B from the pregnant mother to the infant and we review the updated guidelines regarding management of liver disease in pregnant women with hepatitis B.

**METHODS**: A total of 125 pregnant women with HBsAg seropositivity and singleton pregnancy presenting to obstretics OPD were enrolled in this prospective cohort study. Chronic HBV (CHB) infection is diagnosed as presence of HBsAg, HBeAg or HBV DNA in absence of IgM anti-HBc which are present in acute infection. Three clinical parameters HBeAg status, HBV DNA level, and ALT level were used to define the four phases of chronic HBV infection for treatment and its effect on maternal and fetal outcomes.

**RESULTS**: This study included 125 HBsAg-positive women. The HBsAg-positive pregnant women were slightly older in age (mean age was 26.02 years), less commonly obese (70.4% had BMI of 18.5-24.9) with majority (41.6%) had primary level of education, all the women (100%) had history of piercing and none (0%) were aware of their immunisation status. Seroprevalence was found to be highest in multiparous women (72.8%). HBeAg seropositivity was seen in 12.8%, anti HBe in 67.2%, total anti- HBc was seen in all the women(100%), 43.24% were HBeAg negative, 13.5% were anti- HBe negative. Treatment was started in 20.8% women with 61. 53% in active phase, 38.46% in immunotolerant phase and LFT flare was seen in 15.15% women who were not on treatment and no flare were seen in women on treatment. Women without treatment, log HBV DNA level was significantly increased (p=0.019) while in women with treatment, log HBV DNA level was reduced and the reduction was statistically significant (p<0.001). There was statistically significant difference (p value < 0.001) in raised AST and ALT levels in both groups with or without treatment. ALT levels reduced at 6 weeks postpartum in women with treatment whereas ALT levels remained raised in women without treatment. A statistically significant difference (p <0.001) was observed on comparing HBeAg and HBeAb in treatment and non-treatment group. Around 76.8% women underwent normal vaginal delivery, 18.4% women underwent cesarean and 4.8% women underwent instrumental delivery. No statistical significant correlation was found between maternal outcomes (GDM, APH, PE, PROM, Preterm labour, PPH and HDU stay ) of patients on treatment compared to women not on treatment as the antiviral therapy was effective. Preterm delivery was seen in 14.4% of women. Birth weight, APGAR score at 1 and 5 minutes, NICU admission, prematurity, FGR and neonatal jaundice were compared between the two groups on treatment and not on treatment but no significant association was observed between these two groups in the present study. The fetal outcomes of women on treatment was similar to women who didn't require treatment as the antiviral therapy was effective.

**CONCLUSION**: The conclusions drawn from the study were that there was no significant association of treatment with maternal & fetal outcome (p>0.05), the reason may be, that the treatment was provided only those who had high HBV DNA level and after the treatment their level declined and so the outcomes were similar in two groups. LFT flare was observed in 15.15% women who were not on treatment and in none of the women who were on treatment, hence treatment with Tenofovir reduces the LFT Flare in mothers. Women without treatment had significantly increased (p=0.019) log HBV DNA level and women with treatment had significant reduction (p<0.001) in log HBV DNA which may have reduced the incidence of MTCT, which was not studied in the present study. In the present study, 26 women were started on antiviral treatment with Tenofovir and in 16 (62%) women it was started when HBeAg was positive or high HBV DNA titre or ALT> 2 times the upper normal limit. So HBeAg seropositivity can replace the need of HBV DNA titres for initiation of therapy in low income setting condition. Tenofovir is safe in pregnancy with very few side effects and decreases the viral load and thus the perinatal transmission.

## Incidence & Determinants of Maternal Near Miss in A Tertiary Care Hospital in South India

**Dhanya R Shenoy, Nina Navakumar, Vidyalekshmy R, Sajith Mohan**

**Introduction:** Despite therapeutic advances in medicine and growing perception of safe childbirth, maternal morbidity and mortality continue to occur. Maternal near-miss, defined as women surviving life-threatening events during pregnancy and childbirth upto 42days postpartum, are a valuable source of scrutiny in preventing maternal death. Though maternal deaths have been studied and criticised widely, very few studies analyse the near-miss.

**Objective:** Evaluating the incidence and determinants of near-miss in a tertiary centre.

**Methodology:** A retrospective observational study for a period of 6 months from January 2022 to identify and analyse the near-miss cases in a tertiary care centre using the WHO near-miss

criteria.

Results: There were 910 live births, 24 near-miss and 1 maternal death. Maternal mortality ratio (MMR) was 109.8/100000 live births while Near-miss ratio (NMR) was 26.3/1000 live births. Maternal near-miss/ maternal death ratio was 24 and the mortality index was 0.04. The major causes of near-miss were haemorrhage (n=8, 33.3%), hypertension (n=6, 25%) and puerperal sepsis (n=3, 12.5%). There was only 1 maternal mortality during the study period, which was due to critically-ill Covid. Less common near-miss causes were medical conditions (n=3, 12.5%), non-pregnancy-related infections (n=2, 8.3%) and acute collapse (n=2, 8.3%). Critical interventions included massive blood transfusion (29.1%), ventilation (12.5%) and hysterectomy (8.3%).

Conclusion: Near-miss studies provide analysis of care of critically-ill mothers, identification of deficiencies in service provision, and ultimately enhance quality of obstetric care and reduce maternal mortality. Mortality index in our study was only 0.04, thus reflecting that timely diagnosis, good quality of care, referral mechanisms & appropriate intervention can save a mother's life.

## Maternal-Fetal Characteristics of Pregnant Women with Severe Covid Disease and Maternal-Neonatal Characteristics of Neonates with Early Onset Sars-Cov-2 Infection

**Kavita Khoiwal**

**Introduction -** This study aimed to report maternal-fetal characteristics of pregnant women with severe COVIDdisease and maternal-neonatal characteristics of neonates with early-onset SARSCoV2 infection.

**Methods -** Prospective data analysis of pregnant women with severe COVIDdisease and neonates with early-onset SARSCoV2 infection.

**Results -** A total of 165 (60, 68, & 37 in 1st, 2nd & 3rd wave) COVIDpositive pregnant women were got admitted. No severe COVID disease with pregnancy was noted in 1st and 3rd waves. During 2nd wave, 15 pregnant women had severe COVIDdisease. All of them had COVIDrelated symptoms requiring supplementary oxygen admitted in ICU. Nine women had IUFD. 73% were in their 2nd trimester. Total leucocyte count and alanine transaminase was raised in 73% and aspartate transaminase in all cases. Two women underwent CS, one neonate died due to perinatal asphyxia. Both neonates were COVID19 positive. Eleven women with critical illness succumbed to disease.

No neonate had early-onset SARSCoV2 infection during 1st and 3rd waves. 11 neonates tested positive during 2nd wave. None had COVID-related symptoms. PTB was reported in 4 cases. All neonates were kept in NICU. Four neonates required respiratory support and 2 dies. Six mothers had positive results in either amniotic fluid, placental membrane, vaginal, or cervical swab.

**Conclusion -** Severe COVIDdisease during pregnancy was associated with IUFD and maternal mortality. Raised liver enzymes might be a predicting factor for severe disease. Early-onset neonatal SARSCoV2 infection has a good prognosis. Mother-to-child transmission of SARSCoV2 is possible in antepartum and intrapartum periods

## Effect of G-CSF on Pregnancy Rates Among Women Undergoing Treatment for Infertility in an Art Centre in Northern India – A Retrospective Study

**Gujan Gupta**

**Abstract**

**Objective:** To evaluate the effect of Granulocyte - Colony Stimulating Factor (G-CSF) on improving pregnancy rates in women with primary and secondary infertility.

**Materials and methods:** All patients of primary & secondary infertility in the age group between 21 to 50 years undergoing ART at our centre between Jan 2018-2022 were chosen. Both fresh & frozen cycles were included. Patient received estrogen therapy for endometrial preparation between 11-30 days. Endometrial transfer was planned once endometrium reached 8.0± 1.0 mm. Patients were divided into two groups. Cases included those who received subcutaneous G-CSF 0.5 ml on Day 0 and Day 5 in case of blastocyst transfer. Controls consisted of those who did not receive G-CSF. The primary outcome measure was pregnancy rate based on serum beta HCG measured on day 11 post transfer.

**Results:** The mean age of the study population was 33.7± 5.9 years. Among the study participants (n= 473), 329 (69.6 %) received G-CSF therapy and 143 (30.3%) did not receive G-CSF therapy. The endometrial thickness was 9.04±1.11 mm and 8.92± 0.77mm for cases and controls respectively. Although there was a higher pregnancy rate in the G-CSF group than control group, this difference was not statistically significant (59.1 vs 53.8%; p = 0.67). Sub group analysis with respect to age, fresh or frozen embryo transfer type, type of infertility did not reveal any differences among the two groups.

**Conclusion:** Patients receiving subcutaneous G-CSF had higher pregnancy rates than control population, but it was not statistically significant.

**Keywords**: G-CSF, infertility, pregnancy rate, embryo transfer, ART

## Letrozole 2.5 MG VS 5.0 MG for Ovulation Induction with Intrauterine Insemination in Unexplained InfertilitY

**Neha Goel, Ashok Verma, Rajendra Prasad**

**Objective -** To compare effects of letrozole 2.5 mg or 5.0 mg for ovulation induction in patients with unexplained Infertility. **Design**: A Randomized controlled trial **Method:** 60 patients attending infertility clinic were randomly allocated into two groups- Group A received Letrozole 2.5 mg and Group B

received Letrozole 5 mg orally for 5 days from 3rd day of cycle . The patients also received inj FSH 75 IU im on day 7 and 9 of the cycle and underwent follicular study on day 11 , 13, 15 . whenthe dominant follicle size reached 18 mm ovulation triggered with Inj HCG 5000 IU IM and Intrauterine insemination was done 24-36 hours later. Pregnancy rates were calculated . Results were analysed by statistical software .Outcome:The number offollicles, endometrial thickness, and pregnancy rate. **Result:** Better Ovulation rates were seen in patients receiving 5 mg Letrozole. No difference in the endometrialthickness and pregnancy rates was found between the two groups. No multiplepregnancies and ovarian hyperstimulation seen. **Conclusion**: It appears that 5 mg daily for 5 days is a preferable letrozole dose for superovulation.

## Dehydroepiandrosterone (DHEA) Role In Enhancement And Maintenance of Implantation (Dream): Randomised Double-Blind Placebo-Controlled Trial

**Apeksha Sahu, Noshin Ashraf, Mohammed Ashraf**

**Objective**: To evaluate the role of Dehydroepiandrosterone (DHEA) as an adjuvant to progesterone supplementation in frozen embryo transfer (FET) cycle, in potential poor ovarian reserve women with low serum testosterone, for improving the live birth rate.

**Design**: Double-blind randomised controlled trial

**Setting**: Tertiary care fertility unit

**Patient(s):** All potential poor ovarian reserve women undergoing FET with hormone replacement therapy (HRT) who have low serum testosterone.

**Intervention(s):** During the FET cycle, the intervention group will be receiving DHEA 25 mg for 14 days from the day of starting progesterone supplementation. Control group: patients who opted for conventional luteal phase support (LPS) without DHEA supplementation.

**Main outcome measure (s):** Live birth rate (LBR)

**Result(s):** The baseline characteristics in both the groups were comparable. ITT and PP results were similar. As per ITT analysis, LBR (35% vs 20%; relative risk (RR) 1.75, CI 1.02-2.97), CPR (45% vs 23.8%; RR 1.89, CI 1.19 - 3.01) pregnancy rate (51.2% vs 30%;

RR 1.70, 95% CI- 1.14 - 2.54) were significantly better in the DHEA group.

There was no significant difference in MR between both the groups (16.5% vs 10%; RR 1.62, CI 0.71 - 3.70)

**Conclusion(s):** To the best of our knowledge, this is the first RCT evaluating this novel use of DHEA for implantation in FET cycles, for potential poor ovarian reserve patients with low testosterone, showing improvement in increase the LBR, CPR and pregnancy rate without major side effects.

## To Determine Correlation Between Ovarian Stromal Blood Flow, Dose of Gonadotrophins, Fort and FOI in Patients Undergoing IVF Treatment

**Rita Bakshi, Prerna Goel, Nidhi Tripathi**

**INTRODUCTION -** The ovarian stromal vascularity is important to provide the necessary gonadotrphin to the developing follicles both in natural and stimulated cycles for their maturation and subsequent recruitment. Ultrasound parameters such as ovarian stromal blood flow may be useful in predicting the ovarian response to gonadotrophins.

**OBJECTIVES -** To correlate Peak systolic velocity (PSV) & Resistive Index (RI) of Ovarian stromal vessel with dose of gonadotrophin, Follicular output rate (FORT) and Follicular oocyte index (FOI) in patients undergoing IVF treatment.

**METHODS -** Women age 22 to 40 years who attended the OPD for Infertility treatment at International Fertility centre (RISAA IVF) in New Delhi from 17th may 2022 to 17th August 2022 were included in study. Ultrasound 2 D colour Doppler was done on Day 2 –Day 3 of menstrual cycle. PSV & RI of Ovarian stromal vessel, Antra follicular count (AFC) were noted. Controlled ovarian stimulation with gonadotrophin was done. Total gonadotrophin dose was noted. On day 10, FORT & FOI were calculated.

**RESULTS -** Total 30 women were included. Ovarian stromal RI and PSV showed negative correlation dose of gonadotrophin while prominent positive correlation with FORT and FOI were observed.

**CONCLUSION -** Prediction of ovarian responses prior to ovarian stimulation can be helpful in tailoring the dosage of gonadotrophin in individual patients undergoing IVF treatment with good outcome.

## Determinants of Success in Intrauterine Insemination

**Sushree Monika Sahoo, Bindu Bajaj, Garima Kapoor**

**Background and Objectives**: Little progress has been made over the years to improve the success rate of intra-uterine Insemination (IUI). We evaluated the independent factors that contribute to the success of an IUI cycle.

**Material and Methods**: We performed a prospective study including 666 IUI cycles from February 2018 to April 2019. All the couples undergoing IUI/Controlled Ovarian Stimulation with IUI for treatment of unexplained infertility, male factor (mild oligozoospermia, ejaculatory disorders), anovulation, mild endometriosis, tubal factors with at least one tube patent and sero-discordant couples were included in the study conducted at a level II ART clinic in a tertiary care hospital. Factors affecting success rate of IUI were analysed.

**Results**: There was a decline in the clinical pregnancy rate (CPR) with the declining age of the women(>29 years). The CPR of the first, second, third IUI cycles were 11.84%, 11.49% and 9.9%, respectively. The highest CPR was observed in women with

PCOS(16.16%, p=0.04) followed by couples with different male factor infertility(14.3%, p=0.349). Endometrial thickness on the day of trigger< 8.9mm significantly decreased the chance of pregnancy(p= 0.0315). The Lowest Total Motile Sperm Count (TMSC) pre-wash at which pregnancy was achieved after an IUI was 8 million. The success rate of an IUI cycle was highest with human menopausal gonadotropin used alone (33.33%) followed by letrozole with human menopausal gonadotropin (14.29%) and clomiphene with human menopausal gonadotropin (9.63%).

**Conclusion**: PCOS, ovulation induction with human menopausal gonadotropin with or without clomiphene or letrozole and endometrial thickness> 8.9mm are associated with better clinical pregnancy rates.

## Comparison of Modified IFCPC 2011 Nomenclature V/S Swede Score in Diagnosing Premalignant Lesions of Cervix

**Ira Arora, Prabha Lal, Smita Singh**

**Objective:** To compare the predictive value of colposcopic evaluation with modified IFCPC 2011 nomenclature and swede score for diagnosing premalignant lesion of cervix by calculating sensitivity specificity PPV , NPV of both colposcopic score taking histopathology as gold standard.

**Design:** A comparative study

**Methods:** A comparative study including 50 women>21 years of age to 65 years of age with Abnormal PAPS smear(ASCUS, LSIL, ASC-H, HSIL) was done. Pregnant patients, Posthysterectomy patients, Patients who have earlier recieved treatment for CIN, Diagnosed cases of cervical cancer were excluded from the study. The two colposcopic scores were compared and their statistical association with histological findings were analyzed.

**Results:** Swede score and Modified IFCPC 2011 had sensitivity of 100.00% each followed by PAP smear (72.73%). On the other hand, Modified IFCPC 2011 had specificity of 100% followed by PAP smear (92.31%), SWEDE score (87.18%). Highest positive predictive value was found in Modified IFCPC 2011 (100.00%) and highest negative predictive value was found in SWEDE score (100.00%) and Modified IFCPC 2011 (100.00%). Very good agreement exist between histopathology and modified IFCPC 2011with kappa 1 and p value <.0001.

**Conclusions:** MODIFIED IFCPC 2011 had better predictive value than swede score in diagnosing pre malignant lesions of cervix.

## Does Metabolic Syndrome impair Sexual function in postmenopausal women?

**Rajlaxmi Mundhra, Anupama Bahadur, Purvashi Kumari, Manisha Naithani, Jaya Chaturvedi**

**Objective**-Sexual issues are relatively less studied in menopausal women. It is one such aspect where women tend to ignore her symptoms and suffer in silence and agony. Studies focusing on establishing the relationship between MetS and FSD are limited. This study examined the association of sexual function with metabolic syndrome in sexually active postmenopausal women.

**Design:** Cross sectional study

**Method**-160 women aged more than 40 years and attained menopause naturally from October 2020 to March 2022 were included in the study. We used the Consensus Definition IDF and AHA/NHLBI (2009) criteria to classify subjects as having metabolic syndrome. Sexual function was assessed using Female Sexual Function Index (FSFI) questionnaire.

**Results**-The frequency of metabolic syndrome in our study was 34.38% (55 out of 160 patients). 105(65.63%) patients did not have metabolic syndrome. In our study, the proportion of patients with FSD (Scores < 26.5) in metabolic and non-metabolic group were 61.82% and 42.86% respectively, difference being statistically significant (p=0.023). We noted a significant association in terms of orgasm, pain, total score with metabolic syndrome (p value <0.05). The Median of orgasm, pain, total score in patients without metabolic syndrome was 4.8(3.6-5.2), 4.8(4-6), 28.9(21.6-30.8) respectively which was significantly higher as compared to patients with metabolic syndrome [4.4(3.6-4.8) (p value=0.006), 4.4(4-4.8) (p value=0.005), 25.8(24.7-27.6) (p value=0.006)] respectively.

**Conclusions**-Metabolic syndrome is associated with poor sexual function in sexually active postmenopausal women.

## Assessing the Techno-Advancement In Mini-Resectoscope Aided Hysteroscopic Metroplasty: A Randomized Controlled Trial

**Avir Sarkar, Prof. Kallol Kumar Roy, Rinchen Zangmo, Anshul Kulshreshtha, Ashmita Saha, Maninder Kaur Ghotra**

**Objective:** This trial compared the operative and reproductive outcomes of mini-resectoscope over the conventional resectoscope in hysteroscopic metroplasty in women with partial or complete uterine septum.

**Design:** After the results of the pilot study in 40 patients by Roy KK et al, we conducted this parallel two arm single blinded prospective randomized controlled trial over 3 years.

**Methods:** Following randomization, a total of 112 patients underwent hysteroscopic septal resection using either conventional resectoscope (n = 56) or mini-resectoscope (n = 56). The primary outcome measures were pregnancy related indicators. Secondary outcome measures were the operative and safety parameters (cervical dilatation time, operation time, postoperative pain scores, fluid deficit, and preoperative and postoperative sodium levels), second-look hysteroscopy findings and improvement in the menstrual pattern after surgery.

**Results:** The mean operating time was comparable but the cervical dilatation time and pain score 30 minutes after the procedure were significantly lower in the mini-resectoscope group. The duration of hospital stay was also lesser in the mini-resectoscope arm. No significant difference in vision was observed. There was no significant difference in reproductive

outcomes between the two groups. Thus, hysteroscopic metroplasty with mini-resectoscope had comparable outcomes and good vision in comparison to the conventional resectoscope.

**Conclusion:** The use of mini-resectoscope for hysteroscopic metroplasty is associated with reduced operative morbidity. Use of the mini-resectoscope is an effective and safe alternative to the conventional system.

## Role of Prophylactic Tranexamic Acid in Reducing Blood Loss During Cesarean Section: Randomized Controlled Trial

**Nutan Sinha, Sarita Rajbhar, Pushpawati Thakur**

**Objective**:

1. To evaluate the effectiveness of preoperative intravenous Tranexamic acid in reducing blood loss in patients undergoing elective caesarean section
2. To study effectiveness of Tranexamic acid in reducing mean difference in hemoglobin before and 48 hours after elective caesarean section.

**Study Design**: Double blind placebo control randomized controlled trial

**Method**- 72 antenatal women who were planned for delivery by elective LSCS were randomised by block randomization by using opaque, sealed envelopes. Group A (study group) recieved 1gram of Tranexamic acid and Group B (Control group) recieved 100mL Normal Saline as placebo 20 minutes prior to skin incision. Intraoperative period was considered after placenta delivery to completion of vaginal toileting and postoperative period was considered from completion of vaginal toileting to first 3 hours and were measured by gravimetric method.

**Results-**The mean intraoperative blood loss in study group was 241.25 mL(67.83) and in control group was 344.92 mL (146.67). There was a significant difference between the 2 groups in terms of blood loss (p = <0.001). There was no significant difference between the groups in terms of postoperative blood loss (p = 0.147). There was a significant difference between the 2 groups in terms of Change in Hemoglobin (g/dL) (p = 0.001).

**Conclusions-** Preoperative Tranexamic acid is useful in reducing blood loss in elective caesarean section.

## Lipid Accumulation Product as a Predictor of Insulin Resistance in Polycystic Ovary Syndrome

**Alisha Sethi**

**Objective:** To calculate the diagnostic accuracy of Lipid Accumulation Product (LAP) as marker of insulin resistance in Polycystic Ovary Syndrome(PCOS).

**Design:** A cross-sectional study of 100 PCOS women of reproductive age (25-49years) at Lady Hardinge Medical College. Asian population with PCOS are at a higher risk for insulin resistance and type- 2 Diabetes Mellitus. Early screening and detection of insulin resistance can prevent future metabolic co-morbidities. A simple index, LAP, can identify these women at increased risk.

**Method:** PCOS was diagnosed using Rotterdam criteria. Anthropometric measurements, biochemical parameters, insulin resistance(IR) and LAP were calculated. LAP was defined as [WC(cm) – 58] X TG (mmol/L). IR was defined using homeostatic model assessment-IR(HOMA-IR). A cut off value >3.8 defined IR. LAP,BMI, waist circumference(WC) and Waist-hip ratio(WHR) were compared using two-tailed spearman rank correlation test and analyzing the receiver operator characteristic(ROC) curves.

**Result:** Among these women, the mean age, BMI, WC,WHR, IR and LAP were 23.99±3.58 years, 26.36±4.92kg/$m^2$, 88.04±12.37cm ,0.88±0.06 , 3.56±2.17 and 39.58±24.82. 54% women had BMI > 25kg/ $m^2$. 43% PCOS women were insulin resistant(IR>3.8). A strong positive and significant correlation was obtained between IR and LAP(rho=0.67,p<0.001) and was higher than the other parameters. ROC curve analysis revealed , LAP had the maximum area under the curve(AUC).

**Conclusion:** LAP, an easily obtainable index, is an effective marker of insulin resistance and can be used to detect insulin resistance in PCOS.

## Transvaginal Sacrospinous Fixation -Anterior Approach for fixation of Uterovaginal and Vault Prolapse: Efficacy and Impact on Quality of Life

**Mohini Agrawal, Rajesh Kumari, Manasi Deoghare, JB Sharma, Neerja Bhatla**

**OBJECTIVE**

Our aim was to study the efficacy of transvaginal sacrospinous fixation, to evaluate clinical outcome and its impact on quality of life (QoL) in vaginal and vault prolapse.

**Materials and Methods**

We performed a prospective study on 21 patients affected by stage 3 and stage 4 prolapse. They had been evaluated before the surgery and at 3-month follow-up through pelvic organ prolapse quantification (POP-Q) system and UDI 6 Questionnarie (Urinary Distress Inventory 6). Sacrospinous ligament fixation was combined with other additional procedures as per clinical findings

**Results**

At -3month follow-up, 20 out of %95.23) 21) patients were cured of their recurrent prolapse and primary prolapse. One patient (0.04%) had recurrent vaginal vault descent at 3 months. 47.62% patients had previously undergone surgery for prolapse. No major intra- and postoperative complications occurred.2 patients (0.09%) require readmission within 30 days 0.09%. 19.04% patients presented with urinary complaints as chief complaints rather an prolapse.42.85% patients have complaints of voiding dysfunction, 52.38% patients had urgency and one had stress urinary incontinence. We found a significant improvement in UDI6 score at 3 months.

**Conclusion**

According to our data analysis, sacrospinous fixation appears

to be safe, effective procedure for prevention and treatment of vaginal vault prolapse. It also improves Quality of life.

## Efficacy and safety of Ormeloxifene in management of abnormal uterine bleeding

**Surbhi Kumari**

**Objective:-** To study the role of Ormeloxifene in management of AUB

**Method:-** 51 patients of heavy menstrual bleeding with age between 50-18 year were included for study. The women with post-menopausal bleeding, fibroids, uterus size more than 8 weeks, PCOS, Ovarian cyst were excluded.

Ormeloxifene 60mg twice a week for 12 weeks and then once a week for next 12 weeks was given to every patient in the study group. The out-come was assessed by PBAC score, HB level and endometrial thickness.

**Results:-** 88.24% patients responded well with treatment as depicted by significant reduction in the PBAC score to a level < 100. Mean PBAC score decreased linearly from 354 to 40 at the end of 24 week of treatment. Mean endometrial thickness reduced from 8.25 to 6.01. Mean level of haemoglobin level increased from 11.41 to 11.86. P value of all the parameters were <0.05 and hence statically significantly.

**Conclusion:-** Ormeloxifene can be used as a first line drug for the management of AUB

## Correlations Between Swede Score on Colposcopy and Histopathological Diagnosis from Colposcopy Directed Biopsy in Cervical Precancerous Lesions

**Adhithya Raj P K, Akriti Singh, Harshad Bagde, Nilaj bagde, Pushpawati Thakur, Sarita Rajbhar**

**Abstract**

**Introduction**: Cervical intraepithelial neoplasia (CIN) is a premalignant lesion of the uterine cervix. The key significance of cervical cancer is that it is one of the few preventable cancer, as it's clinical course involves a long stage of pre-malignant stage. Colposcopy is a diagnostic test to detect pathologies of the cervix, vagina, and vulva. Colposcopy examination and colposcopy guided biopsy is considered as the gold standard in diagnosis of premalignant lesion of cervix.

**Aim**: The aim of this study is to assess the accuracy of swede score on colposcopy examination and to determine the correlation between swede score on colposcopy and histopathology report of colposcopy guided biopsy.

**Material and method**: An evaluation was carried out of women undergoing colposcopy at All India Institute Of Medical Sciences, Raipur for a duration of 6 months, 30 women attending diagnostic colposcopy were included. The colposcopy examination was done by a trained colposcopist, Swede scores were calculated at the time of colposcopy and recorded; they were compared with the final histopathological diagnosis after either directed or excisional cervical biopsy.

**Result:** On the current study swede score on colposcopy has a strong correlation with histopathology findings with premalignant lesions of the cervix.

**Conclusion**: This study demonstrated high accuracy and correlation between swede scoring on colposcopy and histopathological diagnosis in premalignant lesions of the cervix, comparable with results from similar studies in the literature.

## Prediction of Fetal Growth Restriction Using Transcerebellar Diameter and Abdominal Circumference Ratio

**Shazia Shad, Upma Saxena, Shreya Kushwaha**

**Objective** : The primary objective was to correlate transcerebellar diameter and abdominal circumference ratio (TCD/AC) with birth weight and ponderal index of the baby in predicting FGR.

**Design** : Prospective Observational Cohort Study

**Method** : A total of 120 women with clinically diagnosed fetal growth restriction were enrolled and their transcerebellar diameter and abdominal circumference ratio (TCD/AC) and head circumference and abdominal circumference ratio (HC/AC) were calculated and followed after birth with height, weight and pondereal index. Correlation between TCD/AC ratio with birth weight and ponderal index was done in predicting FGR and perinatal morbidity and mortality in these babies were seen. The data was entered in MS EXCEL spreadsheet and analysis was done using Statistical Package for Social Sciences (SPSS) version 21.0. Spearman rank correlation coefficient was used for correlation of TCD/AC with birth weight and ponderal index.

**Results** : A cut off value of TCD/AC above 0.14 was found to have a sensitivity, specificity, PPV and NPV of 87.36%, 75.76%, 90.5% and 69.4% respectively with a diagnostic accuracy of 84.17% in diagnosing FGR. There was a significant correlation between TCD/AC ratio with birth weight and ponderal index in predicting FGR with a correlation coefficient of -0.463 and -0.50 respectively. TCD/AC ratio also showed a better diagnostic accuracy of (84.17%) than HC/AC ratio.

**Conclusions** : TCD/AC ratio on ultrasonography should be performed in antenatal women to diagnose FGR to predict low birth weight and poor perinatal outcome.

## Correlation of Paired Umbilical Cord PH with CTG in Singleton Non-High-Risk Term Pregnant Patients

**Geetanjali Nabiyal, Mohini Paul, Vinita Sarbhai, Manjula**

**ABSTRACT**

**Objective:** To monitor the intra-partum foetal condition by cardiotocography (CTG) and paired umbilical cord pH and to correlate the CTG to the paired cord pH.

**Design:** Cross-sectional observational study conducted in the department of Obstetrics and Gynaecology in Kasturba

Hospital, Delhi.

**Method:** Only singleton term non-high-risk pregnancies with cephalic presentation admitted in active labour were included in the study. Participants were recruited into two groups: study (abnormal CTG) and control (normal and indeterminate CTG). 300 participants were included in the control and 60 in the study groups. CTG was performed at admission, at rupture of membranes (ROM) and during labour. Immediately after delivery, paired cord samples were collected for blood gas analysis. Umbilical arterial (UA) pH <7.1 and umbilical venous (UV) pH <7.2 were taken as acidosis according to institutional guidelines.

**Results:** There was a significant association between CTG at ROM and acidosis by UA pH (p = .0015), UA base deficit (p <.0001) and UV pH (p <.00001). Also a significant association between CTG during labour and acidaemia by UA pH (p <.00001), UA base deficit (p <.00001) and UV pH (p <.00001) was found.

**Conclusions:** An abnormal CTG trace predicts a greater possibility of intrapartum foetal acidosis. Therefore, screening by CTG during labour as a routine is recommended. The practice of performing CTG in labour rooms in peripheral health centres where blood gas analysis machines are not available would enable early prediction and risk estimation in short term neonatal outcomes thereby decreasing associated morbidity and mortality.

## Post-Abortion Contraception, Acceptance Post-Motivation in a Tertiary Care Center

**Asmita Kaundal, Prachi Rhenjen, Rajeshwari Kumari, Sonal Prasad**

**Introduction:** Post-abortion period is the most crucial period when the couple is most receptive to contraceptive advice.

**Objective:** This study was done with the objective of understanding the various reasons for abortion in the present scenario and patient's acceptance and attitude towards post-abortion contraceptive.

**Method:** This is a prospective study where 1542 women were recruited from the family planning OPD who came for MTP. Women were enquired about the reason for abortion and were counselled about post-abortion contraception. Couple was briefed about all the available methods and was free to choose any of the available methods.

**Results:** The mean age of women in the present study was 28.95±4.58 years. Most of the women in our study were married (97.04%). Mean period of gestation was 10+6 weeks. Contraceptive failure (36.5%) was the most common reason for seeking MTP followed by medical disease(25.09%), completed family 14.47%), young last child (19.37%) and rape (1.29%). Around 73.98% accepted one or the other form of contraceptive methods while 27.87% did not want to use any method for various reasons like occasional intercourse, partner preference and medical disease. Out of all 40.92% women got ligated as they had completed their family and did not want to use any other method, 24.53% opted for Cu-T, 1.47 % took OCPs, and 8.30% opted for barrier method.

**Conclusion:** Post-abortion contraception is an excellent option for the women to since it offers immediate freedom from the fear of unwanted pregnancy in future.

## Prediction of Placenta Accreta Spectrum By Prenatal Ultrasound Staging System in Placenta Previa with Scarred Uterus

**Monika Rana, Upma Saxena**

**Objective:** The Primary objective was to study the predictive value of prenatal ultrasound staging system for presence and severity of placenta accreta spectrum. Research question was 'Can prenatal ultrasound staging system predict placenta accreta spectrum in placenta previa with scarred uterus?'

**Study Design:** Prospective cohort.

**Methodology:** A total of 50 Pregnant women placenta previa and scarred uterus were enrolled and underwent "prenatal ultrasound staging system" using ultrasound doppler. They were followed till delivery and their intraoperative findings, maternal and fetal outcomes and histopathology reports were noted and their correlation with PAS score was observed. The data entry was done in the Microsoft EXCEL spreadsheet and the final analysis was done with the use of Statistical Package for Social Sciences (SPSS) software, IBM manufacturer, Chicago, USA, ver 21.0.

**Results:** Among 50 women, 58% had PAS score 0 whereas 42% had PAS 1, 2 or 3 on ultrasound. Intraoperatively, 100% with PAS ≥1 had invasion whereas on histopathology 85.72% had invasion. [sensitivity-100%, specificity-90.62%, PPV- 85.71% NPV-100%]. Statistically significant correlation was found between PAS score and number of previous cesarean and surgical complications like operative time, hospital stay, blood loss, blood products transfused, intraoperative bladder injury, postoperative ICU stay, postoperative complications. (p & lt; 0.05) No significant correlation noted with fetal outcomes.

**Conclusion:** Prenatal ultrasound staging system is simple and reliable for screening and diagnosis of PAS disorders in high-risk women with diagnostic accuracy of 94%.

It can be used for timely referrals and planned deliveries.

## Introducing and Establishing Birth Companionship in Labour Ward of-A Quality Improvement Journey Through and Beyond Covid Pandemic

**Meenakshi Singh, Manju Puri, Abha Singh**

**Objective:** We aimed to establish the practice of birth companionship in all eligible women in labour ward from existing %0 to %70 in 8 weeks' duration.

**Design:** Prospective Quality improvement study using Quality improvement tools.

**Method:** This study was conducted in the Department of Obstetrics and Gynaecology,Lady Hardinge Medical College,

New Delhi .A quality improvement (QI) team was formed, and after obtaining the baseline data, problems were analysed using Ishikawa fish bone model.Multiple Quality Improvement tools were involved.Changed ideas were executed in multiple plan-do-study-act (PDSA) cycles.

**Results:** The median value of women accompanied by birth companion rose to 20% after the first PDSA cycle.With enforcement of subsequent changed ideas, we achieved the goal after 3 rd PDSA cycle.The practice came to halt during covid pandemic but was restarted in September 2021 and with subsequent PDSA runs, we again attained our goal and managed to sustain till now.

**Conclusions:** Understanding and applying Quality improvement methodology helped implementation of a novel policy of allowing birth companions in a heavy laod public health facility overcoming all hurdles and with no extra human, financial or infrastructure resources

## Prevalence of Postpartum Depression And Its Risk Factors in Post-Caesarean Women at a Tertiary Care Centre

**Shweta Varun, Rekha Bharti, Pratima Mittal**

**Abstract**

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

**Design:** Observational Cross-sectional Study

**Methods:** This study was 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%. Exclusion criteria were Women not willing to participate in the study, known case of psychiatric illness, having difficulties with the Hindi and English language, Twin delivery, Intrauterine demise, or child admitted in NICU. Edinburgh Postnatal Depression Scale was used for screening of the enrolled women for PPD at 1 week, 4 weeks and 6 months after caesarean delivery. Obstetric and socio-demographic risk factors were assessed. The main outcomes 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%. Risk factors found to be significantly associated were 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.

**Conclusion:** Prevalence of PPD after caesarean delivery came out to be 18.3% within six months postpartum. Majority of them (95.3%) develop depression within the 1st week of delivery. Low birth weight of baby was significantly associated with deterioration of EPDS score.

# Poster

## Advanced secondary abdominal pregnancy at 36 weeks of gestation

**Sivaranjani P.**

**Abstract:**
Abdominal pregnancy is defined as an implantation in the peritoneal cavity other than tubal, ovarian or intra ligamentary pregnancy. Its incidence is very rare accounting for 1 in 25,000 pregnancies. It has a high risk of haemorrhage, massive blood transfusion, disseminated intravascular coagulation, need for Intensive Care support, sepsis, foetal loss, foetal anomalies and extreme prematurity. It necessitates a multi disciplinary approach for the prompt diagnosis and successful management. We report a successful management of advanced secondary abdominal pregnancy diagnosed at 36 weeks of gestation managed with laparotomy with the right decision of not removing placenta, post operative embolisation and broad spectrum antibiotics.

## Knowledge, Attitude and Practices of Health Care Providers About Perinatal Depression in Himachal Pradesh- A Cross-Sectional Study.

**Sushruti Kaushal**

**Introduction:** Perinatal depression is defined as depression occurring in a woman during pregnancy or within 12 months of delivery. It has been associated with many poor outcomes, including maternal, child and family unit challenges.

**Aim:** This study was aimed to assess the knowledge, attitude and practices of obstetricians and primary healthcare professionals so that knowledge gap could be assessed and they could be educated regarding the screening and treatment/ referral of the patients with peripartum depression.

**Methods:** The study used a cross-sectional study design with convenience sampling. The data was collected through online survey among health care providers using Google Forms application. Submission of filled questionnaire implied consent for participation. Ethical approval for the study was obtained from the Institutional Ethics Committee. Results were reported as mean and percentages. All data were analysed using Excel software 2019.

**Results:** 53 doctors responded to participate in the study. More than 98 % of them were aware of entity called perinatal depression. Around 89% of the participants do not screen patients for perinatal period routinely using a screening questionnaire. About 90% participants agreed for the need of screening of perinatal depression. Less than 50% participants had heard about the screening questionnaire for the same. Around 89% agreed that all health professionals should have skills in recognising and managing depression.

**Conclusion:** There is a need to educate health care workers including obstetricians about screening of perinatal depression, thus improving quality of life of the perinatal women and preventing complications due to untreated depression.

## Maternal And Neonatal Outcomes of Impacted Fetal Head Delivery During Cesarean Section for Deep Transverse Arrest

**Nisha Malik, Smiti Nanda**

**Background:** As the cesarean section rate is rising globally, so is the incidence of second-stage cesarean section. Cesarean section at full cervical dilatation is technically more difficult and associated with additional risks.

**Objectives:** To determine the rate and effects of second-stage cesarean delivery for DTA at a tertiary referral centre.

**Methods:** This retrospective cohort study reviewed case records of 48 women with singleton term pregnancies who underwent second-stage cesarean section for DTA at the Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, in Rohtak, Haryana, India, from October 2018 to December 2019. Demographic, pregnancy, delivery, and neonatal details were noted. And feto–maternal complications were analyzed.

**RESULTS:** There was a cesarean section rate of 27.8% (4782/17,167) and a second-stage cesarean section rate of 2.3% (110/4782). Of 105 full-dilatation cesarean sections, 48 (45.7%) were done for DTA. Majority of women 72 (68.6%) were nulliparous, 94 (89.5%) had spontaneous labor, and 9 (8.5%) had previous cesarean sections. The most-common technique for delivering a fetal head was Patwardhan (62.5%). Uterine incision extension was noted in 4 (8.3%), postpartum hemorrhage in 3 (6.2%), blood transfusion in 3 (6.2%) and neonatal intensive care unit (NICU) admissions in 13 (27.0%) cases.

**Conclusions:** Second-stage cesarean section is technically challenging and usually accompanied by several maternal and neonatal risks. Appropriate skills and training for assisted vaginal birth under proper supervision should be encouraged.

## Going down in Rabbit's Hole :A case of Labial Fusion in a young girl

**Divisha Yeddula, S. Lavanya, K. Sushmitha, A. Sradda**

Labial adhesions or Labial synechiae are adhesions formed between labia. They can be thick or thin flimsy. This condition is seen in young Girls before their puberty and also sometimes in postmenopausal women. Most common cause is deficiency of Estrogen. It can also be associated with infections and inflammations. Signs and symptoms vary between cases. These cases usually present to an Urologist before Gynecologist. Treatment most of the time is surgical involving both Urologist and Gynaecologist. This is a case report is of 5 year old young child who presented with complaints of painful urination. She

was diagnosed with labial fusion and treated surgically with multidisciplinary approach.

## Metastatic Lung Cancer In Pregnancy Presenting As Type 1 Respiratory Failure "A Diagnostic And Management Dilemma"

**Swati Kohli, Rajiv Acharya, Deepti Choudhary**

**Background**

Cancer diagnosis and treatment in pregnancy is a challenging situation for obstetricians. Although lung cancer is a common malignancy in men and women, it represents a rare tumor during pregnancy. Non-small cell lung carcinoma is the commonest type accounting for 80 to 85% of all gestational lung cancer. The majority of the cases diagnosed are in the advanced clinical stage (III or IV), probably indicating an aggressive course during pregnancy with an overall low survival rate. Diagnosing such cases and their management is perplexing and require a delicate balance between maternal benefit and fetal risk.

**Case report**

We report a case of a 30-year-old female G2P1L1 at 28 weeks of gestation, who presented with complaints of cough and breathlessness of one-month duration. Arterial blood gas analysis showed features of Type 1 respiratory failure. Chest X-Ray showed bilateral infiltrates. Ultrasonography of the chest showed bilateral pleural effusion with low-level echoes suggestive of haemothorax. Diagnostic pleural tapping was haemorrhagic, positive for atypical cells, and negative for AFB. Immunohistochemistry (IHC) of pleural fluid cell block showed cells positive for BerEp4, CK7 & TTF1 confirming metastatic adenocarcinoma possibly of pulmonary origin. Considering the advanced clinical stage of the disease in the mother, a live baby was delivered by caesarean section at 34 weeks of gestation. Postpartum, the patient was started on chemotherapy and targeted therapy by oncologists.

**Conclusion**

A multidisciplinary approach by gynaecologists, oncologists, and pathologists is warranted for the management of cancers in pregnancy for optimum maternal and fetal outcomes.

## Collision Tumour of Ovary in a Postmenopausal Woman Mimicking Malignancy

**T. Sravani, Swetha Singh, Sushree Monika Sahoo, Shabnam K, Mukund N. Sable, Pavitra R**

**Objective**: An adnexal mass in a postmenopausal woman is a diagnostic challenge due to a higher risk of malignancy. Collision tumors involving ovaries are extremely rare and may mimic malignancy. **Case repor**t: A 58-year-old woman presented with lower abdominal pain and abdominal distension for 20 days. Ultrasonography of the abdomen and pelvis showed a large multi-loculated cystic lesion in the left adnexa. CT abdomen and pelvis showed multi-septated cystic lesion (25 x 19 x 16 cm) with areas of solid and soft tissue density, with fat stranding within the lesion. CA 125 was 50.9 U/ml, serum inhibin was 334 ng/l and other tumor markers were within normal range. Surgical resection of the mass was performed, and histopathological examination revealed mucinous cystadenoma coexisting with mature cystic teratoma suggestive of collision tumor. **Discussion**: Collision tumors are uncommon tumors with the presence of two divergent lineages in the same organ without any histological intermixing. The most common component of a collision tumor is a mature cystic teratoma. These tumors may have radiologic features like the presence of non-fatty fluid in the cyst and a significant solid component in the ovarian mass, which indicates the presence of two different tumors in the same ovary. Adequate excision and meticulous histopathological examination needs to be performed to understand the various components of collision tumors. **Conclusion:** The pathologist and surgeons should be aware of a combination of tumors to avoid misdiagnosis. The imaging findings and their confirmation in a frozen section can avoid unnecessary extensive surgeries.

## Unexplained Hemoperitoneum in a Patient of VON Willebrand's Disease

**A Richa Vatsa, Vidushi Kulshrestha, Neena Malhotra, Soniya Dhiman, Juhi Bharti**

**Background**

Von Willebrand's disease (VWD) is most common inherited bleeding disorder with autosomal recessive inheritance pattern. Diagnosed females can have heavy menstrual bleeding, post-partum haemorrhage, intraabdominal bleed during ovulation and bleeding in corpus luteum resulting in large haemorrhagic cyst. But the present case had an unusual spontaneous intraperitoneal bleed without any identifiable source of bleeding.

**Case Presentation**

A P2L2 female, a known case of VWD; in her 40s presented with complains of nausea, pain in right lower abdomen and dizziness for one day. There was no history of abdominal trauma or bleeding from any other site. Examination showed stable vitals with tenderness in suprapubic area.

Ultrasonography revealed moderate amount of free fluid in abdomen with right adnexa showing 7 x 7.5 cm heterochronic mass. We started her on injection tranexamic acid 1 gm eight hourly. She was planned for conservative management initially but later decision for laparoscopy was taken in view of falling hemoglobin level. Our provisional diagnosis was intra-abdominal bleeding due ruptured ovarian cyst with ongoing intraabdominal bleeding. Intraoperatively there was around 2.5 liters of hemoperitoneum, bilateral ovaries and fallopian tubes were normal without any identifiable cause of bleeding. Patient received total five packed RBC in perioperative period. She received Injection Immunate (coagulation factor VIII / von Willebrand factor complex) 3000 (12 vials) IU two times a day on the day of surgery followed by 1500 IU two times a day for 5 days. Patient recovered well in postoperative period. Her drain output was 80-100 ml for 2 days which and nil for next 2 days, so the drain was removed after 4 days of surgery.

**Conclusion:** Intraabdominal bleed can occur in patients of VWD without any identifiable source also. Management by

experienced multidisciplinary team is critical for successful outcome of these cases.

## New Onset Irregular Menstruation And Intermenstrual Bleed -A Rare Presentation of Accessory and Cavitated Uterine Mass- A Case Report

**Deepthy Balakrishnan**

**Abstract**

**Objective**

Accessory and cavitated uterine mass is a rare congenital Mullerian anomaly where there is an accessory cavity with normal endometrial lining in a normally shaped and normally functioning uterus. Even though, severe dysmenorrhoea and recurrent pelvic pain are the common symptoms, ACUM can also present with irregular menstrual bleeding and pelvic pain.

**Clinical case**

A 32-year-old, parous woman presented with irregular menstruation for last 6 months and dysmenorrhoea. Gynaecological examination was normal. Pelvic ultrasound and MRI showed bicornuate unicollis uterus with rudimentary right horn, non-communicating with the main endometrial cavity with presence of right hematometra. Laparotomy revealed a globular, soft mass of size 6x5 cm, arising from anterior surface of uterus in right lower part. Mass was excised after separating the bladder peritoneum by clamping the base. Mass is found to be non-communicating with uterus The histopathological diagnosis was also consistent with ACUM. Postoperative period was uneventful. After close follow-up for 3 months, the patient has resumed her cycles and is totally asymptomatic.

**Discussion**

Even if a parous woman presents either with the menstrual disturbances or lower abdominal pain even for a short duration and imaging showing it to be a rudimentary horn, the diagnosis of ACUM should be considered and treated surgically.

**Conclusion**

Knowledge and awareness of this entity will help us to consider preoperative diagnosis of ACUM more accurately. A thorough history, detailed gynaecological examination and correct radiological modalities are important. MRI helps in making the diagnosis but confirmation is done by histopathological examination.

## Does Virtual Dissection Table Based Learning enhance efficiency of Final Year Post Graduate Gynecology Residents for Surgical Navigation

**Anupama Bahadur**

**Introduction:** Virtual Dissection Table (VDT) based learning is a simulator based safe mode of teaching-learning method which is a customised training to simplify the anatomy. VDT gives ample information on the topographical and functional relationship of tissues and organs. It can assist Post Graduate Residents in understanding the surgical lesion better in terms of anatomical relation to adjacent structures like vessels, bowel, ureter.

**Objectives:** Incorporation of Virtual Dissection Table (VDT) to evaluate the topography of benign gynaecological surgery procedures and analysis of surgical ease for OBGYN Post-Graduate residents.

**Methodology:** This was a Prospective Interventional Study conducted in the Department of Medical Education and Department of Obstetrics & Gynecology at AIIMS Rishikesh from August 2021 to January 2022. The cases that were planned for surgery were analysed on VDT the previous day by Faculty and students who would scrub for the case in the Operation Theater (OT). CECT & MRI images were loaded on Virtual Dissection Table (VDT) and converted to 3-D image by software which was studied. 12 Post Graduates participated in this study. Informed written consent was taken from all Post-Graduate students who were willing to participate in the study. 11 students assisted in 3 surgeries each and 1 assisted in 2 gynae surgeries. We obtained a total of 35 response from these 12 students. Students were assessed on a validated feedback questionnaire comprising of 17 questions. Open ended questions and remarks were added at the end of the questionnaire for additional comments or suggestions.

**Results:** 21 (60%) of students felt that VDT was made for surgical planning while others used it for surgical planning and evaluation or diagnosis. All participants agreed that VDT based learning helped them understand topic better, helped to assist better during surgery and enhanced their understanding of anatomical relations of pelvic structures as compared to medical imaging and made learning an enjoyable experience. VDT based learning takes less time than traditional learning as agreed by 94% participants. All agreed that VDT based learning should be included in routine teaching and all agreed that they will recommend the use of VDT to their colleagues in same department and in other surgical departments also.

**Conclusion:** Visual Dissection Table plays an important role in acquisition of knowledge and understanding the anatomy during surgical navigation. It is an added tool to the traditional learning modalities that we as teachers impart to the students. The feedback received from students itself proves that inclusion of VDT in their curriculum will improve their understanding and enhance their learning.

## Initiation of Breastfeeding within one Hour of Cesarean Delivery at LHMC & SSKH Using Quality Improvement Methodology

**Kanika Chopra, Dr Swati Agrawal, Dr Shivani, Dr Manju Puri, Mrs Jacqeline, Mrs Anita**

**Abstract**

**Background:** Early initiation of breastfeeding within 1 hour of birth is known to be associated with decrease in neonatal morbidity and mortality. But unfortunately, this is not being practiced even in majority of institutional deliveries in India. The

major deterrent is delivery by caesarean section where mother and baby are usually monitored separately. The same practice was being followed in our tertiary level hospital, where the baseline rate of initiation of breastfeeding within 1 hour of babies born by caesarean section was 0%. This was the trigger to plan a QI project with the aim of increasing breastfeeding initiation in babies being born by caesarean section from baseline 0% to 40% within six weeks' time starting from 25/10/2021.

**Method:** A quality improvement team comprising of faculty and residents from department of obstetrics and neonatology as well as enthusiastic nursing officers posted in maternity OT's was constituted. A process flow map was made to understand the flow of events after caesarean delivery. A fish bone analysis was also done to analyse the causes of non-initiation of breastfeeding in the maternity OT. Lack of hospital policy as well as lack of sensitization of the concerned personnel was found to be the most important contributing factors found behind non-initiation of breastfeeding in maternity OT.

**Interventions:** The various change ideas implemented were: generation of written departmental policy for breastfeeding after caesarean section; assigning responsibility to the circulating Nursing officers for initiation of breastfeeding and maintaining records of initiation of breastfeeding; roping in of female workers of breastfeeding initiation in case of non-availability of female nursing officers.

**Results:** The percentage of initiation of breastfeeding within 1 hour of caesarean section increased from 0% at baseline to more than 80% in six weeks.

**Conclusion:** QI is an effective tool to achieve desired changes in health care services without use of additional resources.

## Amniotic Fluid Embolism – Case Report of A Women Saved by Extra Corporeal Membrane Oxygenation

**Vijayalekshmi R, Radhamony D, Nina Navakumar, Vidyalekshmy R, Sajith Mohan, Shaji Palangadan**

Amniotic fluid embolism is an unpredictable obstetric catastrophe which needs to be managed aggressively. Amniotic fluid embolism (AFE) is a rare and life-threatening complication related to pregnancy. Early diagnosis and prompt intervention are important tools for the survival of the patient.

25 years second gravida unbooked case with spontaneous labor pains at 39 weeks of gestation had artificial rupture of membranes and oxytocin augmentation, following which she developed generalized tonic clonic convulsion followed by shock, cardiac arrest and disseminated intravascular coagulation. She was resuscitated on supports, intubated and emergency caesarean section done.In the post operative period she had desaturation Veno arterial extracorporeal membrane oxygenation was initiated following which she improved.

Amniotic fluid embolism is a rarely encountered clinical entity but it is known to have devastating outcomes. Early diagnosis and initiation of resuscitative measures can prove pivotal in recovery of the patient. Severe hypoxic respiratory failure, and sudden onset cardiac failure and catastrophic DIC play a central role in heralding life threatening consequences. Though the management in AFE may vary on a case-by-case basis, early initiation of VA ECMO proved extremely important for complete recovery of our patient.

## Chronic Puerperal Uterine Inversion: A Diagnostic Dilemma

**Priyanka Singrore, Nishi Choudhary**

**ABSTRACT**

**OBJECTIVE:** Uterine inversion is a fatal complication of mismanaged third stage of labour. We are presenting a rare case report of chronic puerperal uterine inversion presenting to our hospital after four years of vaginal delivery.

**CASE REPORT:** A 25 year old lady presented to us with complaint of heavy menstrual bleeding and some mass coming out per vaginum since 4 years which was associated with foul smelling discharge. She had a full term vaginal delivery at home 4 years back conducted by some untrained birth attendant (dai). She had this complaint since delivery and got evaluated at local hospital where ultrasonography (USG) and MRI done suggested diagnosis of cervical fibroid. She was then referred to our tertiary centre. Based on clinical findings a diagnosis of uterine inversion was made and subsequently confirmed on Transvaginal USG and MRI. Uterine inversion corrected using Haultain's method. She discharged from hospital in a good general condition.

**DISCUSSION:** Awareness of this complication, especially among untrained birth attendants, may prevent improper management and such complications causing prolonged suffering in the patient.

**CONCLUSION:** Prompt identification and treatment can significantly lower maternal morbidity and death, particularly in developing nations like India.

## Sickle Cell Disease with Twin Gestation with Hypertensive Disorder of Pregnancy with Recurrent Crisis and Immune Hemolysis ; A Diagnostic and Management Enigma

**Farhat Jahan Khan, Sarita Rajbhar, Pushpawati, Sarita Agrawal**

**Abstract :** 22Y old G2A1(MTP) with a history of multiple blood transfusions (12-15) since the age of 12, on hydroxyurea pre-pregnancy, admitted in view of severe anemia (Hb-5.7) with DCDA twin. Conception was spontaneous with 6 units of blood transfusions in the first trimester.7 units of transfusion were done, but hemoglobin was declining. An extensive workup was done involving a multidisciplinary team. She had a fever episode. Dengue IgM+.4 UNITS of FFP transfusion due to deranged APTT(38.6). She was ANA+, DCT +, HPLC of SCD with Beta Thal trait. On USG, hepatosplenomegaly with hemangioma and gamma Gandy body in spleen. The immune antibody profile showed a minor blood group antibody. Ecosprin, Enoxaparin,

vitcofol and methylprednisolone pulse therapy with antibiotic coverage and blood transfusion was done after complete crossmatch testing minor blood groups. Connective tissue disorder, APLA profile investigations negative. Her hemoglobin was stabilized (HB 6-7). Readmitted at 28 weeks with joint pain. Hemoglobin 3.6 and pulmonary oedema, severe hypertension. Dexamethasone, 2 units of blood transfusion and 9 units of IVIG transfusion were done along with MgSo4 coverage.LSCS was done(30W) with 1 unit of intraoperative blood transfusion, Hypertension managed with medications and live male and female of 1.235 kg and 1.15 kg were born. Babies are stable initially in NICU presently discharged. The patient was stable with post-op hemoglobin of 7.6g/dl and is on hydroxyurea. therapy.

## Case Report on Uterine Leiomyosarcoma (ULMS) and Vaginal Leiomyosarcoma

**Akriti Singh, Adhithya Raj P K**

**Abstract**

**Introduction:** Uterine leiomyoma is the most common pelvic tumor among women with an estimated lifetime risk of 70% in white women and 80% in black women. Unlike benign leiomyoma, ULMS is an aggressive malignancy with 5-year overall survival of less than 50%.Vaginal leiomyosarcomas account for less than 10% of soft tissue sarcoma arising from either the smooth muscle cells in the vaginal wall or tissues near the vagina, mostly being submucosal. =We are here to present case report of ULMS diagnosed on endometrial biopsy(EB) and vaginal leiomyosarcoma diagnosed on vaginal mass histopathological report.

**Care report Case report 1:** A 60 old female,P6L6A2, was admitted with complaint of postmenopausal bleeding. On further evaluation and investigations she was diagnosed with ULMS on endometrial biopsy and with IHC- tumor cells found Caldesmon focal positive, desmin weakly positive, SMA positive, PR negative, Cyclin D negative, p53 positive, p16 nuclear positivity.**Case report 2:** A 46 year old female, P4L4, admitted with uncontrolled heavy bleeding per vaginum along with prolapse of vaginal mass for which she was posted for emergency operation and wide resection of the tumor with an adequate margin of the vagina was done. On histopathological report of vaginal mass she was diagnosed with leiomyosarcoma, with IHC- tumor negative, with Ki67 index of 60% cells positive for SMA, Desmin, Vimentin, and H-caldesmon, Ckit, Pan CK, and CD10 were as vaginal margin and endometrial biopsy were free of tumor cells.**Result:** Both patients are doing well after surgical treatment and further management.**Conclusion:** Although leiomyosarcoma is a rare entity but early and planned diagnosis on histopathological examination and providing timely treatment gives a better survival in treated patients.

## Management of uterine arterio-venous malformation with GnRh agonist and mifepristone: A Novel Approach

**Namita Jain**

**Objective:** To study the effectiveness of GnRh agonist concomitantly with mifepristone in treatment of uterine arterio-venous malformation **Design**: Prospective observational studySetting: Tertiary care referral centre (Paras Hospitals, Gurugram).Methods Women with uterine AVM undergoing treatment at our centre. Doppler ultrasound demonstrated AVM in all the cases following therapeutic abortion. **Interventions:** Total 5 women with uterine arteriovenous malformation (AVM) have been included. All the uterine AVM resolved within 3 months of treatment. Uterine arteriovenous malformation (AVM) is an arterio-venous fistula between the uterine arteries and myometrial venous plexus. It is rare but serious cause of heavy uterine bleeding. It can be congenital but mostly it is acquired after uterine instrumentation. Only few cases have been reported in literature. There is scarcity of good quality evidence to guide clinicians in its management. It usually affects the women of reproductive age group who are keen to retain their fertility. We intend to study effectiveness of Gnrh agonist and mifepristone in managing uterine AVM at our centre. **Keywords**- embolization, zoladex, mifepristone, malformation, uterine

## Successful Outcome of Pregnancy In A Patient with Gaucher Disease: A Case Report

**Soniya Dhiman, Lakhwinder Singh, Vatsla Dadhwal, Vidushi Kulshrestha, Richa Vatsa**

**Introduction:** Gaucher disease (GD) is an autosomal recessive lysosomal storage disorder characterized by glucocerebrosidase enzyme deficiency. It occurs in 1/40,000 to 1/60,000 births in general population. There is infiltration of Gaucher cells in bone marrow, spleen, and liver. Hematologic abnormalities, organomegaly and bony lesions are characteristic clinical findings. Pregnancy in these patients is challenging due to high risk of worsening of GD related manifestations and risk of peripartum and postpartum haemorrhage.

**Case Report:** A 21 years old female diagnosed with type I GD at the age of 15 years and managed conservatively till pregnancy. As pregnancy was unplanned, there was exacerbation of disease and enzyme replacement therapy was started. Close monitoring was done during antenatal period and it was uneventful except development of FGR. Labour was induced with Dinoprostone gel for FGR but patient landed up in abruption for which emergency LSCS was done. During peripartum period one unit PRBC and SDP was transfused. Postpartum period was uneventful and both mother and baby were discharged in stable condition.

**Conclusion:** GD is most common lysosomal disorder affecting young adults with visceral, hematologic and skeletal manifestations. Multidisciplinary approach to management is important. Enzyme replacement therapy improves both

obstetrical and disease related outcomes and should ideally be started preconceptionally for optimal maternal health.

## Bean Stalk Anomaly

**Dechen Wangmo, Bal Chander, Rajendra Prasad**

**Abstract:**

Bean stalk anomaly is a rare abdominal wall defect in which abdominal wall develops outside the fetus's abdominal cavity and it is accompanied by a short or non – existent umbilical cord. It is a very rare anomaly with prevalence of 1:14,000 to 42,000 pregnancies. It is incompatible with life. The present case report discusses the occurrence of this anomaly in a 28 year old G2P1001 at POG 20 weeks 6 days with twin pregnancy who presented to us with intra – uterine fetal demise of both the fetuses. Feature of the fetus on examination showed liver, intestines, kidneys, spleen, testicles and stomach lying outside the abdomen. There was significant pulmonary hypoplasia, oesophageal stenosis, deformed heart and imperforate anus. Skeletal defects like kyphoscoliosis and talipes equinovarus were also noted. In most recent multicenter study of Daskalakis et al, in which 106,727 fetuses analyzed between 10 and 14 week of gestation and incidence of 1:7500 pregnancies was found. This great discrepancies suggest that type of anomaly may be responsible for significant number of spontaneous abortion during first trimester of pregnancies and thus needs further study. Since this anomaly is invariably incompatible with life it is thus essential to make an early diagnosis via both radiological and bio chemical markers (alpha feto protein) to prevent suffering of mother and baby. Much more research is required for its occurrence and cause.

## Heterotopic Pregnancy Following Spontaneous Conception

**Deepti**

**Background** - Heterotopic pregnancy is diagnosed when both intrauterine and ectopic pregnancy coexist. The reported incidence is 1:30,000 of spontaneous pregnancies. Though it is becoming much commoner with the use of assisted reproductive techniques, now a days. It is life threatening condition if not diagnosed timely and diagnosis is often delayed as an intrauterine pregnancy is seen during ultrasonography and an extra uterine pregnancy may be overlooked.

**Case summary**- The present study report a rare case of heterotopic pregnancy in a 26 years old primigravida who presented to us with hemoperitoneum from ruptured tubal ectopic pregnancy with live intrauterine gestation, at 9 weeks of amenorrhea, diagnosed on clinical and ultrasound examination and confirmed by laparotomy and histopathology report.

**Conclusion -** The presence of an intrauterine pregnancy should not be taken as evidence to exclude the possibility of ruptured ectopic pregnancy when a women presents with acute abdomen in reproductive age group even without any significant factor for heterotopic pregnancy.

## Eisenmengers syndrome complicating pregnancy

**Vishwa Jyotsna Mishra, Renuka**

**Introduction:** Eisenmenger syndrome is a cyanotic heart defect characterized by a long-standing intracardiac shunt(caused by ventricular septal defect, atrial septal defect, or less commonly, patent ductus arteriosus) that eventually reverses to a right -to-left shunt. **Objective** To study maternal and fetal complications in pregnant patient with Eisenmengers Syndrome .Case -24-yr-old women Primigravida was referred at 31+2 weeks GA from outside Hospital in view of Eisenmengers syndrome with pulmonary artery hypertension IUGR mild fetopalacental insufficiency for further obstetric care and management.Patient was admitted at 31 weeks, sildenafil was continued ,started on anticoagulants. ECHO was done, obstetric scan done-mild IUGR, dopplers showed FPI, patient was admitted and monitored in the ward on continuous oxygen therapy. Pregnancy was terminated at 37 weeks by caeserean section. Post operatively patient was shifted to ICU for monitoring. Post operative period uneventful. **Conclusion**: Although Eisenmengers syndrome during pregnancy is usually associated with complications, prompt recognition and careful management reduces morbidity and mortality associated with them.

## A Rare Case of Bladder Stone Causing Obstructed Labor

**Shalini Warman**

**Objective:**

Bladder stone is itself a very rare entity. This is a rare case of a big bladder stone causing mechanical dystocia in labor.Case report: A primigravida at 37 weeks of gestation was referred from a health centre in view of obstructed labor. On per abdominal examination, the fetus was in longitudinal lie with cephalic presentation with the fetal head only one fifth palpable. Fetal heart sound was absent which was further confirmed on ultrasound. Cervix was fully dilated and effaced with vertex at -1 station with caput and moulding and thick pasty meconium. A firm, stony hard, smooth, globular immovable mass of was palpable at the level of the bladder neck, below the level of the fetal head. Bladder could not be catheterised. She was taken for an immediate caesarean section. A stillborn fetus was extracted by Patwardhan's manoeuvre. Post extraction, a PV examination was done, the mass was dis-impacted followed by successful catheterization. The mass of size approximately 6x6 cm was then felt in bladder lumen and a provisional diagnosis of bladder stone was made which was later confirmed on imaging done post-operatively. **Discussion:** When the patient presents with obstructed labour in late second stage the diagnosis is often difficult. Easy dislodgement of the mass and its subsequent palpation in the bladder lumen made the diagnosis easy.

**Conclusion:**

Prolonged pressure on the bladder wall can lead to vesicovaginal fistula. Prompt caesarean section can prevent this.

## A Rare case of Vaginal carcinoma

**Shreesha Marla, Amritha Bhandary , Anitha . A.J.**

**Background :**
Primary vaginal cancer is a relatively uncommon tumor, representing only 2% to 3% of malignant neoplasms of the female genital tract. Squamous histology accounts for 80%. Primary vaginal cancer should be differentiated from cancers metastatic to the vagina, which constitute the majority of cancers found in the vagina (84%). **Case report :** A 72 year old P3L3 ( Prev NVD), sterilized 30 years back,came to our hospital with complaints of itching in the vulval region since 2 years associated with foul smelling discharge ,serous, non blood tinged. Was on and off medications for the same, topical emollients and antifungals when used, symptoms subsided momentarily , to reappear again.

**Conclusion:**
Because of the rarity of vaginal cancer, these patients should be treated in a center that is familiar with the complexity of treatment and modalities of therapy.

## Non-Puerperal Uterine Inversion in a Postmenopausal Women: A Case Report

**Vasundhara Yerkade, Kavita Khoiwal, Amrita Gaurav, Jaya Chaturvedi**

**Introduction** Non puerperal Uterine inversion is a rare entity. Causes of non-puerperal uterine inversion are benign tumours of the uterus, mostly submucosal fibroid and malignant uterine sarcoma. Acute variety presents with acute pain or bleeding, sudden extrusion of mass from vagina, urinary retention, or features of shock. The diagnosis is usually clinical. **Case report**A 77-year-old para 3 postmenopausal woman came to the casualty with acute abdominal pain, bleeding per vagina, and a large mass coming out from the vaginal introitus. Patient had complaint of postmenopausal bleeding for the last 2 months and a histopathology report of atypical spindle cell neoplasm of the uterus. On Local examination there was a 12 × 8 cm fleshy mass coming out from vaginal introitus with complete uterine inversion. Complete uterine inversion due to MMMT was suspected because of typical presenting findings. The patient was taken up for laparotomy. Intraoperatively, uterus was completely inverted with bilateral adnexa and round ligaments were dragged into the constriction ring. Local excision of tumour mass done followed by reinversion of the uterus with Huntington's technique. In view of high suspicion of uterine malignancy (MMMT), completion surgery done. On cut section of the uterus, tumour was seen arising from posterior wall of uterus. HPE examination was suggestive of high-grade MMMT invading cervical stroma but not beyond the uterus (T2NoMo).**Conclusion**MMMT can present as non puerperal uterine inversion. Hence, gynaecologists should be aware of such clinical presentation.

## Laparoscopic Excision of Cesarean Scar Ectopic Pregnancy: A Case Report

**Deepika Sheoran, Kavita Khoiwal, Amrita Gaurav, Jaya Chaturvedi**

**Introduction**
Caesarean scar ectopic pregnancy occurs when a pregnancy implants on caesarean scar, with an incidence of 1/2000. The incidence is increasing as a consequence of the rising cesarean section rate. It is life threatening condition with risk of excessive haemorrhage, uterine rupture or mortality.

**Case**
A 34-year-old female, G2P1L1 with history of previous one caesarean presented to casualty with 2months amenorrhoea and complain of pain in scar site since 1 month. On per-abdomen examination, mild tenderness was noted in scar site. On p/s examination, cervix was healthy, no bleeding or discharge noted. Her bimanual examination revealed bulky uterus with bilateral fornices free and non-tender. Her TVS was suggestive of caesarean scar ectopic pregnancy with bhcg levels 53,100 miu/ml. Findings were confirmed on MRI-pelvis. Plan for laparoscopic scar ectopic excision was made. During intra-op, uterus was 8 week size, 1.5 cm anterior wall defect noted and gestational sac was situated in the defect. Hysterotomy followed by scar ectopic excision was done. Her bilateral ovaries and fallopian tubes were healthy. Tissue was sent for histopathological examination and diagnosis of Caesarean scar ectopic pregnancy was confirmed. Patient was followed up with serum ß-hCG level, till non-pregnant levels.

**Conclusion**
Caesarean scar ectopic pregnancies can have very fatal and poor outcomes. Different surgical and nonsurgical techniques have been described in the literature. Laparoscopic excision of a CSP is an effective and feasible technique with good postoperative results. The cesarean scar defect diminishes, and this potentially can improve the future fertility of the patient.

## Placental Site Trophoblastic Tumour : A Diagnostic Dllemma

**Hema Devi, Kavita Khoiwal, Amrita Gaurav, Jaya Chaturvedi**

**Introduction:** Placental site trophoblastic tumor is a rare malignant tumor, occurs after a normal term pregnancy followed by molar pregnancy. It originates from the proliferation of the intermediate trophoblast.

**Case:** A 40 years old woman, P3L3, came with a c/o of vaginal bleeding to casualty, was diagnosed to have a molar pregnancy 1.5 months back for which surgical evacuation was done. Beta HCG value before evacuation was 40700 m IU/ml and follow-up values were in falling trend. HPE ruled out possibility of malignancy. After 2 weeks of evacuation, she had an episode of severe p/v bleeding, MRI pelvis s/o uterine A-V malformation with possibility of residual GTD. Single agent chemotherapy (methotrexate) given. Her beta HCG values were falling. After 1 month, she had another episode of severe p/v bleeding. TVS s/o

Uterine AV malformation. B/L UAE was performed. After 1 week of UAE, she again presented with severe p/v bleeding. Emergency hysterectomy was done. Intra op- uterus was 14 weeks size, On cut section of uterus showed irregular endometrial cavity with thick-walled cysts involving endo-myometrium filled with blood clots, Beta HCG value was negative on day 1 of surgery. Final HPE s/o PSTT. Currently, she is on monthly beta HCG follow-up.

**Conclusion:** The diagnosis of PSTT is difficult as it lacks specific tumor markers, radiological diagnostic criteria, and can be confirmed only by HPE. History, examination and imaging findings suggested that PSTT and AV malformation can mimic each other, therefore a strong suspicion should be kept for PSTT.

## Unusual Case of Peurperal Sepsis with Scrub Typhus

**Naazneen Kallivalappil, Nina Navakumar, Neetha Ravindranath, Muhammed Niyas, Ganesh**

**Objective -** Scrub typhus is notorious for its varied presentations. Our patient presented with puerperal sepsis and anemia though it was not a typical presentation.

**Case report -** We present here the case of a 33 year old woman with complaints of high grade fever and pain during micturition from second postpartum day after vaginal delivery. She was hemodynamically stable. Due to persisting high grade fever, extensive evaluation was done which showed scrub typhus positive , features of sepsis and hepatosplenomegaly. She was managed with appropriate antibiotics and she started to improve within one week.

**Discussion -** Scrub typhus is an acute, febrile, illness caused by a bacteria called Orientia tsutsugamushi. Most cases of Scrub typhus are confined to the Asia Pacific region, with nearly a million cases being reported every year.Features like generalized lymphadenopathy ,eschar and rash which are diagnostic clues to scrub typhus were absent in our case Although an increasing number of scrub typhus is being reported in pregnant women, it is still underdiagnosed.

**Conclusion -** Scrub typhus should be included in diagnostic work-up of all cases of fever in endemic areas, especially in peripartum period even if characteristic clinical features are absent.

## Role of Hysterectomy in Invasive Mole: A Case Scenario

**Kripa Yadav, Kavita Khoiwal, Amrita Gaurav, Jaya Chaturvedi**

**Introduction:** Invasive mole is malignant trophoblastic disease with proliferative trophoblast, invade into myometrium or uterine vasculature. Incidence of invasive mole is 1 in 15000 pregnancies.

**Case:** A 38 years female, Para 3, live 3, last child birth 7 years back presented with c/o amenorrhoea for 3 months, mass felt per abdomen for 2 months, spotting PV for 15 days, UPT positive at home, beta HCG was > 2 lakh, TVS shows complete molar pregnancy. MRI shows multiple cystic spaces and diffuse thinning of the myometrial wall, s/o invasive mole. Case was discussed in tumour board and plan was made for EMA-CO but patient had continuous bleeding PV and patient was keen for hysterectomy, so in view of patient choice and huge size of uterus, TAH with BSO was performed, I/O uterus was 20 weeks size, on cut section uterine cavity filled with vesicles with myometrial thinning. Day 2 beta HCG was 3500 miu/ml. HPE confirmed diagnosis of invasive mole. She had come with beta HCG report weekly till 3 negative value and no adjuvant chemotherapy was given due to falling trend of beta HCG and now she kept for monthly follow up for 2 years.

**Conclusion:** Primary management of invasive mole is chemotherapy but few indications (resistance to chemotherapy, haemorrhage) in which hysterectomy was performed. Benefit of hysterectomy is avoidance of chemotherapy-induced toxicity, decreased morbidity and reduce risk of recurrence.

## Spontaneous OHSS Due to Primary Hypothyroidism

**Rafeekha P, Rohini L**

Ovarian hyperstimulationsyndrome is a potentially life threatening complication, mostly iatrogenic – in women undergoing ovulation induction as part of their inerility treatment. It is very rare in spontaneously conceived pregnancies. Rarer still in non pregnant state!

31 year old multiparous lady presented with complaints of severe abdominal pain for the past 6 weeks. She is a known case off hypothyroidism since 10 years of age and was off medicines for the past 2 months. O/E vitals were stable, diffusely tender soft abdomen with no palpable mass. USG showed both ovaries enlarged with multiple anechoic cystic lesions with no solid components and preserved stromal vascularity. MRI taken outside showed bilateral complex ovarian cysts and was inconclusive. Lab investigations showed bhcg negative , hemogram normal , tumor markers negative , TSH >200 , Hormone profile normal. Based on clinical, lab and radiological findings, diagnosis of spontaneous OHSS was made. She was started on treatment with levothyroxine 150 mcg/day. Patient was followed up after 6 weeks. She was nil symptomatic, TSH levels were normalized. Repeat USG taken showed bilateral Polycystic ovarian morphology.

This case report shows that such rare cases can often present us ith a diagnostic dilemma and proper evaluation is needed as it can be misdiagnosed even for malignancies and can endup in unwarranted surgical interventions also.

## The Implementation of Cesarean Section Audit Using Robson Ten Group Classification System in A Tertiary Care Setup from North India: A QI Project

**Harshiba, Nalini Bala Pandey, Shakun Tyagi, Asmita Rathore**

**Objective:** Cesarean section audit using Robson Ten Group

Classification System (RTGS) in Obstetrics & Gynaecology department of MAMC and associated Lok Nayak Hospital with a target of 80% coverage in 8 weeks. **Design:**Quality improvement initiative to enable implementation of RTGS was started from 1st March 2022 with a target to achieve 80% coverage in 8 weeks. **Method:**Induction and training of labor room residents, nursing staff, pediatricians regarding usage of RTGS was done by using PowerPoint presentations and charts which were displayed in labor wards, emergency operation theaters and new-born nursery. The classification was assigned and mentioned on all case records and labor ward registers. The change in practice was calculated by RTGS percentage= no. of files with Robson score in post natal or post-op wards/ 10 files scanned in post natal or post-op wards. This scoring on files was audited every 3 days. Multiple PDSA (Plan-Do-Study-Act) cycles were run to improve uptake over a period of 16 weeks from March' 2022- June' 2022. **Results:** RTGS percentage of 20% was achieved after first two weeks. At the end of 4 weeks 60% was reached. By the end of 8 weeks (1st March to 30th April' 22) itself we reached a target of 90%. We continued this audit and at the end of 16 weeks the uptake rate remained at 90%. The PDSA cycles helped in sustaining the practice to the achieved level.**Conclusions:**Quality improvement techniques led to a significant positive change in the successful implementation of RTGS in 90% of all deliveries at the end of 8 weeks.

## Unilateral Functional Lung and pregnancy: Two Case reports

**Arbinder Dang, C.K.Jain, P.S. Mann, B.N.Seth**

**Objective:** Unilateral functional lung with contralateral Non-functional lung secondary to Pulmonary Tuberculosis is underreported in pregnancy.

**Case Report**: We present two case reports of pregnancies with unilateral functional lung with contralateral non-functional lung secondary to pulmonary tuberculosis. Both women were in their twenties with history of pulmonary tuberculosis in one and genital tuberculosis in the other, who delivered successfully at term by caesarean section with no ante, intra and post-natal complications. Case 2 was a case of infertility conception and a routine chest Xray prior to caesarean due to Covid 19 Pandemic revealed her chest findings.

**Discussion**: Tuberculosis (TB) remains one of the world's deadliest communicable diseases. Pulmonary destruction by TB, particularly total destruction of an entire lung, is currently uncommon. Unilateral tuberculous lung destruction is an irreversible complication of tuberculosis. Left-side predominance is characteristic.

**Conclusion:** These cases highlight importance of chest Xray in pregnancy especially with history of infertility, tuberculosis and Covid 19 infection.

**Key words**: Unilateral Functional lung, Pregnancy, Pulmonary Tuberculosis

## Acquired Vaginal Atresia: A Rare Case Presentation

**Aditi Goyal, Reena, Kanika Chopra**

**Objective:** Vaginal Atresia , which can be congenital or acquired. Congenital vaginal atresia is rare and is seen in 1 in 4000-5000 births and acquired type is much rarer. It occurs usually secondary to mismanaged vaginal delivery by untrained birth attendants.

**Case Report:** We present a case of a 23-year-old woman, Para 1 Live 0, who presented with chief complaints of dyspareunia and oligomenorrhea for four 4 months. Obstetric history revealed a prolonged trial of labour at home by untrained birth attendant. Inability to deliver, she was taken to a hospital. There she was diagnosed as intrauterine fetal demise and underwent caesarean section in view of cephalopelvic disproportion. There was history of multiple blood transfusions and surgical site infection. Perabdominal examination was normal.Per-speculum examination revealed a complete transverse vaginal septum nearly 4 cm above the introitus with two dimples in the centre. Per vaginal and per rectal examination was unremarkable. MRI pelvis revealed no abnormality. Patient underwent vaginoplasty with favourable postoperative outcome.

**Conclusion:** Acquired vaginal atresia is a rare condition. The exact incidence is unknown as it is underreported. As the major cause is lack of knowledge and skill among untrained health care workers, there is a need to advocate institutional delivery by trained birth attendants. The aim behind presenting this case is the need to detect such rare variants and institute timely management by expert hands.

## Bilateral Ovarian Dermoid CYST with Left Ovarian Torsion in Premenarchal Female

**Payal Saini**

**Introduction:** Ovarian dermoid cyst are the most common neoplasm of the ovary and prevalent in the reproductive years, dermoid cysts are unilateral, can be bilateral in 10 to 15% of cases . Torsion is major complications seen in cystic teratomas, causing severe pain, nausea and tissue necrosis. In this case report, we present a rare occurrence of bilateral ovarian cyst with left cyst torsion in a 10-year-old adolescent girl.

**Case report:** A 10-year-old girl child presented with the symptoms of abdominal pain associated with complaints of vomiting. On CECT there was e/o two cystic dermoid seen in abdomen and pelvis with bilateral ovaries not separately visualized. Exploratory laparotomy proceeded detorsion of left partial rotated ovarian cyst with B/L ovarian cystectomy with B/L ovariopexy done. Histopathology findings are of Mature cystic teratoma of bilateral ovaries with infarction in left ovarian cyst.

**Discussion:** The incidence of bilateral dermoid cyst of the ovary is 10%. Surgical intervention is indicated if there is a case torsion, rupture, or haemorrhage of dermoid cysts is expected. There are only a few cases in literature of bilateraldermoid cyst of ovary in young individuals less than 21 years, in our case in

a 10 yr old girl. Conclusion: Bilateral ovarian cyst teratomas in adolescent girls are quite rare and can lead to torsion of cyst and subsequent effects on fertility.

## Uterine Arteriovenous Malformation (UAVM) in a Multigravida Patient in Third Trimester of Pregnancy - A Rare and Challenging Case

**Arushi Sharma, Kamal Singh**

**Introduction:** The clinical presentation of UAVM in pregnancy is variable - most classical clinical feature is intermittent, heavy vaginal bleeding ( intrapartum and postpartum haemorrhage) and can also be fairly asymptomatic. In this case report, we present a rare occurrence of uterine arteriovenous malformation with pregnancy in a 35y/o G3P1011 at POG 34 weeks.

**Case report :** A 35 y/o G3P1011 , presented at POG 34 weeks with an USG report showing possibility of vascular malformation in uterus .On MRI, there was evidence of well defined abnormal area of signal intensity in left lateral uterine wall in lower uterine segment approx. 2.5 to 3 cm above the internal os measuring 3.7*2.5*4.3 suggestive of arteriovenous malformation. Elective c- section followed by bilateral uterine artery ligation done at 37 weeks. Intra-operatively, there was a , bluish ,cystic , fluctuating swelling in lower uterine segment on left side , 4*3 cm in size , 1 cm below the reflection of UV fold.

**Discussion :** UAVM in pregnancy can be difficult to diagnose and manage as they are rarely found in pregnancy. Because of its rare incidence with pregnancy, exact management protocol has not been defined yet. Elective c-section along with bilateral uterine artery ligation or peripartum hysterectomy could be considered as favourable management options.

**Conclusion :** Prompt resuscitation, appropriate and timely investigation, a high index of suspicion and timely treatment is essential for avoiding a catastrophic outcome in this situation.

## Ruptured Interstitial ECTOPIC Pregnancy

**Nitika Sharma, Rajendra Prasad**

**Objective: -** Interstitial pregnancy is rare and life threating condition so correct diagnosis andappropriate management are very crucial in preventing morbidity and mortality.

**Case Report: -** A 30 years G4P3003 at POG 13 weeks + 3 days presented to labour room with painabdomen and amenorrhea for past 3 months.P/A -Tenderness, Guarding and Rigidity in the lower abdomen. P/S - Culdocentesis Positive.P/V - Cervical motion tenderness present. Uterus anteverted ~ 14-week size with fullness andtenderness present in all fornixes.On USG a viable fetus of gestational age 13 weeks + 1 day lying outside the uterine cavity in pelvis on the right side suggestive of rupture of extra uterine pregnancy with hemoperitoneum. Patient was taken for Exploratory laparotomy proceed peripartum hysterectomy with by bilateral salpingectomy.

**Discussion: -** It is rare and life threating condition with high risk of hemoperitoneum and shockresulting in maternal mortality. It lasts for longest time as the myometrium of uterus supports the pregnancy at the interstium making diagnosis more difficult and challenging. USG diagnosis in theearly pregnancy is the key.

**Conclusion: -** It demands high suspicion and awareness among the sonographers and clinicians toprevent the morbidity and mortality. If 3d scan is available, it should also be used as it may increasethe diagnostic accuracy.

## Huge Ovarian Endometrioma in a Postmenopausal Woman: A Case Report

**Jagriti and Kamal Singh**

**Background:**
Endometriosis is an estrogen dependent disease defined by presence of endometrial-like tissue (gland and/or stroma) out of the uterine cavity. Its prevalence is estimated to be 2-10% in reproductive aged women and 2.5% in post menopausal women. We are reporting a case of large endometrioma (42*40 cm) in a post menopausal patient.

**Case Report:**
A 62 year old gravida 3 para 3 with complaint of abdominal fullness and pain since last 6 months was admitted in our ward. Whole of the abdomen was distended with large cystic mass filling all the quadrants of abdomen, non-tender with well defined upper and lower limits, and with abdominal girth of 135cm.Diagnostic imaging revealed large cystic abdomino-pelvic mass displacing bowel loops and herniating through anterior abdominal wall defect, likely epithelial ovarian neoplasm. CA-125 levels were 166.4 units/ml.

She underwent Exploratory Laparotomy proceed surgical staging proceed total abdominal hysterectomy with bilateral salpingo-oophorectomy. The appendages on the affected (i.e. left) side weighed 20.95 kg and 21.5 liters of chocolate fluid was aspirated from the cyst. Histopathological examination showed features of endometriosis.

**Discussion:**
Endometriosis is found predominantly in women of reproductive age. In post-menopausal years due to phytoestrogen and hormone therapy, there can be growth of previous endometriotic deposits. Endogenous estrogen may play role in endometriosis, especially in obese women. The ovaries are most common location of endometriotic lesion in postmenopausal patients(80%)

**Conclusion:**
Despite its relative low incidence, post-menopausal endometriosis can present in atypical manner with no previous history of menstrual disorder or infertility and no previous or current hormone therapy.

## Cervical lacerations: A case series

**Sarah Quaraishi**

**Background** :Cervical laceration (CL) after vaginal delivery is one of the uncommon side effects with significant morbidity if

undetected and unattended to promptly. This is however one of the common causes for postpartum haemorrhage.

**Case Series :** From January, 2018 to April, 2022 there were 38549 vaginal deliveries in our tertiary care centre. Of them eleven women were identified to have CL needing surgical intervention. In this article we are describing a summary of these eleven women who have had CL detected following vaginal delivery with detailed presentation of one of them who had a bucket handle tear of the posterior lip of cervix Mrs. S a 26 year old Primigravida, conceived with IVF after evaluation for 4 years of infertility. At 36 weeks and 5 days of gestation with risk factors of being gestational diabetes on medication and hypothyroidism. She had presented with prelabour rupture of membranes. Induction of labour was done using 2 doses of vaginal insertion of 25ug Misoprostol. The cervix was quite unfavourable at induction with a Bishop score of 2/13. Six hours from the second dose of misoprostol augmentation of labour was done when the Bishop score was 3/13. Labour progressed rapidly and within 6 hours of augmentation of labour she delivered vaginally a 2.8kg baby. Following delivery, she had PPH and exploration of the cervix revealed a five cm long CL along the posterior lip of cervix with the external cervical os being only one cm dilated. (figure 1) The tear was sutured under anaesthesia. (figure2) She had a significant blood loss of about a litre needing blood transfusion. Tabular columns are a summary of eleven such patients who have had cervical tears following vaginal delivery. (tables 1,2 and 3)

**Discussion:**Cervical laceration although not very common, is known to cause PPH. Incidence of CL among primigravida was 1% while among multigravida was 0.5% according to study by Landy in 2011.(3) The known precipitating factors for CL in literature being previous interventions on the cervix 6-14 % (polypectomy, LEEP,cerclage), induction of labour (threefold increased risk), use of Prostaglandins for induction of labour, precipitate labour, operative vaginal deliveries and birth weight > 3500gms.However, in our experience of the known risk factors, the most common association were with induction of labour and operative vaginal delivery. **Conclusion:** Meticulous inspection of the cervix is needed in women who have increased vaginal bleeding after precipitate labour, induction of labour or operative vaginal delivery.

## New Onset Irregular Menstruation And Intermenstrual Bleed -

## A Rare Presentation of Accessory and Cavitated Uterine Mass-A Case Report

**Deepthy Balakrishnan**

**Objective**

Accessory and cavitated uterine mass is a rare congenital Mullerian anomaly where there is an accessory cavity with normal endometrial lining in a normally shaped and normally functioning uterus. Even though, severe dysmenorrhoea and recurrent pelvic pain are the common symptoms, ACUM can also present with irregular menstrual bleeding and pelvic pain.

**Clinical case**

A 32-year-old, parous woman presented with irregular menstruation for last 6 months and dysmenorrhoea. Gynaecological examination was normal. Pelvic ultrasound and MRI showed bicornuate unicollis uterus with rudimentary right horn, non-communicating with the main endometrial cavity with presence of right hematometra. Laparotomy revealed a globular, soft mass of size 6x5 cm, arising from anterior surface of uterus in right lower part. Mass was excised after separating the bladder peritoneum by clamping the base. Mass is found to be non-communicating with uterus The histopathological diagnosis was also consistent with ACUM. Postoperative period was uneventful. After close follow-up for 3 months, the patient has resumed her cycles and is totally asymptomatic.

**DISCUSSION**

Even if a parous woman presents either with the menstrual disturbances or lower abdominal pain even for a short duration and imaging showing it to be a rudimentary horn, the diagnosis of ACUM should be considered and treated surgically.

**CONCLUSION**

Knowledge and awareness of this entity will help us to consider preoperative diagnosis of ACUM more accurately. A thorough history, detailed gynaecological examination and correct radiological modalities are important. MRI helps in making the diagnosis but confirmation is done by histopathological examination.

## Abdominal Tuberculosis Masquerading as Ovarian Tumor; A Case Series

**Divya Khurana, Rajendra Prasad**

**INTRODUCTION:** Tuberculosis is still a major public health problem in our country with incidence of 188 per 100,000 population according to WHO global health report. Abdominal tuberculosis accounts for 13% of extra pulmonary tuberculosis. Patients with abdominopelvic mass, ascites and raised CA 125 levels are often considered to have ovarian or gastrointestinal malignancies and are managed surgically increasing morbidity of the patient and cost of treatment.

**CASE PRESENTATION:** We report 3 cases of abdominal tuberculosis in Department of obstetrics and gynaecology, Dr RPGMC Kangra at Tanda, Himachal Pradesh in 2022 (in past 6 months) which were initially diagnosed as Ovarian tumor and were managed surgically. All our patients experienced abdominal pain and distension. Ultrasonographic examination showed multilocular masses, two of them with solid masses and ascites. CA 125 levels were found to be raised in all 3 patients. Ascitic tap was negative for both tuberculosis and malignant cells. All of them were treated surgically. The diagnosis of abdominal tuberculosis was established through intra operative findings and histopathological result of tissue biopsy.

**CONCLUSION:** Despite considering the possibility of abdominal tuberculosis in cases of ovarian tumor, many cases of abdominal tuberculosis remain undiagnosed pre-operatively,hence,increasing the burden of laparotomy. There is eminent need of optimization of diagnostic approach to differentiate abdominal tuberculosis from ovarian tumor through non-invasive or minimally invasive diagnostic tests.

# A Case of Missed Mixed Germ Cell Tumor of Ovary in Pregnancy

**Janice A Pais, Venita Fernandes, Sujaya V Rao**

**Objective :**
This case was selected as the tumor was initially thought to be a fibroid, but intraop it turned out to be something else. This makes us aware of the incidence of mixed germ cell tumor in pregnancy.

**Case description:**

- A 34 year old, primigravida, Growth scan done on 20/1/2022 showed SLIUF of 34-35 weeks, cephalic presentation with fibroid in lower uterine segment and posterior wall of cervix stretched over fibroid. Term scan on 17/2/2022 revealed SLIUF of 37-38 weeks, breech, placenta= anterior and upper segment, AFI 14 , EFW = 2.9 kg, fibroid = 11x 9 cms in posterior wall in lower uterine segment with central cystic area.
- She was admitted on 18/2/2022 with c/o pain lower abdomen . On per abdomen , symphysiofundal height was 30 cm, abdominal girth 104cm, multiple fetal parts were felt on lateral grips, pelvic grip - breech presentation. On P/V: os 1 cm dilated, minimally effaced , soft , anterior. Diagnosed as Breech in latent labor with fibroid uterus. Patient was posted for emergency lscs on 18 th feb 2022.
- She underwent emergency lscs ( Ind: breech in labor) and a S/L/T male baby was delivered by breech on 18/2/2022 at 9: 54pm with birth weight 2.005 kg and APGAR 8 and 9
- Intraoperatively on exteriorization of uterus,friable mass was noted which was present posterior to uterus in rectovaginal space measuring 10x 8 cms. Mass was necrotic (seen through the opened surface), non capsulated. Tissue evacuated. Mass along with the cyst wall was sent for histopathology. Histopath of the cyst wall showed Mixed germ cell tumor = 60% yolk sac tumor and 40% dysgerminoma
- She was discharged on 23/2 /2022 on postop day 5 with stable condition.
- MRI on march 2 , 2022 showed = Uterus bulky with bleed in endometrial cavity, postpartum status, hemorrhagic degradation products seen in right adnexa- postoperative status, Well defined lobulated mixed signal intensity lesion in rectovaginal pouch compressing and displacing the rectum posteriorly and to the left side, also displacing uterus and bladder anteriorly, Lesion shows an hyperintense signal intensity in T2 and stir sequences, On contrast, lesion shows homogenous enhancement , Lesion measures 10.4 x 9.5x 7.3 cm, Minimum fluid in pelvis, Left ovary normal, Right ovary not visualized . Chest MDCT on 2/3/2022: No lung metastasis .
- From march 9 th to may 15 th 2022 she received 4 cycles of chemo : Inj Dexona 8mg + inj rantac + inj granisetron, inj Posid 200mg ( etoposide ), Inj Cisplatin 30mg, One pint RL with 1 ampule KCL + 1 ampule MGSO4 IV over 4 hours.LDH = 617 u/l and AFP was 2033 ng/ml on 1/3/22. On 20/4/22= LDH was 501 u/l and AFP was 60.75 ng/ml.

**PET scan on June 3 rd 2022 showed:** Mild non specific patchy FDG uptake is seen in a heterogenous density lesion , with multiple areas of coarse calcifications, irregular hypo attenuating areas as well as mildly enhancing solid component , located in the rectovaginal/ uterine region just right to the midline. Overall measuring 6.7x 6.2 x 4.2cm. Right ovary not visualized separately. Anteriorly abutting the uterus but fat planes are maintained, indistinct fat planes noted with right fallopian. Posteriorly abutting rectum and rectosigmoid, fat planes are maintained. Right lateral fat planes are maintained with pelvic vessels .Hence planned for second look laparoscopy.

- She underwent laparoscopic right oophorectomy with right pelvic lymph node sampling under GA on 24 th June 2022. Intraop : cheesy material (similar to caseous necrosis) in the region of right ovary. Histopath of right oophorectomy specimen showed extensive regressive changes with occasional scattered atypical cells with no conclusive evidence of residual tumor.
- On 29 th June 2022: repeat usg abdomen and pelvis came as normal.
- Patient is now healthy , is asked now to do serum LDH and Serum AFP once in 3 months to look for any recurrences.

**Discussion:**
Most adnexal masses during pregnancy are detected in first trimester by USG and resolve spontaneously Careful evaluation of persisting adnexal masses is required to avoid delayed diagnosis3. This is a rare case of mixed germ cell tumor of ovary, misdiagnosed antenatally as uterine fibroid. USG is the preferred imaging technique and MRI can be used for further evaluation.

Abdominal surgery preferably planned for 2nd trimester. Laparotomy for >14- 16 weeks gestation. Unilateral salpingo oophorectomy and surgical limited staging is appropriate

**Conclusion :**
Any mass during pregnancy ,even if found to be benign, should be further evaluated and monitored regularly to reduce the morbidity /mortality to the mother .

# Unusual Case of Isolated Tubal torsion

**Ankita**

**CASE REPORT**
Mrs XYZ age 46 years presented in emergency with c/o acute onset pain in lower abdomen On right side. Her menstrual history was normal with history of previous 2 LSCS. Her pregnancy test was negative. There was no history of fever , vomittings or bladder and bowel disturbance On examination she had tenderness in right iliac fossa.

**INVESTIGATIONS**
USG was suggestive of inflammatory cystic right adnexal mass with hemorrhagic contents CECT was suggestive of right tubal dilatation with normal appearing ovary MRI revealed hemato/ pyosalpinx and complex par ovarian cyst with minimal fluid in pelvis

**SURGICAL MANAGEMENT**
Initially she was planned for conservative management but despite that pain continued & hence decision of Emergency Laparoscopy surgery taken as hemato/ pyosalpinx was suspected on MRI.

Intra OP there was dark blue pelvic mass on right side about

5x6 cm It was distally dilated necrotic right fallopian tube torsion with no associated ipsilateral ovarian involvement seen, untwisting failed to improve colour hence decision for right salpingectomy was taken and proceeded.

**Patient was comfortable in post op period**

HPE Report revealed tube with areas of hemorrhagic infarction and acute inflammation suggestive of tubal torsion.

## Internal iliac artery ligation (IIAL) in placenta accreta spectrum (PAS): Resurrecting an old method due to challenges faced during COVID-19 pandemic

**Latika Chawla, Shalini Rajaram, Madhulika Singh, Mamta K Sah, Shilpa Panta, Madhur Uniyal**

**Introduction:** Internal iliac artery ligation has shown to reduce pelvic blood flow by 49 % and pulse pressure by 85% resulting in venous pressures in the arterial circuit, thus promoting haemostasis. It is therefore proposed as one of the methods of limiting blood loss during pelvic surgery and post-partum hemorrhage.

**Material and Methods:** Cases records of antenatal patients of placenta accreta spectrum (PAS) that were managed in a unit at AIIMS Rishikesh, during the COVID 19 pandemic (November 2019 to February 2022) were retrospectively reviewed. This study evaluates cases where bilateral anterior divisions of internal iliac arteries were ligated prophylactically before proceeding for definitive management.

**Results:** A total of 18 patients with morbidly adherent placenta that were managed out of which 10 patients underwent prophylactic ligation of anterior divisions of bilateral internal iliac arteries prior to definitive management. As interventional radiology facilities were not readily available at our institute during the COVID 19 pandemic we had to resort to IIAL for management of majority of these cases. There were 8 patients with placenta percreta and 2 patients with placenta accreta. Seven cases were taken up for emergency surgery while 3 patients underwent elective surgery. Mean age of the patients was 30.4±4.27 years. Mean period of gestation was 32.33±6.4 weeks. Nine patients underwent trans-fundal/upper segment caesarean delivery followed by IIAL followed by caesarean hysterectomy. One patient was 19 days post second trimester abortion with focal adherent placenta with haemorrhage; she underwent IIAL with evacuation of products as she was unwilling for hysterectomy. Mean blood loss was 1116 ±415 ml [400 –2000 ml]. Mean units of packed red blood cell units transfused was 1.82 units ±2.1 [min 1- max 6]. Complications included 2 patients with bladder injury, one patient with post-operative surgical site infection and one patient with popliteal vein thrombosis. Two patients were kept in the ICU post operatively. No procedure related complications were seen.

**Conclusion:** In setups with non-availability of interventional radiological facilities or if not readily available during emergency hours and as during the pandemic , IIAL can be used as a safe method for reduction of intraoperative blood loss in cases of PAS. This avoids dependency on another department (radio diagnosis), avoids complications of embolization/occlusion and facilitates one time surgery that avoids longs follow-up periods. It is therefore necessary that post graduates in Obstetrics and Gynaecology should be trained in this life saving procedure.

# Video Presentations

## Perimembranous VSD : To worry or not to worry

**Suboohi Rizvi**

**Introduction:** Cogenital Heart Diseaese is most common fetal congenital anomaly. Prevalence is 0.3-1.2% in newborns. Ventricular Septal defect (VSD) is the most common fetal cardiac defect, and is in 10% of fetal malformations and 40% of cardiac malformations in newborn.It can be an Isolated defect or in association with other structural cardiac defects and fetal malformations. Detailed Ultrasound and Fetal echocardiography is required to understand the size, location and association with other cardiac defects.Genetic consultation is important as chromosomal anomalies are seen in 26%-32% cases and may need an invasive procedure .Newer Ultrasound machines are with better resolution, doctors are trained , the diagnosis of VSD including the small peri-membranous is done with ease. **CASE**: I present a case in which a small VSD in peri-membranous region is seen during Fetal Echocardiography in our centre with echogenic shadow in Left Ventricle and reports of unilateral choroid plexus cyst .A review of the articles and publications on Peri-membranous VSD is done to get an insight for counselling for fetal pVSD and the risk of chromosomal anomaly, fetal course and neo-natal outcome. **Discussion:** Perimembranous VSDs are the most common (80%) Small pVSDs results in high intrauterine and postnatal closure rates and decreased morbidity in first year of life. Isolated small pVSD have almost the same risk of chromosomal anomalies as the background risk of the normal population. Improved imaging techniques leads to detection of subtle findings which may or may not be associated with aneuploidy.Risk of Chromosomal anomalies is seen in 26-32% cases, mostly with other fetal cardiac and non-cardiac anomalies. Transverse view of heart on 2-D ultrasound helps in reducing false-positive , false-negative diagnoses and rule out drop outs artefacts.Large VSDs detected during prenatal assessment can require postnatal intervention, have a good outcome. **Conclusion:** Counselling and outlining the plan of fetal prognosis is challenging but clarity should be given to the parents to reassure and decide, as needed.

## Video Demonstration of Technique of Laparoscopic Hystero-Pectopexy

**Polaki Manisha, Kavita Khoiwal, Amrita Gaurav, Jaya Chaturvedi**

**Introduction**

Pelvic organ prolapse (POP) is a common disorder in aging females as a result of weak pelvic support and other factors like increased intra-abdominal pressure. The conventional treatment in ageing female is vaginal hysterectomy with pelvic floor repair. Now a days laparoscopic repair of prolapse has been gaining attention. This procedure was first demonstrated in 2010 in which mesh is fixed at bilateral ilio-pectineal ligament and the apex of vaginal vault or anterior cervical wall.

**Case report**

A 33-year-old P2L2 female patient presented with complaint of something coming out of vagina for 1 year and increase frequency of urine for 1 year. No h/o any difficult/ instrumental delivery, no h/o chronic cough, no h/o chronic constipation, any surgery. P2L2- both NVD, LCB- 15yr back. On Examination: Third degree uterine descent, level 1 defect, no cystocele, no rectocele, rugosities + on vaginal walls, no SUI demonstrated.

POPQ: STAGE IV with leading point C. Patient underwent Laparoscopic hysteropexy using a 15x3cm polypropylene mesh.

**Conclusion**

In cases of pelvic organ prolapse vaginal hysterectomy was main stay of treatment and in cases of vault prolapse Sacro colpopexy remains the most preferred method of treatment. Several recent studies have proven that hysteropexy/pectopexy show equally promising results and also has advantages such as fewer complications, a shorter hospital stay, a more rapid recovery, and low incidence complications like injury to vital structures (ureter, bowel, hypogastric vessels), lesser operability time, low recurrence.

## Hysteroscopic resection of complete uterine septum using monopolar hook

**Anupama Gupta**

**OBJECTIVE**

Septate uterus is a congenital anomaly characterized by persistence of the partition resulting from the fusion of the two müllerian ducts. This anomaly has been commonly associated with a poor reproductive outcome, such as abortion and preterm delivery. Hysteroscopic resection using cold scissors or energy is a simple and safe approach for the removal of the septum. While scissors would seem to be the best way forward ..they tend to break a lot and increase the surgical time as well. Resectoscope is a comparatively costly alternative. In a low resource setting, using unipolar hook may be a cost-effective option.

**CASE REPORT**

This patient was a nulliparous 32 years old lady, married since 4 years with a history of 3 spontaneous miscarriages in first and early second trimester.Transvaginal ultrasound showed complete uterine septum. Decision for transcervical resection of septum under hysteroscopic view was taken. Preliminary diagnostic laparoscopy was done to rule out bicornuate uterus. Preop vaginal misoprost was given 4 hrs prior. The procedure was performed using monopolar hook through the operating channel of Bettocchi hysteroscope. The electrical generator was set at 60 W pure cut current. The uterine cavity was distended with glycine . Fluid balance was recorded by measuring the infused and drained fluid from the hysteroscope. After insertion of the hysteroscope, tubal ostia were visualized and the septum

was incised from the lower margin upwards using horizontal midline incisions until visualization of the muscular fibers. The procedure was considered to be complete when a normal cavity was obtained and both ostia could be seen in same view.

**DISCUSSION**

Hysteroscopic resection of uterine septum is a standard treatment for complete uterine septum and pregnancy rates and live birth rates are improved dramatically.This procedure can be carried out safely in low resource set up and should be offered to all females with recurrent miscarriages and diagnosis of uterine septum. . In a patient with no history of infertility or prior pregnancy loss, it may be reasonable to consider septum incision after counselling about the potential risks and benefits of the procedure.

**CONCLUSION**

There is a large body of evidence that this operation improves live birth rate in patients affected by recurrent abortion; in contrast, the role of hysteroscopic resection in patients affected by primary infertility is still debated. It will need further studies to establish its role in infertility. Whether cold scissors offer any advantage over usage of energy is still controversial and will need more comparative studies on efficacy of each modality. It is safe to conclude that hysteroscopic resection of septum offers an increase in live birth rates and the surgeon should use a modality he /she is well versed with.

## Non-invasive embryos selection/ preimplantation genetics – where are we?

**Akhil Garg**

Infertility is a global health issue affecting millions of people worldwide, 1 out of 5 couples are struggling with infertility globally. Thanks to assisted reproduction technology (ART), more than 10 million infants have been born using ART to those couples worldwide. ART Technology coming closer every day to the goal of reducing multiple pregnancies while maintaining good clinical results. The success of an In-Vitro fertilization (IVF) cycle depends on mainly two factors i) Embryo selection and ii) Endometrial receptivity apart from many other factors such as embryo incubation, stimulation etc. Traditional embryo assessment is based on time-point evaluation and still used in the IVF laboratory as a standard as most of labs still uses standard incubators. In last years, there is a lot of discussion regarding non-invasive embryo selection after the invention of time-lapse technology. We have learned a lot from this technology in the last few years about embryo development, we have noticed many other events happens in the embryo which were difficult to identify with traditional embryo assessment. There are a lot of research is going on in the field of embryo selection including knowing the ploidy status of embryo.

Preimplantation genetic testing (PGT) is a broad term to describe the genetic analysis of one or more cells from an oocyte or embryo. PGT results guide the embryologist/doctors to select the viable embryo to transfer. So basically, PGT is also a part of embryo selection technique in a way which is not required for every patient. One of the main reasons observed in women for infertility is advanced maternal age. Aneuploidy dramatically increases with age in women which also risk the pregnancy. Women with advance maternal age going through IVF procedure with an autologous cycle are advised for PGT testing usually. Basically, there are 2 types of PGT, PGT-A and PGT-m where A stand for aneuploidy and m stands for monogenic disorders. PGT-A is commonly used while PGT-m is designed specifically for couples which have the family history/ carrier of any monogenic disorder, PGT-m is very specific. PGT-A is commonly used with patient with advance maternal age, previous miscarriages etc. PGT is an invasive technology which have few disadvantages such as during biopsy, there is a chance to damage the embryos, secondly PGT is not a hundred percent accurate. So, there is a need to novel, non-invasive markers which can avoid the PGT.

Non-invasive embryo selection is hot topic of research in IVF these days. There are many technologies are in research for non-invasive embryo selection. Most common technology for non-invasive embryo selection is based on data from time-lapse technology, which is called Morphokinetics, the terms coined by Dr. Meseguer in 2011. Morphokinetics is the combination of the embryo appearance (morphology) and the timing in which cellular events occur, has been introduced as a new concept to improve embryo selection. A lot of algorithms were described based on the events, their derivatives (time to pronuclear appearance tPNa, time to pronuclear fading tPNf, time to 2 to 9 discrete cells t2-t9, time to morula tM, time to blastocyst tB, time to expanded blastocyst tEB, fragmentation, reverse cleavage, direct cleavage, chaotic cleavage, compaction, multinucleation, symmetry etc.) and novel information gathered in time-lapse technology. Several studies were conducted based on this information to develop markers for blastocysts development, implantation potential, live-birth potential and to predict ploidy status. After the first hierarchical model published by Dr. Meseguer, many models were published by different labs and authors such as EEVA 1, EEVA 2, Basile model, Liu model, Goodman model, Milewski model, and then the KIDscore model came into existence used in Embryoscope® (Vitrolife™) which was widely accepted, and lot of studies were published, different version of KIDscore algorithms was published. All these embryo selection methods were helpful to the laboratory but still the embryologist completely doesn't rely on them, they are basically help to decision making. Apart from the implantation potential, few models also focused on ploidy status using different kinetic parameters such as Chavez model, Campbell model for ploidy detection, Basile Model for ploidy detection, Minasi model, Desai model etc. but they were not used as much by other labs as they don't have potential to replace PGT-A. Secondly most of models are more based on the clinical settings of there prospective labs and results were different in other clinical setting. From last few years, the new era of Artificial Intelligence (AI) and Machine Learning (ML) started in ART field and its very promising. Lot of research is going on non-invasive embryo selection using the machine learning and computer vision. Last year one of the latest commercial AI-driven algorithms for non-invasive embryo selection iDA Score by Vitrolife™ entered market and there are lot of companies are releasing promising AI-driven embryo selection such as Chloe from Fairtility®, LifeWhisperer® etc. Most of them are basically using time-lapse video, some of them even starting to introduce other factor such as patient demographics also in their algorithms which is quite interesting. Recent studies on iDA score from IVI Valencia shows it as a promising algorithm in terms of efficiency and results. Automatic embryo annotation is really time saver in new time-lapse devices compared to old time-lapse devices. Most of new AI-driven algorithm is helpful for embryo selection but still they have some potential/ no potential to detect ploidy status or in other terms these companies don't claim on these algorithms for ploidy status.

Apart from time-lapse technology there are few other techniques are in research for non-invasive embryo selection. One of them is secretomics. Secretomics is the analysis of secretome, which is basically the protein secreted by the cells. During embryo development, some of the proteins are secreted in the culture media by the embryos, many labs are focusing on analyzing this spent culture media using proteomics to find relevant information which can leads us to non-invasive marker of embryo selection. A recent published study from IVI Valencia showed that IL-6 (Interlukin-6) and MMP1(matrix metalloproteinase-1) are two important protein level in spent culture media can helps to detect the ploidy status of an embryo in combination with the morphological data using

artificial neural network. There are few other studies which have promising results from spent culture. One of other non-invasive embryo selection technology is measuring oxidative stress using thermochemiluminiscence (TCL) assay. This assay quantifies the oxidative status of biological samples by catalyzing an oxidative reaction through heating and counting the photons emitted per second. TCL parameters are directly correlated to the content of oxidant agents in the sample. Spent culture media of embryo is analyzed with TCL assay to know the oxidative stress, there are few studies going on to know the implantation potential of embryo using this technique, but this technology in my belief is still far from the reality to be used in IVF laboratory with current state of art.

Non-invasive embryo selection is still at a stage of fantasy, there are very promising results from some of the study, but sample size is quite small. Secondly there may be one technology will not be enough for non-invasive embryo selection algorithm, combination of different technologies needs to be used as a new approach to reach the goals, few laboratories already working on this direction. As of now we stand at a point where embryo selection can only help to select a better embryo for implantation if the patient is not at a risk for aneuploidy, but for the patient at risk, non-invasive embryo selection technology cannot be trusted from the point of aneuploidy detection, PGT -A need to be done. In recent year AI seems to be promising to help the ploidy detection but lot of studies, specifically random controlled trials need to be done. Non-invasive embryo selection technique in early stages can be used just to screen the embryos to know the risk level, where we can decide that biopsy need to be done or not and later may be used at its full potential.

## New and old ways of the approach to gestational diabetes

**Anita Banerjee**

With a rising obesity epidemic and the changing obstetric landscape, the prevalence of gestational diabetes mellitus is rising. The prevalence of gestational diabetes mellitus varies worldwide. The Hyperglycaemia and pregnancy outcomes (HAPO) study demonstrated a strong relationship between fasting plasma glucose and one hour and two hour glucose values during 24–32 weeks gestation. There remains a lack of consensus on diagnosis. The definition of gestational diabetes has changed over time. These ambiguities in consensus can lead to delays in detection of and intervention for hyperglycaemia-related pregnancy outcomes. Through the post COVID restorative period, advancements in technology and virtual reviews have revolutionised our clinical practice. More evidence and agreement in clinical practice is required for persistent glycosuria and late onset gestational diabetes mellitus is now required. More awareness of the increased risk of diabetic ketoacidosis during pregnancy, will help reduce perinatal mortality and maternal morbidity. The long term health of women with gestational diabetes includes the risk of long term type 2 diabetes mellitus. More shared decision making with the mother and health professionals is required to empower women during pregnancy. The postpartum period is an opportunity to optimise the health of women and their offspring with engagement with lifestyle modifications and weight management.

## Screening performance of genome-wide cfDNA test for multiple pregnancies

**Liona Poon**

**Objective**

This study aimed to report the screening performance of cfDNA testing for chromosomal abnormalities in multiple pregnancies.

**Methods**

Data were obtained from consecutive pregnant women with a multiple pregnancy or a vanishing twin pregnancy at >10 weeks' gestation who requested for self-financed cfDNA testing between May 2015 and December 2021. Those that had positive screening results had diagnostic confirmatory procedures after detailed counselling and consent given. The performance of screening of the cfDNA test was determined by calculating concordance rate, confirmation rate and combined false-positive rate (cFPR).

**Results**

Data from 376 women were included. Median (interquartile range) maternal age was 34 (32–37) years. There were 29 cases with triplets, 319 cases with twins and 28 cases with vanishing twins. The initial no-result rates were 10.3% and 12.9% for triplets and twins. The cFPR was 4.2% for triplet pregnancies. Amongst the twin pregnancies, confirmation rates for trisomy 21 and 18 were 100% and 100%, respectively, at a cFPR of 5.3%. Amongst the pregnancies with vanishing twins, the cFPR is 31.6%.

**Conclusion**

Amongst the twin and triplet pregnancies, the initial no-result rate is high. For twins, the cfDNA test is sensitive for detecting trisomy 21 and 18, but at a cFPR of 5.3. Amongst the pregnancies with vanishing twins, the cFPR >30%, which results in a high invasive testing rate or repeated cfDNA testing rate.

## Hyperemesis Gravidarum: Causes, Consequences, Care

**Marlena S Fejzo**

Hyperemesis gravidarum (HG) maps at the end of the clinical spectrum and is generally diagnosed when other causes of nausea and vomiting of pregnancy (NVP) are excluded. Symptoms begin early in pregnancy, affect daily activity, and there is an inability to eat/drink normally. Patients generally have signs of dehydration and weight loss greater than 5% of pre-pregnancy weight. HG is often associated with electrolyte imbalance and can require medication, intravenous fluids and/or supplemental nutrition, hospitalization, and support.

A genetic approach to find the cause was applied because decades of research using other methods have failed. HG is highly heritable based on twin studies, and there is a 17-fold increased risk of having HG if your sister had it. Importantly, genome-wide and exome-wide association study approaches to etiology are unbiased with respect to genes involved-all genes are scanned including genes coding for hCG, historically hypothesized to be the cause.

In partnership with the personal genetics company 23andme,

over 15 million variants were compared between DNA from >1300 people with HG and >15,000 people with no NVP. *GFD15* was the greatest genetic risk factor ($p= 10^{-15}$). A second scan of over 50,000 participants included ends of the NVP spectrum, but also included people with slight, moderate, and severe nausea in pregnancy. In that scan, again *GDF15* was the greatest genetic risk factor ($p=10^{-41}$). Additional genes were also associated, including a gene coding for the brainstem restricted receptor for *GDF15*, *GFRAL*.

When performing a conditional analysis, another *GDF15* variant inherited separately was also identified. Thus, two variants in *GDF15* inherited from two separate ancestors are associated with HG, as well as a variant in the receptor for *GDF15*. This strongly implicates the pathway plays a role in the etiology.

To replicate findings in a separate population using a separate genetic technique, a whole-exome sequencing study was performed comparing 926 cases to 660 controls, and the only common variant significantly different, was again a variant in *GDF15*. This study contained people of different ancestries, and the same variant in *GDF15* showed a trend towards association in populations of minority ancestries as well, suggesting it may be generalizable, but larger studies are needed.

In addition to the common variant associated with HG in *GDF15* by whole-exome sequencing, we also identified a rare mutation in *GDF15*, which was the only variant occurring in $\geq$10 cases and no controls. While these studies have identified multiple variants associated with *GDF15*, none were identified for hCG. Therefore, it is unlikely hCG is a causal hormone, while genetic evidence strongly supports GDF15 plays a role.

In addition to geneticts, evidence supporting a role for GDF15 includes the fact that among healthy tissues, GDF15 expression is highest in the placenta, and increases significantly in the first trimester. Lower serum levels and/or *GDF15* variants are associated with lower NVP symptoms and carrying a male fetus. Conversely, higher serum levels and/or *GDF15* variants are associated with antiemetic use, second trimester vomiting, and hospitalization. GDF15 causes appetite/weight loss, taste aversion, and emesis in nonpregnant animal models. In addition to placental production of GDF15, it is a cellular stress hormone that is upregulated in other tissues in response to nutrient deficiencies, long-term fasting, hyperthyroidism, and infection, all conditions associated with HG pregnancies. This may explain why a genetic predisposition to abnormal GDF15/GFRAL/RET signaling can evolve from NVP to HG.

Fascinatingly, GDF15 causes cancer cachexia, a condition with similar symptoms to HG- loss of appetite, weight loss, and muscle wasting. HG patients may have more than twice the GDF15 increase compared to cachexia patients, and the rapid increase in GDF15 may be what causes HG patients to feel like they are dying. HG patients should be taken seriously and treated with care and compassion, just like cachexia patients.

These studies may have significant clinical implications in the future. In nonhuman primates, GDF15 inhibition increases food intake in monkeys treated with the highly emetogenic drug cisplatin. In addition, blocking GDF15 decreases vomiting bouts in monkeys treated compared to those not treated with a GDF15 inhibitor. Drugs targeting GDF15/GFRAL show great promise in animal models and are now in cancer clinical trials. Work is also ongoing to understand how risk genes can be used to predict HG.

This is important because new evidence reveals maternal and child morbidity/mortality associated with HG, including a high risk of suicidal ideation and post-traumatic stress disorder. Many patients lose over 15% of their pre-pregnancy weight and have symptoms lasting until term. Patients report detached retinas, pneumothorax, esophageal tears, and rib fractures from violent vomiting, and can have liver, kidney, and gallbladder dysfunction from prolonged malnutrition. HG is the 4$^{th}$ most common cause of death in pregnancy in Botswana. Maternal deaths in the US and UK have also recently occurred. Most deaths were caused by severe nutritional deficiencies-mainly vitamin B1/thiamin deficiency which can lead to Wernicke's encephalopathy, brain damage characterized by ataxia, ocular, and mental status changes. Patients can also suffer from severe electrolyte imbalances that can lead to hypokalemia, prolonged QT intervals, and cardiac arrest. Thromboembolism and thyrotoxicosis have also caused deaths secondary to HG.

New evidence also identifies negative offspring outcomes. There is a 5-fold increased risk of having a baby born small for gestational age (SGA) and an increased risk of preterm birth. Importantly, a recent study showed SGA risk is higher for HG than for recreational drug use, smoking, chronic hypertension, pre-gestational diabetes, and preeclampsia. These other exposures/conditions and associated risks are taken seriously, yet HG and its risks are often trivialized. HG is associated with lower birthweight, smaller head circumference, and decreased brain size. Several studies now provide a consensus that HG is a teratogen affecting brain development, with increased risk of neurodevelopmental delay, autism spectrum disorder, and for patients not supplemented with folic acid, neural tube defects. In addition, there are cases of vitamin K deficient dysmorphology. Adverse outcomes directly linked to vitamin deficiencies prove that in the case of HG, the fetus is not always getting everything it needs.

The genetic findings may lead to better prediction, diagnosis tools and treatments, but for now the adverse maternal and child outcomes suggest that at a minimum, clinicians must be more proactive. This includes earlier screening for HG. Patients may have symptoms prior to their first office visit. Therefore, at a minimum, earlier screening should occur for patients with increased risk for HG. In addition, there should be frequent follow up to monitor symptoms and confirm the patient is not deteriorating.

Factors associated with increased risk for HG include having a previous HG pregnancy and/or a family history of HG. Other factors associated with risk include asthma, allergies, infections, carrying multiples, carrying a female fetus, younger age, diabetes, African or Asian ancestry, hyperthyroid disorders, and carrying risk genes.

A free Application for patients with iPhones can improve quantifying HG, patient-provider communication, and care. The HG Care App allows the patient to enter symptoms, monitor medications, and summarizes data in a report sharable with providers. Thus, providers can monitor patient progress and determine whether the patient needs a change in medication/care. Alerts let patients know to contact their doctor, for example, if they are dehydrated or malnourished.

It is important to follow-up with the patient at least weekly. The HELP tool (https://www.hyperemesis.org/tools/) is a short survey that identifies areas requiring attention. Patients can fill it out in the waiting room, at home, or in the HG Care App.

Answers falling in the last two columns alert the doctor towards problems areas-for example, if medications are not staying down.

Medication safety is a risk benefit assessment. For example, HG patients that did not take ondansetron had a higher therapeutic termination rate and 1st trimester miscarriage rate than HG patients taking ondansetron. Subsequently, patients who used ondansetron had a higher term birth rate at term (79.9% vs 52.5%), comparable to patients that did not have HG (78.2%). Meanwhile, the rates of birth defects are very similar for both the ondansetron/HG group and NO ondansetron/HG group. Thus, it may be that HG is associated with increased risk of birth defects, independent of medication prescribed.

Frequent follow-up is recommended because medications do not always work. Ondansetron was reported to be the most effective antiemetic with 80% of patients reporting symptom relief. However, when patients were asked whether they gained weight within two weeks of starting treatment, approximately 75% of patients reported not gaining weight within two weeks of starting any prescribed medications. Thus, patients may not be getting enough nutrients, even if they say medications are helping. Nutrition should be monitored, especially in the second and third trimester where inadequate maternal weight gain is associated with increased risk for adverse outcome.

Another reason for frequent check-ins is that HG is associated with termination and suicidal ideation. A recent study revealed over half of HG patients consider termination and over a quarter consider suicide. Patients who terminate are 3-times more likely to state their healthcare providers were uncaring or did not understand how sick they were.

Thus, herein I leave you with three important conclusions. Firstly, the cause of HG is most likely altered signaling of the nausea and vomiting hormone GDF15. Although other factors may be involved as well, mounting evidence suggests this is the most likely factor involved in causing HG. Secondly, there are significant adverse maternal and child outcomes associated with HG. Long-term outcomes include posttraumatic stress following an HG pregnancy, as well as neurodevelopmental delay in children. And finally, to limit these adverse outcomes, providers must implement earlier screening, treatment, and support, with frequent follow-up, to ensure pregnant patients are getting the nutrition and care they need.


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# Critical Appraisal of research paper - Understanding the basics of Medical Statistics

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## Basics of Medical Statistics

### Basics – Analysis Longitudinal vs Cross -Sectional

| Longitudinal | Cross -Sectional |
|---|---|
| Assessing change over time | Analyses a particular context in time |
| 1 measurement per subject at many timepoints (T1,T2,T3,...) | 1 measurement per subject at designated time point |
| Drawback- Loose subject if missing Timepoint | Minimal impact if missing Timepoint |
| More difficult to analyse | Simpler to analyse |
| Within subject measurement correlation | No within subject measurement correlation |

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## Basics of Medical Statistics

### India Basics

- Population > 1.2 Billion
- Maternities > 20 Million
- O&G Professional Body
  - RCO
  - 4
  - F
  - A
- Should be rich pool for research
  - Maternal disease ……
  - Fetal Outcome …….
  - Epidemiology ……..

Why are there so few papers in major O&G Journals ??


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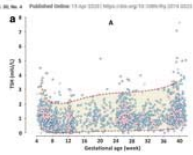
## Basics of Medical Statistics

### Basics – Analysis Longitudinal vs Cross -Sectional

**Longitudinal**

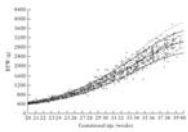
Development of Gestational Age-Specific Thyroid Function Test Reference Intervals in Four Analytic Platforms Through Multilevel Modeling



1 or more measurement / patient
Sampling at clinical time points
Uneven spread of data across weeks

**Cross -Sectional**

Prospective assessment of INTERGROWTH-21st and World Health Organization estimated fetal weight reference curves



1 measurement / patient
scan GA specified @ recruitment
Approximately equal no. of data points per week

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## Basics of Medical Statistics

### Why so few publications ?

- Lack of interest in research?
- Lack of awareness of current areas of research ?
- Manuscript poorly written?
- Incorrect / inappropriate methodology ?
- Analysis not supportive of objectives

Incorrect/ Inappropriate/ Confusing Data analysis



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## Basics of Medical Statistics

### Basics - Statistical Analysis Proforma

**Mandatory Components**

- Descriptive of subject characteristics

**Case –Control / Randomised Trial**

- Identify between group differences in baseline characteristics as potential confounding variables

**Finally analyse to assess /study aims or hypotheses**

- Inferential / Reliability Statistics

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## Basics of Medical Statistics

### Basics

Stats analysis can be made easier by proper & appropriate research design, planning and data collection and clear study objective to be assessed

- Longitudinal (repeated measurements)
- Cross - sectional (single measurement)
  - Before and After treatment in same subject
  - Case-Control Study
    - Matched or Unmatched

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## Basics of Medical Statistics

### Basics – Study Specific Analysis

**Randomised Control Trial**

Null hypothesis ($H_0$) ⟺ Alternative hypothesis($H_A$)

Reject Null Hypothesis ($H_0$) and accept Alternative ($H_A$)?

**Case – Control Study (Retrospective)**

Relative event rates
Difference in measurement central tendency

**Cohort Study (Retrospective or Prospective)**

Event Frequency rates (%) with confidence interval
Population mean / Reference Charts

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## Basics of Medical Statistics

### Basics – Types of Data

Data is hierarchical

Hierarchical structure of data


**Qualitative / Categorical**

- Nominal (unordered)
- Ordinal (ordered/ranked)

**Quantitative**

- Discrete (whole numbers)
- Continuous (has decimal place)

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## Basics of Medical Statistics

### Basics – Examples of types of Qualitative data

**Nominal (unordered)**

- Gender: Male/Female
- Ethnicity: White, Black, South Asian, Chinese …

**Ordinal (ranked)**

| | |
|---|---|
| Very Unhappy | Very Unsatisfied |
| Unhappy | Somewhat Unsatisfied |
| Neutral | Neutral |
| Happy | Somewhat Satisfied |
| Very Happy | Very Satisfied |

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## Basics of Medical Statistics

### Basics – Examples of types of data Quantitative

- Order and exact difference between values known
- Difference between measurements meaningful
  - 100 Kg twice as heavy as 50kg
- Same variable can be discrete or continuous depending on measurement precision

**Discrete / Continuous Interval Data**

Temperature (F,C), Age, Height, Weight, Length (mm, cm, m)

Quantitative → Qualitative → Loss of Information

Age → AMA (≥ 35)

Height → Short Stature ( < ?????)

Depression → Depressed ( < > ??????)

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## Basics of Medical Statistics

### Basics – Descriptive Statistics

- Measurement type dictates how the variable data is presented, analysed and compared

| | Nominal | Ordinal | Interval |
|---|---|---|---|
| Frequency distribution | Yes | Yes | Yes |
| Median and percentiles | No | Yes | Yes |
| Add or subtract | No | No | Yes |
| Mean, standard deviation, SE of mean Median, IQR (25, 75 percentile) | No | No | Yes |

- Nominal/Ordinal– assessing proportions (Chi Sq)
- Interval – assessing location (t- or z- test)

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## Basics of Medical Statistics

### Basics – Why have Descriptive Statistics

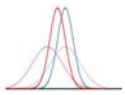
- Cannot present raw data or its distributions
- Good way to conceptually summarise data

Qualitative (Ordinal/Nominal)

Frequency plot (n (%))

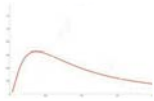
Quantitative (Interval data)

Gaussian



Parametric Descriptive

Non -Gaussian



Non-Parametric Descriptive

Alternatively Transform to make Parametric

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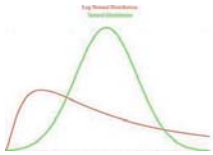
## Basics of Medical Statistics

### Basics – Transformation / Normality of Distribution

**Most common transformation**

- Log
- Square Root
- Box –Cox power transform



**Most common tests for normality**

- Kolmogorov – Smirnof (KS Test)
- Shapiro Wilks

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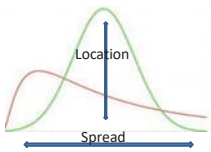
## Basics of Medical Statistics

### Basics – Quantitative Data - Common Mistake




**Central Tendency / Location**

Mean, Median, Mode

**Dispersion / Spread/ Variance**

Standard Deviation (SD) , Range (min,max)
Interquartile Range (IQR) 25th -75th percentile
10th-90th percentile

**Robustness**

Median, IQR

⇩

Less sensitive to outlier/abhorrent values

⇩

Easy to spot when mean used when median should have been

⇩

Does mean- 2*SD make sense as a value?

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## Basics of Medical Statistics

### Inferential Statistics – Qualitative Data

**Comparison of relative frequency counts**

| Ethnicity | Group 1 | Group2 |
|---|---|---|
| Whites | 22 (31%) | 12 (13%) |
| East Asians | 34 (48%) | 56 (59%) |
| South Asians | 12 (17%) | 23 (24%) |
| Blacks | 3 (4%) | 4 (4%) |
| Total | 71 | 95 |

Use Chi Square if ∑n ≥30

Chi-squared 8.629
Significance P = 0.0346

Use Fisher Test if ∑n < 30

Case – Control Studies
Is there a change in ethnic background?
RCT
Is the ethnic breakdown similar?

Case – Control Studies
Yes, % "Whites" reduced, % East, South Asians increased
RCT
Randomization unbalanced / biased ?

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## Basics of Medical Statistics

### Inferential Statistics – Quantitative Data

#### Comparison of central tendency/ location separation


Group 1
N=71
132 (25)mmHg

Group 2
N=95
144 (12)mmHg

Parametric – Compare Mean (t-test)
Option to use either primary data or Descriptive
Difference 12 (95% CI 6.2-17.8)
Significance P = 0.0001

Parametric/ Non-Parametric – Compare Median (z- Test)
Mann-Whitney
Need primary data

Case – Control Studies
Is there SBP higher ?

RCT
Is the SBP similar? - Baseline characteristic
- Outcome

Case – Control Studies
Potential confounder

RCT
Randomization Difference
Treatment effect

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## Basics of Medical Statistics

### Inferential Statistics – Paired Quantitative Data

#### Assessing Difference


Paired t-Test
Difference usually Gaussian

95% CI of difference 4 to 15
Two-tailed probability P = 0.0007

Wilcoxon Test (All data)
Robust

| | |
|---|---|
| No +ve differences | 63 |
| No –ve differences | 30 |
| Z | -3.492497 |
| Two-tailed probability | P = 0.0005 |

Remember to report 95% CI

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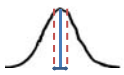
## Basics of Medical Statistics

### Population Estimates

Population

Random Selected based on Criteria (n)



Interested in error (e) about central location

Why ?
Indicator of reliability of population estimates

Dictated by Sample size
Error depends on size of sample selected.
Precision of estimate determined in Research design phase and not at time of data analysis

Scenario 1
N=100
Mean =3200g; SD = 450g
95%CI =3112g to 3288g

Scenario 2
N=10
Mean = 3200g; SD = 450g
95%CI = 2922g to 3478 g

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## Statistical Methods in Clinical Research

### Population – Event Assessment

With Event
Cases / Exposed

Without Event
Controls / Not Exposed

Rule of Thumb which to Report

| Odds Ratio | Relative Risk |
|---|---|
| Retrospective | Prospective |
| Disease vs Non-Disease | Exposed vs Non-Exposed |
| Look for Risk Factors for Event | Did Exposure change Likelihood of Event |

- Fairly large sample sizes
- Common Mistake - Having more independent predictors compared to adverse outcome
- Rule of Thumb - minimum of 10 subjects per adverse event. Ideally 20-30

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## Basics of Medical Statistics

### Data-Analysis - Why papers are rejected

- Poor Research design
  - Unclear primary objective - Know your primary study outcome
  - Insufficient sample size - > wide 95%CI
  - Plan your primary analysis before calculating a sample size
- Data –Stats Analysis
  - Check for aberrant values in data
  - Report 95% confidence interval
  - Look at published results – gives an indication
- Poor / Inadequate Data
  - Establish reliable regional and national data repositories relevant to O&G

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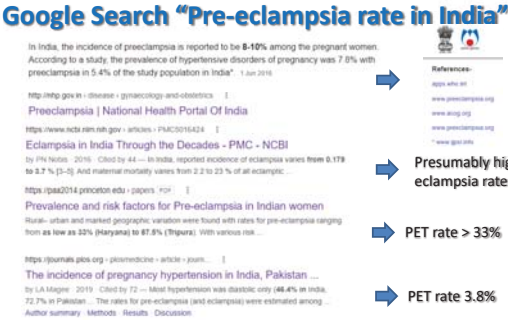
## Basics of Medical Statistics

### Google Search "Pre-eclampsia rate in India"




Presumably higher than eclampsia rate

PET rate > 33%

PET rate 3.8%

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## Basics of Medical Statistics

### Basics – Data Analysis

Seek help if not sure from somebody who is familiar with analysing medical data

Improves chances of publication

Thank you

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# BRCA in women Health - Breast Cancer and Beyond!

**Divya Agarwal**
Consultant, Medical Genetics, Apollo Indraprastha Hospital, New Delhi

"Jo Cunningham, 59 yrs, had Breast cancer. Her daughter Julie, 29 yrs, had a preventive mastectomy. Will Alexandra,5 yrs, be spared?" such was the headline of December issue of Newsweek in 1993.

Family studies first by Henry Lynch and then by others pointed to a genetic origin for familial breast and ovarian cancers, with lifetime risks exceeding 50% in such family members. The hunt for BRCA1 and 2 genes started in 1940s and they were isolated finally in the year, 1994 by Dr Mary Claire King. The discovery of BRCA genes revolutionized and led to a marked expansion of our knowledge on genetic susceptibility, the function and impact of genetics on tumour biology, and both preventive and therapeutic interventions.

BRCA genes code for BRCA proteins which are essential for homologous recombination, a cellular process important for the repair of DNA breaks during particular cell cycle phases.

The increased DNA breaks lead to loss of genetic integrity, accumulating more mutations in other cell cycle genes. This leads to chaotic cell growth.

Why the defects of BRCA genes ,are associated with cancer development in specific tissues mainly (breast and ovary) and have a predilection for a specific histology (i.e. high-grade serous predominance) is another important question in cell and cancer biology.

BRCA-mutation-related sex hormone alterations explain carcinogenesis in hormone-sensitive tissues such as the breast and ovary. BRCA1 can interact with oestrogen and progesterone receptors to decrease sex hormone transcription, and premenopausal women with germline BRCA mutations have been found to have higher serum progesterone.

The cumulative breast cancer risk upto age 80 years is 72% for BRCA1 and 69% for BRCA2 carriers. The cumulative ovarian cancer risk upto age 80 years is 44% for BRCA1 and 17% for BRCA2 carriers. The overall risk of pancreatic cancer is about 1% and 4.9% for BRCA1 and BRCA2 mutation carriers, respectively. The prostate cancer risk is also increased and may range from 9% in BRCA1 mutation carriers to 33% in BRCA2 mutation carriers. Risks for melanoma, skin cancer, other gastrointestinal cancers and endometrial cancer is also increased.

There are multiple general and country specific guidelines regards to when and how BRCA gene testing should be offered.

Widely accepted clinical criteria for referral for BRCA gene testing include:

Two or more breast and/or ovarian cancer cases in the family , at least one <50 years;

One breast cancer case <35 years;

Male breast cancer

Young onset

Bilateral breast cancer.

Breast and ovarian cancer in the same patient.

BRCA test is also essential and guides the treatment of cancers in terms of the surgical procedure to be opted for BRCA positive vs BRCA negative patients and targeted therapies like PARP inhibitors.

# An update on the medical management of uterine fibroids

**Jacqueline Maybin**

Uterine fibroids (leiomyomas) are common, benign tumours of the myometrium. Depending on their size and location, they may be asymptomatic or present with abnormal uterine bleeding (AUB), pressure symptoms and/or subfertility.

This presentation will define uterine fibroids, revising the International Federation of Gynecology and Obstetrics leiomyoma classification system. The impact of uterine fibroids on quality of life will be explored, explaining the requirement for treatment when problematic symptoms are present. Current diagnostic tools will be outlined, highlighting the importance of consideration of co-existing pathology and the diagnostic challenge of identifying leiomyosarcoma.

Surgical and minimally invasive approaches for the management of uterine fibroids will be outlined, with a focus on patient selection and shared decision making. The current medical treatments for uterine fibroids and fibroid symptoms will be discussed before focusing on the latest developments in this area. The pros and cons of Selective Progesterone Receptor Modulators (SPRMs) will be evaluated, followed by review of the evidence for oral Gonadotrophin Releasing Hormone (GnRH) receptor antagonists. Available evidence will be discussed throughout and gaps in our current knowledge and understanding will be signposted, highlighting specific priority areas for future research.

The aim of the presentation is to provide medical professionals with the up-to-date evidence base to inform clinical consultations and provide practical advice to improve the clinical management of patients presenting with symptomatic uterine fibroids.

# Sepsis after Childbirth: Challenges and Solution

**Manju Puri**
**Director Professor**
**Department of Obstetrics & Gynaecology**
**Lady Hardinge Medical College**

**New Delhi**

Sepsis is a leading cause of maternal morbidity and mortality globally. Obstetric infections are the third most common cause of maternal mortality contributing of 10.7% maternal deaths globally. WHO reports the prevalence of puerperal sepsis in live births as 4.4% that is 5.7 million cases per year: 7% in Low- and middle-income countries (LMIC) and 1-2% in high income countries (HIC). Sepsis is also associated with increased risk of miscarriage, stillbirth, and preterm birth,

with 10-15% of stillbirths in HICs and up to 50% in LMIC. In the UK, 'all-cause sepsis' ranks as the sixth leading cause of direct and indirect maternal death; genital tract sepsis is the fourth direct cause. The incidence is on the rise in both LMIC and HIC.

Maternal sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion, or postpartum period. Septic shock is defined as sepsis associated with vasopressor requirements to maintain a mean arterial pressure (MAP) ≥65 mmHg in the absence of hypovolaemia and a serum lactate >2 mmol/l. Maternal sepsis is a medical emergency. Disease progression in pregnant women is more rapid. Physiological changes of pregnancy confound the clinical presentation. Immunological changes in pregnancy compromise maternal capacity to combat infection. Typical clinical features may be absent. Delayed diagnosis and suboptimal treatment adversely impact the outcome. A high index of suspicion is required. Key factors for reducing maternal sepsis after childbirth include prevention, early diagnosis, and prompt treatment.

For prevention it is important to educate mothers and health providers to follow infection control practices. These include good hand hygiene practices, keep the birthing areas clean, do responsible disposal of biowaste, use clean and sterile delivery kits, and limit the number of vaginal examinations. Give prophylactic antibiotic prophylaxis for caesarean sections and preterm premature rupture of membranes (PPROM), consider induction of labour in those with PPROM. Screen pregnant women for infections like asymptomatic bacteriuria and sexually transmitted infections. Responsible use of antibiotics is essential to prevent antimicrobial resistance. Hence it is essential to remain updated with the latest evidence of the use of antibiotics. Recently WHO has updated its recommendations on the use of prophylactic antibiotics for women undergoing operative vaginal delivery, vaginal preparation of vagina with chlorhexidine gluconate or povidone iodine just before Caesarean section and use of alcohol-based chlorhexidine gluconate for skin preparation prior to elective or emergency Caesarean section.

Early diagnosis of sepsis is important as the patient can deteriorate very fast. A high index of suspicion is required. Use of Modified early warning score for monitoring mothers is an effective method of early identification of women requiring attention or referral. There are other scoring methods based on clinical assessment and investigations namely obstetrically modified sequential organ failure assessment score (SOFA) and Sepsis in Obstetrics Score (SOS) which are useful in assessing the condition of mothers and triaging for the level of care and progress. Use of these tools aid in objective assessment and early identification of those requiring escalation of treatment.

Prompt treatment is another aspect that needs to be strengthened. Once diagnosed the 1-hour sepsis bundle needs to be instituted. This includes obtaining serum lactate levels, blood and other relevant cultures, administration of broad-spectrum antibiotics, fluid resuscitation with 30 ml/Kg crystalloids for hypotension or if lactate ≥ 4 m mol/L and starting vasopressors if MAP< 65 mm Hg even after fluid resuscitation.

Although the knowledge and impact of the key factors for reducing maternal sepsis after childbirth namely prevention, early diagnosis, and prompt treatment is available. The challenge is the implementation of good practices. Quality improvement methodology is one management approach which the healthcare workers can use to reorganize patient care within the existing resources to ensure quality care to their patients. Point of care quality improvement is a four-step approach. It includes Identification and prioritization of problems/ care gaps, analysis of the genesis of problem, development, and test changes by PDSA **plan – do- see- act cycles** and hard wiring of improvements.

To summarize the main challenges as regards sepsis and childbirth are concerned include delay in diagnosis and initiation of treatment, suboptimal treatment, lack of implementation of evidence based preventive strategies and misuse of antibiotics and related antimicrobial resistance. There is an urgent need for multimodal prevention approaches to gain widespread adoption. These approaches include use of guidelines, education and training, organizational changes, surveillance, and quality improvement

**Suggested reading**


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5. WHO recommendations on choice of antiseptic agent and method of application for preoperative skin preparation for caesarean section. Geneva: World Health Organization; 2021.
6. WHO recommendation on prophylactic antibiotics for women undergoing caesarean section. Geneva: World Health Organization; 2021
7. WHO recommendation on routine antibiotic prophylaxis for women undergoing operative vaginal birth. Geneva: World Health Organization; 2021
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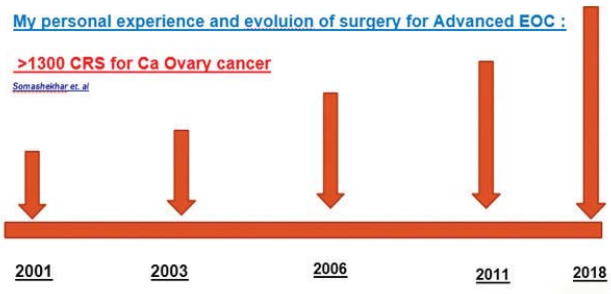
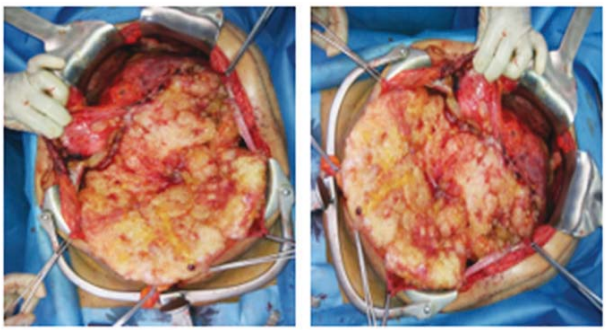
## Role of Cytoreductive Surgery and Hipec in advanced Epithelial Ovarian Carcinoma

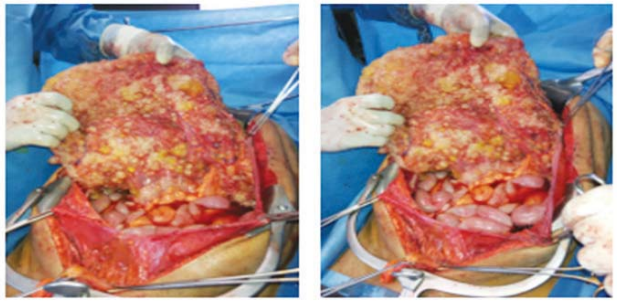
**Somashekhar S P**

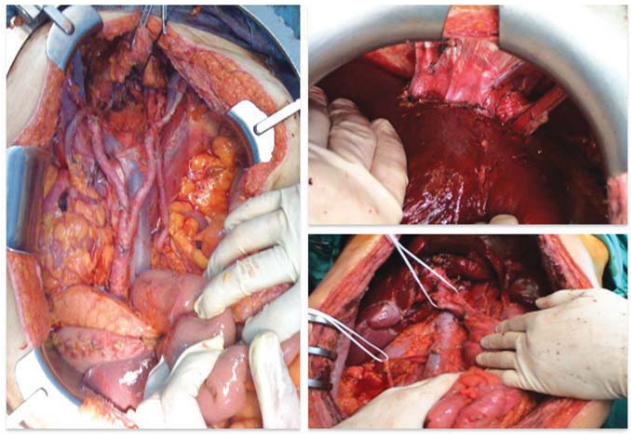
Cytoreductive surgery is the cornerstone of therapy for advanced epithelial ovarian cancer. Optimal cytoreduction defined as removal of all visible macroscopic disease has shown to improve disease free & overall survival in several studies. Addressing the disease in the upper abdomen in ovarian cancer is of at most significance for optimal cytoreduction apart from lower abdomen disease. Surgery in the upper abdomen is very challenging and needs sound knowledge of surgical anatomy, standard practice of surgical techniques overtime for better outcomes

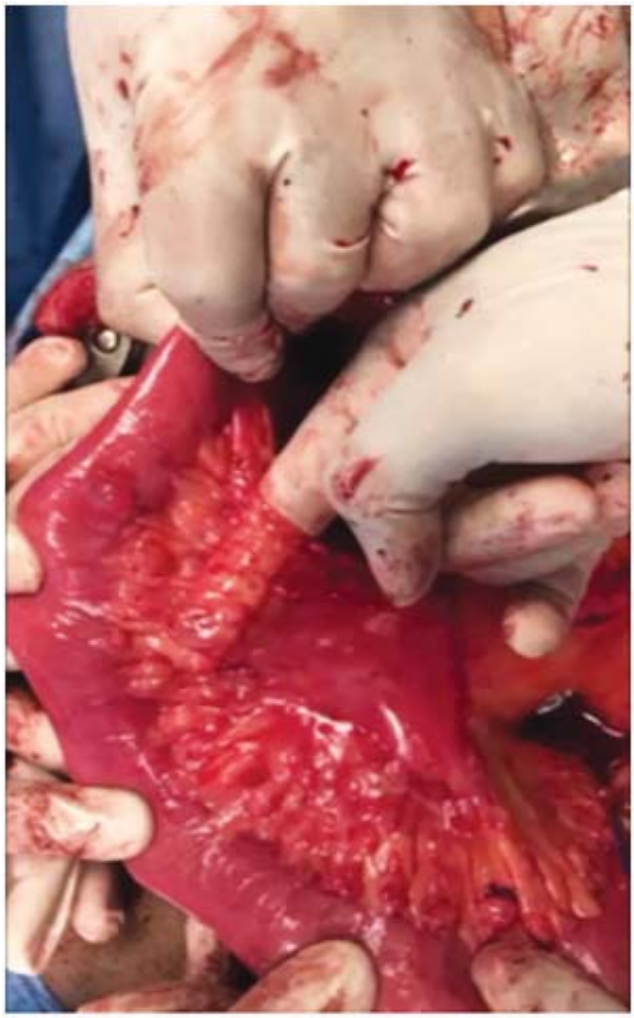
Cytoreductive surgery with HIPEC is an aggressive locoregional treatment that begins with resecting disseminated intraabdominal disease, either completely or at least to minimal residual disease. Cytoreduction is then followed by infusion of chemotherapy into the abdominal cavity. Local delivery of chemotherapy allows high concentrations to be used, and the addition of hyperthermia is thought to both improve penetration into the peritoneal surface as well as enhance tumoricidal effect. It is evident that CRS followed by HIPEC is a generally long and challenging procedure, often associated with multivisceral resections. Although these procedures can increase patient survival and improve outcome, morbidity and mortality can be high, particularly as CRS is combined with cytotoxic chemotherapy.







Earlier studies evaluating CRS/HIPEC reported high morbidity and mortality; however, in our center with increased knowledge and experience we have demonstrated significantly decreased morbidity and mortality rates. Standardized perioperative sequences with thorough patient selection, adequate infrastructure and a highly experienced surgical team are of essence to minimize morbidity and mortality and achieve best possible long-term outcomes. The key to success is multidisciplinary team approach, protocol-based treatment delivery with strict adherence to patient selection criteria, surgical quality control, and optimal perioperative care.

Optimal cytoreduction & some form of Intraperitoneal chemotherapy is needed to improve outcomes. CRS+ HIPEC is feasible in all groups of ovarian cancer with acceptable morbidity & mortality.

Cytoreductive surgery (CRS) with hyperthermic intraperitoneal chemotherapy (HIPEC) for peritoneal surface malignancies (PSM) has still not been accepted worldwide due to the associated significant morbidity. It is possible to reduce or prevent the early postoperative morbidity, if the clinician has the knowledge about the factors contributing to it. We had a study which was done to analyse such factors that predict morbidity in Indian set up.

Comparison of survival benefits with other studies in ovarian cancer patients treated with cytoreductive surgery and hyperthermicintraperitoneal chemotherapy in various series

| Studies | Setting | Number of cases | CCR-0 | G3 Morbidity | PFS (months) | OS (months) |
|---|---|---|---|---|---|---|
| Van Driel et al[10] | Interval | 122 | 87% | 27% | 14.2 | 45.7 |
| Spiliotis et al[24] | Recurrent | 60 | 85% | NR | NR | 26.7 |
| Present study | Primary (upfront plus interval) | 75 | 95% (for all groups) | 20% and30.9% | 33 | Yet to achieve |
| | Recurrent | 35 | | 20% | 16 | Yet to achieve |

NR, Not reported; CCR: completeness of cytoreduction rate; OS, Overall survival; PFS, Progression free survival

In conclusion, our results indicate that among women with advanced ovarian cancer, HIPEC plus complete or optimal interval cytoreductive surgery resulted in longer survival than cytoreductive surgery alone.

## Antenatal Steroids : Latest recommendations

**Surabhi Nanda**

Conundrum exists around the judicious use of steroids for fetal lung maturity - balancing the benefit of giving steroids vs avoiding the side effects and harmful sequale of repeated course of steroids. The optimal time of the first dose is the best way forward. Tools that predict preterm labour, with risk assessment of pregnancies at high risk for preterm labour and many a times individualized management is the key for achieving good maternal and fetal outcome.

She is consultant in maternal fetal medicine at Evelina London Women's and Children's Hospital, and an honorary senior lecturer at King's College London. She is the Clinical lead for Fetal Medicine at St Thomas Hospital. She is the Fetal Medicine Representative for British Maternal and Fetal Medicine Society, and a member of British Association of Perinatal Medicine. She is an MBRRACE Confidential enquiry assessor, and has authored chapters for the Confidential enquiry into perinatal deaths in twins. She leads the Obstetric Neurology and Multiple pregnancy service in her unit and has extensive clinical and academic experience in managing high risk pregnancies.

# Workshop

## Comprehensive Colposcopy Workshop

AICC RCOG NZ Post Conference Workshop on "**Comprehensive Colposcopy** "was organized by AICC RCOG NZ in collaboration with Department of Obstetrics & Gynecology, V.M.M.C & Safdarjung Hospital on 23/8/2022, 9AM -4PM. The Convenor was Dr. Saritha Shamsunder and co-convenor, Dr. Archana Mishra from Safdarjung Hospital. The workshop was inaugurated by the Medical superintendent of VMMC & Safdarjung Hospital, in presence of the Principal Vardhmaan Mahavir Medical College, Additional MS , the AOGD Oncology Subcommittee Chairperson and AICC RCOG NZ Conference Chairperson Dr. Ranjana Sharma and Secretary Dr. Shelly Arora .The workshop was attended by 120 delegates and faculty including doctors from the department of community medicine. Many delegates were from outside Delhi. First half workshop didactic lectures starting from basics of colposcopy to treatment options including new Portable Colposcopes. The theoretical session ended with an outline of the latest WHO algorithms for management of screen positive women.

Post Lunch Session had Hands on practice on digital video colposcope, portable colposcope, thermal ablation, cryotherapy and LLETZ. The workshop and Hand on session were well appreciated by all the attendees. The Workshop was successful in inculcating essential skills of colposcopy and treatment of precancerous lesions in budding colposcopists and a spring board for sharing experiences of experienced colposcopists.

## "Fertility and Genomics"

Started with the very basics of genetics, included the nitty-gritty of the PGT and its implications in today's era of precision medicine. It had much desired multidisciplinary approach, subject appropriately covered by experts from Genetics, Embryology and Reproductive Medicine.

It was inaugurated by Dr Ranjana Sharma, Chairperson AICC RCOG NZ, Dr Sohani Verma Mentor, Dr Sweta Gupta convener, Dr Sarabpreet Singh (Co-convener embryologist), Dr Ashish (Co-convener Genetics) and senior faculty members. It was well attended and appreciated for its focussed approach on upcoming field of Pre-implantation genetics and use of Artificial Intelligence in the reproductive medicine. Workshop included video demonstration of embryo biopsy with case based discussion on pros and cons of embryo biopsy/PGT in different clinical scenarios.

Program:

Glimpses:


## Hysteroscopy workshop

Hysteroscopy workshop was conducted on 21st August 2022 in Le Meridien Hotel. It was attended by almost 40 participants, not only from Delhi but also the adjacent states. It was a total academic feast comprising of lectures from the best of the faculties in the field and interesting videos to showcase the logistics behind the procedure and it showed us what Pandora's box our womb is. Videos were played showing various peculiar cases like forgotten IUCD, stitches from LSCS and many more that were found in patients of AUB.

It stressed the need for hysteroscopy in basic diagnosis of any gynaecological pathology and also the urgent need to replace pipelle biopsy by hysteroscopy so as not miss the high-risk cases and let any medical misadventure happen. Then the complicated procedures along with hysteroscopy role in infertility was also discussed.

At last, it was followed by hands-on on the endo trainers which was the actual cherry on the cake. Trainees enjoyed it to the fullest and were highly enlightened by the end of the workshop.

## Laparoscopy Workshop

The laparoscopy workshop which took place on the afternoon of 21st august was being pitched as a good prospect for the delegates to start with what is called basic laparoscopy followed by learning the advancements, and it hence proved itself. It started with the discussion on various topics of laparoscopy which was spread over a period of 4hr abd involved over 50 delegates. It provided everyone with an insight on how to start with the laparoscopy by understanding the basics of instruments, electrosurgery and pelvic anatomy. Those who were already doing the laparoscopy understood the complications that they can encounter including the electrosurgical complications and also the methods to cope with them. One important part of the discussion was the legal implications of endoscopy, which is an indispensable part of today's medical practice. Multiple videos starting from simple hysterectomy to myomectomy to further complicated surgeries were a part of the programme. Also, there was a discussion on complications and troubleshooting which was a very interactive session between the enthusiastic audience and some of the eminent experts in this field of laparoscopy. All the lectures were followed by hands-on laparo trainers which gave everyone a fair chance to brush up on their skills of hand-eye coordination. In toto, it was a very successful workshop which left everyone energised and enthusiastic at the end.


## Me-No-Pause Workshop

**Anjila Aneja, Jyoti Bhaskar**

We had conducted a workshop on Menopause with the theme: Be the One to help her Unpause

The main aim of this workshop was to sensitise and educate the practitioners about the need to address the problems of menopause and help the woman improve her quality of life.

We started with a panel discussion on "Sexual Life after Menopause" and discussed openly the sexual issues faced by the woman. There was animated interaction, sharing of practical tips on counselling, management and therapies on unspoken

and untouched areas of sexual life.

The talks on Premature ovarian insufficiency, Postmenopausal Vulva and Osteoporosis emphasised on the clinical aspects and need to evaluate and treat these conditions.

The inputs of the chairpersons further crystallised the key messages.

The next panel discussion was on Perimenopausal bleeding and contraception. The moderator and panelists broke the bias of the practitioners and convinced all that these women need contraception and the right contraception.

The final session was a clinical and practical workshop to help Practitioners get the confidence and familiarity with the MHT and their prescription.

It was attended by 35 delegates of all ages and experience and each of them went back pledging to stand by the woman in Menopause.

## Perinatology workshop

The perinatology workshop "Healthy start to healthy life: Optimising perinatal Outcomes

was held on 21st August 2022. The Chairpersons were Dr Vidhi Choudhary and Dr Shelly Arora.

Session-1

The workshop started with five lectures .These lectures had the latest evidence and recommendations. These were

1. Routine induction of labour at 39 weeks the panacea to perinatal complications (Dr Jharna Behura)
2. VBAC-where we stand today (Dr Jayshree Sundar)
3. Timing of delivery in fetal growth restriction (Dr Aparna Sharma)
4. Preterm birth Can we predict and prevent it? (Dr Chanchal)
5. Optimal management of preemies (Dr Naveen Gupta)

**Session-2**

The Workshop had hands on session on

1) CTG-normal and abnormal traces. The delegates learnt to accurately classify, take into account the clinical context and be able to act on the suspicious and pathological traces.(Dr Jharna, Dr Meenakshi Sahu)
2) CTG interpretation on growth restriction and abnormal dopplers:-The delegates were able to differentiate between early and late FGR's ,which included the clarity about centile charts and doppler changes along with the CTG interpretation. (Dr Poonam Tara, Dr Mamta Mishra, Dr Payal Choudhry)
3) Twin vaginal delivery-honing fading skills. Obstetric maneuvers necessary for vaginal delivery of twins such as vaginal breech extraction was taught on simulators. The delegates gained confidence on these fading skills.(Dr Rinku Sengupta, Dr Meenakshi Banerjee, Dr CS Mythreyi)
4) Expecting the unexpected- Assessing mental health in pregnancy

   The station taught recognizing, assessing and treating mental health problems in pregnancy and postnatal period and referral through questionnaire metods. This station sensitized the delegates to look for mental health problems in pregnancy and postpartum which is usually a neglected territory. (Dr Shelly Arora , Dr Jatinder Pal Kaur, Dr Megha Bansal)
5) Unexpected stillbirth: ensuring a complete postnatal evaluation-Through different case scenarios it was taught, that a gross and microscopic examination of placenta membranes and umbilical cord by a trained pathologist is the single most useful aspect of evaluation of stillbirth. The proper way of sending samples to the laboratory for genetic analysis was highlighted.(Dr Seema Thakur, Dr Manisha Kumar, Dr Aditi Shastri)
6) Neonatal Resuscitation- Practical demonstration of neonatal resuscitation was done on a model and each delegate had an opportunity to learn the skill.(Dr Naveen Gupta, Dr Anil Batra, Dr Sweta K)

## Sexual Health Workshop

The Sexual Health workshop for practising gynaecologists was conducted as a post-conference workshop following the AICC RCOG NZ Conference on 21/8/22.

We had an expert galaxy faculty from all over India. The session started with understanding the sexual cycle in women, followed by panels on the non-consummation of marriage and low libido across all ages.

They were excellent sessions on the use of Testosterone in gynaecology and a talk on menstrual cups and tampons in the millennial era.

The session was concluded by discussing and displaying drugs like Botox in vaginismus, use of PRP for vaginal rejuvenation, sildenafil, Tadalafil and vaginal lubricants.

Menstrual cups, tampons, reusable sanitary napkins and vaginal dilators were displayed.

The participants of the workshop stayed on till the very end and participated throughout the workshop very enthusiastically.

This workshop was unique in discussing sexual health, which is still a taboo topic in India.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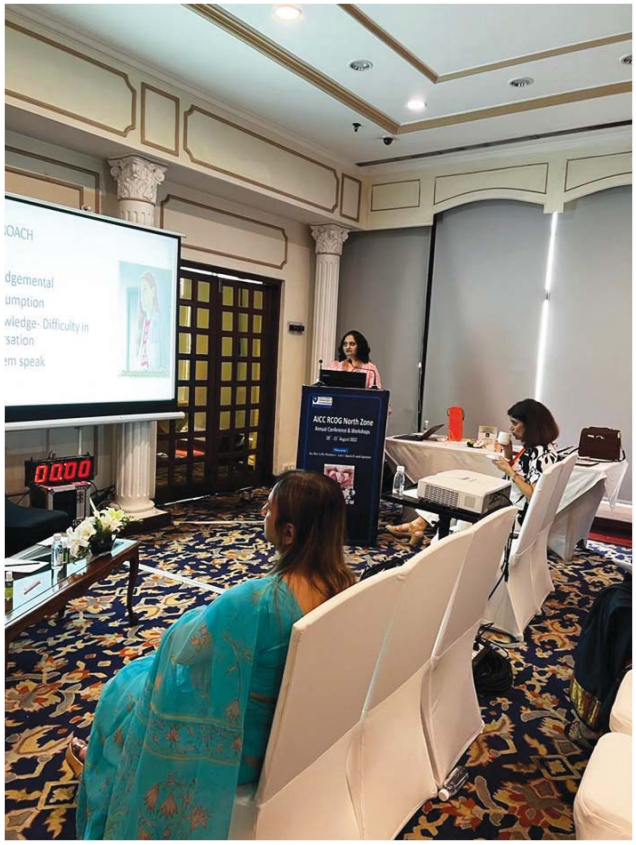
As Her Life Matters : Let's Upskill and Update





## USG Simulation Workshop

RCOG USG Workshop started in a morning session with a bang. The workshop started with introduction by Dr Anita Kaul and Prof Asmita Rathore. Overwhelming response as the slots were full. Good to see 40 delegates (many walk-ins) turning up for the program. Session started with knobology session by Dr Saloni Arora where in details a function of the knobs was discussed along with different types of probes used in ultrasound with a brief discussion on pelvic anatomy. A good hands-on training was given to the delegates on OPUS SIMULATOR following the talk, to make them understand the orientation of the probe in a more detailed manner. The second session by Dr Supriya Seshadri (invited Faculty, Bangalore) on early pregnancy scan benefitted the delegates as the talk was so detailed and was directed towards the diagnostic criteria of early pregnancy scan and to differentiate intrauterine with extrauterine pregnancy. Identification of adnexal mass, probe orientation in transvaginal and transabdominal scan to get a comprehensive information of the adnexae. Hands on training on opus simulator following presentation helped the delegates to understand the detailing in more clarity. The third session by Dr Jyoti Gupta on ISUOG 6 plane for Basic scan followed by demo on mannequin and hands-on on simulator made the delegate understand basic rules of the scan and to retrieve basic information when the patient comes in emergency, this may go a long way in improving the maternal care. Demo by Dr Anita Kaul and Dr Supriya Seshadri was so so wonderful and informative. It was a 4hr rigorous session with lots of discussions and interaction between the faculty and the delegates. All the lectures were followed by hands on simulator which gave the delegates a wonderful opportunity to brush up on their skill and must have helped in better hands eye co-ordination if they are already preforming scan and for the beginners to understand basic and probe orientation knobs and basic evaluation required in a systematic manner. In the end it was a very well accepted workshop and everyone must have gone back with lot of new information, new ideas, new energy and enthusiasm.

*'Coming together is a beginning,*
*Keeping together is progress,*
*Working together is success'.*

**- Henry Ford**