All India Co-Ordinating Committee
Royal College of Obstetricians & Gynaecologists North Zone India
in collaboration with the
Association of Obstetrician & Gynaecologists of Delhi (AOGD)

AICC RCOG NORTH ZONE ANNUAL CONFERENCE 2017

Be Up To Date – RCOG Annual Professional Development Conference

Auditorium Maulana Azad Medical College, Delhi
on 16th & 17th December, 2017

Souvenir & Abstract Book

AICC RCOG
North Zone

Royal College of
Obstetricians & Gynaecologists
North Zone India

ASSOCIATION OF OBSTETRICIANS AND GYNAECOLOGISTS OF DELHI
AOGD

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NORTHERN ZONE AICC RCOG....

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(1989-1992)


Dr Sheila Mehra
(1992-1997)


Dr Sarla Gopalan
(1997-2002)


Dr Urmil Sharma
(2002-2007)


Dr Urvashi Prasad Jha
(2007-2012)


Dr Sohani Verma
(2012-2017)

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Dr Anjila Aneja Wig

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Dr Arbinder Dang


Dr Mamta Dagar


Dr Sweta Gupta

Co-opted Members


Dr Sonal Bathla


Dr Sweta Balani

Additional Executive Fellows


Dr Saritha Shamsunder Kale

Rudyard Kipling

(Born December 30, 1865, Died January 18, 1936)

IF

If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting too;
If you can wait and not be tired by waiting,
Or, being lied about, don't deal in lies,
Or, being hated, don't give way to hating,
And yet don't look too good, nor talk too wise;

If you can dream - and not make dreams your master;
If you can think - and not make thoughts your aim;
If you can meet with triumph and disaster
And treat those two imposters just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to broken,
And stoop and build 'em up with wornout tools;

If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
And never breath a word about your loss;
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the Will which says to them: "Hold on";

If you can talk with crowds and keep your virtue,
Or walk with kings - nor lose the common touch;
If neither foes nor loving friends can hurt you;
If all men count with you, but none too much;
If you can fill the unforgiving minute
With sixty seconds' worth of distance run -
Yours is the Earth and everything that's in it,
And - which is more - you'll be a Man my son!

Contents

Message from the Chairperson North Zone AICC RCOG

I invite all of you with great pleasure to the Annual Conference of North Zone AICC RCOG 2017: BE UP TO DATE – RCOG ANNUAL PROFESSIONAL DEVELOPMENT CONFERENCE to be conducted in association with Association of Gynaecologists and Obstetricians of Delhi at Maulana Azad Medical College from 15-19th December 2017. We are very fortunate to have Professor Khalid Khan (UK) and Dr Prabha Sinha (UK) as faculty in this conference. Professor Khalid Khan would, with his vast experience, be taking up the journal writing workshop. Dr Prabha Sinha is very experienced RCOG examiner and her lectures and guidance are going to be very important for RCOG aspirants as well as clinicians. I am indebted to Dr Shalini Rajaram (AOGD President) for making it a joint venture with AOGD.

This conference aims to train the trainees as well as clinicians and private practitioners. One cannot learn everything in one conference. However, an RCOG aspirant would have a good insight into the examination system. We have kept 7 modules and each module has the latest UK guideline with EMQ and SBA, one hot topic and a panel discussion. A module on clinical governance, risk management and research has been included in the conference as in this modern day medical practice one need to be informed, safe and constantly improving your knowledge and skills. The 'hot topics' have been chosen which are current controversial subjects in clinical practice and deliberated by clinicians expert in the fields. The panels are moderated by experts and panelists have been chosen who have wide experience in their respective sub-divisions. The 'OSCE' Scenarios are going to be very useful for clinicians in dealing with day to day practice and invaluable for RCOG candidates.

I am sure our 5 workshops are going to be very successful. This is the first time we have introduced 'Journal Writing' as a workshop which was introduced by Dr Anital Kaul's initiative. I am sure our participants would be tremendously benefitted from this workshop under leadership of Professor Khalid Khan who is Editor-In Chief of BJOG.

RCOG North Zone is unique in its committee as we have a dynamic team of committed representatives: Dr Anita Kaul, Dr Ranjana Sharma, Dr Anjila Aneja, Dr Saritha Kale Shamsunder, Dr Sweta Gupta, Dr Mamta Dagar, Dr Jherna Behura, Dr Chanchal Singh, Dr Sonal Bathla, Dr Sweta Balani and one and only Dr Arbinder Dang without whose help we would not have achieved goal of 'Conference with a difference'. We are fortunate to have these young enthusiasts in RCOG North Zone who have worked day and night to make this conference a great success.

Once again I extend warm welcome to all the participants and hope you will benefit greatly from this conference and take the knowledge to your clinical practice.

Best Wishes

Dr Nirmala Agarwal
Chairperson RCOG North zone
HOD Department of Obstetrics and Gynaecology
Sant Parmanand Hospital, Delhi

Message from Vice Chairperson AICC RCOG-NZ

It is indeed my privilege to welcome you all to the Annual Conference of AICC RCOG-NZ 2017 as the host team has put up a unique feast for the eager learners by widening the horizon of gynaecology and obstetrics to **Be Up To Date- RCOG Annual Professional Development Conference**. One need to be abreast with knowledge in this era of evidence based medicine. Dr Nirmala Agarwal has carefully chosen conference theme and has involved the best experts to guide us. I am sure the knowledge gained would be of immense use to the current practice and will benefit your patients at large.

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

Best Wishes

Dr Anita Kaul
MBBS, MD, FRCOG (UK) Dip
Advanced Obstetric Scanning
Vice Chairperson AICC - RCOG NZ, India
Senior Consultant & HOD Apollo Fetal Medicine Unit Apollo Hospital, New Delhi

Message from Organizing Secretaries

Dear colleagues and friends

"Academic Excellence is achieved by constant untiring efforts and not by chance."

AICC Royal College of Obstetricians and Gynaecologists North Zone India organising Committee in collaboration with the Association of Obstetrician and Gynaecologists of Delhi (AOGD), takes pleasure in inviting you prestigious annual academic event 2017, AICC RCOG North Zone Annual Conference 2017: BE UP TO DATE – RCOG ANNUAL PROFESSIONAL DEVELOPMENT CONFERENCE at Maulana Azad Medical College Auditorium Delhi on 16TH and 17TH December 2017.

We have also planned three pre-conference workshops on 15th December 2017 and two post conference workshops on 18th and 19th December 2017 for focused practical learning on selected topics. Each workshop will be conducted by a team of distinguished expert faculty members who are committed to provide in-depth learning and answer all your queries.

Our International Guest faculty Prof. Khalid S Khan, Professor of Women's Health and Clinical Epidemiology, at Barts and the London School of Medicine; Editor-in-Chief of *BJOG*: An International Journal of Obstetrics and Gynaecology and Dr. Prabha Sinha Fetal Maternal Medicine & high Risk Obstetric Specialist are doyens in their respective fields and will update and abreast us on special module of Clinical governance & research in the main conference on 16th December 2017. In addition, we are deeply privileged to have Professor Khalid S Khan conducting a Pre conference workshop on "How to write a paper and publish it" on 15th December 2017.

These will be great learning opportunities for postgraduates preparing for MD examinations, Trainees, MRCOG examination aspirants and general practioners interested in abreasting themselves with current evidence based guidelines and hot topics.

We as organisers will be keen to get your feedback on our e mails and any suggestions for improvement will go a long way in organising future academic events.

We hope that you enjoy the scientific programme. We look forward to your participation.

Please do check our website www.aiccrcognzindia.com for regular updates.

With warm regards and best wishes.

Dr Ranjana Sharma

Dr Anjila Aneja

Dr Jharna Behura

Dr Arbinder Dang
MD, DNB, MNAMS, MRCOG (UK) CERT. Clinical Embryology, Diploma in Advanced Endoscopy Cice France
Senior Consultant, Sant Parmanand Hospital, Civil Lines, Delhi-54
Honorary Secretary AIICC RCOG NORTH ZONE INDIA
Member Representative RCOG UK North Zone India

"Imagination is more important than knowledge." -Albert Einstein

Message from Editors Desk

Greetings friends !!

It is our proud privilege to welcome you to the AICC RCOG North Zone Annual Conference 2017 – BE UPTO DATE –RCOG ANNUAL PROFESSIONAL DEVELOPMENT CONFERENCE. This is being organized by AICC Royal College of Obstetricians and Gynaecologists, North Zone in collaboration with the Association of Obstetrician and Gynaecologists of Delhi (AOGD).

Our International, National and Guest Faculty belonging to various specialities are doyens in their respective fields and will provide us with an academic feast of current updates with the latest guidelines and recommendations in the field of obstetrics, gynaecology, fetal-maternal medicine, gynae oncology, contraceptive practices, urogynaecology, infertility and cancer preventive strategies. Our members are, as always, commited to make the the scientific programme exciting, productive and a major learning event for all.

Amongst the many things to look forward to, we are especially privileged to host Professor S Khan,Professor of Womens Health and Clinical Epidemiology at Barts and the London School of Medicine and Dr Prabha Sinha, Fetal Maternal Medicine & High Risk Obstetric Specialist. Professor Khalid S Khan will be conducting a preconference workshop on "how to write a paper and publish it " and a module on clinical governance & research in the main conference. Professor Khalid S Khan leads Population Health and Translational Biomedical Research Themes. He has published over 200 peer reviewed journal articles making contribution in systematic reviews(meta-analyses), trials of treatments and tests, health technology assessments, and evaluation of educational methods. His book on Evidence-based Medicine won the BMA medical book competition. He is Editor In Chief of BJOG: An International Journal of Obstetrics and Gynaecology.

As this the era of evidence based medicine, a lot of emphasis has been given to latest recommendations and a few sessions of relevant important green top guidelines have been presented by our expert faculty, complete with a mock questions to follow. This has been especially designed keeping our trainees and MRCOG aspirants in mind.

Three preconference and two post conference workshops conducted by a team of distinguished expert faculty members have been organized for focussed practical learning. They will be committed to provide in-depth learning and provide practical solutions and answers to many queries we all face during our practice.

2017 is an exciting year for us, a year of change as it saw the vice Chairperson Dr. Nirmala Agarwal recently taking over as the Chairperson of AICC RCOG NZ. She and her team is continuously committed to taking this forum forward and It will be exciting to observe and be part of her endeavours to scale new heights.

It also saw an exciting year full of academic activities, ranging from workshops in high risk obstetrics, MRCOG Part 2 courses, Basic and Advanced Colposcopy Course, health camps and talks by international and national faculty; all made possible by the constant efforts of the young and dynamic members of the RCOG forum under the leadership of our past chairperson, Dr. Sohani Verma, who has always been a source of inspiration to us. The Enhanced Revision Program (ERP) retained its popularity in bringing classroom teaching from UK closer to the Indian MRCOG aspirant.

The editorial team takes immense pleasure in presenting the proceedings of the annual conference and annual activities of RCOG NZ with photographs. We have encouraging messages from past chairpersons AICC RCOG NZ,our esteemed patrons, Chairperson AICC RCOG NZ, Vice Chairperson AICC RCOG NZ and the Organizing Committee in addition to Abstracts by International and National faculty, Annual Report of RCOG-NZ activities, Poster Abstracts and list of sponsors who have helped and supported us to make this event a grand success.

We are most grateful to all international, national faculty and contributing authors, who have put in their efforts and valuable time to share their knowledge and expertise with us.

We take the opportunity to convey our most sincere thanks to all the esteemed members of the faculty and the organising committee who have devoted their precious time and efforts to make this conference successful.

Last but not the least, our special thanks to Mr. Rakesh Ahuja and his team at "Process and Spot" publications to prepare this Souvenir and Abstracts Book. We hope you would enjoy reading it and cherish it as a memento of our annual conference.

Please visit our website www.aiccrcognzindia.com for regular updates on our courses and other academic activities.

We hope that you enjoy the scientific programme. We look forward to your participation and feedback.

With warm regards and best wishes.

Editorial Team

Dr Mamta Dagar

Dr Jasmine Chawla Sharma

Dr Jharna Behura

Message from the Patron North Zone

I extend my best wishes to all the organizers of the AICC-RCOG North Zone Annual Conference 2017 along with three Pre Congress and two Post Congress Workshops.

India has made enviable advances in improving the health and medical care of women and the Co-ordination Committee recognizes, that inequalities still remain and there is a lot more to be done. This regular annual event of AICC RCOG is unique in the sense that it not only helps in a reunion between the Fellows and the Members of our college from North Zone India, but also acts as a catalyst to bring a vast number of non-RCOG specialist obstetricians and gynaecologists, with their invaluable ideas and vast experiences.

I am confident that this conference will provide a platform for all delegates to share their scientific experiences with national and international colleagues. As a previous member of the Co-ordination Committee, I am aware of the work and toil required in organizing such a prestigious event. I wish to extend a cordial welcome and convey my sincere thanks to our esteemed international faculty for investing their valuable time to join us and share their extensive knowledge and expertise at this conference. Dr UP Jha and Dr Sohani Verma , past chairpersons have always come out with new ideas, modus operandi and have been continuous source of encouragement to all new comers.

Dr. Nirmala Agarwal and her team have worked diligently, put a lot of thought to creating the scientific programme and worked on details for the conference and the workshops to make this annual event a memorable one. I congratulate this committee on all their effort and wish them grand success.

Dr Urmil Sharma
Professor Emeritus Consultant, Patron & Senior Adviser
AICC RCOG North zone India.

Message from the Patron North Zone

It gives me an immense pleasure to write this foreword and welcome all the delegates to this annual conference. The organizers have worked very hard to layout a huge menu of rich scientific material to choose from. I am sure your participation will be much appreciated by the hosts.

My association with RCOG goes back to more than five decades and I still have vivid memories of how the women benefitted though NHS, RCOG and Midwives total involvement in their healthcare. Being an astute observer my six years of stay in UK gave me an impetus to do something for my country on return.

I started working in a 150 bedded charitable hospital and over a period of four decades, with a brilliant team of committed doctors in all specialities, today it has grown into a 750 bedded multispeciality post-graduate institute. The Department of OBGYN has twenty Consultants and fourteen Residents. We have all the subspecialities including a Genetic and Genomic Department of international repute.

With RCOG joining hands with all the obstetricians and gynaecologists of this country our women and children are bound to receive optimum and updated care, subject that we can reach to the most needy in every corner of the country.

Indian government with all the health officials is making an all-out effort to do that. Knowing that our doctors are second to none in the world, I am sure that we will achieve our target over a reasonably short period.

Wishing you a memorable stay in Delhi.

Dr S K Ghai Bhandari
FRCS, FRCOG
Trustee, Ex-Chairperson Management Board, Sir Ganga Ram Hospital
Currently Advisor Institute of Obstetrics & Gynaecology at the same hospital
Chairperson AICC RCOG (1987 – 1992)

Message from the Patron North Zone

Congratulations RCOG North Zone for organising such a wonderful conference in Delhi on Be Up To Date - RCOG Annual Professional Development Conference. This Annual event 2017 will feature renowned clinicians who will share, discuss and debate new developments and controversial topics that will impact our daily practice. Its always an academic delight to attend events organized by the RCOG North Zone.

The scientific content of this conference has been meticulously planned by the North Zone team, headed by Dr. Nirmala Agarwal and I am sure we will all learn from the deliberations of the Congress.

I extend my heartiest congratulation to the organizers and the delegates.

Good luck.

Dr M Kochhar
DGO, FRCSE, FRCOG, FIMSA, FRCOG

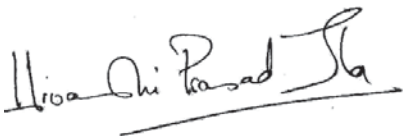
Message from the Past Chairperson All India Coordinating Committee RCOG

It is my proud privilege to wish Dr. Nirmala, her team and all the members of North Zone a great conference. I am sure the scientific sessions will be a delight and the other programs a lot of fun.

As members and fellows of the RCOG and as the Indian flagbearers you hold safe practices and updated approach to your clinical work in the highest esteem. Personalised empathetic practice is the hallmark of our alma mater.

Good luck to all and thank you for being yourselves. Enjoy the promised scientific bonanza.

God bless.



Dr Urvashi Prasad Jha
MBBS MD MRCOG FRCOG (UK) FICS FIMSA FICOG
Director Dept of Gynaecology, Minimal & Natural Access Gynae Surgery &
Gynae Cancer Surgery (MNAGCS). Fortis Hospital - Vasant Kunj, New Delhi
Director Dept of Gynae-Oncology, Fortis Memorial Research Institute,
President 2014-15 AOGD
Governing Council Member of ICOG
Executive Committee Member of NARCHI & AOGD

From the Immediate Past Chairperson North Zone AICC RCOG

It is indeed a great pleasure for me to write this message and convey my heartiest congratulations to Dr Nirmala Agarwal and all team members for organizing a superb Annual Conference of RCOG North Zone India. The hard work and enthusiasm of current organizing team is clearly visible in the excellent scientific programme covering a wide range of contemporary and challenging issues. I am sure, all participants will find the program very interesting and rewarding.

I also take the opportunity to sincerely thank all North Zone RCOG Fellows and Members for their kind support and help during my tenure of last five years (till May 2017). It has been a great experience and honour to serve the North Zone. I am extremely delighted to see the new team carrying forward the great North Zone legacy in a wonderful manner.

I wish the conference all success.

Warm regards

Sverma.

Dr Sohani Verma
Sr Consultant Obstetrician Gynaecologist
Infertility & ART Specialist
Co-ordinator Department of IVF
Indraprastha Apollo Hospitals, New Delhi
President Indian Fertility Society

Message from Treasurer North Zone

It is a great pleasure to write this message for our own AICC RCOG NZ annual conference 2017. The theme of the conference 'Be Up to date' is so well thought over that interests both, the professionals who are in the beginning of their career and the ones who are established in their practice. The pre and post-conference workshops cover very pertinent topics in Obstetrics and Gynaecology that will help the clinicians in every day practice. Research and innovation being an integral part of our profession is very well represented by the whole day dedicated to 'How to write a paper and get it published'.

The hard work and the passion of Dr Nirmala Agarwal, Dr Anita Kaul and the team will ensure that all the delegates and the faculty are offered a great academic feast.

I wish the whole conference team a huge success.

Dr Ranjana Sharma
Organizing Secretary, AICC RCOG NZ Annual Conference 2017
MS, MRCOG (UK), FRCOG (UK), MFFP (UK), FIMSA, FICOG
PG Cert in Med Edu (Warwick Univ, UK)
Senior Consultant: Obstetrics, Gynaecology, Urogynaecology, Laparoscopic and Robotic Surgery
Indraprastha Apollo Hospitals/Apollo Cradle Royale
Chairperson Urogynae Sub-Committee, AOGD 2015-17
Treasurer, All India Coordinating Committee RCOG North Zone
Member Executive Committee of GIBS (**G**lobal **I**nterstitial Cystitis and **B**ladder Pain Syndrome **S**ociety)
Member Executive Committee of Delhi Gynae Endoscopists' Society
Ex-member of Governing Council of Indian Menopause Society

ANNUAL CONFERENCE

ORGANIZING COMMITTEE

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Dr Anjila Aneja
Dr Jharna Behura
Dr Arbinder Dang

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(Patron)
Dr Urvashi P Jha
(Past Chair AICC RCOG)
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(Senior Fellow)
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Dr Jayasree Sundar
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Dr Poonam Niti Tara
Dr Sweta Balani

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Dr Sonal Bathla
Dr Sweta Balani

Food & Beverages
Dr Nirmala Agarwal
Dr Arbinder Dang

FACULTY

International Faculty

Professor Khalid S Khan
MMEd, MRCOG, MSc, FCPS, MBBS

Editor-in-Chief BJOG

Professor Khalid Khan is Professor of Women's Health and Clinical Epidemiology at Barts and the London School of Medicine, Queen Mary University of London. His expertise is in clinical obstetrics-gynaecology, patient-oriented health research and medical education. He has published over 250 peer reviewed journal articles and authored 20 books and chapters. His research contribution is in systematic reviews (meta-analyses), multicentre primary prospective evaluations of treatments and tests, health technology assessment and evaluation of educational methods. His educational research explores how best to teach and learn evidence-based medicine (EBM). One of his books on EBM has won BMA Medical Book competition Award in Basis of Medicine category. He was awarded the Spinoza Chair (Visiting Scholarship) at the University of Amsterdam, the Netherlands. He has previously been member of the Guideline and Audit Committee and Study Groups on Multiple pregnancy and Preterm Labour at RCOG. He has been a member of the National Institute for Health Research (NIHR) Health Technology Assessment Clinical Evaluation and Trials Board. He is also Editor of Evidence-based Medicine Journal. AT BJOG he has undertaken several roles including: Peer reviewer (1996 onwards), Editorial Board Member (1997 onwards), Management Board Member (2005-2008) and Editor (2009 onwards). He has been Editor-in-Chief since 2012.

Special interests: Obstetrics and gynaecology, systematic reviews (meta-analyses), randomised controlled trials, epidemiology, translational research, medical education, patient-oriented health research, evidence-based medicine

Dr Prabha Sinha
MB BS, DGO, FRCOG, MRCPI, Diploma in advanced ultrasound (RCOG/RCR, UK)

Masters in medical Education for Doctor's & Dentists (Univ of Sheffield 2002), Qualification for educational supervisor (QUESP) KSS Deanery
Ethicon Travel 1997 & Menopause Travel Awards 2002, RCOG
She has worked for the NHS for more than 32 years and as a Consultant Obs& Gyn at East Sussex Hospital Trust for 16 years. Currently, working as a senior consultant in fetal medicine unit at Tawam affiliate of John Hopkins, USA at UAE
Teacher and facilitator for Diploma in ultrasound scan at Sharjah University & PROMPT Courses locally.
Honorary contract with Harris Birth Right Centre & in Fetal medicine at Guy's and St Thomas' Hospital including in fetal cardiology & prematurity clinic. Recruited patients for OPPTIMUM, Maverick ORACLE, CLASP trial and coordinator for Caesar study, reported cases to UKOSS & National Heavy Menstrual Bleeding Audit conducted by RCOG & national audit for sentinel caesarean section study.
Reviewed many Green Top Guidelines and continue to do so
Preceptor for Advanced Education Module for RCOG, UK for 5 years, Facilitator and teacher for the 'Training the Trainers' course, Induction course 'International Medical Graduates' RCOG& member of the Joint RCOG/RCR Committee
Facilitator for the course LSSEOC courses run by LSTM (Liverpool School of Tropical Medicine. UK)
Reviewer of several journals.
Participated in RITA, ARCP assessment, short listing and interview medical school for Guy's, St Thomas's and Kings College and for registrars for KSS and London Deanery.
MRCOG and PLAB Part 2, GMC exam for overseas doctors for 10 years.
Member of Policy recommendation committee for South East to discuss/ amend policy regarding most appropriate management problem which is cost effective
Member on Cochrane Review panel,

PUBLICATIONS: Published more than 40 articles in peer reviewed Journal, 20 case reports, 24 abstracts in peer reviewed journal and 18 in non-peer reviewed journals.
Written 8 books and 2 chapters, made 21 oral presentation and more tan 100 poser presentations in national and international conferences. Have been invited speakers in many international conferences including India, China, Poland, Egypt and others.

National Faculty

Dr Abha Sharma
Dr Akshatha Sharma
Dr Amarnath Jena
Dr Amita Suneja
Dr Anita Kaul
Dr Anjali Taneja
Dr Anjali Tempe
Dr Anjila Aneja
Dr Anju Virmani
Dr Aparna Sharma
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Dr Sweta Balani
Dr Sweta Gupta
Dr Tanya Buckshee
Dr Uma Swain
Dr Urvashi P Jha
Dr Usha M Kumar
Dr Vanita Mittal
Dr Vatsala Dadhwal
Dr Vijay Zutshi
Dr Vinita Kumar Jaggi
Dr Zeenie Girn

OVERVIEW AT A GLANCE

Annual Conference	Date	Time	Venue
Scientific Program Day 1	16th December 2017 (Saturday)	09:00am - 05:00pm	Auditorium, Maulana Azad Medical College (MAMC), Bahadur Shah Zafar Marg, New Delhi, 110002
Scientific Program Day 2	17th December 2017 (Sunday)	09:00am - 05:00pm	
Poster /free communications	17th December 2017 (Sunday)	08:00am - 09:00am	
Representative Committee Meeting (RCM)	16th December 2017 (Saturday)	06:00pm - 06:30pm	
General Body Meeting (GBM)	16th December 2017 (Saturday)	06:30pm - 07:00pm	
Inauguration	16th December 2017 (Saturday)	05:00pm - 06:00pm	
Dinner	16th December 2017 (Saturday)	07:00pm onwards	
Pre conference workshops (Three)	15th December 2017 (Friday)	09:00am - 05:00pm	Maulana Azad Medical College (MAMC)
Post conference workshops (Two)	18th & 19th December 2017 (Monday & Tuesday)	09:00am - 05:00pm	Academic Centre C R Park Delhi

WORKSHOP PROGRAMME

Pre Conference Workshop 15th December 2017 Friday

Only 30 seats for first come and first serve basis

S No	Workshop	Convenor	Timing	Venue
1	How to Write A Paper and Publish	Prof. Khalid S Khan (UK) Dr Mala Arora Dr Anita Kaul Dr J B Sharma Dr Chanchal Singh	09:00am - 04:00pm	Dept. of Anatomy Maulana Azad Medical College, Delhi
2	Gynaecare CTG Course	Dr Neema Sharma Dr Ramandeep Kaur	09:00 am - 01:00pm	Dept. of Anatomy Maulana Azad Medical College, Delhi
3	Fire Drills on Labour Ward- Managing of Obstetric Emergencies	Dr Poonam Tara Thakur Dr Mamta Misra Dr Jharna Behura	02:00pm - 05:00pm	Dept. of Anatomy Maulana Azad Medical College, Delhi
High Tea	Friday 15th, December 2017		05:00pm Onwards	Maulana Azad Medical College, Delhi

Gynaecare CTG Course

Maximum - 30 delegates, Prior registration mandatory
Time: 09:00am - 01:00pm, Date: 15.12.2017
Venue: Maulana Azad Medical College Delhi

Course coordinators - Dr Neema Sharma, Dr Ramandeep Kaur

08:30am - Registration
09:00am - Pretest CTG quiz - Dr Mamta Mishra, Dr A Dang
09:30am - Pathophysiology of fetal asphyxia - Dr Sujata
10:00am - FHS interpretation- the systematic approach- understanding CTG - Dr Ramandeep Kaur
10:30am - Tea break
11:00am - Types of intrapartum hypoxia and resultant features observed on CTG traces - Dr Neema Sharma
11:30am - To appreciate wider clinical picture eg: inflammation, infection, meconium, decreases fetal movements, oxytocin while interpreting CTG traces Rational application of national and international guidelines - Dr Ranjana Sharma
12:00pm - Case scenarios - Dr Chanchal Singh, Dr Jharna Behura
12:30pm - Post-test CTG quiz - Dr Mamta Mishra, Dr A Dang
01:00pm - Lunch

Fire Drills on Labour ward - Managing Obstetric Emergencies

Maximum - 30 delegates, Prior registration mandatory
Time: 02:00pm - 05:00pm

Co-ordinators: Dr Poonam Tara**,** Dr Jharna Behura, Dr Mamta Mishra

Stations

1. Severe preeclampsia & Eclampsia management
2. Maternal collapse
3. Breech delivery / Cord prolapse
4. Surgical management of PPH
5. Shoulder dystocia
6. Instrumental delivery – Ventouse / Forceps

Proposed way of drills

Hands on - on mannequins
Group of 5 delegates – 1 active member
2 faculty on each station
30 minutes each station (10 mins of briefing +15 mins on hands on + 5 mins for queries)
Faculty: Dr Jyoti Bhaskar, Dr Jayasree Sundar, Dr Anjali Taneja, Dr Chanchal Singh, Dr Jasmine Chawla, Dr Meenakshi T Sahu, Dr Neema Sharma, Dr Puneet Arora, Dr Ramandeep Kaur, Dr Sangeeta Gupta, Dr Sonu Agarwal, Dr Shweta Gupta, Dr Sweta Gupta, Dr Vanita Mittal

Post Conference 18th & 19th December 2017 (Monday and Tuesday)

Only 25 seats for first come and first serve basis

S No.	Workshop	Convenor	Timing	Venue
4	Basic Colposcopy	Dr Saritha Shamsundar Dr Mamta Dagar Dr Sweta Balani	09:00am - 05:00pm	RCOG Centre C R Park Delhi
5	Advanced Colposcopy	Dr Saritha Shamsundar Dr Mamta Dagar Dr Sweta Balani	09:00am - 05:00pm	RCOG Centre C R Park Delhi

BASIC COLPOSCOPY COURSE on 18th December, 2017		
SESSION 1 (09:00am - 10:00am) (15 min + 5 min Discussion)		
TIME	**TOPIC**	**SPEAKER**
09:00am - 09:20am	Cervical Cytology, Techniques & Classification	Dr Pooja Bakshi
09:20am - 09:40am	Human Papilloma Virus & Pathogenesis of CIN.	Dr Mamta Dagar
09:40am - 10:00am	Options of HPV testing: Molecular Methods	Dr Jasmine Chawla
TEA (10:00am - 10:30am)		
SESSION II - 10:30am - 01:00pm (15 min + 5 min Discussion)		
10:30am - 10:50am	Visual Methods of Cervical Screening	Dr Priya Ganesh Kumar
10:50am - 11:10am	Cervical Cancer Vaccine - An Update	Dr Mamta Dagar
11:10am - 11:30am	Practical Cervical Cancer Prevention in India	Dr Neerja Bhatla
11:30am - 11:50am	Tissue Basis of Colposcopy	Dr Sweta Balani
11:50am - 12:10pm	Normal & Abnormal Colposcopy	Dr Shalini Rajaram
12:10pm - 12:30pm	IFCPC Nomenclature and Scoring	Dr Vinita Kumar Jaggi
12:30pm - 12:50pm	Management of CIN - Principles	Dr. Saritha Shamsunder
LUNCH (01:00pm - 01:30pm)		
SESSION II - 01:30pm - 04:30pm (15 min + 5 min Discussion)		
01:30pm - 02:00pm	Equipment + Instrumentations Maintenance & Sterilization	Dr Sweta Balani
01:50pm - 02:10pm	Indication & Documentation - Software	Dr Ramandeep Kaur
02:10pm - 03:00pm	Picture Quiz	Dr Saritha Shamsunder
3:00pm - 4:00pm	Hands-On Practice Session	All Faculty

ADVANCED COLPOSCOPY COURSE on 19th December, 2017		
SESSION 1 (09:00am - 10:40am) (15 min + 5 min Discussion)		
TIME	**TOPICS**	**SPEAKER NAME**
09:00am - 09:20am	Management of Low Grade CIN	Dr Ranjana Sharma
09:20am - 09:40am	Management of High Grade CIN	Dr Smita Joshi
09:40am - 10:00am	Ablative Methods- Cryo, Thermocogulation	Dr Smita Joshi
TEA (10:00 AM – 10:30 AM)		
SESSION II - 11:00 AM – 01:00 PM (15 min + 5 min Discussion)		
10:30am - 10:50am	Principles of Electrocautery	Dr Arbinder Dang
10:50am - 11:10am	Processing Biopsy & Cytology Specimens	Dr Sachin Kolte
11:10am - 11:30am	Selection of patients for Ablative or Excisional Treatment	Dr Saritha Shamsunder
11:30am - 11:50am	Special Situations- Pregnancy, Menopause, HIV, Contraception	Dr Pakhee Aggarwal
11:50am - 12:10pm	Role of Biomarkers in Screening & Management	Dr Dinesh Gupta
12:10pm -12:30pm	Approach to a patient with a Vulval Lesion	Dr Saritha Shamsunder
12:30pm - 01:00pm	Common Vulval Lesions & their management	Dr Niti Khunger
LUNCH (01:00pm - 01:30pm)		
SESSION III - 01:30pm - 04:30pm		
01:30pm - 01:50pm	New Technologies in Colposcopy	Dr Bindiya Gupta
01:50pm - 02:20pm	Videos on Cryo, Thermo, LEEP & CKC	Dr Vijay Zutshi
02:20pm - 03:30pm	Interactive Case Discussions	Dr Saritha Shamsunder Dr Vijay Zutshi Dr Mamta Dagar
03:30pm - 04:30pm	Hands-On LEEP	All Faculty

SCIENTIFIC PROGRAMME

Annual Conference

Scientific Programme 16th & 17th December 2017

16th December 2017 (Saturday)		
08:00am - 09:00am	Registration and Invocation	
09:00am - 11:00am	**Obstetric Module**	
10 min - EMQ+SBA	**Chairpersons:** Dr Sonu Aggarwal, Dr Jasmine Chawla	
09:00am - 09:30am 20 min -Presentation of Guideline	Sepsis in Pregnancy Green-top Guideline No. 64 a & b	Dr Anjali Taneja Dr Neha Gupta
	Chairpersons: Dr Jyoti Bhaskar, Dr Prachi Renjhen	
9:30 am-10:00am 20 min -Presentation 10 min -Discussion	Labour Curve Revisited	Dr Manju Puri
10:00am - 11:00am Panel Discussion 45 min + 15 min Audience Interaction	Newer Trends in Management of Hypertensive Disorders in Pregnancy Maternal/Fetal Perspective – Case Based Discussion	**Moderaters:** Dr Asmita Rathore Dr Sangeeta Gupta
Panelists:	Dr Amita Suneja, Dr Jasmine Chawla, Dr Jayasree Sunder, Dr Mamta Misra, Dr Meenakshi Sahu, Dr Jyoti Bhaskar, Dr Ramandeep Kaur, Dr Anjali Taneja, Dr Mamta Sahu	
11:00am - 11:30am	Tea Break and visits to Exhibition Area	
11:30am - 01:00pm	**Clinical Governance, Risk Management & Research Module**	
	Chairpersons: Dr Sohani Verma, Dr J B Sharma, Dr Anita Kaul	
11:30am - 12:00pm 20 min -Presentation 10 min -Discussion	Understanding Audit and Clinical Application with Examples	Dr Prabha Sinha
12:00pm - 12:30pm 20 min -Presentation 10 min -Discussion	How Research Can be used to Improve Quality of Care	Prof Khalid Khan
12:30pm - 01:00pm 20 min -Presentation 10 min -Discussion	Risk Management and Patient Safety: Case Based Scenarios	Dr Prabha Sinha
01:00pm - 01:30pm	**Key Note Address**	
	Chairpersons: Dr Nirmala Agarwal, Dr Ranjana Sharma, Dr Anjila Aneja, Dr K D Nayar, Dr Sweta Gupta	
	Is Myomectomy Needed Before ART Procedures	Dr Sohani Verma
01:30pm - 02:00pm	Lunch and Visits to Exhibition Area	
02:00pm - 04:00pm	**Fetomaternal Medicine Module**	
10 min - EMQ+SBA	**Chairpersons:** Dr Jayasree Sunder, Dr Shipra Kunwar	
02:00pm - 02:30pm 20 min -Presentation of Guideline	Monochorionic Twin Pregnancy, Management (GTG No. 51)	Dr Monika Bhatia Dr Akshatha Sharma
	Chairpersons: Dr Manisha Kumar, Dr Renu Arora, Dr Ritika Bhandari	
02:30pm - 03:00pm 20 min -Presentation 10 min -Discussion	CPR Ratio: Should it be Included In Delivery Decision Making	Dr Anita Kaul
03:00pm - 04:00pm Panel Discussion 45 min + 15 min Audience Interaction	Fetal Growth Restriction : Case Based Discussions	**Moderaters:** Dr Poonam Tara Dr Chanchal Singh
Panelists:	Dr Vatsala Dadhwal, Dr Mamta Dagar, Dr Aparna Sharma, Dr K Gujral, Dr Nandita Dimri, Dr Monika Bhatia, Dr Neha Gupta, Dr Shipra Kunwar	
04:00pm - 05:00pm	**Urogynaecology Module**	
10 min - EMQ+SBA	**Chairpersons:** Dr J B Sharma, Dr Sonu Aggarwal	
04:00pm - 04:30pm 20 min -Presentation of Guideline	Post Hysterectomy Vaginal Vault (Green-Top Guideline No. 46)	Dr Jharna Behura Dr Zeenie Girn
	Chairpersons: Dr Nirmala Agarwal, Dr Uma Swain	
04:30pm - 05:00pm 20 min -Presentation 10 min - Discussion	Interstitial Cystitis/ Bladder Pain Syndrome	Dr Ranjana Sharma
05:00pm - 05:30pm	**Inauguration**	
05:30pm - 06:00pm	**Inaugural Address - Technology for Women's Health**	Dr U P Jha
06:00pm - 07:00pm	**Tea Break/Representative Committee Meeting (RCM)+ General Body Meeting (GBM)**	
07:00pm onwards	**Cultural Programme and Dinner with Live Misic**	

17th December 2017 (Sunday)		
08:00am - 09:00am	Poster Presentation	
Judges:	Dr Anjila Aneja, Dr Ranjana Sharma, Dr Neema Sharma, Dr Sweta Gupta, Dr Vinita Kumar Jaggi, Dr Shweta Gupta	
09:00am - 11:00am	Reproductive Medicine Module	
10 min - EMQ+SBA	**Chairpersons:** Dr Neema Sharma, Dr Ramandeep Kaur	
09:00am - 09:30am 20 min -Presentation of Guideline	Endometriosis, Investigation and Management (Nice and ESHRE Guideline)	Dr Puneet Kochhar Dr Shelly Arora
	Chairpersons: Dr Sudha Prasad, Dr Mala Arora, Dr Sushma Sinha	
09:30am - 10:00am 20 min -Presentation 10 min -Discussion	Role of AMH in ART and Beyond	Dr Sweta Gupta
10:00am - 11:00am Panel Discussion 45 min + 15 min Audience Interaction	Implantation Failure in ART Case Based Discussions	**Moderaters:** Dr Mala Arora Dr Neena Malhotra
Panelists:	Dr Anjali Tempe, Dr Tanya Buckshee, Dr Puneet Arora Rana, Dr Seema Thakur, Dr Kaberi Banerjee, Dr Puneet Kochhar, Dr Zeenie Girn	
11:00am - 11:30am	**Tea Break and visits to Exhibition Area**	
11:30am - 01:30pm	**Gynaecology Module**	
10 min - EMQ+SBA	**Chairpersons:** Dr Usha M Kumar, Dr Pakhee Aggarwal	
11:30am - 12:00pm 20 min -Presentation of Guideline	Endometrial Hyperplasia Management of Green-Top Guideline No. 67	Dr Neema Sharma Dr Pulkit Nandwani
	Chairpersons: Dr Anjali Tempe, Dr Geeta Radhakrishnan, Dr Priti Arora Dhamija	
12:00pm - 12:30pm 20 min -Presentation 10 min -Discussion	New Regimens In Hormonal Contraception: To Bleed or not to Bleed	Dr Renu Misra
12:30pm - 01:30pm Panel Discussion 45 min + 15 min Audience Interaction	Adolescent Endocrinal Issues – Case Based Discussions	**Moderaters:** Dr Anjila Aneja Dr A Dang
Panelists:	Dr Sushma Sinha, Dr Manavita Mahajan, Dr Renu Lakhtakia, Dr Kiran Guleria, Dr Neena Bahl, Dr Abha Sharma, Dr Anju Virmani, Dr Manpreet Sethi, Dr Prachi Renjhen, Dr Shweta Gupta	
01:30pm - 02:00pm	**Lunch and Visits to Exhibition Area**	
02:00pm - 04:00 pm	**Gynae Oncology Module**	
10 min - EMQ+SBA	**Chairpersons:** Dr Jharna Behura, Dr Vinita Kumar Jaggi	
02:00pm - 02:30pm 20 min -Presentation of Guideline	Guidelines for the Diagnosis and Management of Vulval Carcinoma British Gynaecological Cancer Society & RCOG 2014	Dr Usha M Kumar Dr Pakhee Aggarwal
	Chairpersons: Dr Vijay Zutshi, Dr Suneeta Mittal	
2:30 pm-3:00pm 20 min -Presentation 10 min -Discussion	Sentinel Lymph Node Biopsy to be A Standard of Care in All Gynaecological Malignancies ?	Dr Saritha Shamsundar
03:00pm - 04:00pm Panel Discussion 45 min + 15 min Audience Interaction	Current Role of Imaging in Staging for Gynaecological Malignancies	**Moderaters:** Dr Shalini Rajaram
Panelists:	Dr Neerja Batla, Dr Harsh Mahajan, Dr Amarnath Jena, Dr Rupinder Sekhon, Dr S Avinash Rao, Dr Vinita Kumar Jaggi, Dr Preeti Rastogi	
04:00pm - 05:00pm	**OSCE Scenarios- Expart Dr Prabha Sinha (UK)**	
04:00pm - 04:15pm 10min -Presentation 5 min -Discussion	Domestic Violence	Dr Jayasree Sundar Dr Pulkit Nandwani Dr Shweta Gupta
04:15pm - 04:30pm 10min -Presentation 5 min -Discussion	Labour Ward Prioritization	Dr Neha Gupta Dr Shelly Arora Dr Chanchal Singh
04:30pm - 04:45pm 10min -Presentation 5 min -Discussion	Consent for Vaginal Hysterectomy for Prolapse	Dr Nirmala Agarwal Dr Anjali Taneja Dr Mamta Sahu
04:45pm - 05:00pm 10min -Presentation 5 min -Discussion	Breaking Bad News	Dr Neema Sharma Dr Usha M Kumar Dr Jasmine Chawla
05:00pm	Vote of Thanks Followed by Tea	

Acknowledgements and Sincere Thanks

Bharat Serum

Cordlife

Delhi IVF Centre

Dr Shekhar Agarwal
Vice President & Executive Director, Sant Parmanand Hospital

Fleximedicare

Go Doctor

Gomez Health

Indchemic

Intas Pharmaceutical Ltd

Jagson Pal

Jee Ell

Lifecell

Macleods

Mayer

Medmidas

Meril

MSD

Quest Diagnostics

Sant Parmanand Administrative Staff

Sant Parmanand Hospital

Sant Parmanand Purchase Deptt

Shree Cements

Sinkona Healthcare

Sutures India

USV

Zuventus

Invited Lectures

Is Myomectomy Needed Before ART Procedures?

Sohani Verma
Sr. Consultant Obstetrics & Gynaecology
Infertility & ART Specialist
Clinical & Academic Coordinator- Dept. of IVF
Indraprastha Apollo Hospitals, New Delhi
President Indian Fertility Society
Immediate Past Chairperson North Zone AICC RCOG (2012-2017)

Uterine leiomyomas, or fibroids, can occur in up to 60% of women before the age of 40, and 80% of women before the age of 50 (Baird DD et al 2003). These are described to be directly or indirectly associated with 5-10 % of all cases of infertility. The effect of uterine fibroids on fertility is largely dictated by their location and size (Racknow and Arici 2005). Despite a clear biological rationale to support a causal relationship between fibroids and subfertility, large observational studies are inconclusive, mainly because of methodological limitations (Suresh V N and Narvedkar N 2013).

It is widely accepted that the presence of fibroids significantly reduces the success of IVF treatment. The threat that myomas impose on the outcome of IVF cycle lies mainly in one of the two fields: the myometrial contractility and the endometrial receptivity (Ramzy AM 2011). A 2009 review by Pritts et al found that fibroids causing intracavitary distortion result in decreased rates of clinical pregnancy, implantation and ongoing pregnancy / live birth, as well as an increased rate of spontaneous miscarriage. By contrast, there is controversy as to whether fibroids that do not cause distortion of the uterine cavity have any effect on fertility. However, in the same review, Pritts et al. found that patients with fibroids with no intracavitary involvement (particularly intramural fibroids), when compared with controls without fibroids, had decreased rates of implantation and ongoing pregnancy/live birth, and an increased rate of spontaneous miscarriage. Proposed etiologies for such effects of fibroids without intracavitary involvement include alterations of uterine peristalsis and vascular flow as well as disruption of sperm and ovum transportation, fertilization and embryo implantation. No evidence was found that subserosal fibroids decreased any measure of fertility. The data provide compelling evidence that there may be situations in which surgical removal of nonsubmucosal fibroids is indicated in the infertile patient.

Another important consideration while making a decision regarding treatment of fibroids before ART, is the effect, fibroids may have on pregnancy. Pregnancy complications related to fibroids have been reported to include: degeneration and associated pain in 10-15%, an increased risk of miscarriage, abruption, placenta previa, intrauterine growth restriction, malpresentation and cesarean section (Somigliana E. et al 2008). It is essential to consider both - the negative impact fibroids seem to have on fertility, as well as the possible pregnancy complications, when deciding upon surgical management of fibroids before ART.

In women with infertility, an effort must be made to adequately evaluate and classify fibroids, particularly those impinging on the endometrial cavity, using transvaginal ultrasound, hysteroscopy, hysterosonography, or magnetic resonance imaging (Grade III-A recommendation by SOGC). Preoperative assessment of submucoal fibroids should include, in addition to an assessment of fibroid size and location within the uterine cavity, evaluation of the degree of invasion of the cavity and thickness of residual myometrium to the serosa. A combination of hysteroscopy and transvaginal ultrasound or hysterosonography are the modalities of choice (III-B). A hysterosalpingogram is not an appropriate exam to evaluate and classify fibroids (III-D). The choice of surgical method will depend upon the size, site and type of such myomas. The staging first described by Wamsteker et al. (1993), is widely used to classify submucous fibroids at hysteroscopy and also during ultrasound examination. More recently, the ESGE / FIGO leiomyoma classification system is recommended to avoid inconsistency in reporting (Munro MG et al 2011).

Once a patient has been diagnosed with submucosal, intramural or subserosal fibroids, a decision must be made about management. Although there are many medical treatments available to help alleviate symptoms from fibroids, none are recommended for infertility patients as they can actually delay appropriate and timely management. The surgical option available to patients desiring fertility is myomectomy.

Observational studies suggest a fertility benefit for the surgical removal of fibroids. Myomectomy is however not without risk and can result in serious complications. One such study by Bulletti *et al. (2004)* allowed patients diagnosed with intramural or subserosal fibroids to choose whether to undergo myomectomy after counseling. Patients were then divided into two groups based on their decision (n = 84 each). Delivery rates were significantly higher in the group undergoing myomectomy (25 vs 12%; p=0.01). While this study was not randomized, the results are compelling for the efficacy of myomectomy.

There are a variety of surgical methods to remove fibroids including laparotomy, laparoscopy, Robotic assisted surgery and hysteroscopy. The relative advantages and disadvantages of these modalities in terms of efficiency and side effects are unknown (Suresh YN et al 2013). The greatest risks for an abdominal myomectomy are intraoperative hemorrhage, postoperative pain, and adhesive disease (up to 94% posteriorly and 55% anteriorly), which can further decrease fertility (The Practice Committee of ASRM 2008). The other recent surgical trend is laparoscopic myomectomy and the latest surgical modality is that of Robotic assisted laparoscopic myomectomy. Although laparoscopic removal of fibroids has not been shown to confer additional fertility benefits over laparotomy, there is significant reduction in hospital stay and febrile morbidity. A decision to perform myomectomy will depend upon weighing the possible positive impact on implantation rate following IVF and also on the course of pregnancy, against the potential risks of the surgery.

In order to rationalize, if myomectomy is needed before ART in a given case or not, we can divide uterine fibroids into 3 groups-

I. Submucosal and Intramural fibroids that protrude into the endometrial cavity
II. Intramural fibroids Not distorting the uterine cavity
III. Subserosal fibroids

Group I – Submucosal and Intramural fibroids that protrude into the endometrial cavity:

With regards to *in vitro* fertilization (IVF) treatment, submucosal and intramural fibroids that protrude into the endometrial cavity, have been reported to be associated with decreased pregnancy rates and implantation rates (Narayan and Goswamy, 1994; Farhi *et al*., 1995; 1999; Bernard *et al*., 2000). Studies have shown that IVF outcome is markedly improved in women with cavity-distorting submucosal fibroids following myomectomy (Narayan and Goswamy, 1994; Bernard *et al*., 2000; Hart *et al*., 2001; Surrey *et al*., 2005). It is recommended that submucoal fibroids strongly interfere with conception (OR for delivery of 0.3 [a 70% reduction], 95% CI 0.1-0.8) and these should be removed (Somigliana E et al 2007, Sunkara SK et al 2010).

There is general consensus that type 0 and type 1 fibroids, where at least 50% of the fibroid is within the uterine cavity, are best removed hysteroscopically, whereas the removal of type 2 fibroids, where more than 50% is within the myometrium, is more complex. Type 2 fibroids larger than 40 mm may need two to three surgical procedures to ensure completeness of resection, thus increasing the risk of endometrial damage and complications. A suitable alternative is to remove such fibroids laparoscopically (or by laparotomy), should this be deemed necessary. The management of multiple submucous fibroids or multiple uterine fibroids with submucous lesions is unclear.

Group-II- Intramural fibroids Not distorting the uterine cavity:

Even intramural fibroids not distorting the endometrial cavity have been reported to result in a reduction in live birth rate (LBR) (OR for LBR of 0.79 [a 21% reduction], 95% CI 0.70-0.88) (Somigliana E et al 2007, Khalaf Y et al 2006, Sunkara SK et al 2010). However a Cochrane Database Syst Review in 2012 by Metwally M et al. concluded that there was insufficient evidence to draw any conclusion regarding the effect of intramural fibroids on treatment outcomes .

While there is fair evidence to recommend against myomectomy in women with intramural fibroids (hysteroscopically confirmed intact endometrium) and otherwise unexplained infertility, regardless of their size (Grade II-D recommendation), there are conflicting opinions when the couple is undergoing IVF treatment, and more so, when they have 1 or more previous failed IVF attempts. Several studies have shown a detrimental effect of fibroids without intracavitary involvement on IVF outcomes, particularly when myomas are larger than 4 or 5 cm size (Oliveira FG et al 2004, Sunkara SK et al 2010, Campo S et al 2003), although other studies refute this evidence (Ramzy AM et al 1998, Bozdag G et al 2009). It has been proposed that the presence of deep intramural fibroids physically disrupts the Endo-myometrial Junctional (EMJ) Zone and alters the steroid receptors, leading to implantation failure (Tocci A et al 2008). In such cases, benefits of myomectomy should be weighed against the risks, and management of intramural fibroids should be individualized (III-C).

Group- III- Subserosal fibroids:

Although subserosal fibroids are not believed to alter IVF outcome, there may be a few circumstances in which the patients would likely benefit from myomectomy. For example, women with subserosal fibroids in such a location that egg retrieval must be performed using a trans-myometrial approach, may be best served by myomectomy prior to IVF. In addition, many authors ascribe to the general consensus that it is reasonable to proceed to myomectomy once a fibroid is greater than 10 cm in diameter regardless of location. There is no evidence that subserosal (FIGO L5 to L7) fibroids decreased any measure of fertility (Purohit P et al 2016). The patients should be informed that although myomectomy in such cases may help to alleviate symptoms, there is no strong evidence that surgery for large subserosal fibroids will improve IVF results or pregnancy outcome in terms of reducing the risk of prematurity.

Conclusion:

In conclusion, the role of myomectomy prior to IVF depends on the clinical situation. There is insufficient evidence from RCTs to evaluate the role of myomectomy

to improve fertility. A thorough evaluation of the patient prior to proceeding with surgical management of fibroids is recommended. If fibroids are identified on transvaginal ultrasound, then sonohysterogram, hysteroscopy and/or MRI should confirm the specific location and size.

The available data support that subserosal fibroids do not necessitate removal unless transvaginal oocyte aspiration cannot easily be performed because of anatomic distortion. Submucous fibroids or intramural fibroids with a submucous component (FIGO L0-L2) reduce IVF success rates and should be removed. Hysteroscopic myomectomy is the preferred technique if greater than 50% of the fibroid is intracavitary. However, laparotomy or laparoscopy or Robotic assisted surgery (depending upon surgeon's expertize) and myomectomy may be needed for intramural fibroids that have a minor submucous component. The management of intramural fibroids should be individualized on a case to case basis. It remains controversial if the women with deep intramural fibroids larger than 4 cm size that distort the junctional zone should be the candidates for removal before IVF, specially after 1 or more previous failed IVF attempts with no other obvious reason for infertility. In such cases, benefits of myomectomy should be weighed against the risks, and management should be individualized.

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"If you believe in yourself and have dedication and pride - and never quit, you'll be a winner. The price of victory is high but so are the rewards". -Paul Bryant

An Overview of the Activities of the AICC RCOG Northern Zone India Committee 2016-2017

"If everyone is moving forward together, then success takes care of itself." Henry Ford

Site: **www.aiccrcognzindia.com**
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Secretariat: OT Complex 3rd Floor Sant Parmanand Hospital, Delhi 110054
Academic Centre & Library - B-235 CR Park, New Delhi-110019
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U/S 80G - DEL - RE 25104 - 03122013 / 3892 Dated 03/12/2013

"Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishment toward organizational objectives. It is the fuel that allows common people to attain uncommon results." -Andrew Carnegie

We are honored to write this report of the activities of the AICC-RCOG Northern Zone India Committee, an organization of academic excellence in the field of obstetrics and gynaecology, the goal being to provide quality patient care and setting standards in accordance with international standards. Over the last few years, it has grown phenomenally, thanks to the hard work and team spirit of our patrons, fellows, members and associate members. The organizing committee is grateful to all who have helped us grow leaps and bound and thankful for the continuing good work. The academic activities of the year 2016- 2017 were based on the theme of Saving Lives with a Trident Approach: CTG, Perinatal Autopsy and PPH and highlighted the importance of team work to enhance patient care and avoid litigation. On philanthropic front, under the aegis of RCOG North zone, department of Obstetrics and gynaecology, Sant Parmanand hospital, Civil Lines, Delhi conducted Cervical cancer screening rally and Cervical Cancer Awareness, Screening and Vaccination Drive all year round in Delhi.

RCOG North zone donated a cheque of 6 Lacs to "Amity Humanity Foundation" for Higher Education of underprivileged Girls.

Chairperson	:	Dr Nirmala Agarwal
Vice Chairperson	:	Dr Anita Kaul
Treasurer	:	Dr Ranjana Sharma
Hon Secretary	:	Dr Arbinder Dang
Web Editor	:	Dr Anjila Aneja
Co-opted Members	:	Dr Sonal Bathla Dr Sweta Balani
Additional Executive Fellow	:	Dr Saritha Kale Shamsunder
Sc. Com. Advisors	:	Dr Sohani Verma Dr Mala Arora
Immediate Past Chairperson	:	Dr Sohani Verma

India North Zone International Representative Comittee

Fellows	:	Dr Anita Kaul Dr Ranjana Sharma Dr Anjila Aneja
Members	:	Dr Arbinder Dang Dr Sweta Gupta Dr Mamta Dagar
Patrons:	:	Dr Urmil Sharma Dr S K Ghai Bhandari Dr Sheila Mehra Dr M Kochhar Dr R P Soonawala Dr Prathap C Reddy Dr Ashok Chauhan Dr Sanjeev Sharma (UK) Dr Prabha Sinha (UK)

Year 2017 started with formation of new AICC RCOG NORTH ZONE committee. Official handover was done on 13th June 2017 and Dr Nirmala Agarwal was unanimously elected as the new chairperson. Elections were held for the post of International Representative committee North zone India and new Fellows and Members were elected. Address by Outgoing Chairperson Dr. Sohani Verma was given and report was read.welcome address was given by the newly elected Chairperson. It was well attended by our senior patrons, fellows and members.


30th AICC RCOG Annual Conference Mamallapuram 2-4 September 2016, organized by Dr Rekha Kurian South Zone AICC RCOG

North Zone AICC Oration titled "Late Bhai Mohan Singh & Dr R P Soonawala Oration" delivered by Mr Ian Currie (Vice President RCOG UK) on "Human Factors in Obstetrics & Gynaecology: When Incidents Happen". North Zone Awards for Excellence in free Communication Papers and Posters Individual contributions by several fellows and members in the conference.

Examinations conducted: Part I & Part II MRCOG Theory Examinations

Convenors: Dr JB Sharma Dr Sohani Verma
September 2016 and 2017

Annual Conference 2016 North-Zone Co-ordinating Committee (AICC) Royal College of Obstetricians & Gynaecologists (RCOG) UK

Dates: 9th & 10th September 2016

Organisers: Dr Sohani Verma, Dr Nirmala Agarwal, Dr Anita Kaul, Dr Ranjana Sharma, Dr Ashmita Rathore, Dr Arbinder Dang, Dr Chanchal Singh

Venue: Indraprastha Apollo Hospitals & Maulana Azad Medical college, Delhi

Delegate attendance: More than 300

Highlights: Simms Black Travelling Professorship




MRCOG Final Preparation: Part 2 Written Course

2nd to 4th Feb 2017

22nd to 24th June 2017

Dr Sanjeev Sharma (UK), Dr Sohani Verma,
Dr Saritha Shamsunder, Dr Sweta Gupta

Venue: Academic Centre & Library, B-235 CR Park, New Delhi-110019




Enhanced Revision Programme Package

Online course over 15 weeks period.

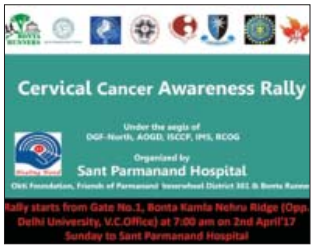
Conveners: Dr Sohani Verma, Dr Saritha Shamsunder, Dr Puneet Kochhar, Dr Sweta Gupta
UK Convener: Dr Sanjeev Sharma
12 Feb 2017 – 28 May 2017, 15 candidates
UK Convener: Mr Fadi Al-Fhaily
Dates: 3rd September 2017- 3rd December 2017

Cervical Cancer Awareness Rally

Organisers: Sant Parmanand Hospital

Dr Sohani Verma, Dr Nirmala Agarwal, Dr Sonal Bathla, Dr Sweta Balani

More than 500 public attended the rally.





Basic Colposcopy Course

Datd: 18th June, 2017
under aegis of ISCCP, approved by IFCCP
Delegates: 20
Course Convenors: Dr Saritha Shamsunder, Dr Mamta Dagar




Philanthrophic Activities

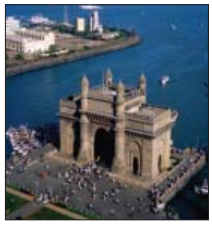
"Amity Humanity Foundation"
6 Lacs Donation given for Higher Education of underprivileged Girls

RCOG North Zone supported a project in Lal Bahadur Shastri Municipal Hospital by providing Computer and Software to initiate the provision of fetal medicine services to the pregnant women of the hospital. Dr Anita Kaul, senior consultant and staff of Apollo Centre for Fetal Medicine are running the clinic 3 days a week whilst GE and Astraia Germany have partnered with this charitable activity by providing the Ultrasound Machine and the Obstetric Database application. A special thanks to RCOGNZ member Dr Neema Sharma who set up the meeting with the Hospital Medical Superindentent Dr Amita Saxena and got the initiative going.



31st Annual Conference AICC RCOG in Mumbai India

Dates: 1st, 2nd and 3rd September 2017


North Zone AICC Oration titled "Late Bhai Mohan Singh & Dr R P Soonawala Oration" delivered by Dr. Suchitra Pandit (Chairperson AICC RCOG) on "Bridging gaps in Healthcare"

North Zone Awards for Excellence in Free Communication Papers and Posters
Dr Sheila Mehra Endoscopy Award
Dr Urvashi P Jha Gynaecology Prize
Dr Nirmala Agarwal Reproductive Medicine Prize
Dr Ranjana Sharma Urogynaecology Prize

Arnimal Prize for Fetal Medicine and Genetics
Dr S K Ghai Bhandari Award
Dr Urmil Sharma Award
Shrimati Krishna Nanda Memorial Award
Dr Mohinder Kochhar Award

Active participation in panel discussions, Stump the experts and workshops.
Dr Nirmala Agarwal (Chairperson North Zone AICC RCOG)
Dr Anita Kaul (Vice Chairperson)
Dr Mala Arora (Senior Fellow)
Dr Ranjana Sharma (Treasurer)
Dr J B Sharma (Senior Fellow)
Dr Arbinder Dang (Hon. Secretary)
Dr Ramandeep Kaur (Member)




Simms Black Travelling Professorship Program

Organized by RCOG North Zone India & Department of OBG PGI Chandigarh

8th September 2017 at Chandigarh.

Speaker: Professor Pranav Pandya Director of Fetal Medicine, UCLH London UK, Chair of Fetal Anomaly Screening Programme Advisory Group, NSC

Topics: Early assessment and fi rst trimester screening, Algorithms to manage IUGR

Conveners:

Prof. Dr Rashmi Bagga Department of OBG PGI Chandigarh

AICC RCOG North Zone Conveners:

Dr Nirmala Agarwal (Chairperson)
Dr Anita Kaul (Vice Chairperson)
Dr Arbinder Dang (Hon. Secretary)

Cervical Cancer Awareness, Screening and Vaccination Drive

Community reach out project organised by Okti Foundation, Sant Parmanand Hospital, Sitaram Bhartia Institute of Science and Research in association with ONGC and supported by FOGSI, AOGIN INDIA, AOGD, IMS, RCOG NZ India, ISCCP, Friends Of SPH, Inner Wheel, Rotary and She Cares Foundation was conducted on 5th October 2017.

The awareness phase comprising health talk and registration for screening/vaccination was organised at Shiv Mandir, JJ Bandhu camp, oppposite B5-B6 Vasant Kunj. The health talks were given by Dr Nirmala Agarwal, Chairperson, RCOGNZ India, Dr Sonal Bathla, General secretary, Okti Foundation, Dr Preeti Yadav, Dr Tanuja from Sant Parmanand Hospital and Dr Priti Arora Dhamija, Dr. Neeru Jain from Sitaram Bhartia Hospital. Paramedics from Sant Parmanand hospital performed a street act to convey the message. This was a major force for women to let go of their inhibitions and attend the meeting in large numbers. We gave them the slogan ^^tkudkjh] tkp o Vhdk] dSlj iM+ tk, Qhdk**

There was an overwhelming response and each woman brought 4 more with her. The concept of vaccination was also welcomed by them. Some women had health queries which were promptly attended. Some young girls complained of diminution of vision and requested an eye check which we promised to try to arrange. We registered nearly 140 women for screening and 40 girls for vaccination in the second phase. In the end, food was distributed to the participants and their families.





Forthcoming Activities

All India Co-Ordinating Committee Royal College of Obstetricians & Gynaecologists North Zone India in collaboration with the Association of Obstetrician & Gynaecologists of Delhi (AOGD)

AICC RCOG North Zone Annual Conference 2017

Be Up To Date – RCOG Annual Professional Development Conference

Venue: Auditorium Maulana Azad Medical College Delhi on

16th & 17th December, 2017

Pre Conference Workshops

15th December, 2017

Maulana Azad Medical College Delhi

- How to Write A Paper and Publish
- Gynaecare CTG Course
- Fire Drills on Labour Ward- Managing of Obstetric Emergencies

Post Conference Workshops
18th & 19th December 2017
Academic Centre B-235, C. R. Park Delhi

RCOG UK Franchise MRCOG Final Preparation: Part II written course
30th & 31st December 2017 & 1st January 2018. (Total 3 Days)
Venue: RCOG North Zone Academic Centre B-235, C R Park, Delhi
Many more to be announced later!!!!

Academic Centre & Library

The RCOG North Zone India Centre whilst being a temple of academic activities continues to bond us, the RCOG North Zone fraternity. We thank all the administrative staff of Sant Parmanand hospitals, secretaries and a special thanks to Mr Asif Muniri -Administrative assistant North Zone AICC RCOG ph: +919560069925/+919716801190 who has to multitask many times, to keep our flag flying. We profusely thank our course convenors and convenors of various workshops for their diligent work and continuous support given to our organization. A very special thanks to our vice Chairperson Dr Anita Kaul who is guiding us silently behind the scenes, publisher Mr Rakesh Ahuja and our web designer Mr Rakesh Rai who is doing an excellent work in keeping our website updated and for facebook adverts. It has been the vision and determined motivation by all our patrons, our dear Chairpersons and now are present Chairperson Dr. Nirmala Agarwal to develop the various courses to an excellent standard and persue academic excellence.

"Synergy - the bonus that is achieved when things work together harmoniously." Mark Twain

Dr Niramala Agarwal
FRCOG (UK), Head of the Department & Senior Consultant, Sant Parmanand Hospital, Delhi
Chairperson AICC RCOG NORTH ZONE

Dr Arbinder Dang
MD. DNB. MNAMS. MRCOG (UK), Senior Consultant
Sant Parmanand Hospital, Delhi
Honorary Secretary AICC RCOG NORTH ZONE
Dated: 13.11.2017

Enhanced Revision Program - New Delhi (for preparation for Part 2 MRCOG Examination)

Organising Parties

- Royal College of Obstetricians & Gynaecologists (RCOG)
- Indian Representative Committee (IRC): North Zone

Organiser(s)

RCOG

- Convenor of Part 2 Enhanced Revision Programme (Feb 2017) – Mr Sanjeev Sharma
- Convenor of Part 2 Enhanced Revision Programme (September 2017) – Mr Fadi Al-Fhaily
- Administrator - Mrs Andreia Dias, Conference Co-ordinator
  Direct line: 020 7772 6281
  Email: adias@rcog.org.uk

IRC North Zone Contact Details

- Convenors - Dr Puneet Kochhar and Dr Sweta Gupta
  Direct line: +91 995 3001 628, +91 813 0140 007
  Email: drpuneet.k@gmail.com, swetagupta@gmail.com

Address of local centre

B-235, Basement, C R Park, New Delhi, 110019, India

Feb 2017 course:
Dates: 12th Feb – 28th May 2017
Total Candidates: 12

September 2017 course:
Dates: 3rd Sept – 17th December 2017

Course fees: Rs 35,000/-

Seats:

- Minimum Numbers: 8
- Maximum Numbers: 15

Overview

The Enhanced Revision Programme is a 15-week revision programme to prepare candidates for the Part 2 MRCOG examination. The programme is mapped to the syllabus of the membership examination and its content is developed and reviewed by experienced RCOG examiners. The online classroom is the main tool of the ERP.
Throughout the 15-week programme, candidates are tasked with assignments, which they are required to submit by email before the given deadline - day and time. The moderators will assess the work provided it has been submitted on time. Moderators will provide you with individual feedback and guidance throughout the programme and give you advice and tips on how to improve your performance, or benefit from further study.

MRCOG Final Preparation: Part 2 Revision Course - New Delhi

Location: New Delhi, India

Venue: North Zone AICC RCOG Academic Centre, B-235, CR Park, New Delhi, 110019, India.

June 2017, Course

Dates : 22-24th June 2017,
Total candidates: 26
Faculty (UK and local) : 19

Feb 2017, Course

Dates: 2-4th Feb 2017
Total candidates: 27
Faculty (UK and local) : 14

Organizing Chairperson

Dr Nirmala Agarwal
M. No: +919811888732 E-mail: n.menoky@gmail.com

UK Conveners

Dr Sanjeev Sharma
(sdsharma@gmail.com, sdsharma49@hotmail.com)

India North Zone Conveners

Dr Saritha Shamsunder
(shamsundersaritha@gmail.com / 9313826748)

Dr Sweta Gupta
(swetagupta06@yahoo.com / 8130140007)

Dr Mamta Sahu
(mamta2sahuyahoo.co.in / 9810106470)

Contact details:

Tel No: +91-11-29871616 / 2146 / 2199, 09716801190 / 9810116623
E Mail: rcoz_nz2012@yahoo.com

Course fees: Rs 30,000/-

Seats: There are a maximum of **30** places.

Overview

This revision course is aimed at candidates preparing for the next Part 2 MRCOG exam. It focuses on polishing your exam techniques to improve your chances of passing the written papers. Developed and taught by experienced MRCOG Examiners, this course reflect the new format and standards of the Part 2 MRCOG written exam from September 2016. You will hear about the exam question formats and will have ample opportunity to practice Single Best Answer Questions (SBAs) and Extended Matching Questions (EMQs). This course will map the RCOG core curriculum and the examination syllabus, and you will also have lectures from experts about current developments and hot topics in key curriculum areas.

AICC-RCOG-NZ Colposcopy Workshop June 2017 Report

AICC-RCOG-NZ India organized the first **Biannual Colposcopy Courses Basic & Advanced** under Aegis of ISCCP, approved by the International Federation of Colposcopy & Cervical Pathology on 18th and 19th June 2017 at RCOG-NZ India Centre, B235, CR Park, New Delhi. The course was attended by 20 delegates all over India and abroad. Doctors from Bangladesh, Dubai, Abu Dhabi, Nepal also participated enthusiastically.

The course material included didactic lectures, picture quiz, case discussions on management options & follow-up, hands-on module to refresh hands-on training in colposcopy & LEEP. Faculty included eminent teachers from teaching institutes in Delhi, Trivandrum, Ahmedabad. The delegates enjoyed interacting with teachers with positive feedback.

The course information is available on website (www.aiccrcognzindia.com).





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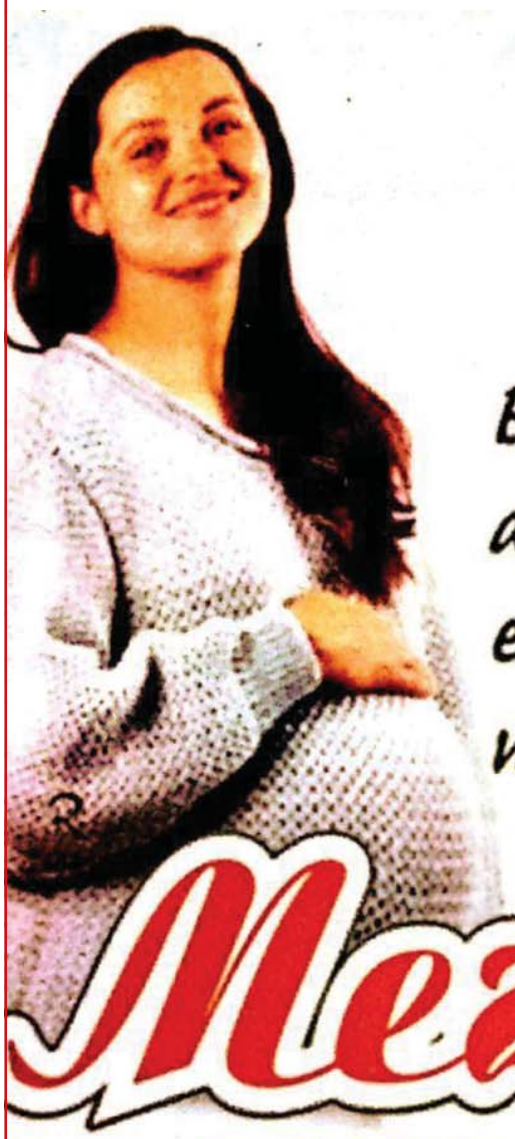

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Cerebro-Placental Ratio (CPR)- Is it of any use in risk prognostication for adverse preganncy outcomes ?

Rachna Gupta, Anita Kaul
Apollo Fetal Medicine, Indraprastha Apollo Hospitals.

Small for gestational age (Expected fetal weight < 10th centile) is a known risk factor for various adverse pregnancy outcomes (emergency Cesarean section for non-reassuring fetal status, 5-min Apgar score < 7, neonatal acidosis at birth, admission to NICU, perinatal mortality)[1,4].

However, it has been seen that vast majority of adverse pregnancy outcomes actually happen in babies that have birth weight more than 10th centile (appropriate for gestational age)[2].

Or the reverse that most of SGA fetuses will not have adverse pregnancy outcome or will not be pathologically small.

Doppler measurements have been used in predicting adverse pregnancy outcome, especially in growth restricted fetuses for more than 30 years now[7,8].

Umbilical artery PI is usually raised (expression of right ventricular afterload) and MCA PI is lower (brain sparing, increased oxygen delivery to brain thought to be due to decreased left ventricular afterload) in pathologically small fetuses[3]. Cerebroplacental ratio (CPR) - ratio of MCA/ umbilical artery PI was introduced more than 20 years ago, and was shown to be more predictive of adverse pregnancy outcome than either umbilical artery or MCA alone, although its role in presence of normal umbilical artery Doppler and after gestational age of 34 weeks was found to be weak[3].

Various cut-offs for CPR have been used - 1.0, 1.08, 5th percentile, on a normogram, eg Baschat et al provided reference range for CPR with gestational age, where umbilical artery PI was measured in free loop and MCA PI was measured in proximal third (middle and distal third have higher PI than proximal third)[3].

CPR has also been expressed in Multiples of the Median (MoM) and has been shown to be an independent contributor to birth weight and adverse pregnancy outcome.

Even In appropriate for gestational age fetuses (EFW > 10th centile), with crossing of centiles or decline in growth, CPR is associated with increased incidence of adverse pregnancy outcome[5,12].

Though there is a gradient with rising CPR with reduction in incidence of adverse pregnancy outcome, there is no defined cut-off at which decision to intervene can be taken. Figueras et al developed an integrated model with the best performing criteria for predicting adverse outcome in SGA pregnancies. The best performing predictors for defining a high risk for adverse outcome in SGA fetuses was the presence of a CPR < 10th centile, a mean UtA-PI > 95th centile or an EFW < 3rd centile. The algorithm showed a sensitivity, specificity and positive and negative predictive values for adverse outcome of 82.8%, 47.7%, 36.2% and 88.6% respectively. Positive and negative likelihood ratios were 1.58 and 0.36[11].

However, decision to intervene on basis of abnormal CPR in small or AGA fetuses in presence of normal umbilical artery, remains controversial.

Positive predictive value of CPR is low, Bakalis et al showed that in 30780 singleton pregnancies screened at 30 – 34 weeks, CPR < 5th percentile had DR of 5–11% and a FPR of about 5% for adverse pregnancy outcome. In subset delivering within 2 weeks, the DR improved to 20–50%, but with a simultaneous increase in FPR to 10–23%[2].

Similarly Akolekar et al showed that in 6178 singleton pregnancies with screening performed at 35 – 37 weeks, low CPR < 5th percentile had DRs of 6–15% and a FPR of about 6% for adverse pregnancy outcome. In the small subgroup of the population delivering within 2 weeks of assessment, the DRs improved to 14 – 50%, but with a simultaneous increase in FPR, to about 10%[10].

Recently, Triunfo et al explored the predictive capacity of fetoplacental Doppler in low risk pregnancies at 37 weeks' gestation in identifying small-for-gestational-age (SGA) neonates, fetal growth restriction (FGR) and adverse perinatal outcome, and they concluded that Doppler evaluation at 37 weeks' gestation did not improve the prediction of SGA and FGR compared with that given by EFW alone, however, combining Doppler variables with EFW improved the prediction of adverse perinatal outcomes given by these parameters alone, although not markedly[9].

So at the moment CPR values are useful to note but low CPR values should just alert the obstetrician for increasing the fetal surveillance but should not alarm the obstetrician to rush to deliver the fetus.

Results from our population will be presented.

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"Freaks become norms, and norms become extinct. Monster by monster, evolution advanced"

–Siddhartha Mukherjee, The Gene: An Intimate History

Labour Curve Revisited

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Department of Obstetrics & Gynaecology
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Labour is a new frontier in which the historical understanding of normal progress of labour has been challenged in view of recent evidence emerging from large observational studies.[1,2] This is in sync with the current efforts directed towards safe prevention of primary Caesarean delivery given that labour dystocia or non progress of labour is the most common indication of primary Caesarean section.[3] Since 1955, ever since Emanuel Friedman described a sigmoid labour curve based on the labour charts of 500 nulliparous women, normal and abnormal labour have been defined according to that.[4] These findings were based on this single study from one hospital. In 2002 Zhang et al [5] discovered that the common understanding of normal and abnormal labour based on Friedman's curves may not be correct in the contemporary setting given that the profile of obstetric population and also the obstetric practices have changed over years. Pregnant women are is older, heavier, more sedentary and obstetric practices such as labour analgesia, elective inductions for timed birth are common.

Zhang et al in 2010 used the data from Consortium on Safe Labour, a multicentre retrospective study including 19 hospitals all across US which had the labour details of 62,415 pregnant women with a singleton term gestation in vertex presentation in spontaneous labor and delivered vaginally and had a normal perinatal outcome.[6] The labour curves were constructed and analysed. It was observed that the labour progress rate was substantially slower than historical 1.2 cm/hr in primigravidae and 1.5 cm/hr in multigravidae as described by Friedman after 3-4 cm dilatation of cervix[4]. It was observed that for both nulliparous and multiparous women, the rate of cervical dilation accelerated after 6 cm instead of 3-4 cm and progress from 4 to 6 cm was far slower than previously described. The progress of cervical dilatation from 4 cm to 5 cm took up to 6 hrs and from 5 cm to 6 cm longer than 3 hours. Cervical dilation of 6 cm appeared to be a better landmark for the start of the active phase compared to 3-4 cm as proposed by Freidman.[5] Thus suggesting that allowing labor to continue for a longer period before 6 cm of cervical dilation may reduce the rate of intrapartum Caesarean sections and subsequent repeat Cesareans.

The Consortium on Safe Labor defines 6 hours as the 95th percentile of time to go from 4 cm to 5 cm dilation, with the active phase defined as beginning at 6 cm.[7] The ACOG has also stated that extending the time from 2 to 4 hours with oxytocin augmentation in case contractions are not adequate appears safe and effective provided the maternal and fetal status is reassuring.

Although observational data has provided us some insights in to the likely differences in the progress of labour in contemporary obstetric population but there are confounders and biases. Hence there is a need for prospective studies and randomized controlled trials to produce the best-quality evidence to understand the effect of new criteria on intrapartum rate of Caesarean section for dystocia, and maternal and or neonatal morbidity and mortality to guide the clinical practice. The Labor Progression Study, LAPS a multicenter, cluster randomized trial in Norway[9] is underway to evaluate whether adhering to Zhang's guideline for labor progression, changes the intrapartum cesarean section rate in nulliparous women without jeopardising maternal and neonatal outcomes compared to a traditional guide line called the 4-h action line based on Friedman's curve.

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Role of AMH in ART and Beyond

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Introduction

Reproductive ageing is related to the reduction of the primordial follicle pool. As women's age increases, their ovarian reserve diminishes, and the rates of both spontaneous and assisted reproductive pregnancies decline. Assessment of **ovarian response** potential before the patient enters an In Vitro Fertilization (IVF) program is therefore important. For several years, age and day three follicle stimulating hormone (FSH) levels have been used as an indicator of ovarian response in assisted reproductive technology. Recently, various studies have reported the usefulness of antral follicle count and ovarian volume in predicting ovarian response to hormone stimulation.

What is AMH? Why AMH?

The gonadal hormone anti-Mullerian hormone (AMH) is a 140 kDa disulphide-linked homodimeric glycoprotein and a member of the transforming growth factor-b (TGF-b) superfamily of growth and differentiation factors, just like inhibins and activins. The specific expression pattern of AMH in growing non-selected follicles has prompted scientists to investigate whether serum AMH levels are indicative for the size of the growing follicle pool. Direct measurement of the primordial follicle pool is impossible. However, the number of primordial follicles is indirectly reflected by the number of growing follicles. Since AMH is expressed by growing follicles up to selection and can be detected in serum, it is a promising candidate in Ovarian reserve testing.

Why AMH in ovarian testing?

Schematic representation of follicle development emphasizing that AMH is produced in early stages of follicle development (characterized by gonadotrophin-independent growth), as opposed to Inhibin B and estradiol produced by follicles at later stages of development where growth is FSH-dependent.

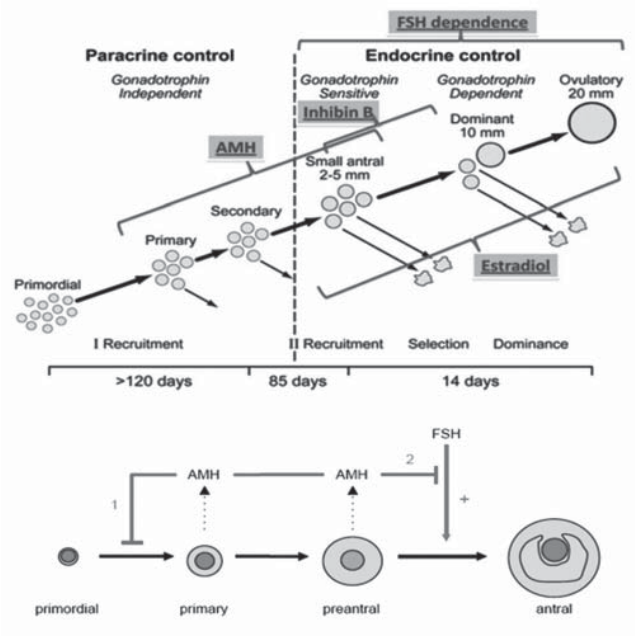


Figure. Model of AMH action in the ovary.

Progressing stages of folliculogenesis are depicted. AMH is produced by the small growing (primary and preantral) follicles in the postnatal ovary and has two sites of action. It inhibits initial follicle recruitment (1) and inhibits FSH-dependent growth and selection of preantral and small antral follicles (2).

AMH – possible clinical applications

Patient group	Application
Women of reproductive age	Assessment of the ovarian reserve
	Prognostic factor for IVF
	Assessment of the stimulability of the ovaries and adjustment of hormonal stimulation
	Perimenopause
	Premature ovarian failure (POF)
	Follow-up of granulosa cell tumour, detection of ovarian toxicity in chemotherapy
	Assessment of ovarian response in obesity and PCO
	Identification of patients at increased risk of OHSS

Different AMH assay

Between 2002 and 2010 two different AMH assays have been used in human female studies. These assays have been simultaneously developed by **Diagnostic Systems Laboratory (DSL) and by Immunotech (IOT),** applying different AMH antibodies. Until today, various sources for the AMH standard have been used for calibration and no international standard has yet been developed. The IOT assay produced AMH concentrations ~40% higher compared with DSL, rendering the combined analysis of trials employing different assays problematic.

Assays for AMH have evolved over the same time span. Until 1 year ago, there were three commercial enzyme-linked immunosorbent assay (ELISA) kits used to measure AMH, which differed in antibody pairs, standard curve ranges, and limits of detection. The **first kit was introduced in 1999 by Immunotech (IOT)** (Marseille, France). The IOT assay used a monoclonal antibody pair, one directed at the pro region and the other at the mature region. The **second AMH kit was launched in 2003 by Diagnostic Systems Laboratories (DSL)** (Webster, Texas). In the DSL ELISA, both monoclonal antibodies were directed at the mature region to minimize proteolysis. In 1997, IOT became part of the newly created Beckman Coulter; in 2005, this company acquired DSL as well. Both the IOT and DSL AMH kits continued to be available until 2010 when **Beckman Coulter developed a second generation (Gen II) AMH ELISA kit.** The DSL antibodies were used in the Gen II assay, which was standardized to the IOT assay.

Very recently, two commercially available AMH ELISA kits have been developed by Ansh Labs (Webster, Texas). These two kits use the same monoclonal antibody pair directed against specific linear epitopes in the stable pro region and mature region of the associated form of human recombinant AMH and appear to have high accuracy in initial testing. The **Ultrasensitive AMH** ELISA kit was released in 2012, and the **pico AMH** ELISA kit was released in 2013. To date, there are limited data on the performance of the Ultrasensitive and picoAMH assays. However, newly developed Ansh ELISAs may provide the accuracy and sensitivity that is lacking in prior AMH assays, and their performance should be investigated in clinical and research settings.

Overview of commercial AMH assays.

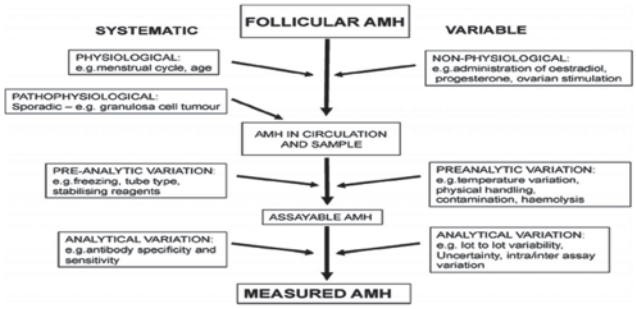
Assay	Manufacturer	Standard curve range	Level of detection
IOT	Immunotech	0.1–24.5 ng/mL	0.05 ng/mL
DSL	Diagnostic Systems Laboratories	0.05–15 ng/mL	0.006 ng/mL
Gen II	Beckman Coulter	0.16–22.5 ng/mL	0.08 ng/mL
Ultrasensitive	Ansh Labs	0.083–14.2 ng/mL	0.023 ng/mL
picoAMH	Ansh Labs	1–746 pg/mL	0.001 ng/mL

Note: AMH = antimüllerian hormone; DSL = Diagnostic Systems Laboratories; IOT = Immunotech.

Variability in AMH

Variation in AMH levels could also be explained by biological variance. Contradictory results have been described regarding intra- and intercycle variability of AMH levels. Some studies show these to be limited and merely represent fluctuations by chance, possibly related to gradual changes in the number of antral follicles present in both ovaries. Other studies have demonstrated substantial fluctuations in the menstrual cycle, which would argue in favor of measuring AMH levels at the early follicular phase only. It has been suggested that AMH levels remain constant under the influence of exogenous sex steroids used for contraception.

Gorkem et al (2017) recently published that serum AMH levels exhibit great variation, were higher during the follicular phase than the luteal phase in women with adequate, high and diminished ovarian patterns. Since the highest AMH levels are demonstrated during the follicular phase, the optimal time to measure AMH concentration might be during the follicular phase.



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Other biomarkers of Ovarian reserve

1. Age: Age is considered to be the single most important factor in determining quality and quantity of ovarian reserve.
2. Menstrual Pattern: Menstrual cycle length (MCL) is supposed to be primarily determined by the rate and quality of follicular growth and thus, the duration of the follicular phase.
3. Follicle-Stimulating Hormone(FSH): Early follicular phase (basal) FSH is the most studied and used endocrine test in determining ovarian reserve. Historically, combination of basal FSH and age was found to be better than age alone in predicting IVF outcome.
4. Inhibin-B: Inhibins are glycoprotein hormones of the superfamily of transforming growth factors β (TGF-β) secreted by granulosa and theca cells. Inhibin-B inhibits pituitary FSH secretion and paracrine action on developing follicles, stimulated by the association of FSH itself with insulin-like growth factor.
5. Estradiol: Basal estradiol (E2) levels may provide additional useful information for the evaluation of ovarian reserve.
6. Endocrine Dynamic Tests: Clomiphene Citrate Challenge Test, Gonadotropin Analogue Stimulation Test. Exogenous FSH Ovarian Reserve Test.

Advantage of AMH test over other biomarkers of Ovarian Reserve

- Evidence is accumulating suggesting that AMH is the best currently available test in terms of sensitivity and specificity as opposed to AFC, FSH, E2 and inhibin B concentrations or various ovarian challenge tests.
- Results of a meta-analysis showed that AMH has at least the same level of accuracy and clinical value for the prediction of poor response and non-pregnancy as AFC.
- Results of a systematic review and meta-analysis demonstrated that both the AFC and AMH were

Table 1: Checklist to maximize the clinical utility of serum AMH testing

1. Use one laboratory, calibrated to outcomes	Avoid 'mixing and matching' AMH values from different laboratories and identify a reliable, single source for testing which both calibrates the results to the clinical outcomes of interest and commits to updating the clinician if calibration of the result changes.
2. Utilize more than one ovarian reserve test	Avoid using a single serum AMH measurement alone to assess ovarian reserve, and incorporate other markers such an antral follicle count (AFC) and/or early follicalar phase serum FSH.
3. Identify exposures	Identify whether the patient has taken medications (e.g. hormonal contraceptives and chemotherapy) or had surgery (ovarian cyst or endometrioma removal) that affects the AMH levels.
4. Counsel patient	Prior to testing, verify the patient understands the directional nature of the information being provided by AMH testing, and that, in a subset of women, the test result may change substantially with biologic fluctuations.
5. Consider retesting	If testing result lead to life-changing decisions or if the result are inconsistent with the clinical scenario, consider retesting.

Many improvements to the management of women's health are possible through appropriate AMH testing. However, variability in Amh result can lead to Clinically significant variability in AMH results, making careful approach to the interpretation essential. With the above simple steps, a clinician can rapidly minimize the risks for incorrect interpretation.
AMH, antimullerian hormone; FSH, follicle stimulating hormone.

capable of identifying excessive responders to ovarian stimulation for IVF.

- Test optimization for clinical application is more promising for AMH.
- earliest marker to change with age
- the least intercycle variability
- the least intracycle variability
- randomly measured during the cycle
- no modifications during GnRHa
- no modification during hormonal contraception
- no modification in hypothalamic amenorrhea

Role of AMH in other Gynecological conditions

Granulosa Cell Tumors

- AMH levels are increased in 76 to 93 % of women with granulosa cell tumors.
- Elevation of AMH levels precedes the tumor recurrence by up to 16 months.
- It can be an early marker for granulosa cell recurrence

Ovarian Function after Chemotherapy and Radiotherapy

- AMH can be used to access ovarian function after chemotherapy and radiotherapy in young women
- A study reported that there is a fall in AMH levels who had childhood cancer but still had regular menses.
- Another study of ovarian function in young adults following treatment for childhood Hodgkin's lymphoma demonstrated a clear cut dose related fall in AMH concentration in relation to number of chemotherapy cycles.

Impact of Ovarian Surgery on The Ovarian Reserve

- AMH can also be used for the study of impact of ovarian surgery on the ovarian reserve
- This was demonstrated by two systematic reviews which studied the impact of ovarian surgery for endometriosis on AMH.
- Both concluded that ovarian endometrioma surgery is associated with a decline in serum AMH, indicating the removal of a significant part of the ovarian reserve
- Several studies have suggested that a single AMH measurement may be a good predictor of the onset of menopause in aging women
- Furthermore, it was shown to improve the prediction of menopause onset more than maternal age

Summary

- AMH has emerged as the single best blood marker for assessing the quantitative aspects of ovarian reserve and managing ovarian stimulation.
- Some studies continue to demonstrate a helpful, age-independent association of AMH with qualitative aspects of ovarian reserve such as egg quality, live birth rate, or time to conception, but this association is weak to moderate at best.
- Clinical studies now support expanded clinical applications of serum AMH testing such as: Prediction of menopause onset, monitoring of ovarian effects of medication and surgical procedures, and evaluating the risk of a variety of disorders such as PCOS, POI (premature/primary ovarian insufficiency), POF (premature ovarian failure) or autoimmunity.
- Caution is required when interpreting a single AMH measurement because biological fluctuation, surgical procedures, medications (e.g. contraceptives), and laboratory methodology can frequently lead to dramatic changes in AMH results within individuals. Recommended steps to account for variability in AMH results include: Using a single AMH testing source calibrated to clinical outcomes, informing patients about potential variability and including medical history and other ovarian markers (e.g. antral follicle count and/or serum FSH) in ovarian reserve assessment.

Should Sentinal Node Biopsy be the Standard of Care in All Gynaecological Malignancies?

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Sentinel lymph node (SLN) can be defined as the first lymph node or group of lymph nodes that cancer cells drain and invade into during metastasis. Sentinel lymph node is, hence, the primary chain node in the lymphatic basin that receives the lymphatic flow; first described in breast cancer, it is being studied for gynaecological cancers. A negative SLN would mean negative regional lymph nodes and a complete node dissection with the attendant morbidity could be avoided.

Sentinel lymph node mapping (SLNM) is a diagnostic procedure that is useful to detect if cancer has metastasized beyond the primary cancer site, especially, into the lymphatic system. The basic procedure involves injecting a dye along with a radioactive tracer into the region surrounding a malignant site and allowing a time bound draining of the tracer and the dye into the sentinel or primary lymph node. Lymphatic draining of the radioactive tracer allows accurate location of the SLN by a radio-active counter and a surgical microincision allows the physical and pathological examination of the stained sentinel node (SN).

The various methods being used are preoperative lymphatic mapping with lymphoscintigraphy and single photon emission tomography/computed tomography (SPECT/CT); hybrid tracers (e.g. ICG-^{99m}Tc-nanocolloid) and intraoperative tools (portable γ-camera and 3D navigation device are also useful guides for the surgeon during the operation. In gynaecological tumours, the sentinel lymph node (SLN) procedure is principally performed in vulvar cancer (VC), cervical cancer (CC), and endometrial cancer (EC). In vulvar tumour, the lymphatic drainage is predominantly superficial, and the first-draining lymph nodes are usually located in the groin. Instead, the lymphatic drainage of cervical and endometrial tumours is deep, and SLNs are located along the iliac vessels as well as in other areas with complex anatomy. The lymph nodes could be located by preoperative SPECT/CT or intraoperative imaging with a portable gamma camera. The new hybrid tracer using indocyanine green with ^{99m}Tc-nanocolloid (ICG^{99m}Tc-nanocolloid) improves the intraoperative visualization of SLN, resulting useful during the operation.

The sentinel lymph node procedure has been incorporated to the current guidelines for vulvar and cervical cancers in Europe and North America, whereas for endometrial cancer it is considered investigative. SLN mapping is an evolutionary revolution that will redefine surgical procedures for gynaecological malignancies.

"It's easy to make perfect decisions with perfect information. Medicine asks you to make perfect decisions with imperfect information."

– Siddhartha Mukherjee, The Laws of Medicine: Field Notes from an Uncertain Science

Risk Management and Patient Safety: Case based scenarios

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Risk management is the systematic identification, assessment and evaluation of risk. The impact of risk on the patient can range from minor effects to severe disability or even death. It has been an integral part of clinical care in the UK for the past several years.

It is important that all health professionals and hospital managers should be aware of the underlying principles and how it works in practice.

Maternity care is particularly susceptible to risk, and, in England, the safety of maternity services has been the subject of recent inquiries and reviews.

Risk management is not primarily about avoiding or mitigating claims; rather, it is a tool for improving the quality of care. Poor-quality care may lead to litigation. Therefore, risk management should reduce outcomes that induce claims, but this is not its sole or primary purpose. Risk management is also as much about learning from claims as it is about mitigating claims.

Risk management is not simply the reporting by identification of risk of and patient safety is the only one aspect. There are other ways of identifying risk and identified risks must be analysed, treated and monitored. Incident reporting is on the reactive side of risk management. More emphasis needs to be placed on the proactive side. Risk management is more effective when resources are used to minimise the occurrence of incidents instead of 'firefighting' after things have gone wrong. Courses in common clinical management, scenario training ('fire drill') is one example of proactive risk management which helps in how to minimize or prevent mistakes.

It is important to improve the quality of patient care by implementing evidence based medicine which will help in reducing risk and the response to incidence and complaints.

From a financial perspective, the problem of risk in obstetrics is huge. It is known that approximately 10.8% of hospital patients in the UK experience an adverse event of which 1% can lead to severe harm or death.

Risk management is not just a phrase, it is an approach to clinical care that actively searches for weakness in the system and attempts to correct them before harm comes to patients or staff.

Healthcare professionals are also inevitably affected by risk. Staff can become disillusioned with their careers, demotivated in the workplace, become demoralized and at higher risk of making an error or more likely to leave the health service to find other jobs with less risk exposure leading to recruitment problems and understaffing. Morale is often severely affected and the effect on an individual's personal reputation is not to be underestimated.

Often risk management is reactive rather than proactive but at least this prevents errors being repeated.

Properly managed risk management involves all members of staff, is a learning process rather than a means of looking for fault and will improve outcomes for all of those involved in healthcare at every level.

NHSLA want to reduce the rates of maternal deaths, stillbirths, neonatal deaths and brain injuries that occur during or soon after birth by 20% by 2020 and 50% by 2030.

This is only possible if all concern is involved who provide maternity services to make measurable improvements in safety outcomes for women, their babies and families by exchanging ideas and best practice. The national maternal and neonatal health safety collaborative will help all maternity care providers and commissioners to:

- improve clinical practices
- reduce unwarranted variation
- report on how they are contributing to achieving the national ambition

Root Cause Analysis

Whenever there is a complaints or risk identified Multi-disciplinary team approach, known as Root Cause Analysis (RCA) is exercised. The goal of the RCA process is to find out what happened, why it happened, and how to prevent it from happening again. Because our Culture of Safety is based on prevention, not punishment, RCA teams investigate how well patient care systems function. We focus on the "how" and the "why"? not on the "who".

Because people on the frontline are usually in the best position to identify issues and solutions, RCA teams at health care facilities formulate solutions, test, implement, and measure outcomes in order to improve patient safety.

Risk is best managed not in isolation but within a framework that integrates all aspects of clinical governance including clinical audit, education and training, complaints and claims handling, health and safety, research and service

development. The organisation should nurture a safety culture and provide the necessary resources. A safety culture is more likely to flourish where there is strong leadership, teamwork, communication, user involvement and training.

Communication within and between teams is a key safety issue. Care should be taken when a patient is transferred from one health professional to another. At all times, emphasis should be on learning rather than blame. System analysis often reveals inadequate training as a key contributor to adverse outcomes and training is central to patient safety initiatives.

Also, measures to reduce risk are more likely to be successful if there is involvement of those most likely to be harmed by the risk; that is, the users of the service

Risk management at the specialty or subspecialty level should be linked with hospital-wide strategies and initiatives. Locally, risk management should be integrated with general management and business planning. Each department (obstetrics and gynaecology) should have a written risk management strategy and a designated risk lead. Strategic direction and leadership should be provided by a multidisciplinary risk management or clinical governance committee.

For a maternity unit, membership would typically include a senior obstetrician as well as a training-grade doctor, a midwife, an anaesthetist, a neonatologist and the unit manager.

For a gynaecology unit, membership may include a gynaecologist, a nurse, an ultrasonographer, a service manager, a theatre practitioner, an anaesthetist and a manager.

Whatever the local arrangement, the message to emphasise is that these committees are not there as sole managers of everyone's risk; they are there to facilitate the efforts of everybody in managing risks in their own clinical practice.

All clinical areas should have formal processes for identifying anything that might interfere with the delivery of a safe, good quality service.

To find out 'what could go wrong', either check the systems prospectively to flag up possible sources of patient safety incidents before the event has happened or check retrospectively what went wrong.

Risks could also be identified through a variety of other sources. Risk assessment conducted in all clinical areas such as wards, clinics, theatre.

The goal of an RCA is to find out:

- What happened
- Why did it happen
- How to prevent it from happening again.

The RCA process is a *tool* for identifying prevention strategies. It is a process that is part of the effort to build a *culture of safety* and move beyond the culture of blame.

RCA finds out basic and contributing causes a in a process like diagnosis of disease - with the goal always in mind of preventing recurrence.

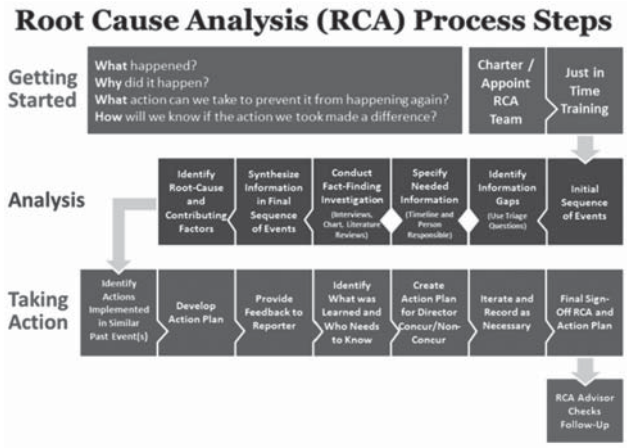
The RCA process involves experts from the frontline services, those who are the most familiar with the situation, continually digging deeper by asking why, why, why at each level of cause and effect, process that identifies changes that need to be made to systems and as impartial as possible

Summary: RCA is a specific type of focused review that is used for all patient safety adverse events or close calls requiring analysis. It is a process for identifying the basic or contributing causal factors that underlie variations in performance associated with adverse events or close calls.

Staff who submit close call and adverse event reports that result in an RCA must receive feedback on the actions being taken because of their report and ask the reporter for any additional suggestions about how to eliminate or correct root cause/contributing factors during this conversation.

The feedback is to be of a timely nature. Prompt feedback to those reporting adverse events helps establish trust in the system and demonstrate the commitment on the part of the organization to the importance of reporting

Feedback must only be given to individuals who remain on staff when the information from the RCA is available.



"No matter what measures are taken, doctors will sometimes falter, and it isn't reasonable to ask that we achieve perfection. What is reasonable is to ask that we never cease to aim for it."

– Atul Gawande, Complications: A Surgeon's Notes on an Imperfect Science

Understanding Clinical Audit

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"Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria. Where indicated, changes are implemented, and further monitoring is used to confirm improvement in healthcare delivery."

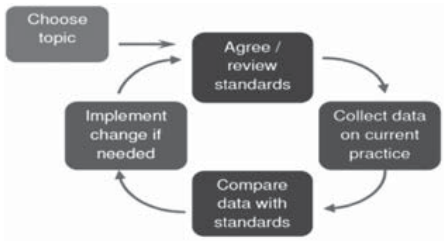
Principles for Best Practice in Clinical Audit (2002, NICE/CHI)

1. Clinical audit is not just a data collection exercise:
   - It involves measuring current patient care and outcomes against explicit audit criteria/standards.
   - There is an expectation from the outset that practice will be improved.
2. Further clinical audit may be required to confirm that practice has improved.

The main stages of the clinical audit process are:

1) Selecting a topic.
2) Agreeing standards of best practice (audit criteria).
3) Collecting data.
4) Analysing data against standards.
5) Feeding back results.
6) Discussing possible changes.
7) Implementing agreed changes.
8) Allowing time for changes to embed before re-auditing.
9) Collecting a second set of data.
10) Analysing the re-audit data.
11) Feeding back the re-audit results.
12) Discussing whether practice has improved.

This process is called the Audit Cycle and is summarised in the diagram below.



The History of Clinical Audit

Medical audit undertaken by doctors was first formalised in 1989. Prior to this audit activity was isolated and infrequently undertaken. Four years later, in 1993, Medical, Nursing and Therapy audit were brought together to form the multi-disciplinary activity now recognised as clinical audit.

Since 2008 there has been a shift in the national clinical audit strategy, which has seen the 'reinvigoration' of clinical audit at a local level. In line with this the Health Quality Improvement Partnership (HQIP) and the National Clinical Audit Advisory Group (NCAAG) have been tasked, by the Department of Health, to oversee national audits and to lead the 'reinvigoration' of local clinical audit by promoting quality in healthcare, and increasing the impact that clinical audit has on healthcare quality in England and Wales.

At a local level clinical audit links into both clinical effectiveness and clinical governance.

Firstly, clinical effectiveness aims to identify and appraise existing evidence of best practice. Once identified, if necessary, local practice may be amended to ensure that it is conforming to best practice. Once implemented a clinical audit project might be undertaken to ensure that:

a. Best practice is being followed.
b. That patient outcomes are the desired ones.

Secondly, concerns regarding clinical care are often identified through other clinical governance structures.

These concerns can often be used to inform a clinical audit project. This includes:

1. User views or complaints.
2. Adverse incident/near miss reporting, aka clinical/critical incident reporting.
3. Identified local priorities or concerns e.g. areas of high volume, risk or cost.

What Clinical Audit Is Not

Not all 'audit' that takes place within the health service is clinical audit. Clinical audit is a specific activity that measures clinical care against explicit audit criteria (standards) as part of a quality improvement cycle. The term 'audit' has a range of meanings and whilst people might want to 'audit' something it does not necessarily mean that they are doing or want to do a clinical audit project.

Other forms of audit can include:

- Financial audit - Looking at accounts to establish whether they provide a true and fair view of the organisation's financial position at a given time.
- Internal audit - An internal mechanism that traces non-clinical activities and systems along 'audit paths' to see if things happened the way they should have. For

example, tracing a patient complaint from the initial letter of complaint through to resolution to establish whether Trust guidelines were followed appropriately.

- Organisational audit - An external, independent and voluntary audit of the whole organisation, based on a framework of explicit standards. Organisational audit looks at how well the organisation is set up and runs on a daily basis.
- Counting things/ Investigations - The collection of data which is not related to explicit audit criteria (standards) is not considered to be clinical audit.
- Routine monitoring of clinical outcomes - The identification and measurement of clinical outcomes that are explicitly linked to the change process may form part of a clinical audit project.
- Peer review including Mortality & Morbidity (M&M) - Peer review is a process whereby a group of clinicians collectively assess a small sample of patients recently under their care to establish whether the best possible care was provided or whether things might have been done differently. M&M reporting is a specific peer review process that looks at specific, non-random, cases with adverse outcomes, such as death or injury, to see what lessons can be learned.
- Staff, patient, service user, carer surveys - Surveys are usually carried out as part of a research project or as an engagement activity. They are primarily used to gain the opinions of staff, patients, service users or carers regarding treatment and/or the quality of care in order to see if improvements can be made Surveys should only be used for clinical audit if the data sought cannot be collected from another source and it is related to processes or outcome of care i.e. were standards of best practice being met.

Difference between Clinical Audit & Research

"Research is concerned with discovering the right thing to do; whereas audit ensurs that it is done right"

Smith R. Audit & Research. BMJ 1992; 305: 905-6

Research addresses clearly defined questions and hypotheses using systematic processes to generate new evidence to refute, support or develop a hypothesis, by asking the question 'what is best practice?' As a result of which a new service or new practice may be developed. The methodology is designed so that it can be replicated and so that the results can be generalised to other similar groups.

Research may involve a completely new treatment or practice, the use of control groups or placebo treatment for purposes of comparison, or allocating service users randomly to different treatment groups.

Research must comply with Research Governance, and be registered with the Research & Development Department.

Clinical audit aims to improve the quality of local patient care and clinical outcomes through the peer-led review of practice against evidence-based standards, implementing change where necessary. It asks the questions 'are we following best practice?' and 'what is happening to patients as a result?'

Clinical audit is initiated by national bodies, commissioners (PCTs) or service providers, including local healthcare staff and managers. The methodology is designed to address clearly defined audit questions that establish whether a specific clinical standard is being met. Results are specific and local to a particular team or service although the audit tool may be used by more than one team or service.

A clinical audit project will never involve a completely new treatment or practice, never involve the use of control groups or placebo treatments, nor does it involve allocating patients randomly to different treatment groups. It may, however, involve input from patients, service users or carers at a number of levels, e.g.

- Participation in surveys which help to determine whether standards have been met.
- Involvement in the design of individual clinical audit projects or whole programmes of activity.
- Clinical audit projects must be registered with the Clinical Audit Team, and therefore will have been approved by the relevant Clinical Audit Convenor. The use of survey methodologies as part of a clinical audit is also subject to approval by the Trust's Questionnaire Interview & Survey Group (QIS). Whilst clinical audit projects should be scrutinised for ethical implications, REC approval is not required.

It is important to know the difference between the audit and research as Research projects and clinical audit projects have very different purposes, and use different methodologies.

Whilst research requires REC approval, clinical audit does not. However, should still be conducted within an ethical framework.

Service Evaluation

The aim of service evaluation is to judge a service's effectiveness or efficiency through the systematic assessment of its aims, objectives, activities, outputs, outcomes and costs. It addresses specific questions about the service concerned and results are specific and local to a particular team or service. May lead to service redesign and reconfiguration in that particular area. Service evaluation never involves completely new treatment practices, the use of control groups or a placebo treatment nor does it involve allocating service users randomly to different treatment groups.

If service evaluation activity is undertaken via the Clinical Audit Team or the Research & Development Department, it will be subject to the scrutiny and advice of those teams, however it should be noted that neither team currently has expertise in the field of service evaluation.

Importantly, whilst service evaluation projects should be scrutinised for ethical implications, REC approval is not required.

Patient, Service user, Carer engagement
Research, clinical audit or service evaluation projects may all include a patient, service user or carer survey.

In terms of clinical audit, surveys can be a useful tool, where measuring compliance against audit criteria requires information that can only be obtained from the patient or service user. Surveys can be construed as doing something 'beyond normal clinical management'. Therefore, it is important to get advice on the design of your survey as some questions might touch upon potentially sensitive matters, which would give rise to ethical concerns. It is extremely important that all surveys are designed to cause minimum possible disruption.

Clinical Audit Strategy
All healthcare professionals are expected to participate in clinical audit; it defines what is and is not considered to be clinical audit (as outlined above); it states that audits relating to the National Agenda should be prioritised; and it places an emphasis on multiprofessional clinical audit, and direct/indirect patient engagement.

Clinical audit projects are either unidisciplinary e.g. involving only one staff group or multidisciplinary e.g. involving more than one discipline or profession. it is important that a clinical audit project assesses patient care as provided by the whole clinical team to identify how their care can be improved. Therefore, if project has implications for a profession or discipline other than, whether within or outside the clinical area of work, it is important to ensure that they are represented on the project team.

Summary
- Clinical Audit is a quality Improvement process that measures current patient care and outcomes against agreed standards of best practice.
- Not all 'audit' is clinical audit.
- Be aware of the differences between project categories:
- Clinical audit - audit against agreed standards of best practice.
- Research - aims to create new knowledge.
- Service Evaluation - assesses the effectiveness of a service.

"Better is possible. It does not take genius. It takes diligence. It takes moral clarity. It takes ingenuity. And above all, it takes a willingness to try." – Atul Gawande, Better: A Surgeon's Notes on Performance

Note

Note

Poster Presentation

[P - 1]

Two Cases of Fetal Ascites-Prenatal Disease Presentation Diagnosis and Outcomes

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Aims and Objectives: Fetal ascites is a rare pathological finding. It can manifest as an isolated fetal ascites or ascites associated with other fetal abnormalities. The prognosis depends on the etiology.Two case reports are being presented with different etiology and outcomes.

Case 1: Mrs X G2P1L0, 30+5 weekswith GDMcame toACFM with USG: isolated fetal ascites. Investigations already available with her prior to referral were normal fetal Karyotyping, metabolic storage disorders, and biochemical analysis of the ascitic fluid. At ACFM, repeat fetal paracentesis 400ml was done and sample was evaluated for delta 508 mutation which was negative. Cystic fibrosis has a varied genetic etiology so the diagnosis, cystic fibrosis was not ruled out. At 31+5 weeks, the baby had spontaneous deceleration. Before the caesarean section, 250ml of fetal ascitic fluid was drained to relieve lung compression. Outcome: male baby, 2.4kg, intubated because of poor APGAR. Baby continued to have abdominal distension.: strong suspicion of intestinal perforation. Exploratory laprotomy was done which revealed ileal perforation and pellets found distal to the perforation making the diagnosis of cystic fibrosis certain. Gene testing of cystic fibrosis advised.Baby is thriving on full feeds post surgery.

Case 2: Mrs Y, G6 P2L1A2 with 31 weeks POG came to ACFM at with USG: isolated fetal ascites. The ultrasonography at ACFM revealed hepatosplenomegaly. Fetal paracentesis was done and the sample was sent for investigations. Patient got admitted due to decreased fetal movements and fetal ascitic fluid was drained before caesarean to relieve lung compression. Outcome: 1.8kg baby, intubated. HB was 4gm/dl with 68000 platelet count. Despite 2 units of packed cells and FFP Intraabdominal bleed the baby died after two days due to irreversible shock. Autopsy: hepatoslenomegaly and HPE of liver: features suggestive of metabolic disorder Foamy cells >Gauchers suspected.Mother had dengue which flared post surgery.

Conclusion: Proper maternal and fetal evaluation of fetal ascitis can even lead to the diagnosis of rare diseases inutero and can help for further plan of management.

[P - 2]

Mom, Have You Taken Your Folic Acid Today? - Outcome of Cases with Neural Tube Defects

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Background: Neural tube defect's (NTD's) are the most common antenatally detected CNS malformations. The expertise and resources to treat and manage children with such defects is far from adequate in the developing countries. It is thus important to provide data on the outcome of such pregnancies to help the parents arrive at a decision and also to assist the clinician in providing genetic counselling for future pregnancies.

Objectives: To determine the postnatal outcome of pregnancies with NTD's in a tertiary care centre in India.

Material and Methods: We performed a prospective study over 10 years (2007-2017), which included all women with prenatally detected NTD's in the baby. Postnatal follow-up of live-born babies was carried out for 3 months. All still-borns were examined after birth and autopsy was done after valid consents.

Results: There were 618 cases with CNS malformations of which 334 were attributed to NTD's. Out of these 307 were fully followed. Most presented late in gestation and few had an initial scan before 20 wks of pregnancy. Of all cases, 169 were of spina bifida, of which only 3.5% survived; 110 were anencephaly- of which none survived. The rest 28 cases were that of encephalocoele, of which only 14% survived by the end of 3 months.

Conclusion: In India, majority of NTD's present late in gestation. Although fetal outcome is invariably poor for severe defects, existing legislation in the country leaves continuation of the pregnancy as the only option.

[P - 3]

A Rare Case of 3rd Degree Uterine Prolapse with Squamous Cell Carcinoma of Cervix (Keratinising Type)

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Introduction: Genital prolapse and carcinoma of the cervix are not rare events but their association is very uncommon because it was thought that the cornified cervical epithelium, minimal vaginal secretions (post-menopausal) and free drainage makes the prolapsed cervix resistant to the development of carcinoma.

Case Presentation: A-44-year-old female presented with the feeling of something coming out of vagina for 10 years, profuse white discharge for 3 months and backache. Physical assessment showed a uterine prolapse of third degree and ulcerous and necrotic growth of about 5 x 4 centimeters at the lower part of prolapse at the cervix. Histopathological examination of cervical biopsies revealed well invasive squamous cell carcinoma of keratinizing type. Her clinical staging was done according to which she was assigned stage II A_2. She was planned for Radical Hysterectomy. On opening the abdomen, the bladder seemed to be involved (stage was surgically upgrades to IV A), so further surgery was abandoned and the patient was referred for chemo radiation.

Discussion: Uterine prolapse with cervical carcinoma is a rare association. The rarity of this association precludes any possibility of studying and establishing the exact pathogenesis. The assumption that displacement of the uterine cervix from the natural environment of the vagina may decrease the neoplastic process of viral infection explains the lower risk of cervical cancer in uterine prolapse. Hence, further studies are needed and it is necessary to individualize the optimal treatment for each patient to improve life quality and the prognosis.

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[P - 4]

Fetal Aortic Isthmus Doppler Measurements for Prediction of Perinatal Morbidity and Mortality Associated with Fetal Growth Restriction and It's Corelation with Ductus Venosus Changes

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Objective: Role of Fetal Aortic isthmus Doppler was measured for prediction of perinatal morbidity and mortality associated with fetal growth restriction and correlation of it with ductus venosus changes was studied to transfer them to the tertiary centre.

Methods: 100 (50 cases and 50 controls) pregnant women with gestational age between 26 weeks to 37 weeks visiting tertiary care centre were recruited after taking informed consent. Study group included women with EFW < 10 th centile with AREDF in umblical artery and control group included women with EFW < 10th centile with forward flow in umblical artery. Primary outcome studied was Number of days till delivery after Aortic isthmus starts deteriorating and its correlation with ductus venosus Pulsatility index. Other Secondary outcomes which studied were, Sequence of changes in aortic isthmus in continuation to Umbilical artery, Middle cerebral artery and Ductus venosus, Perinatal outcome in study and control group and Feasibility of Aortic isthmus in different views.

Results: In our study only Group A women(cases) had shown aortic isthmus (AOI) blood flow variation on the basis of IFI (isthmic flow index), none of the women in Group B(controls) had shown AOI variation and all women in Group B had only forward flow(type-1). In Group A mean no. of days from worst AOI IFI to DV>95th centile were 2.3, and mean no. of days from worst AOI IFI to delivery were 4.6 days. Mean days calculated are not the actual mean and this data is spurious, therefore, no valid analysis could be done. A valid analysis was possible only if AOI IFI strictly behaved as an intermediate parameter between UA and DV changes i.e; deterioration in AOI IFI would have started in all women after UA changes but before DV > 95th centile mark or before delivery. Aortic isthmus did not show significant correlation with other Doppler parameter like UA, MCA, DV. Perinatal morbidity and mortality is significantly higher in group A as compared to group B. Bias due to prematurity as a cause of poor perinatal outcome in Group A was unavoidable. When we compare perinatal morbidity in subgroup on basis of aortic isthmus variation it was similar in both the subgroups. Aortic isthmus Doppler on ultrasound was feasible in all women in both cases and control groups

Conclusions: Aortic isthmus Doppler is not a consistent parameter to guide management of pregnancy complicated by FGR. Larger prospective cohort studies including larger number of women are required to ascertain the role of Aortic isthmus Doppler in clinical practice; till then its role should be restricted to research purpose only.

Keywords: Aortic isthmus Doppler, Ductus venosus, pregnancy, perinatal outcomes

[P - 5]

Antenatal Diagnosis and Successful Exit in Fetus with Laryngeal Atresia

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Background: Congenital high airway obstruction syndrome (CHAOS) is a near fatal condition, except when the ex-utero intrapartum treatment (EXIT) procedure is performed which would rescue the baby.

Case: We describe here a case of laryngeal atresia, presented to us as primigravida 33 weeks gestation with findings suggestive of possibility of CCAM or CHAOS. The ultrasound showed an unmistakable finding of bilateral enlarged echogenic lungs, with flat diaphragm, with dilated trachea appearing up to the neck. A pediatric surgery opinion was taken, suggested poor prognosis due to lethality of the condition after delivery, ex-utero intrapartum treatment (EXIT) procedure was planned as rescue. The patient went into spontaneous labor; a well-coordinated team of obstetricians, ENT surgeons, anesthetists, pediatrician, pediatric surgeons was present in the labor room, who performed tracheostomy while the baby was still attached to the placenta through cord. The tracheostomy was performed in 10 minutes, after successful tracheostomy positive pressure ventilation was given. The cord was cut subsequently and the placenta was delivered, it was ensured that the uterus was well contracted. The postnatal CT scan showed atresia of approximately 10mm portion of larynx.

Conclusion: The case emphasizes the role of a well-coordinated team of fetal medicine specialist, anesthetists, neonatologists, pediatric surgeon and ENT surgeon to handle an EXIT procedure. It emphasizes the importance of referring such cases to a tertiary care hospital in the antenatal period.

[P - 6]

Peri and Post Menopausal Women with Adnexal Masses and Raised CA-125 and Histopathologic Correlation

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Introduction: Pre-operative identification of malignant potential of adnexal masses is important. Presence of solid component, bilaterality of adnexal mass on ultrasound and raised CA-125 are useful in differentiating benign from malignant masses. Aim of study was to correlate CA-125, ultrasonography and pathological findings of adnexal masses in peri and post-menopausal women from Uttarakhand.

Materials & Methods: Cross-sectional, prospective study included 59 women presenting to gynaecology OPD of AIIMS, Rishikesh with adnexal masses. Study was conducted from October 2015 till October 2017. Transvaginal/ transabdominal sonography for morphological features was performed,

suspicious masses were subjected to MRI /CECT. Tumor marker CA-125 was sent. Findings were co-related with intra operative findings and histopathology report.

Results: Out of 59 women, 27 (45.8%) women had cyst >10 cms with largest cyst size of 25 x 20 cm weighing 4.5 kg. Serum CA-125 was elevated (>35 units/ml) in 46 patients and was more than 120 units/ml in 11 (18.6%). Highest CA-125 (463 units/ml) was found in benign ovarian tumor, Fibroma. On histopathology, 49 (83%) masses were benign, 1 (1.7%) borderline and 9 (15.3%) malignant. Most common type of ovarian malignancy was epithelial ovaian carcinoma (n=6, 8.5%).

Conclusion: As a stand alone test CA-125 is not recommended for differentiating between benign and malignant adnexal masses. It is useful to incorporate clinical, ultrasonography based morphology scoring systems and tumor markers in deciding individual risk of ovarian cancer and management protocols for optimal survival of patient.

[P - 7]

Yolk SAC Tumor Presenting as Broad Ligament Fibroid

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Introduction: Ovarian yolk sac tumor, also known as ovarian endodermal sinus tumor, is the second most frequent malignant ovarian germ cell tumor just after Dysgerminoma, with an incidence of approximately 1% of ovarian malignancies[1]. Serum Alpha-fetoprotein is a useful tumor marker for diagnosis prognosis and for detecting recurrence.

Case report: A 25 year old, P1+1L1 patient presented to the OPD with complaint of, severe pain in lower abdomen x 7 days, and fullness in abdomen x15 days. On P/V Examination, the uterus felt normal size; a firm mass of about 5x6cm, felt through the right fornix, adherent to uterus. A myomectomy was planned. Upon opening the abdomen, a well capsulated mass of about 5x6 cm, adherent to uterus, felt through right broad ligament. While removing it, the mass got burst. Small fat cells and clots were seen coming out. The entire material which appeared to be malignant, was scooped out, and sent for HPE, which confirmed the presence of a Yolk Sac Tumor. Simultaneously Serum AFP was done, which was 8880.64. She was put on Chemotherapy (stage Ic).

Discussion: Yolk Sac tumors are defined as tumors that resemble the Yolk Sac Allantois, and extra embryonic mesenchyme and are also known as Endodermal sinus tumor.These are commonly seen in Males and females, involving the testis, Ovaries and other sites, but may pose difficulties in distinguishing YSTs from other subtypes[2].

In this case, the tumor presented like a broad ligament fibroid. HPE and tumor markers like AFP are gold standard for diagnosing the tumor.

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[P - 8]

Determinants of Awareness and Practice of Emergency Contraception In Women of North Delhi

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Objectives: To assess the awareness and use of emergency contraception (EC) and their determinants among women in the reproductive age group.

Method: A cross sectional study was conducted over three months at BSA hospital. Females between 15-45 years attending the hospital and willing to participate in the study were enrolled for data collection Data was collected by a pretested questionnaire .The analysis was done using Excel sheet. A p value of <0.05 was considered statistically significant.

Results: Majority (67%) of women were in the age group of 16-30 years, were married (90%), Hindus (96%), belonged to joint family (65%) and educated above primary schooling. Only 19% (n=120) were aware of EC. Of these 28 %(n=34) had used EC. Levonorgestrol was the only method of EC the women were aware of and had used. Major source of information for them was electronic media. Age and Education were the main factors determining awareness and practice of EC.

Conclusion: Awareness of EC needs to be increased in women of reproductive age group to prevent unwanted pregnancies and unsafe abortions.

[P - 9]

Audit of Caesarean Section Rate in Single Tertiary Care Hospital: A retrospective study

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Aim

1. Audit of cesarean rates and analysis in single tertiary care hospital over period of 5 years Retrospectively.
2. Objective of this retrospective analysis is to analyse and to look for measures and steps to reduce cesarean section rates and to assess the impact of this reduction on maternal and perinatal morbidity and mortality.

Introduction: Increased cesarean birth rates are concern to public health and measures to analyse have led the World Health Organization to advise that Cesarean Section (CS) rates should not be more than 15%,[1] there is some evidence that CS rates above 15% are not associated with additional reduction in maternal and neonatal mortality and morbidity[2]. For this, Robson,[3] proposed a new classification system, the Robson Ten-Group Classification System to allow critical analysis according to characteristics of pregnancy

Method: This retrospective study was conducted using available data from single tertiary care hospital in New Delhi over a period of 5 years from January 2012 to Nov 2107. All the women delivered during this period were included excluding patients with elective caesarean section. Two groups were taken,

patients of general opd and private opd of one consultant. All relevant obstetric information (parity, mode of previous deliveries, previous CS and indications, gestational age, onset of labor, spontaneous or induced labor, Epidural analgesia) was considered. Before proceeding, approval was taken from hospital ethical committee and head of the department of obstetrics and gynaecology.

Result: Overall caesarean rate was 39.3% with individual Cs rates in GOPD & POPD as 38.86% & 39.6% respectively. Further analysis was done considering indication lscs and various risk factors.

Conclusions: Various steps should be taken into account to improve outcome of deliveries and reduce cesarean rates-

1. Standardization of indication for emergency lscs
2. Analysis and reduction of inter observer difference of interpretation of CTG.
3. Role of epidural in labor and emergency lscs.
4. Efforts to reduce overall cesarean rate showed focus on reducing primary cesarean rates.
5. Our results suggest that multifaceted strategies, based on audit and detailed feedback, are advised to improve clinical practice and effectively reduce cesarean section rates.
6. Cyclical revision of audit should be done to compare results with previous audit.

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[P - 10]

Pregnancy Complicated by Prosthetic Valve Thrombosis-A case report

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Objective: Hemodynamic changes during pregnancy can result in cardiac decompensation in women with valvular heart disease. There is increased risk of thromboembolism,anticoagulant related haemorrhage, fetal loss and congestive cardiac failure in pregnant women with mechanical heart valves.A multidisciplinary approach in a well equipped centre with adequate support services is must for favourable outcome.

Case presentation: A 27 year old primigravida, presented with history of aortic valve replacement in 2009 at 14 weeks and 6 days with right sided hemiparesis. She was on acitorm after surgery switched to heparin in first trimester of pregnancy. She was managed conservatively at each episode of thrombosis occurring at 14weeks and 6 days, 28 weeks and 36 weeks in consultation with cardiologist. Elective caesarean section was planned at 36 weeks and 4 days after steroid cover resulting in birth of alive female baby weighing 2.4kg.

Conclusion: Pregnancy in these patients is a high risk venture. Intensive and vigilant monitoring for anticoagulation therapy during entire pregnancy, delivery and post delivery form core of management. A team approach including cardiologist, obstetrician, neonatologist, cardiac surgeon and anesthesiologist is a necessity for good outcome.

[P - 11]

Uterine Fundal Rupture in an Unscarred Uterus in a Grand Multigravida : A case report

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Introduction: Rupture of unscarred uterus is rare with incidence being 1:15000 pregnacies potential life threatening event to mother and fetus cases have reported following fundal pressure during labour we report a case of spontaneous ruphice of uterus during labour

Case Report: A 38 year old grav 9 para 7, living 7abortion 1 a coolie worker at term an unbooked case till date presented with sudden onset pain abdomen since past 3 hours. On arrival, she was tachycardiac, hypotension was present. Uterine rupture was diagnosed by palpation of fundus uterus, fetal extremities with the absence of fetal heart immediate exploratory laparotomy was done and rupture of fundus with dead fetus noted intra-op peripartum hyterectomy was done, post operative period was uneventfull, thee was no pph, Rh negative blood was arranged, Hysterectomy done as she was grand multi.

Conclusion: Risk factor for rupture of uterus in our case is due weakening of uterine muscles early detection and immediate surgical intervention is the mainstay of treatment

[P - 12]

Anomaly Spectrum Seen in First Trimester Clinic

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Aim: To present the wide spectrum of anomalies detected on first trimester scan

Material and Methods: We retrospectively analyzed the data of patients visiting our first trimester clinic from February 2014 to November 2017 to study the spectrum of anomalies detected in them.

Result: A total of 2684 patients were included in the study with CRL 45 to 84 mm out of which 22 were twins and 2 triplet pregnancy. Number of cases detected with fetal structural anomalies was 28. CNS: 12/28 cases, Spine: 4/28 cases, GIT: 3/28 cases, Thorax: 2/28 cases, Extremities: 1/28 cases, Face: 1/28 cases, More than one system: 3/28 cases, Twins: 1/28 [conjoint twins], Triplets: 1/28 [Trap sequence]

Conclusion: The incidence of fetal structural anomalies in this study is 1%. Most common anomalies detected were of central nervous system followed by spine, GIT, thorax. It is possible to detect major fetal structural abnormalities during first trimester scan if careful assessment of fetal anatomy is done.

[P - 13]

Emdometriosis: A Diagnostic Dilemma

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Objective: To highlight the dilemma of extremely elevated CA 125 and raised LDH in a pre-menopausal woman with complex ovarian masses and ascites.

Introduction: Preoperative differentiation between a benign and a malignant ovarian mass in a premenopausal woman can be problematic with no test or algorithm being clearly superior in terms of accuracy. The ACOG and the SOGC include serum CA-125 >200 units/ml and ascites as suspicious for ovarian malignancy in the management of premenopausal women with a pelvic mass[1,2]. RMI I score should be calculated for women with suspected ovarian malignancy and a score of 200 is 78% sensitive and 87% specific in the detection of ovarian malignancies[3,4]. Advanced imaging is required in evaluation of more complex lesions diagnosed on ultrasound especially in obese women[5]. Lactate dehydrogenase (LDH), α-FP and hCG should be measured in all women under age 40 with a complex ovarian mass because of the possibility of germ cell tumours.

Case: A 39-year old nulliparous Indian woman with BMI of 32.38 kg/m2, presented with pain in abdomen on day 2 of her menstrual cycle. Abdominopelvic ultrasound showed free fluid in the pelvic cavity with right and left complex ovarian cysts of 4.95 cm and 10 cm respectively suggestive of endometriomas. Serum CA 125 and LDH were 4295 IU/mL and 740 U/L respectively. At this stage, she was referred to us with a very high suspicion of malignancy. The MRI showed uterine adenomyosis with diffuse pelvic endometriosis and bilateral endometriomas. A repeat CA 125 as 5836 IU/ml and RMI I score of >10000 kept malignancy as a differential diagnosis. In view of her age and desire for future fertility, diagnostic laparoscopy was performed with the preparation of radical surgery if needed. On laparoscopic diagnosis of endometriosis, bilateral ovarian cystectomy with fulguration of endometriotic lesions was performed. Histopathology confirmed the diagnosis of endometriosis. Post-surgery, her CA-125 and LDH declined sharply.

Discussion: CA-125 levels are raised in numerous conditions including fibroids, endometriosis, adenomyosis and pelvic infection, hence it is unreliable in differentiating benign from malignant ovarian masses especially in premenopausal women. Although in this case, a highly-raised CA 125 and LDH led towards suspicion of malignancy, USG and MRI appeared to be the most informative and reliable for choosing the most appropriate operative intervention and thus minimise morbidity especially in a young patient where future fertility is at stake. In this case, the elevated CA-125 levels can be due to advanced stage of the disease where it is reported to be raised to several hundreds or thousands of units/ml[6]. Raised LDH is presumed due to excessive endometrial tissue in endometriosis as also seen with cases of endometrial hyperplasia (reference to be supplied).

Conclusion: Despite confusing biomarkers, proper preoperative work-up resulted in appropriate surgery with minimum morbidity.

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[P - 14]

Rescue Laparoscopic Cervical Cerclage as a third Attempt in the Same Pregnancy: A case report

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Introduction: Cervical incompetence is characterized by painless dilatation of the cervix that results in miscarriages in the second trimester or preterm deliveries.Cervical cerclage is a known treatment in selected cases. We present a case highlighting the importance of the route chosen for the procedure.

Case: A 28-year old primigravida presented to us at 20^{+5} weeks of gestation following an IUI with the diagnosis of cervical incompetence with two transvaginal cerclages performed on her earlier and threatened preterm delivery. She had a past history of primary infertility with a failed IVF. She underwent Hysterolaproscopy with septal resection in November 2016. A McDonald stitch was applied by Merselene tape at 13 weeks when her cervical length was found to be 15 mm with a closed internal os at a routine first trimester screening USG. A second Mac Donald stitch with silk was applied at 18 weeks when a repeat USG revealed further shortening of the cervix to 13 mm and membranes bulging in the cervical canal. Despite two cervical Mc Donald cerclages, when the cervical length on the USG at 20^{+5} weeks was found to be further reduced with bulging membranes, the patient was referred to us for further management in a hospital with a tertiary care NICU. After a few days of conservative management, in view of the high risk of PPROM so distant from from fetal viability, she was offered an abdominal route of cervical cerclage. Laparoscopic cervical encerclage was performed at 21 weeks of gestation.There were no intra-operative or immediate postoperative complications. The USG findings after the procedure documented open internal os with buldging membranes with cervical length of 10 mm. The patient was discharged home after 7 days. A healthy infant of 1800 gms was delivered at 31^{+3} weeks by cesarean section when the patient was re admitted with PPROM.The baby was discharged from the NICU after 25 days.

Discussion: The vaginal approach of cervical cerclage that was developed in 1955 has been found to be associated with a significant failure rate in cases of anatomical distortion in the cervix [[1]]. Suture placement at the level of the internal cervical

os is imprecise vaginally. It also leaves a foreign body that is a potential site for infection in the vagina. Another approach involves performing the cerclage through an abdominal incision. Transabdominal cervicoisthmic cerclage was first performed in 1965 as an alternative to transvaginal cervical cerclage [2]. This route makes it possible to place the stitch exactly at the desired level and is particularly beneficial in women with short cervices of congenital origin or secondary to previous surgical procedures; and in those with severely lacerated cervices due to obstetric trauma [3]. However, its main disadvantage is the need for two open laparotomies, one for the cerclage and another for caesarean section. It also requires longer hospitalization and recovery and the risk of postoperative bowel adhesion is also higher with the open method[3]. Laparoscopic placement of cervical cerclage seems to have many advantages over an open method. Laparoscopy provides superior views of the uterine cervicoisthmic junction compared with vaginal or abdominal surgery. This allows close approximation to the level of the internal cervical os when placing the suture laparoscopically. Laparoscopic cerclage also offers the benefits of reduced hospital stay and a faster recovery.The procedure can also be safely performed before pregnancy, avoiding the need for surgery during pregnancy[4].

Conclusion: Laparoscopic cervical cerclage during pregnancy can be safe and effective treatment for well-selected cases of cervical incompetence and eliminates the need for open laparotomy.

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[P - 15]

An Aggravated Form of Domestic Violence: Case report

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Domestic violence is a worldwide problem which has serious implications on women's physical and mental health. It is more common in developing countries particularly in rural areas. We are reporting one such case of domestic violence and by this we want to emphasise that there should be proper awareness among the doctors as well as the women about the condition and it's consequences.

A 20 year old primigravida with 7 months of pregnancy was initially brought to a nearby hospital with history of assault by her husband with an axe. She had a history of fall on her abdomen and unconsciousness for 2-3 hours. The patient was referred to AIIMS, Rishikesh after primary treatment. On examination, we found multiple lacerated wounds on her face, neck and right hand. Her uterus was of 26 weeks size and fetal heart was not audible on auscultation. USG confirmed intra uterine demise of the fetus. To manage the patient, a multidisciplinary team approach was incorporated which included a senior obstetrician, maxillofacial surgeon and plastic surgeon. Tablet misoprostol 100 mcg, three doses every 4 hourly was given vaginally and patient expelled a dead macerated female fetus weighing 780 grams after 17 hours 25 minutes of induction. After that maxillofacial reconstruction and surgery for hand injuries was done by maxillofacial surgeon and plastic surgeon. Postoperative period was uneventful. The general condition of the patient improved day by day. Psychiatric consultation was also sought for her mental well being. The patient was discharged in a stable condition and regularly comes for follow up.

[P - 16]

Chronic Non Puerperal Uterine Inversion: A rare case report

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Uterine inversion refers to descend of uterine fundus to or through the cervix so that uterus is turned inside out. Uterine inversion is a rare condition occurring as a complication of delivery. Chronic inversion is extremely rare representing one sixth of all deliveries. Prolapsed fibroid's tends to be the most important inciting factor with occasional report of uterine inversion associated with neoplasm and endometrial polyp.

55year old female came to emergency of Safdarjung hospital in shock with a mass coming out of vagina since 3hrs. She had BP of 60/40 following which she was started on nor adrenaline. Had history of something coming out of vagina since 6mnths with increased suddenly since morning. On local examination 10+ 10cms mass seen protruding through vulval opening associated with bleeding. On per vaginal examination,a pedunculated mass with thick stalk was felt coming out from vagina,uterus could not be felt separately,bilateral parametrium could not be felt with rectal mucosa being free. Uterus could not be reposited vaginally. In view of deteriorating vitals, patient was immediately taken for laparotomy for hysterectomy. Received 4unit P/C and 4 units FFP intraoperatively. Postoperative period as uneventful and patient could maintain her blood pressure without inotropic support. She was discharged on 6th postoperative day and postoperative period was uneventful.

Chronic non puerperal uterine inversion is a rare finding with less than 200 cases reported in literature since 1887. Mostly it is associated with fibroid either submucosal fibroid or leiomyosarcoma. In our case,it is sessile non pedunculated fibroid of fundus of uterus. Inversion of myomatous uterus is both due to thinning and weakening of uterine wall at the seat of tumor's implantation. It is also suggested that sudden emptying of the uterine cavity which was distended by a large tumor and dilatation of the cervix play role In chronic uterine inversion. This is due to pressure atrophy which is more marked with larger tumor and the contractions of the uterine musculature which are excited by the prolapse of the tumor into the cavity of the organ.Thus a case of uterine inversion in non puerperal cases requires high index of suspicion. The treatment for chronic uterine inversion is surgical that includes both vaginal and abdominal approaches. However, need for preservation of fertility excluding malignancy might be important in selected cases.

[P - 17]

Role of Prenasal Thickness in Predicting Trisomy 21 Fetuses Between 16-26 Weeks of Gestation

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Objective: To check the feasibility of prenasal thickness in predicting the Trisomy fetuses as compared to the normal fetuses.

Method: The study is a retrospective analysis of data obtained from women attending Apollo Centre for Fetal Medicine between 2009 and 2017. The prenasal thickness was analysed for normal fetuses with livebirth as well as fetuses diagnosed with Trisomy 21 by invasive test between 16-26 weeks of gestation. The data was analysed using Microsoft Excel 2010 and SPSS software to calculate the 5th and 95th percentile. Prenasal thickness of fetuses diagnosed with Trisomy 21 was plotted on nomogram of normal fetuses.

Result: In our study we have observed that the prenasal thickness of Trisomy 21 fetuses is significantly higher than the normal fetuses (P<0.01).

Conclusion: Increased prenasal thickness is a strong predictor for Trisomy 21 fetuses as well as a good second trimester screening test for Trisomy 21.

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[P - 18]

An Unusual Case of Abdominopelvic Mass with Umbilical Hernia Mimicking Advanced Ovarian Malignancy

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Objective- To discuss an unusual case of abdominopelvic mass with umbilical hernia with lung nodule mimicking advanced ovarian malignancy

Methods- A 18 years old, young unmarried girl presented with fever, loss of weight, decreased appetite and abdominal distension 3 years back when she was diagnosed to be a case of tuberculosis on ascitic and pleural fluid testing. Received category I anti tubercular treatment (ATT) for 9 months. Again came to GOPD with the similar complaint. On examination, bilateral decreased air entry in chest. There was a 10x10 cm bulge around the umbilicus with cough impulse present. On palpation, a separate solid cystic mass~10x10 cm occupying right iliac fossa and partly hypogastric area. USG was suggestive of 11x11.5cm complex cyst in right adnexa, right ovary not seen separately. Her ca-125 was 55 U/ml. Chest X-ray was suggestive of bilateral pleural effusion with partial collapse of left lung. There was 22mm defect at umbilicus with herniation of sac 11X1.8cm. Also there was moderate ascitis and bilateral mild pleural effusion. CECT Chest was suggestive of 3.3x2.6 cm irregular peripheral enhancing lesion in upper lobe of left lung. With the provisional diagnosis of Ovarian mass? Malignant? tubercular with paraumbilical hernia secondary to ascitis, she underwent laparotomy and ascitic fluid cytology (ADA, PCR, AFB, L-J media culture) and right salpingoophorectomy with omental and peritoneal biopsy.

Results and conclusion- Based on complete profile of the patient, she was started on category II ATT and discharged in stable condition.

POSTER 19

ANTI MULLERIAN HORMONE AS A SURROGATE FOR DIAGNOSIS AND PROGNOSIS IN PCOS

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Objectives: To examine the association of serum AMH levels with biochemical derangement and sonographic appearance in PCOS patient and to examine its role as a possible marker for diagnosis of PCOS.

Methods: This case-control study was conducted on patients attending the Gynecology OPD at ESIC Medical College and Hospital, Faridabad, Haryana from March to September 2017. 45 women between 18-45 years who fulfilled the Rotterdam Criteria for PCOS were recruited as cases. Controls were women aged 18- 45 years attending the Gynecology OPD who had no features of ovarian dysfunction, endocrine abnormalities and had normal ovarian morphology on sonography. Relevant clinical data, biochemical and hormonal profiles were evaluated for both groups. Sonographhic features including mean ovarian volume, stromal hyperechogenecity and AFC were compared between cases and controls. Multivariate logistic regression analyses were used to study the association between biochemical and sonographic variables and PCOS. ROC curve analysis was performed to evaluate the diagnostic potency of AMH for the prediction of PCOS.

Results and Conclusions: Cases and Controls were matched with respect to age and BMI. Mean AMH in the PCOS group was 5.9 ng/ml and in the control group was 2.36 ng/ml and this difference was statistically significant. The AUC of AMH level was used to determine the optimal cut-off of AMH value for diagnosis of PCOS. AMH higher sensitivity and specificity compared to other variables. It is concluded that AMH levels can be used as diagnostic and prognostic modality in PCOS patients.

[P - 20]

Prediction of Preeclampsia Using Maternal Factors and Mean Arterial Pressure [Map] in Low Resource Setting

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Objective: To assess the sensitivity of using maternal factors and mean arterial pressure in first trimester of pregnancy (11-13+6 weeks) in the prediction of preeclampsia.

Materials and methods: The study is a retrospective analysis of pregnant women [n=100] attending Apollo Centre for fetal medicine in first trimester. We assigned a risk score to women based on maternal risk factors and MAP using FMF algorithm. A statistical analysis of outcomes of pregnancies and the risk score assigned to the women was performed. A comparison

of the above risk with the risk score calculated by addition of Placental Growth Factor [PLGF] was done. A statistical analysis of risk scores obtained by the above two methods was done to assess their sensitivity for the prediction of pre eclampsia.

Results: Maternal risk factors and MAP were found to be important in prediction of pre eclampsia. Addition of PLGF improved sensitivity for the same.

Conclusion: Further studies are required on a larger patient database to assess the role of various factors and formulation of a risk score that is relevant in low resource settings.

[P - 21]

Comparison of Preoperative and Intraoperative Evaluation of Lower Uterine Segment Cesarean Scar

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Objectives: To study Lower Uterine Segment cesarean scar using transabdominal ultrasound and clinical parameters in previous cesarean section antenatally at term. To study the physical nature of scar at repeat section and find the association between preoperative and intraoperative evaluation.

Methods: This was a cross sectional observational study undertaken in VMMC & SJH, New Delhi. One twenty six women with previous cesarean section were enrolled in the study to evaluate the correlation between clinical and ultrasonographic parameters determined antenatally with the physical nature of scar intraoperatively.

Results and Conclusions : In the study, the women with ICP≤2 years, had significantly weaker scar (grade III/IV=55.56%). In women with post operative wound sepsis in previous LSCS, especially the one's who underwent healing of wound by secondary intention were found to have a higher incidence of weaker scar (grade III/IV=33.4%). A higher percentage of weaker scar,i.e. 34.7% was found in women with maternal tachycardia >100 per minute and 88.89% in women with scar tenderness in peripartum period. Using the ROC curve a cut off of 2.4mm was derived for LUS USG scar thickness. Association of TAS USG LUS scar thickness and per operative grade of scar was found to be significant(p=0.0003). The study revealed a short ICP≤2 years, healing of previous scar by secondary intention, pulse rate >100, scar tenderness, scar thickness<2.4mm, adversely affect the scar, recommending avoidance of TOLAC in such cases. Scar thickness should be measured routinely using TAS USG.

[P - 22]

Association of Single Umbilical Artery with Perinatal Outcomes

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Objective: To evaluate the association of single umbilical artery with other major congenital anomalies and fetal growth restriction.

Methods: This is a retrospective review of women attending Apollo Centre for Fetal Medicine between 2012 and 2017 who were diagnosed prenatally with single umbilical artery after 16 weeks of gestational age [n=113]. The presence of other congenital anomalies or fetal growth restriction were the perinatal outcomes reviewed.

Results: 26.5% of pregnancies were found to have associated other congenital anomalies (urogenital, cardiac and central nervous system anomalies) and 8.8% of pregnancies were complicated by fetal growth restriction. The most common anomalies found to be associated were cardiac, urogenital and central nervous system respectively.

Conclusions: The presence of a single umbilical artery warrants a detailed evaluation of the fetus for other associated anomalies and an increase in surveillance in the 3rd. trimester to increase the detection rate of fetal growth restriction for an improvement in perinatal outcomes.

[P - 23]

In Vitro Fertilization Success Trends Amongst Infertile Women of Indian Ethnicity: A pilot study with public health perspective

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Objectives: Infertility is a major public health problem globally, including India; the etiopathogenesis of reproductive disorders amongst ethnically disparate populations is indeed complex [1]. Cost-effective, robust intervention strategies are essential for infertility control/prevention. Our pilot study aimed to assess the *in vitro fertilization* success trends amongst infertile women of Indian ethnicity.

Methods: A retrospective review of hospital-based registry/ case-records of infertile women undergoing Assisted Reproductive Technology procedures at Indira-IVF Hospital, Udaipur, Rajasthan, India between a six-month timeline (April-September 2017), was rigorously conducted. Clinically relevant parameters were stringently reviewed; inclusion criteria: age<35 years, Indian ethnicity, Body Mass Index (kg/m^2)<25, Anti-Mullerian Hormone (AMH)1.5-2.5 ng/ml, and exclusion criteria: prior ≥2 IVF failures, fibroids, adenomyosis, cervical cancer, thin endometrium, endometriosis. IVF success was determined by assessing total frozen embryos transferred per month, average oocyte yield per donor, oocyte quality, and pregnancy/beta-Human Chorionic Gonadotrophin (HCG) positivity. Written informed consent of patients was taken at initial enrollment.

Results and Conclusions: Total embryos transferred were 248/April, 240/May, 201/June, 254/July, 230/August, 207/ September; number of pregnancies/β-hCG positivity: 171, 171, 139, 179, 176, 163. Subgroup-stratification demonstrated that M-II vs total oocytes retrieved were 72.7%, 66.6%, 83.1%, 73.0%, 72.1% and 74.2%. Overall IVF success rates were 71%/ April, 72%/May, 71%/June, 72%/July, 78%/August and 84%/ September, and frozen embryo-transfer success was 68%, 75%, 74%, 85%, 77%, 83%. Our data highlights promising IVF success rates in Indian infertile women; future public health research, awareness campaigns, psychosocial interventions and pharmacogenetic epidemiological studies are warranted for successful development of predictive biomarkers for infertility management in ethnically disparate populations.

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[P - 24]

Metabolic Syndrome and Insulin Resistance in PCOS Phenotypes

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Objective: Polycystic ovary syndrome(PCOS) is an endocrine metabolic disorder which is rapidly gaining epidemic proportions. Hyperinsulinemia and insulin resistance (IR) are thought to be key pathological factors. This study was undertaken to characterize the phenotypes of PCOS and to determine the prevalence of metabolic syndrome (MetS) and insulin resistance in them.

Methods: This observational cross-sectional study was undertaken to assess the distribution of the Rotterdam PCOS phenotypes and to report the prevalence and risk factors for MetS syndrome and insulin resistance using homeostasis model assesment for insulin resistance (HOMA-IR). 90 women aged 18-35 years newly diagnosed with PCOS were classified into one of the four potential PCOS phenotypes based on history, examination and investigations.

Results: Phenotype A was the most prevalent phenotype (45.5%). Prevalence of insulin resistance in our study was 31% using HOMA- IR cutoff of 2.5, with highest prevalence in phenotype A and least in phenotype D. The overall prevalence of MetS was 36% with a two- to six-fold higher prevalence in hyperandrogenic phenotypes compared to the non-hyperandrogenic phenotype. Univariate logistic regression for predictive association of MetS parameters was significantly high for deranged parameters i.e. WC≥80cm, fasting plasma glucose ≥100mg/dl, HDL ≤50mg/dl and WHR ≥0.85. Strong positive association was found with all these parameters ($p<0.001$) Hirsutism (modified Ferriman Gallwey score ≥8) was strongly associated with MetS ($p=0.005$).

Conclusions: An appropriate diagnosis of PCOS and accurate dentification of phenotype is important as it has long-term health implications for women. We recommend screening all hyperandrogenic PCOS women for IR and metabolic abnormalities. This study has shown that HOMA-IR is a valuable tool in identifying PCOS women with metabolic syndrome and also serve to identify PCOS subtype at high risk of future metabolic syndrome.

[P - 25]

Importance of Cerebroplacental Ratio in Evaluation of Perinatal Outcome in Term SGA and Aga Fetuses

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Aims & Objectives: To find out the importance of cerebroplacental ratio in evaluation of perinatal outcome in term SGA and AGA fetuses.

Methods: This study was conducted in all women>37week singleton pregnancy who had Doppler USG done within 3week of delivery. Cerebroplacental ratio (CPR) was calculated by dividing the Doppler indices of MCA by umbilical artery (MCA PI/UA PI).Adverse perinatal outcomes were evaluated by mode of delivery, meconium staining, NICU admission, low APGAR, perinatal mortality, and other neonatal complications

Results: The present study includes 43 antenatal women >37week of gestation 22 women were primigravida.25 were SGA and 18 were AGA. Out of 25 SGA 6 had CPR<1 in which adverse outcome were seen in 5 patients. Among 18 AGA 5 have CPR<1 and adverse outcome were seen in all 5 patients.

Conclusion: Our study found cerebroplacental ratio to be a good predictor for adverse perinatal outcomes in both SGA and AGA fetuses at term.

[P - 26]

Thyroid Functions in Women with Primary Ovarian Insufficiency

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Premature ovarian insufficiency (POI) is a heterogeneous syndrome of multifactorial origin of which thyroid dysfunction is the most common association.

Objectives: The present study was conducted with the primary objective to compare prevalence of thyroid dysfunction in patients with POI against age and BMI matched controls. Concurrent assessment of the effect of thyroid dysfunction on menstrual characteristics of POI patients on standard treatment was the secondary objective.

Methods: Present study was conducted at a tertiary care hospital in India. Thirty cases of newly diagnosed Hormone Replacement Therapy (HRT) naïve patients of POI were evaluated for thyroid dysfunction by thyroid function test and thyroid peroxidase antibody and prevalence of the same was compared against age and BMI matched controls. All cases of POI were initiated on HRT and effect of thyroid dysfunction on menstrual characteristics was assessed prospectively for the first three months of follow up.

Results and Conclusion: We observed significantly higher prevalence of thyroid dysfunction in POI patients (30% vs 6.6%). A higher prevalence of thyroid autoimmunity in POI patients was also observed (40% vs 20%) but it did not reach statistical significance. However, no significant difference was detected in menstrual characteristics of POI cases with or without thyroid dysfunction.

Therefore, we suggest screening of all POI cases with thyroid function test for early detection and correction of thyroid dysfunction.

[P - 27]

Radical Parametrectomy for Occult Cervical Carcinoma Detected Post Hysterectomy

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Introduction: Radical parametrectomy (RP), is a viable alternative to radiotherapy in treating invasive cervical cancer. An unexpected histopathological finding, after simple hysterectomy of an occult invasive cervical cancer than initially suspected is rare in gynaecological surgery. Primarily because of the relative rarity of these cancers, investigating their optimal treatment modality has been difficult. Currently, the treatment options include radiotherapy or radical trachelectomy with

pelvic lymph node dissection (PLND) for early stages (no later than FIGO stage IIA2) of cervical stump cancer, parametrectomy, partial colpectomy, and PLND for incidental finding of cervical cancer after simple hysterectomy.

Clinical description: We report a case of a 46-year-old female who presented in the surgical OPD on 2.10.16 as a post op case of total abdominal hysterectomy with bilateral salpingoophorectomy for benign indications, by a local practitioner and was found to have invasive cancer of the cervix (well differentiated squamous cell) on pathologic examination

In the report there was no mention of the size of tumour, depth of stromal invasion, lymphovascular space involvement and the status of margins. Review of the slide was done and confirmed as squamous cell carcinoma, moderately differentiated. Work up with MRI and chest X-ray done which showed no Mets, options discussed with the patient that is concurrent CT RT or surgery. patient underwent radical parametrectomy with partial colpectomy and pelvic lymphadenectomy. HPE after reoperation showed no evidence of residual disease.

Discussion: radiotherapy, performed in the form of external beam radiation and intracavitary brachytherapy in the absence of a uterus, often results in damage not only to the bladder and rectum, leading to extensive bleeding and, in severe cases, rectal-vaginal or bladder-vaginal fistula (which is difficult to repair RP not only avoids the complications resulting from radiotherapy performed in the absence of a uterus, but it also helps to determine whether any risk factors, such as the presence of parametrial and/or lymph node metastasis, are present, facilitating the decision on post operation adjuvant therapy.

Conclusion: Radical reoperation allows disease staging, sorting of patients into risk groups, and avoidance of radiation therapy in cases of occult cervical carcinoma. Although RP and RT/CCRT have similar therapeutic efficacy, the lower rate of late complications observed with RP makes it preferable to RT/CCRT.

[P - 28]

Management of A Rare Case of Bilateral Malignant Ovarian Germ Cell Tumor

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Introduction: Germ cell tumors comprise approximately 15-20% of all ovarian neoplasms. They are rapidly growing neoplasms that arise from primordial germ cells derived from the embryonal gonad. Malignant ovarian germ cell tumors (MOGCT) comprise less than 5% of all ovarian neoplasms.

Clinical description: A 35 year old female P2L2 evaluated in surgical OPD for pain abdomen for 2 months. On examination, her vitals were stable, PS-1,neck supraclavicular lymph nodes and breast were normal, there was an abdominopelvic mass, firm to hard in consistency of restricted mobility arising from the pelvis. On Pelvic examination –cervix was firm and hypertrophied, uterus was anteverted, normal sized, right fornix free and same huge abdominopelvic mass seems to be arising from left fornix. Work up of patient done including CECT chest which was normal, tumor markers were CA-125(24.93u/ml), CEA(1.8 ng/ml), AFP(4.8ng/ml), Beta HCG(9.27mIU/ml), LDH(240U/L) and CECT whole abdomen which showed well differentiated mass in left adnexa of approximate size 12x 10 x8cm with paraaortic lymph node. Patient was counselled for surgery. She underwent Staging laparotomy which included –TAH with bilateral adnexectomy (enbloc), frozen sent- demonstrated malignant germ cell tumor, Bilateral Pelvic Lymph node dissection done followed by total omentectomy and Retroperitoneal Lymph node dissection. Her post operative period was uneventful and was discharged in stable condition. Her HPE report came as malignant ovarian germ cell tumor (Bilateral Dysgerminoma ovary) with retroperitoneal lymph nodes positive. She required adjuvant treatment which included 4 cycles of BEP. Patient is disease free since 2 years. Her routine follow up include clinical examination, USG and Tumor markers(LDH).

Conclusion: Malignant ovarian germ cell tumor is a rare malignancy that principally affects girls and young women. With early diagnosis and optimal therapy prognosis is excellent.

[P - 29]

Immature Teratoma of Ovary - Case report

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Introduction: Immature teratoma represents 3% of all teratomas, 1 % of all ovarian cancers and 20% of malignant ovarian germ cell tumors. It is found either in pure form or as a component of a mixed germ cell tumor. It occurs essentially during the first two decades of life. According to WHO, immature teratoma is defined as a teratoma containing a variable amount of immature embryonal type neuro-ectodermal tissue.

Case report: 23 years old unmarried female presented with complaint of abdominal pain since 1 month for which USG was done outside which suggested fibroid uterus. She was given 1 dose of injection Leuprolide, pain persisted. There was history of typhoid fever 1 month back. Her menstrual cycles were regular. No significant medical, surgical or family history was noted. Abdominal examination revealed a non-tender supra-pubic mass of 24 weeks size with firm consistency and irregular margins. Her serum alpha feto protein was 2340 ng/ml (↑), CA 125 was 64.90 IU/L (↑), LDH was 223 IU/L (↑), β hCG was 1.14 mIU/ml (N).

Management: In view of large ovarian tumor, possibly malignant, decision for staging laparotomy was taken after informed consent. A large, irregular, bosselated, solid cystic ovarian tumor of size 22x14x8 cm with capsule intact, arising from left ovary was removed and sent for frozen section which reported malignant mature teratoma with components of immature teratoma. She underwent staging laparotomy with left salpingo-oophorectomy, right ovarian biopsy, and omentectomy, appendectomy, and B/L pelvic lymphadenectomy. Histopathology was suggestive of immature grade III teratoma left ovary (pT1pN0pMx). In view of grade III immature teratoma, she received 4 cycles of chemotherapy - BEP regimen post-operatively and has completed follow up of 7 months. There is no evidence of any residual disease or recurrence as evidenced by radiological examination and serum alpha feto protein levels are normal.

Discussion: Immature teratoma of the ovary predominantly occurs in the young patients, and the preservation of fertility is an important factor in the management. In patients with grade I and FIGO stage I tumors, it is sufficient to perform a staging surgery with a unilateral oophorectomy. Patients with grade II or III tumors or a more advanced stage disease should be treated with adjuvant chemotherapy containing bleomycin, etoposide

and cisplatin in addition to surgery. In the natural history of immature teratoma of the ovary, the prognosis for patients is dependent on the stage of the disease and grade of the tumor.

Conclusion: This case reflects the importance of diagnostic dilemma and management of pelvic masses in young females. Fertility preservation should be considered in young women with malignant germ cell tumors. Patients with grade II or III tumors or a more advanced stage disease should be treated with adjuvant chemotherapy (BEP regimen) in addition to surgery.

[P - 30]

Incarcerated and Transmigrated Intrauterine Contraceptive Devices Managed at a Tertiary Care Hospital During 5 Years- A retrospective analysis

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Objectives: To find the incidence, risk factors and management of Incarcerated and Transmigrated Intrauterine contraceptive devices at a Tertiary care Hospital during past 5 years

Material and Methods: A Retrospective Observational study was conducted on women, during past five years (Jan 2012 to Dec 2016) with complaint of absent or snapped strings with failed attempts at removal of IUCD by hook or curette and were posted for Hysteroscopy and Laproscopy/ Laprotomy.

Results: Total no. of IUCD insertions were 4557 and 71 (1.6%) women had Incarcerated or Transmigrated IUCD, out of which 63(88.7%) were embedded and 8 (11.3%) were transmigrated. 35.2% presented with different Gynaecological complains and were not sure of missing String. Missing thread to Hospital reporting interval was more than one month in 28% and more than 6 months in 5.9%. Commonest site of transmigration was omentum, followed by UV fold /bladder. Hysteroscopic removal were 63 (88.7%), although in 19 (30%) women both hysterolaproscopy was done. 4 (5.6%) required Laprotomy and 2 (2.8%) needed cystiscopic removal.

Conclusion: A regular follow up, adequate pre & post-insertion counselling and proper training of paramedical staff would help in early recognisition of misplaced IUCD. Any transmigrated, malpositioned or embedded IUCD should be removed.

Preparations for AICC RCOG North Zone Annual conference 2017
Be Upto Date : Annual Professional Development Conference

The Department of Obstetrics & Gynaecology at Sant Parmanand Hospital; Doctors, Administrative and Secretarial staff and Housekeeping staff worked with full enthusiasm under the able guidance of our dear Chairperson Dr Nirmala Agarwal to make this conference an eco-friendly grand success.

A lot of effort was put in to make "Handbags" from waste newspaper for carrying mementos for our faculty in the conference.

A pottery painting competition was held in the hospital premises to judge budding painters to help in painting the souvenir pots specially imported from Kolkata.

We are privileged and blessed to have hardworking staff, ready to help us in all activities of our hospital.
Cheers to Sant Parmanand Hospital and AICC RCOG North Zone Team

Dr Arbinder Dang
Hon.Secretary. AICC RCOG North Zone India
Dated : 25/11/2017

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