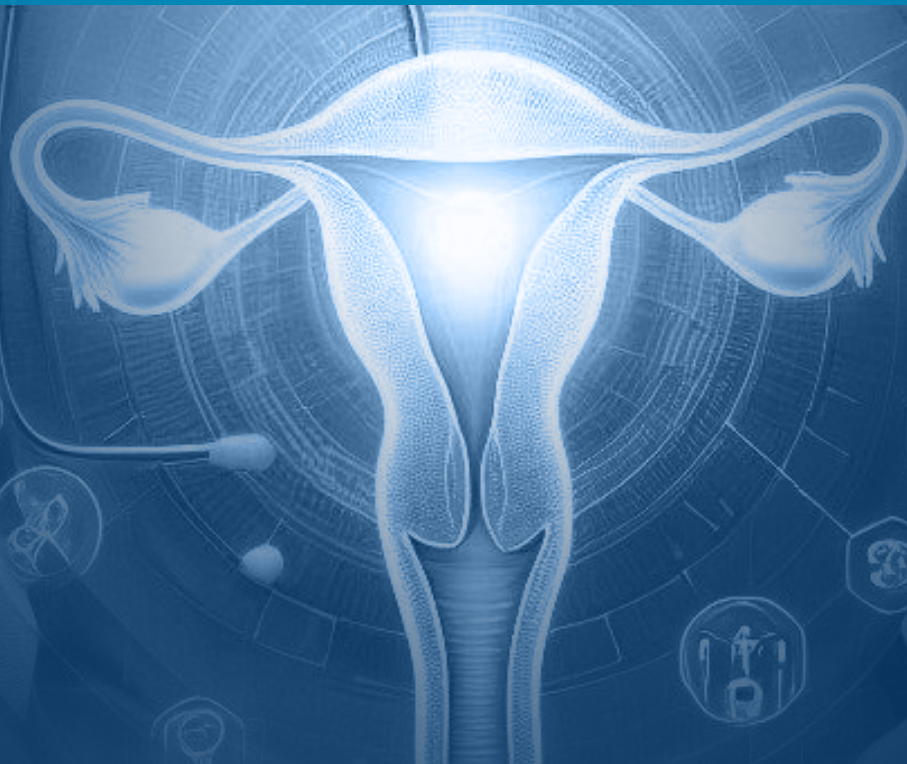


2<sup>nd</sup> Edition of Global Conference on

# Gynecology & Women's Health



**October 17 -19, 2024**  
**Baltimore, Maryland, USA**

Venue: Best Western Plus Hotel & Conference Center 5625  
O'Donnell Street Baltimore, MD 21224  
Baltimore, Maryland, USA



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2<sup>nd</sup> Edition of Global Conference on

# Gynecology & Women's Health

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# Keynote Speakers



**Alberto Maringhini**  
ARNAS Civico, Italy



**George K Creatsas**  
University of Athens, Greece



**Marlen Sulamanidze**  
Total Charm Clinic, Georgia



**Mohamed Hosni**  
London North West University  
Hospitals, United Kingdom



**Nicoletta Di Simone**  
Humanitas University, Italy



**Orfanoudaki Irene**  
University Hospital of Heraklion,  
Greece



**Oslei De Matos**  
Federal University of Technology,  
Brazil

*Thank You  
All...*

# Speakers



**Alexandra Hughes**  
Sheffield Teaching Hospitals, United Kingdom



**Alexandra Korostyshevskaya**  
International Tomography Center, Russian Federation



**Amanpreet Kaur Kalsi**  
Dyal Singh College, India



**Andrea Tshishimbi**  
Humanitas University



**Aya Zaatreh**  
Stevens Institute of Technology, United States



**Aysha Afzal Qureshi**  
Aneurin Bevan University Health Board, United Kingdom



**Bahar Morshed Behbahni**  
Shiraz University of Medical Sciences, Iran



**Chelsea S de Leon**  
Eastern Visayas Medical Center, Philippines



**Diana Arantseva**  
Sechenovskiy University, Russian Federation



**Elena Vladimirovna Kozyreva**  
Ulyanovsk State University, Russian Federation



**Enattihun Woretaw Assefa**  
Hawassa University, Ethiopia



**Fatima Hameed**  
Bolton NHS Foundation Trust, United Kingdom



**Gunay Mamedbeili**  
Baku Medical Plaza, Azerbaijan



**Hannah Puckett**  
University of South Carolina School of Medicine, United States



**Harris Edward Phillip**  
NHS Trust, United Kingdom



**Iris Smith**  
Kaiser Permanente School of Medicine, United States



**Jack Considine**  
Wayne State University School of Medicine, United States



**Jasenka Mazibrada**  
Norfolk and Norwich University Hospital, United Kingdom



**Ketevan Oles**  
APTOS, United States



**Liping Lu**  
Ball State University, United States



**Ludivine Doridot**  
INSERM, France



**Madison Hurst**  
Geisinger Commonwealth School of Medicine, United States



**Maureen Dike Frank**  
Rivers State University, Nigeria



**Mehdi Kehila**  
Eve Fertility Center, Tunisia



**Mervat Sheta**  
Alexandria University, Egypt



**Mohamed Gamal Shehata**  
South Valley University, Egypt



**Molly Zeme**  
University of California, United States



**Mona Mohamed Kamal Eldeeb**  
Al Jouf University, Saudi Arabia



**Nicole E Friedlich**  
Burnett School of Medicine, United States



**Payal Nandini Maharaj**  
University of Queensland, Australia

# Speakers



**Raana Bibi**  
NHS Tayside, United Kingdom



**Sadhana Kulkarni**  
MGM Medical College and Hospital,  
India



**Saghar Samimi Sadeh**  
Tehran University of Medical  
Sciences, Iran



**Saumya Pandey**  
Indira-IVF Hospital, India



**Seyede Zahra Banihosseini**  
Shahid Beheshti University of  
Medical Sciences, Iran



**Shouying Xu**  
Zhejiang University School of  
Medicine, China



**Siddharth Shivantha**  
Monash University, Australia



**Swati Kumari**  
Bronxcare Health System, United  
States



**Vandana Dabla**  
Jhpiego, Johns Hopkins University,  
India



**Voznesenskaya Tverdaya  
Julia**  
European Medical Center, Russian  
Federation



**Krishna Bhatta**  
Northern Light Eastern Maine  
Medical Center, USA



**Narges Afzali**  
Islamic Azad University, Iran



**Mahnoor Khan**  
Michigan State University College of  
Human Medicine, United States

*Thank You  
All...*

# Welcome Message



**Dr. Marlen Sulamanidze, PH.D.**

**Department of Plastic and Reconstructive Surgery Total Charm Clinic, Tbilisi's State Medical University Hospital, Tbilisi, Georgia**

Dear Colleagues, Esteemed Guests, and Friends,

It is a great pleasure to welcome you all to this significant event, where we come together to explore and advance the field of gynecology. This conference serves as an important platform for the exchange of knowledge, experience, and innovation in both general and aesthetic gynecology.

As we strive to improve women's health, it is crucial to recognize that gynecology is not only about managing medical conditions but also about enhancing patients' quality of life. Aesthetic gynecology has emerged as a vital discipline, bridging the gap between function and form, offering women not only improved health but also heightened confidence and well-being.

Throughout this conference, we will delve into the latest developments, techniques, and approaches in both aesthetic and general gynecology, paving the way for holistic care. I am confident that the discussions and insights shared here will inspire and guide us all in our ongoing commitment to excellence in patient care.

Thank you for being here and contributing to this vibrant exchange of ideas.



# Welcome Message



**Nicoletta Di Simone, MD, PhD**

**Full Professor Obstetrics and Gynecology, Humanitas University, Milan, Italy**

It is a pleasure to welcome you to this important scientific event entitled “Gynecology and Women’s Health”. It is now clear that medical research is trying to reduce the risk of maternal and foetal complications, preventing them and reducing the risk of recurrence. A pre-conception examination can certainly help to carry out an early diagnosis of some pathologies that might develop in pregnancy. An investigation of the microbiota, in populations at greater risk, can allow a precise and personalized therapeutic approach. In the short term, the use of artificial intelligence could allow a quantification of the obstetric risk.

We are in an important historical period in which we have the scientific knowledge that allows us to think of a cross talk between mother and foetus. The improvement of maternal health, not only reduces complications at a distance in the women’s life, but also complications in the life of the teenage and adult child.

I renew the welcome to all of you and wish you all the best in your work.

# Welcome Message



**Prof George K Creatsas FRCOG FACOG**

**University of Athens, Greece**

It is a great pleasure to welcoming you once again in our very important Congress.

I take the opportunity to thank and congratulate once again the Scientific and Organizing Committees for the excellent scientific program and we are looking forward to follow the meeting once again.

# Welcome Message



**Oslei de Matos**

**Federal University of Technology, Brazil**

It will be a pleasure to be here again participating in this scientific event. This time I will bring a new approach to women's health and their physiomorphological changes from menopause to aging. I'm sure it will be very interesting to discuss my project to evaluate bone and muscle mass in women and their relationship with future risk of falls and fractures. Looking forward to this unique moment, I wish everyone a great participation.

# Welcome Message



**Mr. Mohamed Hosni MD, MRCOG, MSc, MB, BCH**  
**London North West University Hospitals NHS Trust, United Kingdom**


On behalf of the Organising Committee, it is our great pleasure to welcome you to the 2nd Edition of Global Conference on Gynecology and Women's Health, October 17-19, 2024.

The conference is ground-breaking as it brings together the world leading clinical and research experts in the field of Gynecology and Obstetrics. The conference is aimed at everyone working in the field of Gynecology and Obstetrics- both clinical and research. We have a provocative programme which we hope will inspire considerable debate.

This will be the perfect environment to discuss how we can set aims which will improve treatment of endometriosis, and other challenging aspects of Gynecology and Obstetrics in the world. This meeting will have a good mix of topics from all the subspecialties, with state-of-the-art lectures and forefront research presentations. We are privileged to have prominent speakers locally and from overseas, allowing plenty of opportunities to exchange ideas and foster collaborations.

We look forward to an exciting conference that promises great scientific debate and enjoyable social interaction. We very much hope you enjoy the conference.

## ABOUT MAGNUS GROUP



Magnus Group, a distinguished scientific event organizer, has been at the forefront of fostering knowledge exchange and collaboration since its inception in 2015. With a steadfast commitment to the ethos of Share, receive, grow, Magnus Group has successfully organized over 200 conferences spanning diverse fields, including Healthcare, Medical, Pharmaceuticals, Chemistry, Nursing, Agriculture, and Plant Sciences.

The core philosophy of Magnus Group revolves around creating dynamic platforms that facilitate the exchange of cutting-edge research, insights, and innovations within the global scientific community. By bringing together experts, scholars, and professionals from various disciplines, Magnus Group cultivates an environment conducive to intellectual discourse, networking, and interdisciplinary collaboration.

Magnus Group's unwavering dedication to organizing impactful scientific events has positioned it as a key player in the global scientific community. By adhering to the motto of Share, receive, grow, Magnus Group continues to contribute significantly to the advancement of knowledge and the development of innovative solutions in various scientific domains.



ABOUT

## Gynec 2024

Welcome to the **2<sup>nd</sup> Edition of the Global Conference on Gynecology and Women's Health (Gynec 2024)**, taking place in **Baltimore, Maryland, USA and virtually from October 17-19, 2024**. This year's conference, themed "Navigating Women's Health: Challenges, Solutions, and Beyond," unites a global community of researchers and healthcare professionals to delve into the latest advancements in gynecological and women's health care.

As you explore this abstract book, you'll discover a compilation of innovative research and insights that reflect the dynamic nature of this year's conference. Each abstract showcases significant contributions to the field, offering a glimpse into the pioneering work being done to enhance women's health across all life stages.

With a comprehensive program featuring keynote sessions, oral and poster presentations, and interactive discussions, Gynec 2024 provides an engaging platform for participants to connect with leading experts and peers. Together, we will exchange ideas and propel forward the future of women's health care.

## ABOUT

# CPD Accreditation



Continuing Professional Development (CPD) credits are valuable for Gynec 2024 attendees as they provide recognition and validation of their ongoing learning and professional development. The number of CPD credits that can be earned is typically based on the number of sessions attended.

You have an opportunity to avail **1 CPD credit for each hour of Attendance**. Some benefits of CPD credits include:

**Career advancement:** CPD credits demonstrate a commitment to ongoing learning and professional development, which can enhance one's reputation and increase chances of career advancement.

**Maintenance of professional credentials:** Many professions require a minimum number of CPD credits to maintain their certification or license.

**Increased knowledge:** Attending Gynec 2024 and earning CPD credits can help attendees stay current with the latest developments and advancements in their field.

**Networking opportunities:** Gynec 2024 Conference provide opportunities for attendees to network with peers and experts, expanding their professional network and building relationships with potential collaborators.

**Note:** Each conference attendee will receive 20+ CPD credits.

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# Gynecology & Women's Health

**KEYNOTE  
PRESENTATIONS**

## Breastfeeding in prevention of postpartum Acute Pancreatitis (AP). A sicilian population based case-control study

**Background:** Gallstones acute pancreatitis has increased incidence in young women in the 2 years postpartum. Middle aged women with longer period of breastfeeding have less hospitalization for gallbladder disease.

**Methods:** We identified all Sicilian women who delivered (2013-2016) and had acute pancreatitis within 2 years postpartum, reviewed their medical records and for each case we matched 4 women of the same age (+5 years), date (+30 days) and hospital of delivery without acute pancreatitis. Univariate and multivariate logistic regression was used to estimate the Odds Ratio (OR) to assess associations between acute pancreatitis and clinical variables.

**Results:** In the 74 women with AP and 298 controls at univariate analysis: >6 months oral contraception history ( $p < 0.01$ -OR 3.30-95% CI 1.33-8.16); previous biliary disease ( $p < 0.001$ -OR 5.90-95% CI 1.98-17.57) and smoking ( $p = 0.035$ -OR 2.04-95% CI 1.04-4.0) were predictors of acute pancreatitis; amenorrhea >3 months ( $p < 0.001$ -OR 0.34-95% CI 0.19-0.59) and breastfeeding >3 months ( $p < 0.001$ -OR 0.07-95% CI 0.03-0.14) were protective. At multivariate previous biliary disease ( $p = 0.011$ -OR 5.49-95% CI 1.48-20.38) was predictor and breastfeeding >3 months ( $p < 0.001$ - OR 0.06 CI 95% 0.03-0.14) was protective for acute pancreatitis.

**Conclusions:** Women without a history of biliary disorders and who breastfeed for at least 3 months have reduced risk to develop AP in the 2 years after delivery.



### Alberto Maringhini, MD

ARNAS Civico, Palermo, Italy

#### Biography

Alberto Maringhini, M.D. is in biliary and pancreatic diseases. He started with a peculiar interest on portal hypertension and bleeding in cirrhotics and then in diagnosis of portal hypertension and hepatocellular carcinoma. Then he started his interest on gallbladder and pregnancy, acute pancreatitis diagnosis and prognosis, pancreatic cancer clinics and epidemiology. Chronic pancreatitis laboratory diagnosis and clinical presentation. Finally, acute pancreatitis and pregnancy and breast feeding in prevention of post-partum acute pancreatitis. His clinical work in internal medicine and mainly in gastroenterology started in 1977 and nowadays he is director of internal medicine in the largest hospital in Sicily and in southern Italy after "Cidarelli Hospital" in Naples.

## Lower genital tract congenital anomalies creatsas vaginoplasty - Fertility preservation

**V**ulvovaginal Congenital Anomalies affects both genital tract health as well as fertility and reproduction. External genitalia should be checked in any case immediately after delivery. Amenorrhea, oligomenorhea and pelvic pain are common symptoms of lower genital tract congenital anomalies and should be diagnosed and managed as soon as possible. Most cases of Mullerian Anomalies are found during adolescence due to primary amenorrhea or/and periodic pelvic pain, which are the common symptoms of obstruction. Diagnosis is based on the family and clinical history, clinical or and gynecological examination, pelvic ultrasonography, x-rays, laparoscopy or and hysteroscopy. Vaginal aplasia is usually accompanied with uterus aplasia “Rokitansky-Kuster-Hauser” Syndrome and we proceed to the management following our method “Creatsas Vaginoplasty” with more than 180 cases treated until today.

The audience will be informed how may manage rimary amenorrheic cases as well to prevent future fertility.



### **G Creatsas MD FACOG FR-COG Prof. em.**

Obstetrics and Gynecology  
University of Athens Greece  
and Scientific Chairman REA  
Maternity Hospital Athens,  
Greece

#### **Biography**

George K. Creatsas is Professor emeritus of Obstetrics and Gynecology and Ex Chairman of the 2nd Department of Obstetrics and Gynecology at the University of Athens, Greece. He served as a Dean of the University of Athens Medical School for the years 2003-2007 and as a Vice Rector of the University of Athens Greece (2006-2010). Professor Creatsas has published more than 433 papers with more than 4591 citations (h index 33) in international peer review Journals in the fields of corrective gynecologic surgery, menopause, pediatric and adolescent gynecology and family planning. He is the Editor of 15 proceedings and 5 books in Obstetrics and Gynecology. He is Honorary Chief Editor of the European Journal of Contraception and Reproductive Health Care, Chief Editor of the Journal of Adolescent Gynecology-Reproduction and Menopause (Greece) as well as member of the Editorial Board of the Journals: Acta Obstetrica Gynecologica Scandinavica, Gynecological Endocrinology, and European Journal of Obstetrics & Gynecology and Reproductive Biology.

## Management of stress urinary incontinence in women with minimally invasive threads methods

**Introduction:** Stress Urinary Incontinence (SUI) is a common condition affecting millions of individuals worldwide, particularly women. It occurs due to weakened pelvic floor muscles and tissues, leading to the involuntary loss of urine during activities that increase abdominal pressure or during physical activities such as coughing, sneezing, or exercising. Despite its prevalence and impact on quality of life, there is ongoing debate regarding the optimal management strategies for SUI. This study aims to investigate the efficacy of using thread lifting methods for SUI, by analyzing their effects on quality of life, and patient satisfaction.

**Methods and Materials:** Patients diagnosed with SUI underwent a thread lifting procedure using both barbed and smooth threads composed of Polylactic acid with Caprolactone. The unique characteristics of these threads allow for safe placement without complications such as rupture, thanks to the blunt and round tip cannula. The threads were positioned just below the urethra using a fan technique to create a sturdy support structure and promote connective tissue formation.

**Results:** Treatment of urinary incontinence with threads revealed significant improvements in urinary symptoms and quality of life. Thread lifting methods demonstrated promising results in symptom reduction and functional improvement. Such interventions showed us higher rates of subjective cure and patient satisfaction.

**Conclusion:** Thread lifting methods for SUI is one of the demandable treatment, due to minimal downtime and high effectiveness that is alternation of surgical approaches gives the patient comfort, self confidence. After thread lifting procedures raise quality of sexual life but also quality of life in both of gender.



### Dr. Marlen Sulamanidze, PH.D.

Department of Plastic and Reconstructive Surgery Total Charm Clinic, Tbilisi State Medical University Hospital, Tbilisi, Georgia

#### Biography

Marlen Sulamanidze is a specialist on plastic, reconstructive and aesthetic surgery. Marlen was born in Georgia in 1947. In 1972 he graduated from the Medical University in Irkutsk. From 1974 to 1984 his specialization was maxillofacial surgery and later he started specializing in plastic and aesthetic surgery first in Georgia and from 1993 in Moscow. Since that time he has made over 20 thousand surgical operations, including over 5 thousand on nose shape deformity and 15 thousand on Aptos methods. Marlen Sulamanidze is the inventor of Aptos thread lifting methods, that is spread over the world. He has 16 patents and priorities of invention on plastic surgery. He is a member of Society of plastic, reconstructive and aesthetic surgeons of Russia, Georgia (GeoPRAS), ASPS (American Society of Plastic Surgeons), IPRAS, ISAPS, an honorary member of National Society of aesthetic surgeons of France, an honorary president of Japanese society of liposuction, a member of American society of dermatosurgeons. He has published over 70 scientific works, 18 of them in the leading international journals.



## Emerging trends in the treatment of endometriosis. It is time to know what we do not know. A prospective cohort pilot multisite study

Endometriosis is one of the most challenging gynaecological conditions that primarily affects women of childbearing age. It mainly presents with pelvic pains and subfertility, causing a significant impairment in the quality of life. Unfortunately, there is no radical cure for endometriosis. The management of endometriosis, whether medical or surgical, mainly focus on alleviating pain and improving the quality of life. Nevertheless, for 20-40% of women, symptoms persist following surgical and/or pharmacological treatment. Alternative ways of managing pains are needed, which need to consider contemporary pain science and all biopsychosocial aspects of the persistent pain experience. Current clinical practice guidelines provide minimal guidance for physiotherapy care of women with endometriosis, and none of the accredited or provisional endometriosis centres across the United Kingdom has got a physiotherapist in their endometriosis management teams as it is not a pre-requisite to be accredited as an endometriosis centre in the UK. At London North West Endometriosis Centre, we conducted a prospective cohort pilot study of 10 patients across our three sites: Central Middlesex, Ealing and Northwick Park Hospitals. We recently started recruiting for the first randomised controlled trial for the effect of physiotherapy on endometriosis agony. Physiotherapy as a discipline provides conservative therapies, pain management education classes, group sessions and one to one, face to face and online, manual physiotherapy and pelvic floor exercises. We conducted on average six sessions over the course of six months for every patient. We recruited 10 patients into our pilot study, and we compared their answers to the BSGE Pelvic Pain Questionnaire at their initial consultation and then at the end of their physiotherapy sessions. Our results showed that more than 90% of patients had her symptoms improved at the end of the six sessions.

**Keywords:** Endometriosis, Physiotherapy, Pelvic Pains.



### Mohamed M Hosni MD, MRCOG, MSc, MB.BCh.

London North West  
Endometriosis Centre, London,  
United Kingdom, Ain Shams  
University Hospitals, Cairo, Egypt

#### Biography

Mr Mohamed Hosni is a Consultant Obstetrician and Gynaecologist at London Northwest University Hospitals, with over 20 years of experience. He is a very experienced laparoscopic surgeon, with international reputation in minimal access surgery and endometriosis. He has a broad clinical research background and has collaborated with numerous doctors and scientists on different projects in Obstetric and Gynaecologic research, with many peer-reviewed publications. He has presented both Nationally and Internationally, have several peer-reviewed publications in scientific journals. He completed MD, MSc, and he is currently a member of the Royal College of Obstetricians and Gynaecologists. He is a firm believer in a patient-centred approach, personalized on an individual basis. He places a significant importance on taking time to listen to each patients' specific needs and providing them with a thorough explanation of their treatment options. Entirely dedicated to his profession.

## Microbiota and pregnancy

For decades the endometrial cavity has been considered a sterile environment, but this belief has been challenged since the late 1950s. However, it is only from the beginning of the 2000s that it was possible to define the characteristics of the microbiota in the uterine cavity due to the techniques of sequencing the bacterial genetic material (Baker et al. 2018). There is an increasing number of hypotheses in literature about how eubiosis of endometrial microbiota can decisively contribute to endometrial receptivity. In fact, studies on animal models have shown how *Bacteroides fragilis*, is able to promote the differentiation of regulatory T lymphocytes through the production of polysaccharide A and that *L. delbrueckii* and *L. rhamnosus lactobacilli* stimulate dendritic cells to produce antiinflammatory cytokines such as interleukin 1 and interleukin 2 (Inversetti et al. 2023). Pathological alteration of the endometrial microbiota could affect the integrity of the endometrial barrier, which, if damaged, may allow the passage of bacterial peptides, that recall plasma cells and neutrophils and activate lymphocytes resulting in an inflammatory state at the endometrial stroma (Zhu et al. 2022; D'Ippolito et al. 2018).

Certainly better known than the endometrial cavity, the vaginal microbiota has been the subject of numerous studies over the years, in particular for looking at the possible correlations between vaginal dysbiosis and premature birth and for the influence of vaginal microbiota on the development of the unborn child (Tirone et al. 2022; Masucci et al 2023).



**Nicoletta Di Simone<sup>1,2\*</sup>,  
Greta Barbaro<sup>3</sup>**

<sup>1</sup>Department of Biomedical Sciences, Humanitas University, Via Rita Levi Montalcini 4, Pieve Emanuele, 20072 Milano, Italy

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### Biography

Prof. Dr. Nicoletta Di Simone has done her Degree in Medicine, Catholic University of Rome (UCSC), Rome, Italy. Specialty Degree in Obstetrics and Gynaecology, Catholic University of Rome (UCSC), Rome, Italy. PhD Degree in Obstetric and Gynaecologic Sciences, La Sapienza University of Rome, Rome, Italy. Started her career Research Fellow, National Center for Infertility Research del Massachusetts General Hospital-Harvard Medical School, Boston, USA. Visiting Research Fellow, Prenatal Medicine Research Unit, Universitäts Frauenklinik, Kantosspital, Basel, Switzerland. Senior Research Fellow, Catholic University of Rome (UCSC), Rome, Italy. Associated Professor in Obstetrics and Gynaecology, Catholic University of Rome (UCSC), Rome, Italy. Full Professor, Obstetrics and Gynecology, Humanitas University, Milan. She has Impact Factor calculated on "Journal Citation Report" 2019: 399,99 H. Index from Scopus: 42.

## Operative office hysteroscopy

Office operative hysteroscopy is an outpatient surgical procedure which can be done at hospitals, community clinic, free standing surgical centres and medical offices for treatment of uterine cavity or cervical canal pathology under direct visualization using hysteroscopic instruments. This procedure makes operative hysteroscopy easy, safe and feasible, without or with dilatation of the uterus cervix, using newer narrow-diameter hysteroscopes. Operative hysteroscopy is performed without general anaesthesia, is less expensive, less time consuming, offers greater patient comfort, less complications with fast or no recovery. A high level of expertise of medical staff is recommended and a correct diagnosis of uterine pathology before undertaking an operative hysteroscopy is required. Newer technologies and research will contribute to safer diagnosis and therapy of uterine cavity pathology with better tolerance and therapy for the patient and less cost of the procedure.



**Dr. Orfanoudaki Irene MD,  
PhD**

University Hospital of Heraklion,  
Crete, Greece

### Biography

Dr. Irene (Eirini) Orfanoudaki is a gynecologist-obstetrician, having a private practice in Heraklion, Crete, and collaborating with private health clinic 'MITERA' - Euromeda in Heraklion. With around 21 years of experience as a gynecologist-obstetrician, she specializes in ultrasound, colposcopy, minimal and advance gynecologic surgery, aesthetic gynecology, fertility consulting, menopause consulting, operative obstetrics, high-risk pregnancy, normal deliveries, antenatal, intrapartum, postnatal care, breast diseases, and teenage issues. Her cooperation with Foundation of Research and Technology Hellas (Heraklion) led to Dysis Colposcope (she was the first gynaecologist clinical researcher of multispectral imaging colposcope 1996-2001). In 2005, Dr. Orfanoudaki presented her PhD "Development and clinical evaluation new in vivo diagnostic methods for the early diagnosis of lower female genital tissue lesions", at Medical School of University of Crete and her book 'Optical biopsy of uterine cervix using a multispectral imaging colposcope', was published in 2007. She has also published several research papers and presentations at national and international levels.

## Assessment of risk of falls and fracture in older women: Project in primary care in women's health

The United Nations Decade of Healthy Ageing (2021–2030) is a global collaboration, aligned with the last ten years of the Sustainable Development Goals, to improve the lives of older people, their families, and the communities in which they live. Among the impacts and health problems of the elderly, falls represent a major public health problem due to their high incidence and the severity of their physical, functional, psychological and financial consequences. More than 30% of individuals aged 65 or over suffer a fall every year and in around 50% of these cases falls are recurrent. There are many measures being used to predict the risk of falls in research and clinical practice, and it is important to investigate the usefulness and consistency of these measures, even if it is to reduce the number of possible risk of falls indicators.

In this line, our study analyzed variables associated with the risk of falls, mainly aspects of physical performance. Thus, the aim of project is develop the protocol to assess the risk of falls and fractures in frail older women. The protocol consists of evaluating the association of sleep disorders, history of falls, physical performance and body composition with bone mineral density to verify the conditions in which women can fall, especially at home, and promote early diagnosis as the main health care. We are working with several validated tools used to assess falls and sleep disorders and after statistical analysis and a pilot program, we developed a new model with short questions and tests to be applied more easily in the Health Units of our province.

Pilot program showed that the Berg balance scale was not accurate in total points and the most effective tests to detect the risk of falls were

reaching forward and standing on one leg. The short physical performance battery had great results for specific analyzes as a whole. The Pittsburgh questionnaire was excluded and we only used questions about sleep time and daytime sleepiness. Regarding anamnesis, the most important issues predicting falls that should be included in any assessment were: falls for at least 12 months, living alone and medications.

For the Congress, I will explain the importance of evaluating the loss of bone and muscle mass from menopause to aging, the specific tools and objectives of each phase and the main results already found.

### Audience Take Away Notes

- Understand the evolution of changes and losses in body composition from menopause to aging.
- This is the new protocol that can improve the vision of health professionals who work in primary health care for fragile women.
- The protocol is for scientific development, but mainly for clinical application.
- The presentation of our results can help other researchers in comparing similar research and in the development of multicenter projects.



### Oslei de Matos

Postgraduate Program in Physical Education and Health, Federal University of Technology, Curitiba, Parana, Brazil

### Biography

Dr. De Matos teach Anatomy and Special Populations in the Postgraduate program in physical activity and health and he is coordinator of the Densitometry Laboratory at the Federal University of Technology-Paraná-Brazil. He is researcher in the area of women's health with research in Fibromyalgia, Bariatric Surgery and bone density, Postmenopausal Osteoporosis. Currently develop projects in primary health in the risk of falls and fractures.

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# Gynecology & Women's Health

**ORAL  
PRESENTATIONS**



**Dr. Amanpreet Kaur Kalsi\*, Dr. Ashutosh Halder, Dr. Manish Jain**

Department of Reproductive Biology, All India Institute of Medical Sciences, New Delhi, India

Department of Zoology, Dyal Singh College, Karnal, Haryana, India

## Whole genome microarray analysis in hyperprolactinemia

**Background:** Despite the known causes of pituitary adenoma and drug induced, a high percentage of hyperprolactinemia cases remain idiopathic. Further, mechanisms of anti-prolactin autoantibody development in macroprolactinemia cases are not clearly known. Studies at whole genome level will explicate possible genetic contributors to etiopathology of hyperprolactinemia and macroprolactinemia.

**Materials and Methods:** Whole genome microarray was done DNA High Density Bead Microarray Illumina Infinium Assay (300k bead array) in 27 hyperprolactinemia cases (prolactin>100ng/ml), out of which 8 were macroprolactinemia (4 pituitary adenoma; 4 idiopathic) and 19 were true hyperprolactinemia cases (14 pituitary adenoma; 5 idiopathic). The observed Copy Number Variations (CNVs) were compared with control databases of genomic variants and CNV control database. Further analysis of CNVs specific to the study cases was carried out by online data analysis resources to find out likely pathogenicity.

**Results and Discussion:** There were 22 CNVs, including both loss and gains; and 31 Loss of Heterozygosity (LOH) regions found in both idiopathic and pituitary adenoma cases. Gain of HCCS gene in a case of idiopathic hyperprolactinemia with macroprolactinemia and loss of OLFML1 gene in a case of pituitary adenoma with true hyperprolactinemia are suggested to be associated with hyperprolactinemia condition. HCCS has role in mitochondrial respiratory chain and programmed cell death. OLFML1 is involved in cell proliferation. Also, STAT5, which is involved in downstream signal transduction of prolactin, is a regulator of OLFML1. The findings will help to elucidate the biochemical pathways involved and targeted treatment approaches could be developed.

### Audience Take Away Notes

- Studies at whole genome level will explicate possible genetic contributors to etiopathology of hyperprolactinemia and macroprolactinemia.
- Future investigations are required to clearly elucidate the pathogenicity HCCS and OLFML1 in association with hyperprolactinemia.
- Information about genetic predictors associated with the development of hyperprolactinemia condition could lead to the development of targeted treatment approaches.

### Biography

Dr. Amanpreet Kaur Kalsi received her PhD degree Reproductive Biology in 2019 from All India Institute of Medical Sciences (AIIMS), New Delhi, India under the supervision of Dr. Ashutosh Halder, Professor and Head, Department of Reproductive Biology, AIIMS, New Delhi. After working for one and a half year as Scientist-C at Indian Council of Medical Research (ICMR), New Delhi, India in a project based on clinical trial of female contraceptive vaccine, she joined as Assistant Professor, Department of Zoology, Dyal Singh College, Karnal, Haryana, India. She has 13 research papers and 1 book chapter to her credit.



**Andrea Tshishimbi<sup>\*</sup>, Annalisa Inversetti<sup>1</sup>, Daniela Visconti<sup>2</sup>, Nicoletta Di Simone<sup>1</sup>**

<sup>1</sup>Humanitas University, Milan, Italy

<sup>2</sup>Catholic University of the Sacred Heart, Rome, Italy

## **Fetal modified myocardial performance index (Mod-MPI) assessment in pregnant women with pregestational diabetes mellitus: A longitudinal prospective cohort study**

**Background:** The modified myocardial performance index (Mod-MPI) is a Doppler-based method for assessing fetal cardiac function, adapted from adult cardiology. While promising for monitoring and predicting adverse outcomes in complicated pregnancies, standardized methods, reference ranges, and clinical guidelines are still needed.

**Objectives:** This study aims to (1) evaluate changes in the modified myocardial performance index (Mod-MPI) and its components ICT, IRT, and ET during the second and third trimesters in pregnancies complicated by pregestational diabetes mellitus (PGDM) compared to normal pregnancies; (2) assess correlations between Mod-MPI components and glycated hemoglobin (A1C) trends during pregnancy; and (3) estimate the correlation between Mod-MPI variations and maternal body mass index (BMI).

**Materials and Methods:** This longitudinal prospective cohort study evaluated Mod-MPI in a cohort of patients with pregestational diabetes mellitus (PGDM), including both type 1 and type 2 DM, and a comparative cohort of healthy pregnant women who tested negative for glucose intolerance. Exclusions included twin pregnancies and those conceived via assisted reproductive technologies (ART). From February 2021 to May 2023, participants underwent ultrasounds at three intervals: 19–21 weeks, 26–28 weeks, and 32–34 weeks gestation. Measurements included Mod-MPI, ICT, IRT, ET, maternal weight, A1C levels (PGDM cohort only), fetal biometry, estimated fetal weight, amniotic fluid index, and uterine artery pulsatility index. At later time points, umbilical artery and middle cerebral artery pulsatility indices were assessed to calculate the cerebral placental ratio.

**Results:** A total of 111 ultrasound examinations were conducted on 37 patients (19 with PGDM and 18 with healthy pregnancies). Baseline characteristics were similar between the cohorts, except for a significantly higher median BMI in the PGDM group (25 kg/m<sup>2</sup> vs. 21.2 kg/m<sup>2</sup>, p=0.04). At T2, the median IRT was higher in the PGDM group (37 ms vs. 30.5 ms, p=0.03), while no significant differences were found for Mod-MPI, ICT, and ET across the time points. Both Mod-MPI and IRT showed a decreasing trend throughout pregnancy in both cohorts (p=0.04, p=0.01). Median A1C was consistently higher in type 1 DM compared to type 2 DM at each time point. A1C levels in the PGDM cohort were correlated with both Mod-MPI and IRT at T0 but not at T1 or T2. Median estimated fetal weight (EFW) was significantly higher in the PGDM cohort (2310g vs. 1862.5g, p=0.02), with no differences observed in AFI, UA-PI, MCA-PI, CPR, or UTA-PI between the groups at any time point.

**Conclusions:** A higher IRT was detected in the PGDM cohort compared to physiologic pregnancies in the third trimester, suggesting an abnormal diastolic function in fetuses from pregestational diabetic mothers. Regarding the longitudinal evaluation, we described Mod-MPI and IRT trends in decrease, probably related

to the increased ventricular function and compliance during pregnancy. This is the first pilot study on an Italian sample that needs to be validated in a larger population.

### **Audience Take Away Notes**

- Insights into how pregestational diabetes mellitus (PGDM) affects fetal cardiac function, particularly the isovolumetric relaxation time (IRT) during the third trimester.
- Clinicians will have a better tool for monitoring fetal cardiac function, leading to more informed decision making and potentially improved perinatal outcomes.
- The research provides a robust foundation for further investigation into fetal cardiac function in various maternal conditions. It also serves as a practical example of teaching about the effects of maternal health on fetal outcomes and the application of advanced diagnostic tools.
- The correlation between Mod-MPI, maternal A1C levels, and BMI provides new insights that can inform the design of future studies and clinical protocols.

### **Biography**

Andrea Tshishimbi, originally from the Democratic Republic of Congo, is a final year medical student at Humanitas University in Milan, Italy. With a profound passion for women's health, she is set to specialize in Obstetrics and Gynecology. Her multicultural background enriches her perspective and commitment to global health. Andrea aims to make a significant impact in women's health care, advocating for better services and outcomes for women around the world.





### **Sophia Mains, Lauren Smith, Aya Zaatreh\*, Sally Shady Ph.D**

Department of Biomedical Engineering, Stevens Institute of Technology Hoboken, NJ

## **HeraHealth: Revolutionizing postpartum care through an innovative blood loss monitoring application**

Postpartum Hemorrhage (PPH) poses a significant threat to maternal health, affecting 1 in 6 women during childbirth and contributing to over 20% of maternal fatalities globally. In the United States, a hemorrhaging mother is ten times more likely to die due to the reliance on a subjective visual estimation of blood loss during delivery, which results in high error rates and delayed treatment. HeraHealth, an innovative medical application, aims to address this challenge by providing a reliable means to quantify postpartum blood loss in real-time.

Utilizing HeraHealth, women can accurately measure their blood loss by uploading images of their maternal pads, which are then analyzed by a medical image processing algorithm. This algorithm calculates the volume of blood within the pad based on four key metrics: time, pixel count, pad absorbency, and pixel index values. By deconstructing a 2D image into binary and processing through medical imaging technology, HeraHealth generates a 3D metric of blood volume in milliliters.

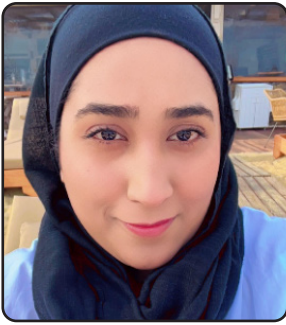
To validate the accuracy of the algorithm, extensive testing was conducted using Abena Maternal Pads and sheep's blood, which closely resembles human blood properties. Results yielded an algorithm accuracy rate of 84%, significantly outperforming existing methods. Moreover, the algorithm demonstrated resilience to variations in lighting conditions and blood oxidation, ensuring consistent performance across different environments.

Beyond its application in maternal health, HeraHealth's algorithm holds promise for tracking blood loss in other areas such as female menstrual conditions like PCOS, menopause, and endometriosis. By providing quantitative data to women and their physicians, HeraHealth empowers women to better understand their health, as well as facilitates early detection of potentially life-threatening conditions.

Ultimately, HeraHealth's innovative approach not only addresses disparities in maternal care but also contributes to the broader goal of reducing maternal mortality. By enabling prompt detection and treatment of PPH, HeraHealth ensures that new mothers have the opportunity to lead healthy lives with their children. As further advancements and integration of artificial intelligence techniques are pursued, HeraHealth continues to evolve, promising even greater impact in improving women's health outcomes.

### **Biography**

Aya Zaatreh studied Biomedical Engineering at Stevens Institute of Technology in Hoboken, NJ and graduated with a B.E. in 2024. There, she worked with Sophia Mains and Lauren Smith, along with the advice of Dr. Sally Shady, to develop HeraHealth Corporation LLC to address disparities in maternal healthcare.



**Aysha Afzal Qureshi<sup>1\*</sup>, Saima Naseem<sup>1</sup>, Saira Iqbal<sup>2</sup>, Anita Nargun<sup>1</sup>**

<sup>1</sup>Obstetrics and Gynaecology Department, ABUHB, Cwmbran, Wales

<sup>2</sup>Obstetrics and Gynaecology Department, PSHD, Punjab, Pakistan

## Interesting and a rare case of incidental diagnosis of dysfibrinogenemia in an uncomplicated pregnancy - A case report

**Objective:** To present an interesting case of diagnosis and management of undiagnosed dysfibrinogenemia in an otherwise uncomplicated pregnancy and its outcome.

**Case Report:** A 29/F, G1, BMI 38kg/m<sup>2</sup> with a previous history of surgical intervention without any bleeding or complications, family history of thrombosis but an uncomplicated pregnancy and a normal grown baby admitted for IOL at 39+2 weeks due to spontaneous rupture of membranes.

IOL commenced as per protocol and patient monitored for normal progress of labor. Later on, decision for a Category 2 Caesarean Section (CS) taken for failure to progress and suspected sepsis secondary to prolonged SROM. Anesthetic review and Bloods done that showed preop fibrinogen level of 0.9 (repeated twice) followed by 2g fibrinogen transfusion and Cat 2 CS done with a Bakri Balloon and 1 vaginal pack in situ. No intra-operative complications otherwise. Postop plan for HDU care was to repeat bloods in 6 hours. If normal then for routine postop thromboprophylaxis and to continue with sepsis protocol.

Postop repeated fibrinogen level still 0.8 but uneventful recovery. Referral to Hematology team as in patient and provisional of diagnosis of either Dysfibrinogenemia or Hypofibrinogenemia made. As per their advice, fibrinogen level and fibrinogen ELISA done, patient discharged home (as no other concerns) with thromboprophylaxis for 6 weeks and a follow up in Hematology Clinic.

Patient seen by Consultant Hematologist at 3 and 7 weeks postnatal and a diagnosis of Dysfibrinogenemia was confirmed after thorough investigations and a genetic link was established and a Plan for further routine follow up with Hematology made as per protocol.

**Discussion:** A case report by Yamanaka<sup>10</sup> and Miesbach<sup>11</sup> et al suggests that an asymptomatic pregnancy with dysfibrinogenemia but no obstetric complications doesn't warrant treatment unless complications such as bleeding or thrombosis occur.

Literature suggests that Women with Congenital Dysfibrinogenemia (CD) can experience similar obstetric complications as those with afibrinogenemia. However, these patients might not be diagnosed as CD can be asymptomatic.

**Conclusion:** CD is a rare but potentially serious condition that puts the pregnant women at high risk of obstetric complications such as bleeding, blood clots and pregnancy loss. The complex management requires a multidisciplinary approach so that timely detection and appropriate management with Fibrinogen replacement therapy can help prevent the complications and result in an uneventful delivery.

### **Audience Take Away Notes**

- CD is a rare but potentially dangerous condition with limited information on its management. And can cause serious complications such as Hemorrhage, Pregnancy losses and thrombosis. By discussing these cases and literature reviews we can bring awareness and insight into managing such complex rare conditions in a much better way that can help prevent any complications aiming for uneventful deliveries.
- CD requires a multidisciplinary approach that involves Obstetrician and Gynecologist, Hematologist, Anesthetist, Maternal-fetal medicine, Blood bank services and Pharmacists as well.
- CD can be very difficult to diagnose and equally challenging to manage in pregnancy and a standard guideline needs to be established for its management.
- By gaining Knowledge and working on such cases some serious complications in an otherwise uncomplicated pregnancies can be prevented.

### **Biography**

Dr. Aysha Afzal Qureshi graduated from King Edward Medical University in 2014 and has been working as Specialty trainee in O&G since 2016 after entering College of Surgeons and Physicians Obs and Gynae Fellowship program. Started working in O&G in the UK in 2019 and currently working as Specialty registrar O&G. She has completed her MRCOG and is a member of Royal College since 2022. Presented E-poster in RCOG congress 2023, co-author of an article published in journal Esculapio and another article is under writing for publication soon. Proactive in participating in QIPs and working towards improvement in Women's health.



**Bahar Morshed Behbahani**

Department Midwifery, Shiraz University of Medical Sciences, Shiraz, Fars, Iran

## The complications of using assisted reproductive technologies on infertile couples health

**I**nfertility is defined as the inability to become pregnant after at least a year of trying. Infertility affects an estimated 10–15% of couples of reproductive age globally. The number of couples seeking infertility treatment has increased considerably in recent years as a result of variables such as women postponing childbirth, the introduction of newer and more successful infertility treatment procedures, and increased public awareness of these available therapies. Regarding the economic conflict of interest in this field, policymakers, providers, and recipients of infertility treatment services must be warned about the numerous dimensions of its side effects.

Complications can be found in the physical, psychological, economic, and social sectors. Ovulation stimulation drugs can trigger anxiety, interruptions of sleep, and irritability in women but not in men. Other medications for infertility may cause issues such as depression, mania, irritability and difficulty in concentrating. Headache, dizziness, fatigue, insomnia, chest pain, mood swings, depression and anxiety symptoms, vaginal dryness, acne, joint pain and decreased sex drive in some women or abnormal cycle are some of the other side effects of these drugs. These treatments can reduce the satisfaction and sexual health of couples. Health insurance coverage varies and is not 100% effective. Therefore, the cost of infertility treatment is very high for couples and health systems. Couples who do not have insurance or the ability to pay for therapy may experience feelings of powerlessness and desperation if they do not obtain specialist care. Even people with insurance may discover that they have insufficient funds due to co-payments or may face coverage limitations. The lack of access to some specialized infertility treatments in low-income areas or their illegality in the place of residence makes couples bear the costs of traveling and staying in other countries, which will have economic and social consequences. In some countries, these couples face legal problems regarding custody or parenting processes. These will affect the social welfare of the couples.

Infertility prevention strategy such as having children on time, adequate infection treatment, a healthy lifestyle, reproductive health education for adolescents, and screening for endometriosis and PCOS will thus be critical. Preventing unrealistic advertisements for the use of assisted reproductive methods like gender selection, ignoring the tolerance of pregnancy in surrogacy, or having multiple pregnancies can be other strategies. Furthermore, thorough legislation for all infertility treatment methods in all nations is required.

### Audience Take Away Notes

- Increasing the attention of reproductive health service providers to preventive measures for reproductive disorders.
- Advocating for policies to cover treatment costs in health system.

- Paying attention to reproductive health and sexual health education for teenagers.
- Increasing attention to psychological care and social support for couples undergoing infertility treatments.
- Adoption of laws to prevent abuse of treatment methods in unnecessary cases.

### **Biography**

Dr. Bahar Morshed Behbahani studied Midwifery at the Shiraz University of Medical Sciences, Iran and graduated as MS in 2000 from Tarbiat Modares University, Tehran. She then became a member of the faculty of Shiraz University of Medical Sciences. She received her PhD degree in 2020 at the Tarbiat Modares University of Tehran. She has published 13 research articles in ISI journals and 20 articles in other journals.

**Devaun Reid<sup>1\*</sup>, Britannia Noel, Janetta Lam, Julyssa Renteria, Sarah McCrackin, Gwendolyn Quinn<sup>2</sup>**

<sup>1</sup>College of Medicine, University of South Florida Morsani College of Medicine, Tampa, FL, USA

<sup>2</sup>Department of Obstetrics and Gynecology, NYU Grossman School of Medicine, New York City, New York, USA

## **Racial disparities in surgical management of uterine fibroids: A systematic review**

**Purpose:** The initiation of this study was driven by the notable impact of uterine fibroids on Black women, who face a significantly higher risk for these benign tumors compared to other demographics. Moreover, they experience disparities in surgical outcomes, a concern that persists even after adjusting for various health and socioeconomic factors. This study aims to explore these disparities and provide empirical evidence to guide improvements in clinical practices for the betterment of patient care and the promotion of health equity.

**Methods:** A comprehensive systematic review was conducted using Covidence to identify relevant studies published. The inclusion criteria focused on adult women from diverse racial and ethnic backgrounds, with particular attention on Black and Latinx populations undergoing surgical management for uterine fibroids. We considered a range of surgical interventions, including laparoscopic radiofrequency ablation, hysterectomy, and other minimally invasive approaches. Key outcomes evaluated included surgical efficacy, safety, patient satisfaction, and the psychosocial impact of uterine fibroids on treatment success and decision-making. Studies exclusively examining Caucasian or non-ethnic populations and those not addressing racial and ethnic disparities in surgical management were excluded.

**Results:** We conducted a search using Pubmed, Scopus, and Embase for all papers published from 2000 till present day. Our initial search in January 2024 produced 558 studies. We were able to screen these studies to 15 studies that fit our research question and goal. Findings suggest a higher propensity for Black women to undergo open hysterectomy, accompanied by a greater incidence of postoperative complications. This disparity remains significant even after controlling for medical, surgical, and gynecologic factors.

**Discussion:** Initial interpretations of the data indicate a greater likelihood of Black women undergoing more invasive surgeries for fibroids, facing increased complications thereafter. Such trends are independent of various health factors, hinting at underlying systemic issues. Financial strain and access to care appear to be disproportionately worse for Black patients, due to ingrained structural biases. Additionally, discrepancies in the utilization of minimally invasive surgeries among veterans suggest further need for research into the barriers faced by minority groups. The data points to a pressing need for a deeper understanding of the treatment experiences of Black patients to guide equitable care.

### **Audience Take Away Notes**

- **The extent of racial disparities in surgical outcomes for uterine fibroids:** Understanding the disproportionate impact of surgical interventions on black women, highlighting the need for systemic changes in clinical practice.
- **Importance of patient-centered care in addressing health disparities:** Insights on how healthcare

providers can implement more inclusive strategies and interventions, improving the quality of care for minority populations.

- **Empirical evidence to guide clinical practice:** The presentation will offer a comprehensive overview of the existing research, providing attendees with actionable data to advocate for and implement changes in their practice settings.
- **Potential for future research and policy change:** Encouraging other faculty and healthcare professionals to delve deeper into health disparities research, fostering a collaborative effort to address and reduce these inequities.
- **Practical solutions to improve healthcare equity:** Discussion on how the findings can inform the development of policies and practices that ensure equitable access to minimally invasive treatments and improved surgical outcomes for all patients, regardless of race.
- Attendees can utilize this information to enhance patient care, advocate for health equity, and contribute to the ongoing conversation about addressing racial disparities in healthcare settings. This presentation aims to inspire action, foster collaboration, and encourage the integration of research findings into clinical practice and health policy.

### **Biography**

Devaun Reid is a dedicated second-year medical student at the University of South Florida Morsani College of Medicine. Devaun graduated from Florida State University in 2020 with a bachelor's in psychology. With a profound interest in addressing health disparities, Devaun embarked on a research journey to uncover the racial inequities in surgical outcomes for uterine fibroids. Devaun aims to leverage his medical education to make meaningful contributions to the field, focusing on improving patient care and fostering a healthcare environment that promotes inclusivity and equity.

**Arantseva D.A.<sup>1\*</sup>, Trifonova N.S.<sup>1</sup>, Shobolov D.L.<sup>2</sup>, Lozinsky V.I.<sup>3</sup>**<sup>1</sup>Prof., MD, Department of Obstetrics and Gynecology at Sechenov University, Moscow, Russia<sup>2</sup>Ph.D., General Director, Kinetic-Pharm LLC, Moscow Region, Russia<sup>3</sup>Prof., Dr.Sc., Head of the Laboratory for Cryochemistry of (Bio)Polymers, Institute of Organoelement Compounds of Russian Academy of Sciences, Moscow, Russia**Biopolymer-based vaginal drug delivery system**

**I**nfectious diseases of the female reproductive system (including bacterial vaginosis, candidiasis, viral infections, as well as vaginal dysbiosis) are one of the most common conditions that every woman faces at some point during her life.

Features of the vaginal anatomy, histological structure of the mucosa, biological properties of vaginal discharge, significantly limit the effectiveness of drugs used for vaginal administration based on traditional dosage forms (tablets, capsules, suppositories, ointments, gels and solutions). Limitations of solid forms are associated with a suboptimal dissolution profile in the vagina and surface distribution of the therapeutic agent. Due to the small volume of fluid in the vagina, solid forms cannot provide the necessary concentrations of administered active substances or bacteria uniformly over the entire surface of the vaginal mucosa. Gels and solutions are prone to leakage, requiring a horizontal position before and after administration, which reduces compliance with therapy, and, as a consequence, the effectiveness of therapy.

The aim of this study was to develop a cryostructured a solid dosage form for vaginal delivery of active ingredients based on the use of a biodegradable polysaccharide as a structural component, which has the following set of properties and characteristics that increase the effectiveness of therapy while ensuring ease of use of the device:

- In the initial state (before contact with water or an aqueous solution before inserting the device into the vagina), the device has a stable solid form, resembling a hygienic tampon, convenient for insertion into the vagina.
- Upon interaction with water or an aqueous solution, the device is effectively wetted, forming a three-dimensional hydrogel structure while retaining its shape up to 48 h, ensuring hygienic insertion of the device into the vaginal cavity using a suitable applicator device.
- Upon subsequent intravaginal mechanical action, the hydrogel disintegrates forming a gel-like mass that ensures the uniform distribution of the therapeutic agent in the vaginal cavity.
- The device is characterized by the necessary adhesion to the walls of the vaginal epithelium, providing sufficient exposure time to the therapeutic agent in the vaginal cavity.
- The device is characterized by structural strength in the initial state (before contact with water or an aqueous solution), and provides nutritional support for lactobacilli of the vaginal microflora after insertion of the device.

To date, the development of the first prototype of the therapeutic agent has been completed—a device that combines the properties of a pro- and prebiotic, allowing for the rapid and reliable restoration of vaginal normocenosis. In vitro studies have been conducted on a biopolymer matrix of biopolysaccharides with a probiotic included in its composition—the vaginal strain of *L. Crispatus*. The prebiotic activity of the matrix itself has been proven, the following have been studied: the survival and release of *L. Crispatus* from the product, the peroxidase activity of the product with *L. Crispatus*, the release of lactic acid, antagonistic activity against *C. albicans*, *E. coli*, *G. Vaginalis*, and the adhesive properties of the product.



## Audience Take Away Notes

- This research could be used to expand for research, which looking for solution, how increase sufficient exposure time to the therapeutic agent in the vaginal cavity. The device in one of the embodiments may not contain active ingredients, i.e. may be an unfilled biopolymer matrix, which can also be used as a medical device. In another version of the invention, the device is a biopolymer matrix containing one or more active ingredients, wherein the active ingredients can be introduced into the matrix at the initial stage of producing the device: when mixing the matrix components with the active ingredients before freezing and freeze-drying, and at subsequent stages of production or use of the finished product.
- A practical solution to a problem. This research can be used as practical solution to include active substances, including biotechnological ones, the use of which is currently limited due to the lack of adequate delivery methods, insufficient exposure time during intravaginal administration, and the creation of new drugs for intravaginal treatment of gynecological diseases due to: The ability to control the time of matrix biodegradation up to 48 hours, the ability to work with thermolabile active substances, the ability to vary the form of a lyophilizate suppository for a specific nosology.

## Biography

Diana A. Arantseva has Bachelors Degree of Biochemistry in Bashkir State University, Russia. 5 years' experience in biopharmaceutical formulation and manufacturing of biotechnological products in «Microgen» the Federal State Unitary Enterprise «Scientific and Production Association for Immunological Preparations». More than 15 years of experience in a management position (head of parenteral dosage forms and drug delivery systems, head of technological center) in Drugs Technology, LLC, R-Pharm Group, Kinetic-Pharm LLC, 1 years' experience in position of Head of Manufacturing Science & Technology (MS&T), Institute of Translational Medicine and Biotechnology, Sechenov First Moscow State Medical University (Sechenov University). She has published articles in SCI(E) journals. <https://orcid.org/0000-0003-0920-6921>.



**Kozyreva E.V.<sup>1\*</sup>, Davidyan L.Y.<sup>2</sup>**

<sup>1</sup>Associate Professor of the Department of Pediatrics of FSBEI HPE «Ulyanovsk State University», Russian Federation

<sup>2</sup>Faculty of Postgraduate Medical and Pharmaceutical Education of FSBEI HPE «Ulyanovsk State University», Russian Federation

## Features of endometrial receptivity in chronic endometritis in women with infertility

The normal receptor status of the endometrium is an important factor in successful embryo implantation. The most informative methods of studying endometrial receptivity are immunohistochemical and immunocytochemical research methods.

The aim of our study was to determine the receptor status of the endometrium in women with chronic endometritis with infertility and unsuccessful IVF attempts; and to develop treatment methods depending on the receptor status of the endometrium.

**Research Materials and Methods:** In 2023, we examined 66 infertile women with a confirmed chronic endometritis at the MedSwiss clinic. Endometrial samples were collected on days 7-11 of the menstrual cycle by pipel biopsy. To determine the receptor status of the endometrium, immunocytochemical studies were performed by automated staining using the Dako AutostainerLink 48 system (Dako Denmark A/S, Denmark) using monoclonal (mouse) antibodies to human CD138, clone M15, Ready-to-Use (Dako Denmark A/S, Denmark).

Immunohistochemical examination of endometrial tissue was performed using the peroxidase technique on paraffin sections with a thickness of 3-4 microns.

Ultra Vision Quanto detection system (DAKO, Denmark) and DAKO monoclonal mouse antibodies were used: to estrogen receptors (clone 1D5), progesterone (clone PgR 636), Ki-67 protein (clone MIB-1); polyclonal rabbit antibodies Her2 in 1:700 dilution; to lymphocyte receptors-CD3 (clone SP 7); CD4 (clone 4B12); CD8 (clone), CD138 (clone); to epidermal growth factor EGFR (clone) and to androgen receptors (clone).

**The Results of the Study:** In 26 women (40%), chronic endometritis occurred without activation of the autoimmune nature of the process (DP-DQ&DR-negative-0 points). In 40 women (60%), chronic endometritis was determined with the autoimmune nature of the process (DP-DQ&DR-diffusely located cells with moderate cell expression in the visual field). All patients with the autoimmune nature of chronic endometritis had a normal receptive status of estrogens and progesterone and a normal proliferative activity index (KI67), with activation of cytotoxic B lymphocytes (CD 20c) and the presence of true killer cells (CD56).

**Conclusion:** The combination of immunocytochemical and immunohistochemical research methods is highly informative in terms of diagnosis of chronic endometritis. 60% of infertile women with chronic endometritis have an autoimmune nature of the process. Based on the data obtained, we have developed a specific treatment depending on the receptivity of the endometrium. Antibacterial therapy was used only when pathogenic and opportunistic bacteria were detected in the uterine cavity. With high efficiency of treatment, we used hormone therapy, therapy improving tissue trophism, microcirculation, vitamin therapy,

physiotherapy.

**Keywords:** Immunohistochemical Examination, Immunohistochemical Examination, Chronic Endometritis, Infertility, Endometrial Receptivity.

### **Biography**

Elena Kozyreva was born in Russia, graduated from Ulyanovsk State University in 2006. In 2009 she defended her PhD thesis on the topic "Optimization of pathomorphological diagnosis of cervical dysplasia". Since 2015, she has been teaching at the university. Since 2019, she has headed the department at the Perinatal Center. Since 2021, she has been working at the MedSwiss clinic in Moscow. She has the highest category, several awards and letters of thanks. Actively engaged in scientific and medical activities. Research area: chronic endometritis, infertility, miscarriage.



**Enattihun Woretaw Assefa**

Saving Little Lives (SLL) Program, Hawassa University, Hawassa, Ethiopia

## Prevalence, triggering factors, and effects of intimate partner violence among pregnant women in Shebedino Woreda, Sidama Zone, Ethiopia

**Background:** Intimate Partner Violence (IPV) in pregnant women is an important public health problem. It has a significant negative impact on the health and wellness of both the mother and her fetus. Most previous studies are more focused on IPV among non-pregnant women in relatively bigger cities and better of communities; as a result, results from such studies seem to understate the problem in pregnant woman living in marginalized smaller communities. This study attempted to shed light on the impact of IPV among pregnant women in one of such communities in Southern Ethiopia, specifically in Shebedino Woreda.

**Objective:** To assess prevalence, contributing factors and the impact of IPV among pregnant women in Shebedino Woreda, Sidama Zone, Ethiopia.

**Methods:** Facility-based cross-sectional study was conducted from February 20th to April 20th, 2020, among 427 pregnant women. The study was carried out in one purposively selected primary hospital and three randomly selected health facilities. The data were encoded using Epi-data version 3.1 and analyzed by SPSS. The bi-variable and multi-variable analysis was carried out by using binary logistic regression. Significance was declared by using the p-value of  $<0.05$  and adjusted odds ratio with 95% confidence intervals.

**Results:** The study shows that 41.9% pregnant women encountered at least one type of IPV during their recent pregnancy. The study indicated that the types of violences encountered by pregnant women are physical (23.4%), sexual (26%), and psychological (24.6%). Employment status [AOR=0.16; 95%CI: (0.07, 0.39), partner's level of education [AOR=5.35; 95%CI: (2.28, 12.5), women's level of participation in decision making [AOR=3.69; 95%CI: (2.017, 6.76), history of childhood violence [AOR=13.02; 95%CI: (5.08-33.4), desirability of the pregnancy [AOR=0.28; 95%CI: (0.09, 0.87), and history of abortion [AOR=2.15; 95%CI: (1.18, 4.59) were significant factors which contribute to IPV during pregnancy. There was no significant association between attitude of women and IPV during pregnancy.

**Conclusion and Recommendations:** The research findings revealed that at least one in three women encounter IPV during pregnancy in Shebedino Woreda. Government and nongovernmental public health intervention should be targeted towards minimizing the prevalence and impact of IPV in such communities. Similar research and project activities should be conducted in similar rural communities to further shed light on the problem and the solution as well. Targeted efforts on education, awareness creation and cultural transformations should be encouraged.

**Keywords:** Intimate Partner, Pregnancy, Antenatal Care Service, Sidama Zone, Ethiopia.

### **Audience Take Away Notes**

- Learn the global nature of IPV, its higher prevalence, and contributing factors in geographically and socioculturally different societies/communities.
- Encouraged to conduct similar research on the topic in different communities in their area to better understand IPV as a public health problem.
- Learn to gear public health interventions and efforts towards IPV prevention and management to make a difference vicious cycle of IPV and improve the safety of the most vulnerable segments of society.

### **Biography**

Mrs. Enatihun Woretaw Asefa has graduated her MSN in Public Health Nursing from Hawassa University, Hawassa, Ethiopia, and her Midwifery Bachelor of Science degree from Madda Walabu University, Bale Robe, Ethiopia. She has been working in Saving Little Lives (SLL) program as A Health Worker in Hawassa and surrounding areas since 2020.



**Fatima Hameed**

Family Care Division, Bolton NHS Trust, United Kingdom

## Outcome of pregnancies managed by preterm clinic

**Background:** 53,000 babies are born prematurely each year in the UK. In 2021 7.6% of births are preterm, which was an increase from 7.4% in 2020. Preterm birth is a major cause of perinatal mortality. North West has introduced a preterm guideline regarding preterm Clinic. Since 10/2021 there is a standard operating procedure outlining the operational management of pre-term clinic for women who have been identified as being at increased risk of preterm labour/birth during their booking appointment. These women are seen at a specialist consultant clinic from 16/40 to 24/40. The SOPs is planned to be reviewed every 3 years. Saving babies lives' government incentive of reducing preterm birth from 8% to 6% by 2025.

**Method:** A retrospective audit looking at all patients referred to the Preterm Clinic during the time period between 1/03/2022 and 31/05/2022.

**Results:** 2 patients who were not seen in PTL clinic, had history indicated cerclage and cyclogest, one delivered at <28 weeks, the other 34-37 weeks. Out of 4 patients born <28 weeks, all had cyclogest and 3 had cerclage. They delivered preterm despite full treatment. 66% of high-risk patients had full term delivery. 34% had preterm delivery, of which 24% was spontaneous preterm birth and 10% iatrogenic. Spontaneous Preterm delivery was prevented in 3 quarters of the high-risk patients. 98% were given verbal and written advice regarding signs and symptoms of preterm labour and were advised to contact triage if symptoms of preterm labour.

**Conclusion:** The establishment of a dedicated preterm birth prevention clinic has significantly improved care in a condensed timeframe. Patient feedback and outcome was instrumental in refining clinic operations, leading to an improved information leaflet. Aim is to Continue following SOPs and Guidelines. Highlighting appropriate referral indications and disseminating this information amongst colleagues is imperative to avoid unnecessary referrals. This clinic commits to a multidisciplinary approach in refining preterm birth prediction and prevention aligning with Saving Babies Lives Care Bundle objectives to reduce perinatal mortality.

### Biography:

Dr. Hameed studied Medicine from PMDC, Pakistan and graduated as MBBS in 2013. She then did postgraduation in OBS and GYNAE and did USMLE and attain MD. After postgraduation she worked as Registrar for few years in Pakistan. Then she started her job in 2022 as Specialty Doctor in OBS and GYNAE in Bolton NHS Foundation Trust United Kingdom. She has participated in multiple audits, and working on research within her department. She has contributed a lot to her field and presented in regional and local meetings on Preterm birth in primigravidas, Poster presentation on Scar pregnancy and audit on Gestational Hypertension guidelines. Her recent article published in peer reviewed journal as "Unweaving the interaction between polycystic ovarian disease, hypothyroidism and infertility".



**Gunay Mamedbeili**

Baku Medical Plaza, Baku, Azerbaijan

## Experience in managing a patient with breast cancer during pregnancy

Despite advancements in the diagnosis and treatment of breast cancer, malignant neoplasms are still occasionally found in pregnant women. A patient presented to our clinic at 16 weeks of gestation (second trimester). Ultrasound examination revealed a pathological mass in the left breast, 2 cm from the areola, measuring 3.64 x 2.5 x 1.7 cm, classified as BI-RADS-6. The right breast was classified as BI-RADS-1. A suspicious lymph node measuring 1.54 x 0.54 cm was found in the left axillary region. Histology results indicated infiltrative lobular carcinoma. Immunohistochemistry showed ER(++), PR(++), Her2 (Score3), Ki67 (60-65%). Biochemical blood analysis results were: ALT-17.9 U/L, AST-17.7 U/L, Creatinine-40 mmol/L, Tumor marker CA 15.3-24.3 U/mL. Chemotherapy was administered every 21 days from the 16th week of pregnancy, following the regimen of Doxorubicin 90 mg IV and Paklitaxel+trastuzumab. Cyclophosphamide 900 mg up to the 34th week of pregnancy. A triple test was conducted on the patient, revealing no pathology. The pregnancy proceeded without complications. At 37 weeks, a cesarean section was performed. The fetus was in a breech position. Apgar scores were 0.0 at birth and 0.3 at 5 minutes. There was no spontaneous breathing or heartbeat. Following intubation, the heartbeat was restored. After 24 hours, the baby was transitioned to spontaneous breathing. Seizures continued. MRI and EEG showed no pathology. The seizures ceased after 7 days, but signs of necrotizing enterocolitis appeared. Surgical colostomy was performed. The baby was discharged for outpatient treatment. Five months post-cesarean, the patient underwent radical mastectomy with lymph node dissection. Histological analysis confirmed infiltrative lobular carcinoma with ER(++), PR(++), Her2 (Score3), Ki67 (60-65%). MRI was performed one month post-surgery. One year post-surgery, no recurrence was detected. The child is being prepared for reconstructive surgery. Despite thorough examinations and an uncomplicated pregnancy, the fetus exhibited signs of hypoxia, which were not confirmed by instrumental examinations.

### Audience Take Away Notes

- Diagnosis and treatment protocols for breast cancer during pregnancy.
- Challenges and outcomes of chemotherapy during pregnancy.
- Management of neonatal complications following chemotherapy and surgery during pregnancy.
- The audience will be able to apply the discussed protocols and management strategies in similar cases, improving patient care and outcomes in complex scenarios involving cancer and pregnancy.
- This information will assist healthcare professionals in making informed decisions regarding the treatment of pregnant patients with cancer, ensuring both maternal and fetal health are prioritized.
- Yes, this case study provides valuable insights that can be used for further research and teaching on the intersection of oncology and obstetrics.
- Not directly applicable to designers, but it does provide practical clinical solutions for healthcare providers.
- It will improve the accuracy of clinical decision-making and provide new information for managing complex pregnancies.

- **Other benefits:**

- Improved understanding of the impact of chemotherapy on pregnancy.
- Insights into neonatal care post-chemotherapy.
- Guidelines for interdisciplinary collaboration in treating pregnant cancer patients.

### **Biography**

Dr. Gunay Mamedbeili studied medicine at the Azerbaijan Medical University and graduated with a Ph.D. in 2014. She then joined the oncology department at the National Oncology Center in Azerbaijan. She has published 15 articles and 10 theses in local and international journals. She currently works as an onco-gynecologist in the private sector. Dr. Gunay Mamedbeili completed internships at the Department of Onco-Gynecology at the Austrian Medical University AKH and the Medical University in Ankara, Turkey.

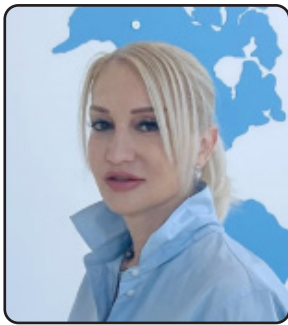




**Harris Edward Phillip**  
NHS Trust, United Kingdom

## **Combined HRT: The strongest evidence for mature women castration**

**F**rom menarche at about age 12 to menopause, which may occur arguably about age 51, women have lived for about 39 years, more than a 1/3 of their lives enjoying the benefits of ovarian cycling and the hormones which such delivers: Oestrogen, Progestogens and Testosterone. Starting suddenly about age 41-45, their bodies are forced to exist on dwindling levels of these hormones and it is at this time we crave HRT preparations to address our body's revolt against this deficiency. It is within the context, with the uterus present we aim to palliate this revolt with combined HRT, Oestrogen, Progestogen but what do our bodies tell us: with the combined preparation (a) there are more cases of breast cancer, (b) more referral to the hospital with complaints of postmenopausal bleeding and (c) with a thickened endometrium pointing to potential pathology. Few will argue that this may be the strongest argument yet for the mature female castration before commencing combined HRT.



**Ketevan Oles**

APTOS, United States

## The role of thread lifting methods in aesthetic gynecology

**Introduction:** In modern medicine now it's very demanded to treat and rejuvenate intimate area. Lot of methods are presented nowadays for such kind of treatments: lasers, dermal fillers, fat grafting, PRP and etc. to achieve desirable result we need to combine at least two or more methods, but regarding threads lifting methods which is mini invasive can provide safe and effective results immediately after, and lasts long time.

**Materials/Method:** Thread materials that are using for intimate area treatment can be various, a lot of type of threads can be used depends the treatment zones. Thread methods should be appropriate for intimate zone, such as composition, barbs configuration and the most important is the technique that gives us safety and effectiveness. Threads can be used for vaginal rejuvenation, tightening and narrowing, reconstruction of perineal area, elevation and rejuvenation of labia majora. The most interesting is that with threads can be treat functional problem such as stress urinary incontinence.

**Results:** Providing threads in intimate zone is safe, effective, mini-invasive procedure with short rehabilitation period, without incision and scars, need only local anaesthesia. If we chose right thread material, right technique, proper indication the results will be satisfied.

**Conclusion:** Thread lifting methods for intimate zone is most popular treatment, due to minimal downtime and high effectiveness that is alternation of surgical approaches gives the patient comfort, self confidence. After thread lifting procedures raise quality of sexual life but also quality of life in both of gender.

### Audience Take Away Notes

- Exploring new and minimally invasive procedures in aesthetic and plastic gynecology.
- New approaches and techniques with thread lifting methods.
- Women health and wellness.

### Biography

Dr. Ketevan Oles finished high school on golden medal, then studied on the faculty of medicine in Tbilisi State Medical University and graduated in 1996 with highest scores, after which she joined OB GYN residency and stayed in the field as an OB GYN surgeon for almost 20 years. In 2020 started training with APTOS thread lifting methods to pursue her passion in aesthetic gynecology and later obtained the trainer status for the procedures. Since then, she has participated in multiple international congresses and conferences, including IMCAS, ISAPS, webinars, workshops in hospitals and other events. Currently Dr. Oles is a USA citizen that holds the international trainer status in Aesthetic and Plastic gynecology and works in the Americas.



**Krishna Bhatta MD FRCS**

Urology (Former chief) Northern Light Eastern Maine Medical Center, Bangor, ME  
04976 USA

**Physician Wellness: Cultivating Mindfulness for Work-Life Balance**

In today’s fast-paced healthcare environment, physician burnout is a critical issue, affecting both personal well-being and patient care outcomes. This presentation highlights the role of mindfulness and meditation practices in promoting a healthy work-life balance for physicians. By integrating mindfulness into daily routines, physicians can enhance emotional resilience, improve focus, and create a sustainable sense of balance between professional responsibilities and personal life.

The session will include an 8-minute guided meditation, using a 528 Hz frequency, to offer participants a practical experience of how meditation can reduce stress and foster a deeper connection to their own well-being. This simple yet powerful tool can help physicians remain centered amidst the demands of their profession, ultimately leading to improved patient care and greater job satisfaction.

**Audience Take Away Notes**

- Practical meditation techniques: Attendees will experience how simple practices, such as an 8-minute guided meditation, can immediately reduce stress and create mental clarity in their daily lives.
- Improved emotional resilience: The session will highlight how integrating mindfulness into a daily routine can help physicians manage emotional demands, preventing burnout and fostering a sense of calm in high-pressure environments.
- Better work-life balance strategies: The presentation will provide insights into how physicians can achieve a sustainable balance between their professional duties and personal well-being, leading to enhanced job satisfaction.
- Impact of mindfulness on patient care: By staying present and centered, physicians can improve focus, reduce errors, and provide better patient care, as mindfulness enhances both personal wellness and professional performance.
- Long-term wellness benefits: Participants will understand how regular mindfulness practice can cultivate long-term improvements in physical health, mental clarity, and overall quality of life, helping them sustain wellness throughout their medical careers.

**Biography**

Krishna Bhatta, MD, FRCS, is an author, surgeon, and inventor who presently holds the position Urologist (former chief of Urology) at Northern Light Eastern Maine Medical Center in Bangor, Maine. Hailing from a modest Indian village, Dr. Bhatta’s trajectory began at Patna Medical College, leading him to educational endeavors in the UK and culminating in extensive research and medical training at Harvard University – Massachusetts General Hospital in Boston. Having established his residence in Maine, Dr. Bhatta assumes the role of Founder Chairman for the Relax Infinity App, an innovative wellness and meditation application widely embraced by numerous.



**Kheira Bouzid, Roxane Bartkowski, M. Bourdon, P. Santulli, L. Marcellin, L. Doridot\***

Inserm, France

## **Using single cell transcriptomic and 3D models to study immune-endometrial-fetal interactions in physiological and pathological contexts**

In humans, for a successful reproduction, there is a need for a successful implantation of a blastocyst on the endometrial mucosa followed by the establishment of an appropriate maternal-fetal interface. Hormonal response and immune cells are recognized to induce an implantation-prone endometrium. The endometrium is essential to allow a suitable placentation. Both endometrium and the maternal fetal interface are highly dynamic tissue that undergo massive changes across the cycle and pregnancy respectively. Furthermore, the immune cells within the endometrium and at the maternal fetal interface are important for both implantation and the maintenance of pregnancy. Indeed, there is a necessity for an immune tolerance of the semi-allograft that is the fetus, the immune cells are also thought to be involved in the timely initiation of parturition. However, the intricate interactions between the different cell types within the endometrium and the maternal fetal interface are still not clearly understood. Pathological context, such as endometriosis, can alter the endometrium and the establishment of the maternal fetal interface. Endometriosis is a complex inflammatory gynecological disorder characterized by the presence of endometrium-like tissue in ectopic regions, and it is associated with a molecularly altered eutopic endometrium and an immune dysfunction, both aspects being important for implantation and placental development. In addition to the fertility issues associated with endometriosis, there is also an increased risk of miscarriage. New technological advancement such as single cell transcriptomic allows to explore the endometrium and maternal fetal interface with unprecedented details. 3D culture models also allow to explore in details the response to external factors (hormones, microbial derivatives). Here, we will show how we are using both these approaches to explore the interactions between the different cell types at different stages of the cycle/gestation in women and mice with or without endometriosis.

### **Biography**

Ludivine Doridot is a researcher at INSERM (French National Institute of Health and Medical Research) and an Associate Professor at Université Paris Cité (Paris, France). She obtained her PhD in Genetics from Université Paris Descartes in 2013 for her studies on preeclampsia, a hypertensive disease of pregnancy. She then performed a postdoc in Beth Israel Deaconess Medical Center, a Harvard-affiliated hospital in Boston (USA), where she studied genetic-environment interaction in the context of metabolic syndrome. Since 2017, she is focusing her research on endometriosis and reproductive immunology. In 2022, she obtained a European Starting Grant to study endometriosis (MultiMENDO project). The project aims to find diagnostic and prognostic biomarkers and investigate new therapeutic approaches using menstrual blood, a relevant and easily accessible yet overlooked biological fluid.



**Dr. Maureen Dike Frank<sup>1\*</sup>, Professor Ijeoma, O. Ehiemere<sup>2</sup>**

<sup>1</sup>Department of Nursing Sciences, Faculty of Basic Medical Sciences, College of Medical Sciences, Rivers State University, Nkpolu-Oroworukwo, Port Harcourt Rivers State, Port Harcourt City, Rivers State, Nigeria

<sup>2</sup>Department of Nursing Sciences, Faculty of Health Sciences and Technology, College of medicine, University of Nigeria, Enugu Campus, Enugu State

## **Effect of sensitization on attitude of female health workers towards cervical cancer screening**

Cervical cancer screening is a health intervention for women at risk of developing cervical cancer. Documented evidence shows that it is treatable if early diagnosis is made and preventable if vaccination is given at the appropriate age. Regrettably, in most developing countries including Nigeria diagnosis is often made late when the cancer has advanced. In addition, using vaccination for the prevention is still in rudimentary level in Nigeria. Female health workers occupy key position in influencing positive health behavior among the women population in issues affecting their health including cervical cancer screening. Therefore, their positive attitude towards cervical cancer screening will invariably motivate other women to participate in cervical cancer screening exercise. Participation of more women will contribute significantly in reducing the incidence of cervical cancer.

The study assessed the effect of sensitization on attitude of female health workers towards cervical cancer screening in Niger Delta University Teaching Hospital, (NDUTH) and Federal Medical Centre (FMC), both are located in Yenagoa, Bayelsa State. Quasi-experimental design was used for the study. One hundred and forty (140) participants were selected using proportionate stratified random sampling technique. Instrument for data collection was adapted and validated Attitude scale for cancer screening by Yildirim et al. (2020). The reliability coefficient of 0.75 was obtained using Spearman Brown statistical procedure. Major finding revealed that sensitization had positive effect on participants' attitude towards cervical cancer screening, with a mean attitude change of 0.31 and a standard deviation of 0.53. Study concluded that sensitization is a veritable strategy that positively enhanced participants' attitude towards cervical cancer screening. The study therefore recommends that effective and regular sensitization approaches be used not only for female health workers but for all women in order to promote positive attitude towards cervical cancer screening thereby reduce the incidence of cervical cancer among women.

### **Audience Take Away Notes**

- Cervical cancer screening is a health intervention used on population of women at risk of developing cervical cancer disease.
- Human papilloma virus (HPV) may progress to cervical cancer within 3 to 20 years of infection; thus, this long window period provides ample opportunity for early detection and appropriate intervention.
- There is high mortality of cervical cancer among women in the developing countries.
- “No woman should die of cervical cancer” because it is preventable and/or treatable if detected early.
- Early detection of HPV infection is the core key for treatment of cervical cancer.

**Biography:**

Dr. Frank Maureen D. had her Registered Nurse (RN) and Registered Midwife (RM) in 1994 and 1996 respectively. She later had her first degree in Nursing, Bachelor of Nursing Science (BNSC) from university of Calabar in 2005, then had her Masters and Doctoral Degrees in Nursing, (MSc and PhD) from University of Nigeria, Nsukka, Enugu campus in 2014 and 2023 respectively. She had worked as a clinical instructor at Faculty of Nursing, Niger Delta University, Bayelsa State, Lecturer II in Madonna University, Rivers State, currently working in the Department of Nursing Sciences, Rivers State University as Lecturer and the Post Graduate Coordinator. She is an external examiner with the Nursing and Midwifery Council of Nigeria for professional Nursing examination and Department of Nursing, University of Port Harcourt, Rivers State. She has published 17 articles in internationally recognized journals and constantly looking for challenging opportunities within Nursing.



**Dr Mehdi Kehila**

Eve Fertility Center, Sousse, Tunisia

## **Repeated implantation failure: A stressing situation that needs a calm management**

**R**epeated Embryo Implantation Failure (RIF) is an extremely frustrating condition for both patients and clinicians and its management constitutes a difficult challenge in the field of in vitro fertilization.

There is actually no consensus in the definition and the strategy of management of this condition. We will discuss in this presentation, based on recent data published and personal experience, the new definitions of RIF and the treatments that can be useful in this situation.

### **Audience Take Away Notes**

- After this presentation the audience will be able to class, or not, a patient as a RIF.
- The audience will understand that the Rate of true recurrent implantation failure is low.
- The audience will avoid useless, and sometimes harmful, therapeutics in many cases that are not true RIF.
- Defining the time to start investigations and discussing the therapeutics for RIF will simplify the management and will lead to a more efficient job.

### **Biography**

Pr Mehdi Kehila, Obstetrician and Gynecologist, specialized in fertility treatments, Ex Professor at La Rabta Teaching Hospital of Tunis, University Tunis El Manar Tunisia and at The Department of Obstetrics - Gynecology and Infertility of Farhat Hached Teaching Hospital, Sousse, Tunisia. Actually, working at EVE Private Fertility Center, Sousse, Tunisia. Obtained a post of Associated professor in C department of gynecology and obstetrics, La Rabta, Tunis, in 2012 and received the professor degree in 2016. Pr Kehila Mehdi is working in the private sector since 2020 especially in the infertility field in Eve Fertility Center, Sousse, Tunisia. He has published more than 30 research articles in SCI(E) journals.



**Dr. Mervat Sheta**

Lecturer of Physical Medicine and Rehabilitation, Faculty of Medicine Alexandria University, Egypt

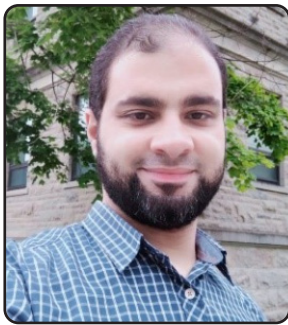
**Role of biofeedback pelvic floor training in elderly patients with obstructed defecation**

**P**elvic floor rehabilitation is essential to manage elderly patients with obstructed defecation. Program of biofeedback will be discussed with prerequisite, indication, and mechanism of biofeedback in these patients with usage of other physical modalities to improve emptying of large amounts of stool without effort. Examples of patients from Alexandria University before and after rehabilitation will be discussed.

**Biography**

Dr. Mervat Sheta studied medicine at Alexandria University (1998-2003). She graduated with excellent grades and honors in 2003 in internal medicine and surgery. She received a master's grade in physical medicine in 2008 at the Department of Physical Medicine and Rehabilitation to work as an assistant lecturer at the same department to be promoted to lecturer in 2016 after receiving a Ph.D. in the same department at Faculty of Medicine Alexandria University, Egypt. Her fine specialty is pelvic floor rehabilitation as topic of her Thesis in PhD and published many articles on pelvic floor rehabilitation.





**Dr. Mohamed Gamal AbouElYazeed Ali Shehata<sup>1,7\*</sup>, Amel M. Yousef<sup>2</sup>, Fahima M. Okeel<sup>2</sup>, Mohammed A.M. Sarhan<sup>3</sup>, Reem Alwhaibi<sup>4</sup>, Hoda M. Zakaria<sup>5</sup>, Abeer A. Mohammed<sup>5</sup>, Rehab S. Mamoon<sup>6</sup>, Mohammad Auais<sup>7</sup>**

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## **Exploring mechanical changes in the transversus abdominis muscle following cesarean delivery in postpartum women**

**Background:** Not only pregnancy may be associated with weakness of abdominal muscles including the Transversus Abdominis muscle but also, Cesarean delivery may contribute to this weakness. This study assessed the Maximum Voluntary Isometric Contraction (MVIC) of the core muscle; The Transversus Abdominis (TrA) among women undergoing: cesarean delivery, and vaginal delivery, and compared them to those without previous pregnancy.

**Methods:** The study design was a historical cohort study that included 95 women classified into: Group A; 40 women who underwent cesarean delivery, the control positive group (Group B); and 15 women who underwent vaginal delivery. Women in these two groups were assessed at 6-12 weeks postpartum. The control negative group (Group C); included 40 women who never experienced pregnancy. The pressure Biofeedback device was used to measure the MVIC of the TrA.

**Results:** The Kruskal-Wallis test revealed a significant difference in TrA strength ( $P=0.001$ ), and the Bonferroni test showed significant differences in pairwise groups A&C and A&B, however, there was a non-significant difference between groups B&C.

**Conclusion:** Women undergoing cesarean delivery exhibited a remarkable decrease in their TrA strength compared to those undergoing vaginal delivery or those of the control negative group. On the other hand, a non-remarkable decrease in the TrA strength was found in women of the vaginal delivery group compared to those of the control negative group. Cesarean delivery may be associated with weakness of the core muscle; the TrA.

### **Audience Take Away Notes**

- Women who underwent Cesarean delivery–6 to 12 weeks postpartum–may show weakness in the Transversus Abdominis muscle which is one important local core muscle participating in spinal stability.
- Encouraging Vaginal delivery because it was associated with a statistically non-significant decrease in the TrA strength compared to those who had never been pregnant.
- For those who are eligible for cesarean delivery, a focused exercise program to improve the TrA strength should be considered during both antenatal and postnatal periods.

### **Biography**

Dr. Mohamed G.A. Ali Shehata BSc PT, MSc PT, PhD PT, Lecturer of Physical Therapy, SVU, Egypt. Associate Alumnus, Harvard Medical School, USA. Former PhD Researcher, SRT, Queen's University, ON, Canada. Licensed Physical Therapist, New York State, USA. Lecturer of Physical Therapy for Women's Health, South Valley University, Egypt. Bachelor of Physical Therapy, Faculty of Physical Therapy, Cairo University 2008. MScs physical therapy, Cairo University 2015. PhD studies, Queen's University, Kingston, Ontario, Canada March 2022 - March 2023. Ph.D. in Physical Therapy for Women's Health (Joint Supervision, Cairo University and Queen's University, Ontario, Canada) May 2023. Associate Alumnus, Harvard Medical School, USA. Licensed Physical Therapist, New York State, USA. Speaker at international and national conferences.



**Moiz Artani<sup>1\*</sup>, Mohammad Faisal Iftikhar<sup>1</sup>, Shehroz Kha<sup>1</sup>**

<sup>1</sup>Department of Community Health Sciences, Jinnah Medical and Dental College, Karachi, Pakistan

## Effects of metformin on symptoms of polycystic ovarian syndrome among women of reproductive age

Metformin is a highly preferred drug that is used to treat the symptoms of polycystic ovarian syndrome among women. Pakistan is facing a continuous rise in the prevalence of polycystic ovarian syndrome. Therefore, the determination of the effectiveness of the drug in this condition is considered ideal as per the presenting situation. The aim of the study was to determine the effects of metformin in patients with polycystic ovarian syndrome. This cross-sectional study has investigated the influence of metformin on the ability to conceive, body weight, mood swings, energy levels, menstrual irregularities, and acne and hirsutism. As per the inclusion criteria, 100 women were evaluated from the outpatient clinics of Jinnah Postgraduate Medical Centre and Civil Centre, Karachi, from November 2016 to January 2017. A structured, pre-tested questionnaire was used for data collection. The study group had a mean age of  $27.2 \pm 4.75$  years. Outcomes reported by study participants suggested a significant influence of metformin on menstrual irregularities ( $p = 0.046$ ), acne and hirsutism ( $p < 0.001$ ), mood swings ( $p < 0.001$ ), and daily energy levels ( $p < 0.001$ ). Findings further proposed that metformin does not produce a significant impact on the ability to conceive ( $p = 0.096$ ) and in the change in body weight ( $p = 0.073$ ) of the patients. Metformin has been realized to have a significant role in dealing with the symptoms of polycystic ovarian syndrome. It is recommended to conduct more in-depth and longitudinal research on the long-term effects of the drug and compliance among these women.

### Audience Take Away Notes

- Discuss the impact of cosmetic symptoms including hirsutism associated with PCOS on the quality of life of young female patients.
- Discuss the current medical therapy and recent advancements in effective control of PCOS symptoms.
- Highlight challenges associated with conducting women's health research in a conservative cultural society.
- Discuss factors that affect compliance to medical therapy including social, economic and cultural influences.
- Highlight the need for future research projects to identify long term effects on infertility and menstrual irregularities with PCOS.

### Biography:

Dr Moiz Artani graduated from Jinnah Medical and Dental College in 2018 with multiple distinctions and honors. After graduation he completed his internship and moved to Liverpool, UK to pursue his dream of becoming a Cardiologist. He has had the experience of working in large tertiary care centers including University of California San Diego, Albany Medical Center, Abbasi Shaheed Hospital and Liverpool Heart and Chest Hospital. He has published multiple original research projects involving cardiac, vascular, psychiatric and metabolic disorders.



## Narges Afzali<sup>1\*</sup>, Fatemeh Taheri Heravi<sup>2</sup>

<sup>1</sup>Department of Radiology, Faculty of Medicine, Mashhad Medical Sciences, Islamic Azad University, Mashhad, Iran

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# The association of adenomyosis with endometriosis based on pelvic magnetic resonance imaging

**Background:** Endometriosis is a chronic inflammatory disease that is defined by the presence of endometrial glands and stroma outside the uterine cavity. Uterine adenomyosis is the presence of ectopic endometrial tissue in the myometrium, sometimes considered a spectrum of endometriosis.

**Purpose:** The purpose of this study was to evaluate the association of uterine adenomyosis with endometriosis based on the findings in pelvic magnetic resonance imaging.

**Methods:** In an analytical descriptive study, 42 women of reproductive age with diagnosis of endometriosis who were referred to the Gynecology Clinics of Islamic Azad University of Mashhad were studied. All patients were candidate for open surgery or laparoscopy. The variables of the study included the age of menarche, length of menstrual period, body mass index (BMI), gravidity, history of infertility and history of previous pelvic surgery. Data were collected by face-to-face interview with each patient. All patients underwent pelvic MRI for mapping of pelvic endometriosis before surgery. The presence of concurrent adenomyosis was investigated at the same time. MRI was performed with a Siemens 1.5 Tesla machine with and without IV contrast. MR images were interpreted by a radiologist with five years of experience in the field of endometriosis imaging. Data were analyzed using SPSS 25 software. P value of less than 0.05 was considered significant.

**Results:** The mean age of the women in this study was 32.07 years. In 17 (40.5%) patients adenomyosis was associated with endometriosis, three of them (7.1%) had focal adenomyosis and the rest had diffused adenomyosis. Among the researched variables, the association of adenomyosis with endometriosis was significantly higher in patients with BMI more than 25. Other variables did not show any significant difference. After surgery, according to the American Society for Reproductive Medicine (ASRM) classification, all patients had severe endometriosis (stage III and IV).

**Conclusion:** The results of this study showed that more than one third of patients with severe endometriosis, had MRI findings of uterine adenomyosis.

**Keywords:** Adenomyosis, Endometriosis, Magnetic Resonance Imaging.

### Audience Take Away Notes:

- Diagnostic role of MRI in pelvic endometriosis.
- Diagnostic role of MRI in uterine adenomyosis.
- Risk factors and associations of pelvic endometriosis and uterine adenomyosis.

**Biography:**

Dr. Narges Afzali studied medicine at Mashhad University of Medical Sciences, Iran and graduated as MD in 2000. She continued her education in radiology specialty at the same university and received her board of radiology in 2003. She started her educational work as a professor of radiology in the faculty of Medicine of Islamic Azad University since 2007. In 2011 she passed a post- graduate course of Obstetrics & Gynecology Imaging at Tehran University of Medical Sciences, Iran. In 2018 she passed the course of MRI in gynecology diseases at Tehran University of Medical Sciences, Iran. Currently, she is teaching as an associate professor of radiology. Also, her research fields include imaging of fetal anomalies, cervical disorders and endometriosis. She has published several research articles at national and international journals.



**Nicole E. Friedlich<sup>1\*</sup> BS MS, Hayley M. Dunlop<sup>2</sup> BS MPH, Shanna M. Combs<sup>1</sup> MD**

<sup>1</sup>Texas Christian University Burnett School of Medicine

<sup>2</sup>The Ohio State University College of Medicine

## **“Just a pinch”? A national survey of provider attitudes regarding IUD procedure analgesia management and options**

**Introduction:** The Intrauterine Device (IUD) is a popular and effective contraception option, however, pain associated with insertion remains a chief concern for recipients as well as a barrier for obtaining an IUD. Pain localized to the gynecologic community has an extensive history of being ignored and minimized—pain associated with IUD procedures is no exception. The purpose of this study is to better understand differences in professional training and opinions regarding analgesia for IUD procedures.

**Methods:** We conducted a national Web-based Qualtrics survey of IUD providers (n=657). The 63-question survey asked about providers’ professional demographics, likelihood of providing various forms of analgesia to nulliparous and multiparous patients, cervical preparation, and procedural instrumentation.

**Results:** Linear-regression models and one-way ANOVA tests were used to determine significant differences in the frequency of analgesia recommendation by provider demographics. Prescribing practices were found to vary by professional credentials (CNM vs. MD/DO), location (urban, rural, suburban), region, and race. Notably, cisgender male providers and providers in practice more than five years were significantly less likely to prescribe multiple analgesic methods to both nulliparous and multiparous patients.

**Conclusions/Implications:** The variability in prescribing practices observed in this study is concerning. It suggests that some patients undergoing IUD insertion are not offered all analgesic methods that may be available. This research highlights the need to continue conversations regarding provision of analgesia for IUD insertion and adopt a more patient-centered approach to minimize suffering.

### **Audience Take Away Notes**

- Findings about differences in analgesia for IUD procedures in regards to type of analgesia and provider demographics.
- Call to attention about gaps of analgesia care of gynecologic patients.
- Call to attention of the need of personalized approach for IUD analgesia.



**Payal N. Maharaj\*, Munro J, Plage, S**

School of Social Sciences, University of Queensland, Queensland, Brisbane, Australia

## Unraveling the history of gynaecology in Fiji and how it has shaped women's health today

In Fiji, breast and cervical cancers numbers are rising steadily. Many women have fibroids, PCOS, Endometriosis, uterus prolapse and other female specific illness or problems showing in younger age group of women (below 25 years). Qualitative studies conducted in the Obstetrics and Gynaecology (OBGYN) field is sparse and non-inclusive of personal reflections or perceptions of both health professionals and women especially in the Pacific. Through the application of medical anthropology, Pacific and gender studies, the perspectives of ten health professionals (with ten years of experience in the OBGYN field) and 21 women aged between 30-65 years were interviewed using Talanoa technique to understand the history of gynaecology in Fiji and how it has shaped women's health today. This research identified that 1) sex education at primary school level can equip reproductive aged women to make informed choices towards obstetrics and gynaecology, breaking age old taboos and empowering women to choose their health consciously, 2) under-resourced medical facilities of a national health care programme often display images of political agendas and have direct implications on migration of health professionals and delay in treatment for women and 3) the sociocultural and family environment of women determine the prioritisation level for one's health and also depicts the impact of gender-based imprinted social conformations. Women's health has a strong link to the personal attitudes, past experiences and values for which deep and conscious healing as well as supportive enabling mechanisms must be in place to improve gender-based health disparities.

### Audience Take Away Notes

- For women's health especially for the field of obstetrics and gynaecology the holistic approach has to include a transdisciplinary dimension where deep and conscious healing along with supportive enabling mechanisms need to be in place to truly improve women's health.
- Sociocultural aspects also shed light on why a woman decides on what to do for their health treatment.
- A women's health has linkage to the past.
- If a health professional understands about women's health, then their attitude towards the quality of care to be provided to the clients will be either enhanced or improved.
- If a woman has neglected their health, information from this presentation can support her to make better and informed choices towards her health, specifically in the OBGYN field.
- If researchers and policy-decision makers are able to include the key take home messages from this presentation, more studies and better policies can be made towards OBGYN.
- This research can definitely be an important inclusion to learning and development especially for OBGYN and/or women's health.
- Women's health is a labyrinth concept and needs holistic and transdisciplinary approach to re-evaluate, why things are not improving? Why more cases are occurring? And why women need more support in this regard? It will provide a refined approach.

- Definitely these findings will increase the understanding level of the problem and improve the design towards women's health.
- **Other Benefits:**
  - Enable policy and decision makers to make informed choices towards women's health.
  - Provide insight to researchers based on true reflections and perceptions of both health professionals and women in Fiji; design more research in this field.
  - Inform women and health professionals that OBGYN field requires holistic and transdisciplinary approach and is linked to personal attitudes, past experiences and values.

### **Biography**

Payal N. Maharaj has double master's degree, the first in Climate Studies from the University of the South Pacific, Fiji (2015) and the second in Biomedical Sciences from the University of Hawai'i, USA (2018). She joined the University of Queensland after being awarded the Australian Research Council-Research Training Programme full scholarship. Based at the School of Social Sciences, as a final year PhD candidate, Payal's principal supervisor, Dr. Jenny Munro and co-supervisor, Dr. Stefanie Plage are guiding her towards her research topic titled "Unraveling the history of gynaecology in Fiji and how it has shaped women's health today". Her research interests are within Women's Health using medical anthropological techniques (with emphasis on gynaecology & obstetrics), policy development and transdisciplinarity.





**Dr. Raana Bibi**

OBGYN LAT, Ninewells Hospital Dundee, Scotland

## Cooks balloon IOL increases risk of cord prolapse

**Objective:** To identify whether induction of labour with Cooks Balloon increases risk of cord prolapse.

**Design:** Retrospective case notes analysis of patients who had CAT1 CS due to cord prolapse in a district general hospital between January 2020 and December 2020 and compared to number of same category CS before induction of Cooks Balloon as IOL method in same hospital during January 2019 and December 2019.

**Method:** Patients were identified using the Badgernet record (system used to keep record of all ANC and postnatal patients) for year 2020 and collecting data from medical records for year 2019.

**Results:** Total number of CAT1 LSCS was 124 in 2019 (before Cooks ballon use) and there was only 1 LSCS due to cord prolapse. In 2020 Number of CAT1 CS was 123 and due to cord prolapse were 8, and 4 out of these 8 had Cooks balloon induction. So, Cooks balloon as method of IOL increased number of CAT1 cord prolapse CS by 3.5 times. Which is signifant.

### Audience Take Away Notes

- Decision of balloon or Process should be made by senior MW/Dr after palpation abdominally and VE assessment.
- All patients must have recent presentation scan.
- If on P/A or P/V examination head is still high or not well fixed then Propess should be preferred over balloon.
- P/P 4/5 or more should not be sent home with balloon as they are at increased risk of Cord prolapse after SROM.
- Uterine balloon volume can be kept at 40mls or less as its associated with less risk of cord prolapse.

### Biography

Dr. Raana Bibi studied MBBS at The University of Punjab Pakistan and graduated in 2003. She then worked in middle east till 2020 in OBGYN. Passed Royal college of obstetricians and gynaecologists Membership in 2018 and moved to U.K to join NHS in 2020. Currently working in NHS Scotland.



**Raana Bibi**

NHS Tayside, United Kingdom

## Case report of cervical ectopic pregnancy

**E**ctopic Cervical Pregnancy (CP), is rare condition with an incidence of less than 0.1% of all pregnancies. It is associated with potentially high morbidity and mortality. In this case report of cervical pregnancy, the challenges in the diagnosis and management are discussed along with follow up protocol and final outcome. A 30yrs old woman presented with vaginal bleeding, admitted as inevitable miscarriage for conservative vs surgical treatment. Diagnosis of cervical ectopic was made on clinical examination, confirmed by Ultrasound on 2<sup>nd</sup> day of admission, and managed very well surgically. Follow up was uneventful with satisfactory results.

**Keywords:** Cervical Ectopic Pregnancy, Interventional Radiology, Hysterectomy, Fertility.

### Biography:

Dr. Raana Bibi studied MBBS at The University of Punjab Pakistan and graduated in 2003. She then worked in middle east till 2020 in OBGYN. Passed Royal college of obstetricians and gynaecologists Membership in 2018 and moved to U.K to join NHS in 2020. Currently working in NHS Scotland.



### Sadhana Kulkarni<sup>1\*</sup>, Savani Futane<sup>2</sup>

<sup>1</sup>Department of Emergency Medicine, MGM Medical College, Professor Emeritus Aurangabad, Maharashtra, India

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## Be aware while treating postspinal headache!

Central Neural Block (CNB) is administered frequently for caesarean section. Post Spinal Headache (PSH) is the most frequent and discomforting late complication of spinal anaesthesia. PSH is an important cause of iatrogenic maternal co-morbidity and maternal dissatisfaction. Expedited discharge of the mother or delayed onset of PSH in some women may not capture all the mothers developing PSH after hospital discharge. The mother having PSH might first report to the obstetrician. A pilot study in our institute, regarding knowledge and practice of treatment of PSH amongst obstetricians demonstrated limited knowledge of PSH. Bedrest, fluids, analgesics, caffeine, Sphenopalatine ganglion block, and Epidural blood patch are treatment modalities commonly used for PSH management. Even though PSH is a self-limiting condition, a subset of patients will suffer from potentially life-threatening neurological consequences. Such a patient needs urgent referral to an anaesthesiologist, neurologist, and special radiological investigations for definitive diagnosis and treatment. Awareness needs to be there amongst obstetricians regarding PSH to avoid medicolegal problems and patients also are to be educated about red flag symptoms once they develop PSH. This article reviews the pathophysiology, clinical picture, and management of PSH with special considerations during the postpartum period.

**Keywords:** Anaesthetic Techniques, Epidural; Anaesthetic Techniques, Spinal; Complications, Post-Spinal Headache; Headache, Postpartum Period; Treatment, Post-Spinal Headache; Obstetric Analgesia, Anaesthesia.

### Audience Take Away Notes

- Obstetricians will be able to diagnose post spinal headache and other headaches which might be more serious. They can reassure the mother and initiate treatment and refer the patient to anaesthesiologist. If they come across atypical headaches, they will immediately advice radiological investigations and refer the patient to neurologist. This is of importance when the patient is discharged from hospital and patient reports to obstetrician for headache.
- Most of the obstetricians treat post spinal headache without referring the patient to anaesthesiologist. Delay in treatment may increase morbidity and mortality at times. This lecture would create awareness about pathophysiology, diagnosis, treatment and complications of post spinal headache. Obstetricians will also be aware that all headaches after spinal anaesthesia are not post spinal headaches.
- This will be useful obstetric Anaesthesiologists and nurses.
- After this lecture the obstetricians will be able to diagnose the postspinal headache and will start proper treatment and refer all such patients to anaesthesiologists. They will know about red flags in patient with post spinal headache and avoid morbidity and mortality during puerperal period.
- Obstetricians will be made aware that every case of post spinal headache must be referred to the anaesthesiologist and be able to advice epidural blood patch or sphenopalatine ganglion block for

moderate to severe degree of post spinal headache. They would advise radiological investigations when atypical headache is suspected and timely refer the patient to neurologist. This may be lifesaving at times.

- The knowledge about post spinal headache is essential to obstetricians, as the mother may develop headache after discharge and report to obstetrician. Obstetrician should be able to diagnose is it a post spinal headache or headache due to some other serious condition like cerebral venous thrombosis or meningitis etc. Timely detection and referral can be lifesaving to avoid medicolegal issues.

### **Biography**

Dr. Sadhana Kulkarni graduated (1975) and post graduated (1978) at Marathwada University, Aurangabad, India. She then joined as lecturer and was professor for 10 years at Government Medical College Aurangabad. She has 42 years teaching experience in Anesthesiology, 6 years' experience in Emergency Medicine and Skill Development Unit. At present she is working as Professor Emeritus in Emergency Medicine at MGM Medical College Aurangabad. She is a PhD teacher of MUHS, Nashik University. She has published more than 80 Publications in national and international journals. She received national awards for public awareness in Anaesthesiology. Her special areas of interest are Obstetric Anaesthesia, Emergency Medicine, Simulations in Medical Education.



**Saghar Samimi<sup>1\*</sup> M.D, Arman Taheri<sup>2</sup> M.D, Fatemeh Davari Tanha<sup>3</sup> M.D**

<sup>1</sup>Department of Anesthesiology, Women's Hospital, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup>Department of Anesthesiology, Amir Aelam Hospital, Tehran University of Medical Sciences, Tehran, Iran

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## **Comparison between intraperitoneal and intravenous lidocaine for postoperative analgesia after elective abdominal hysterectomy, a double-blind placebo controlled study**

**Objective:** To compare the efficacy of intravenous and intraperitoneal injection of lidocaine and normal saline in relieving postoperative pain after elective abdominal hysterectomy.

**Materials and Methods:** For this double-blind randomized controlled study 109 patients undergoing elective abdominal hysterectomy were randomly allocated to three groups: 1) IV group (intravenous injection group) received intravenous lidocaine %2 bolus 1.5mg/kg 30 min before incision and then a continuous lidocaine infusion of 2mg/kg and before the wound closure an intraperitoneal injection of N/S, 2) IP group (intraperitoneal group) received intravenous N/S and intraperitoneal lidocaine 3mg/kg, 3) P group (placebo, N/S) received both intravenous and intraperitoneal N/S. The pain scores (VAS) at rest, total morphine consumption, the time to first need for rescue analgesic, incidence of lidocaine related adverse effects and nausea and vomiting were recorded at 0, 2, 4, 8, 12 and 24 hrs postoperatively.

**Results:** The VAS scores were significantly lower in IP and IV groups compared with placebo ( $p=0.001$ ). Total consumption of morphine ( $p=0.001$ ) and time to first request of rescue analgesic ( $p=0.001$ ) were lower too in IP and IV groups. Incidence of vomiting was comparable between groups ( $p<0.05$ ) but nausea was higher in control group ( $p>0.05$ ). There were not notable lidocaine-related adverse effects. IP and IV groups were not statistically different for all investigated variables.

**Conclusion:** This study showed lidocaine administration both intravenously and intraperitoneally are effective in reducing the postoperative pain and also have opioid sparing effect and can be safely used in elective abdominal hysterectomy without any major adverse effects.

The abdominal hysterectomy is one of the most common gynecological operations in women, which is associated with severe postoperative pain. Today various therapeutic protocols are available for management of pain but preventing and relieving the postoperative pain remains an important challenge. It is thought that the postoperative pain is inadequately treated in approximately one half of all surgical procedures and It is thought that the postoperative pain is inadequately treated in approximately one half of all surgical procedures. A high quality postoperative pain management improves recovery and also reduces the risk of postoperative acute adverse effects (i.e., pulmonary dysfunction), and chronic adverse effect (i.e., delayed recovery and hospital discharge and chronic pain) after various procedures including hysterectomy. Although opioids are usually the gold standard analgesic for major abdominal surgery, but they have many unwanted side effects too, including nausea and vomiting, gastrointestinal symptoms and respiratory depression. Therefore, a multimodal approach, using local anesthetics may help to improving the quality of

analgesia, recovery and reduce opioid dose requirement and side effects.

The result of our study helps colleagues to face fewer complications after surgery and contributes to early recovery, increase of patient satisfaction and reduction of treatment costs



**Saumya Pandey (M.Sc. Biochemistry, Ph.D. Life Science)**

Department of Clinical Research, Indira IVF Hospital, Udaipur-Lucknow, India (formerly)

**Human Chorionic Gonadotrophin (HCG) trigger-mediated ovulation induction in tobacco-mediated infertility management in North Indian women undergoing IVF/ICSI regimens: A pilot reproductive medicine study with public health impact**

**Introduction:** Infertility is a global public health problem; cost-effective patient-friendly treatment modalities along with psychosexual intervention strategies are essential for tobacco-mediated infertility control/prevention/management among ethnically disparate populations.

**Objectives:** My pilot study aimed to assess HCG-trigger mediated ovulation-induction and differential in vitro fertilization (IVF) success trends among infertile women of North Indian ethnicity.

**Material and Methods:** Prospective study designed in a hospital-based setting with enrollment of infertile women undergoing IVF/intracytoplasmic sperm injection (ICSI) at Indira IVF Center, Lucknow, Uttar Pradesh, India (N=910 women; April-September 2020); inclusion criteria: age>35 years, North Indian ethnicity, married>1 year, absence of full-term clinical pregnancy, endometrial thickness<6mm/thin endometrium; exclusion criteria: prior≥2 IVF failures, fibroids/adenomyosis/cervical cancer/endometriosis. IVF success was determined by evaluating total frozen embryos transferred/month, average oocyte yield/donor, oocyte quality, M-II oocytes, biochemical/clinical pregnancy (beta-human chorionic gonadotropin positivity/fetal cardiac activity). Mycobacterium tuberculosis positivity was assessed by GeneXpert polymerase chain reaction-based technology, and psychosexual intervention-incorporated marital relationship counseling sessions/therapy, referrals for psychiatric assessments (cognitive impairment/schizophrenia/depression). Tobacco-usage was ascertained using bilingual Questionnaire (English/Hindi dialects) with supporting registered nurses; written informed consent of participants was taken and study was approved by Institutional Review Board.

**Results:** Mean age and endometrial thickness of study participants were 34.1 years (SD ±0.8) and 9.1 mm (SD ±0.2), respectively; average Body-Mass-Index (BMI) and anti-Mullerian hormone (AMH) levels were 25.0 kg/m<sup>2</sup> and 2.2 ng/ml. Embryos transferred/month: 123-April/165-May/183-June/159-July/139-August/141-September, and pregnancies/β-h=HCG positivity: 96/134/145/120/106/113 for months of April, May, June, July, August, September 2020. Subgroup-stratification demonstrated M-II vs total oocytes retrieved were 70%,68%, 71%,72%,77%,67%. Overall IVF success rates were 78%-April/81%-May/80%-June/75%-July/76%-August/82%-September; frozen embryo-transfer success was 72%-April/78%-May/70%-June/69%-July/63%-August/77%-September. M. tb. (55.6%)/HPV-positivity (12.0%) and self-reported tobacco-usage (100% response-rate) were significantly associated with aberrant fetal cardiac activity, higher trends of intrauterine-growth-restriction and still-births (P<0.05). English/Hindi-speaking infertile women self-reported treatment-related satisfaction rates of 80%-100%.

**Conclusions:** M-II oocytes'-yield, sociodemographic of infertile women, and increasing age/aberrant AMH/BMI profiles/endometrial receptivity/diminished ovarian reserve are promising predictors of IVF/ICSI success in genetically distinct patient population-subset(s). Future multicentric gene-epidemiology/association public health studies with nursing interventions are warranted for development of predictive biomarkers in infertility management post-Covid-19/Omicron pandemic vaccination-era, and identifying aberrant microbiome at maternal-fetal interface tilting "embryonic/fetal-fate" towards still-birth/death.

#### **Audience Take Away Notes**

- My promising reproductive medicine study emphasizes that M-II oocytes'-yield, sociodemographic of infertile women, and increasing age/aberrant AMH/BMI profiles/endometrial receptivity/diminished ovarian reserve are promising predictors of IVF/ICSI success in genetically distinct patient population-subset(s).
- Future multicentric gene-epidemiology/association public health studies with nursing interventions are warranted for development of predictive biomarkers in infertility management post-Covid-19/Omicron pandemic vaccination-era, and identifying aberrant microbiome at maternal-fetal interface tilting "embryonic/fetal-fate" towards still-birth/death.

#### **Biography:**

Dr. Saumya Pandey possesses brilliant academic credentials with earned Post-Doctorate: Biochemistry-Molecular Biology, Graduate School of Biomedical Sciences, University of Texas Medical Branch (UTMB), Galveston, TX, USA/ Visiting Scientist: Urology (Robotic-Prostatectomy), James Buchanan Brady Foundation,-Lefrak Center of Robotic Prostatectomy, Department of Urology, New York Presbyterian-Weill Cornell Medical College, New York, NY, USA/ Doctorate: Ph.D. Life Sciences, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, UP, India- Chhatrapati Shahu Ji Maharaj University, Kanpur, UP, India/Doctoral Research Fellowship: Biomedical Sciences, Creighton University, Omaha, Nebraska, USA/M.Sc. Biochemistry, University of Lucknow, Lucknow, UP, India, and recently worked as Head-Clinical Research, Indira IVF-Hospital, Udaipur-Lucknow, India with 66 scientific publications in international journals.





**Seyede Zahra Banihosseini\*, Marefat Ghaffari Novin, Hamid Nazarian**

Department of Biology and Anatomical Sciences, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

## **The impact of quercetin on oocyte maturation, gene expression in cumulus cells, and fertilization rates in a PCOS mouse model**

**P**olycystic Ovary Syndrome (PCOS) is a prevalent cause of infertility in women, characterized by hyperandrogenism and oxidative stress, which negatively affect oocyte quality. In vitro maturation (IVM) is often recommended to improve oocyte quality. This study investigates the effects of Quercetin (QT), an antioxidant, on IVM in immature oocytes of a PCOS mouse model and its impact on gene expression in cumulus cells, key indicators of oocyte quality. This study collected oocytes from NMRI mice with induced PCOS and cultured them in an IVM medium containing varying concentrations of Quercetin (0, 5, 10, and 20 µg/ml). The maturation rates, Glutathione (GSH) and Reactive Oxygen Species (ROS) levels, and expression of Bax and Bcl2 genes were assessed in the matured oocytes. Additionally, gene expression of Bax, Bcl2, Gpx3, and TGF-β1 was analyzed in the cumulus cells of mature MII oocytes. Fertilization rates with normal sperm, as well as cleavage and blastocyst formation rates, were evaluated.

Quercetin supplementation at 10 µg/ml significantly improved oocyte maturation, fertilization, cleavage, and blastocyst formation rates ( $P < 0.01$ ). This concentration also significantly increased Gpx3 and TGF-β1 mRNA levels in cumulus cells of mature oocytes ( $P < 0.05$ ). Furthermore, treatments with 5 and 10 µg/ml of Quercetin increased GSH levels ( $P < 0.001$ ) and decreased ROS levels ( $P < 0.001$ ). There was a significant reduction in Bax mRNA expression in mature oocytes and their cumulus cells following IVM ( $P < 0.05$ ). In conclusion, Quercetin exhibits a dose-dependent enhancement of oocyte maturation and quality, with 10 µg/ml showing the most significant benefits. This includes increased Gpx3 and TGF-β1 expression in cumulus cells and improved fertilization and blastocyst rates in PCOS oocytes following IVF.

### **Audience Take Away Notes**

- This research's results will help improve the new techniques of Art and the high success rate of human fertilization.
- Also, by knowing the interfering factors in the fertility of PCOS patients, we can improve their fertility quality.
- Professors and other researchers can use this research's results as a suitable model for further and relevant research.

### **Biography**

Seyede Zahra Banihosseini earned her MS in Midwifery from Tehran University of Medical Sciences in 2010. She completed projects in the field of midwifery, such as epidemiology, perinatology, and gynecology, and received her PhD in Human Reproductive Biology from Shahid Beheshti University of Medical Sciences in 2017. She opened a private office in Tehran for research and clinical treatment, collaborating with top universities. Since 2020, she has been a technical assistant at the ART Laboratory in Rastak Arak Infertility Center and has published research articles in ISI journals.



**Seyede Zahra Banihosseini<sup>1\*</sup>, Azam Baheiraei<sup>2</sup>, Nooshin Shirzad<sup>3</sup>, Ramin Heshmat<sup>3</sup>**

<sup>1</sup>Department of Biology and Anatomical Sciences, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

<sup>2</sup>Department of Reproductive Health, Tehran University of Medical Sciences, Tehran, Iran

<sup>3</sup>Endocrinology and Metabolism Research Center, Endocrinology and Metabolism Clinical Sciences Institute, Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences, Tehran, Iran

## The effect of cigarette smoke exposure on vitamin D levels and biochemical parameters of mothers and neonates

The primary objective of this study was to assess the impact of passive smoking during pregnancy on vitamin D levels and related biochemical indices in mothers and newborns. This research aimed to provide a comprehensive understanding of the adverse effects of cigarette smoke exposure on both mother and child. One hundred eight pregnant women and their newborns participated in a historical cohort study, divided into two equal groups (n=54) with and without cigarette smoke exposure. Maternal blood and urine samples, along with umbilical cord blood samples, were collected in the delivery room. Concentrations of 25-hydroxy vitamin D and related biochemical indices in maternal and cord blood samples were measured. Exposure to cigarette smoke was assessed via questionnaires, as well as maternal urine and umbilical cord serum cotinine levels.

The mean level of 25-hydroxy vitamin D in maternal serum was  $9.28 \pm 5.19$  ng/ml in the exposed group and  $10.75 \pm 0.26$  ng/ml in the non-exposed group ( $p > 0.05$ ). The mean concentration of 25-hydroxy vitamin D in cord serum was  $10.83 \pm 6.68$  ng/ml in the exposed group and  $11.05 \pm 4.99$  ng/ml in the non-exposed group ( $p > 0.05$ ). Exposed mothers had significantly higher parathyroid hormone levels ( $p = 0.013$ ), lower serum calcium ( $p = 0.024$ ), and higher serum alkaline phosphatase ( $p = 0.024$ ). There was a significant correlation between maternal and umbilical cord serum 25-hydroxyvitamin D levels in both exposed and non-exposed groups ( $p < 0.001$ ). In conclusion, maternal exposure to cigarette smoke during pregnancy negatively influences serum calcium levels and increases parathyroid hormone and alkaline phosphatase levels in mothers.

### Audience Take Away Notes

- The results of this study will help identify factors that cause vitamin D deficiency and its related indices in mothers and newborns, including exposure to cigarette smoke.
- Additionally, it will help reduce the complications caused by vitamin D deficiency in mothers and newborns.
- Community-wide and family education on the dangers of exposure to cigarette smoke and prevention of exposure at home and in the workplace will help improve the health of mothers, newborns, and children during pregnancy and the perinatal period.

### Biography

Seyede Zahra Banihosseini earned her MS in Midwifery from Tehran University of Medical Sciences in 2010. She completed projects in the field of midwifery, such as epidemiology, perinatology, and gynecology, and received her PhD in Human Reproductive Biology from Shahid Beheshti University of Medical Sciences in 2017. She opened a private office in Tehran for research and clinical treatment, collaborating with top universities. Since 2020, she has been a technical assistant at the ART Laboratory in Rastak Arak Infertility Center and has published research articles in ISI journals.



### **Shouying Xu, Chao Tang**

National Clinical Research Center for Child Health of the Children's Hospital, Zhejiang University School of Medicine, Hangzhou 310052, China

## **ARID1A inhibits progression of ovarian cancer by inactivating hedgehog pathway**

Ovarian cancer is one kind of malignant tumors derived from epithelial and germ cells, and is the second most lethal gynecologic malignancy worldwide. The abnormal activation of the Hedgehog (Hh) pathway is crucial for cancer progression, including ovarian cancer. AT-Rich Interacting Domain-containing protein 1A (ARID1A) is a member of the SWItch/Sucrose Non-Fermenting (SWI/SNF) chromatin remodeling complex and plays an important role in regulating tumor occurrence and development. Thus, it is of fundamental clinical importance to understand its molecular functions. However, there is limited research regarding its role in ovarian cancer. In this study, we report a key function of ARID1A in regulating Hh signaling pathway. We find that overexpression of ARID1A significantly inhibits cell proliferation and migration, these biological characteristics are enhanced in the ovarian cancer cells in which the ARID1A gene is knocked down. Mechanistically, overexpression of ARID1A downregulates posttranslational modification and activity of Shh ligand through inhibiting cholesterol synthesis. We further demonstrate that overexpression of ARID1A inhibits the expression of downstream molecule Gli1 in the Hh signaling pathway, whereas deficiency of ARID1A promotes Gli1 expression levels. Thus, the findings of this study demonstrate the critical role that ARID1A plays in the regulation of Hedgehog signaling pathway during ovarian cancer cell growth and migration, which may provide potential targets for the treatment of ovarian cancer.

**Keywords:** ARID1A, Hedgehog Pathway, Cholesterol, Ovarian Cancer.

### **Audience Take Away Notes**

- This study provides new insights to design relevant therapeutic strategies for the treatment of ovarian cancer.
- Here, a new mechanism for the regulation of Hh signaling in this study is proposed, which is of great significance for the physiological and pathological research of tissues and organs.
- We explore the upstream regulatory molecules of Hh signaling and propose a new perspective on ARID1A regulating posttranslational modifications of Shh ligand.

### **Biography**

Dr. Xu Shouying studied biological science at Henan Normal University and graduated with a bachelor's degree in 2013. Subsequently, she joined Professor Meng Qing's research group at the Institute of Biological Sciences and Biotechnology at Donghua University and received her PhD degree in 2020. During this period, she studied as a joint PhD student at Weill Medical college of Cornell University. Afterwards, she obtained the position of an assistant researcher at the Children's Hospital of Zhejiang University School of Medicine. She has published more than 10 research articles in SCI(E) journals.



**Mr. Shivantha Siddharth<sup>1\*</sup>, Prof. Thornton Jim<sup>2</sup>, Nielsen Jeremy<sup>1,3</sup>, Prof. Mol Ben W.<sup>1,4</sup>**

<sup>1</sup>Department of Obstetrics and Gynaecology, Monash Medical Centre, Monash University, Melbourne, Australia

<sup>2</sup>Division of Child Health, Obstetrics and Gynaecology of Nottingham University, Nottingham, United Kingdom

<sup>3</sup>Merton College, University of Oxford, Oxford, UK

<sup>4</sup>Aberdeen Centre for Women's Health Research, School of Medicine, Medical Sciences and Nutrition, University of Aberdeen, Aberdeen, United Kingdom

## **Publisher's post-publication response rate and outcomes of concerns regarding false data in women's health: A cohort study**

**Background:** There is increasing concern about the integrity of clinical research. The post-publication review process allows the assessment of potentially problematic papers after publication. The effectiveness and efficiency of post-publication assessment, which adheres to the Committee on Publication Ethics (COPE) guidelines, has not been assessed. Shortcomings of this process will allow the dissemination of potential false clinical research data, thus negatively impacting healthcare. The current study assessed and quantified publishers' and editors' post-publication responses and outcomes on original articles with potentially untrustworthy data.

**Method:** Between 2017 and 2023, the study identified and assessed potentially problematic papers in Women's Health. Respective journal editors and publishers were contacted with the concerns identified during the assessment. The journals' response was classified as retractions, Expression of Concerns (EOC), corrections, no wrongdoings and pending investigation. The time taken for a formal conclusion was also calculated.

**Results:** Editors and publishers of 732 problematic published papers were corresponded with over the 6-year period (58% randomised clinical trials, and 42% cohort studies). The median time to response was 33 months, with only 12% of the assessments that concluded within 12 months. 183 papers (25%) received formal conclusions (retraction 95, EOC 64, correction 4 and no wrongdoing found 20). Amongst these, 87% were retractions and EOCs. In those, 62% were due to false data.

**Conclusion:** Concerns regarding integrity in clinical research are much more widespread than initially assumed. The post-publication assessment process guided by COPE has many shortcomings, including absent timelines. This has immediate consequences for patient safety.

### **Audience Take Away Notes**

- By recognizing the scale and magnitude of untrustworthy data in women's health. The audience can become more vigilant in assessing the integrity of published data in a study.
- Researchers and clinicians could develop their own or add to existing criteria/checklists in assessing untrustworthy data.
- Encourage to challenge potential studies that publish untrustworthy data.
- Researchers and institutions can impose policies to help maintain research integrity.
- To encourage the audience to flag potential problematic papers to respective editors and publishers.
- Spark a conversation within the scientific community and brainstorm ideas about improving the pre

and post-publication review process.

- Journal editors and publishers could be informed of the editorial policies and practices and potentially review and implement enhanced systems in addressing these issues.
- If such data are not removed from the literature, it can impact healthcare for women and babies.
- Publication of untrustworthy data is universal. Thus, all faculties could implement workshops or training programs to help researchers, editors etc.
- Increased collaboration between faculties could bring together experts from different disciplines to maintain research integrity.
- More research is warranted from various disciplines to investigate additional avenues of improving research integrity in medical literature.
- The study offers insight into the entire post-publication review process and its challenges. The current method of assessing potential untrustworthy papers is time- consuming.
- Future research could look into improving communication strategies between parties involved and setting standardized timelines for response, which could improve the review process.
- One of our recommendations listed in the study is transparency throughout the review process. This allows all parties involved to be informed at the same time and avoid delays.
- Increased awareness of the problem could lead to discussion of improving the current method from the scientific community
- This could prompt journal editors and publishers to improve the post-publication review process.
- As a scientific community, we could explore other avenues of research/methodology in seeking untrustworthy data in the literature.

### **Biography**

Mr. Siddharth Shivantha hails from Sri Lanka and is a final-year international medical student at Monash University, Australia. He completed his undergraduate degree in Biomedical Sciences with distinction from Deakin University, Australia. To pursue his passion in Medicine, he was accepted into the highly distinguished Doctor of Medicine program at Monash University (ranked 2nd in Australia and 42 in the world ranking according to QS World ranking). In 2023, he joined the renowned Prof. Ben W. Mol and team, who has been vocal about problematic papers in Women's Health and leads the evidenced-based Women's Research Group at Monash University.



**Vandana Dabla PhD**

Technical Consultant: Gender and HIV UN Women, India

## **Empowering women's reproductive autonomy: The expanded basket of contraceptive choices in India**

India's vision towards equitable healthcare is well known, and so are the country's systematic efforts in the field of reproductive health and Family Planning (FP). However, the fifth National Family Health Survey of India (2019-21) estimated that among married women of age 15–49 years, 9.4% have unmet need for FP. India, in 1952, became the first country in the world to launch a nation-wide Family Planning Program. However, for long the FP program offered limited five modern contraceptive options: three spacing methods (combined oral contraceptive pills, condoms, and IUDs) and two limiting methods (male and female sterilization). By 2017, the country introduced the National Health Policy, and advances to improve accessibility of contraceptive services, with special efforts towards expanding the basket of contraceptive choices. In 2016, the contraceptive basket was expanded with the introduction of Injectable Medroxy Progesterone Acetate (MPA) under Antara Program and Centchroman (Chhaya). To further expand the contraceptive basket, provide choices in post-partum period and to offer an effective LARC choice Subdermal single rod contraceptive implants were added in the National Program in year 2023.

This unmet need is a crucial indicator for any country to measure and monitor the success of its FP program. This measure also hints towards the gap between women's reproductive intentions and their contraceptive behavior. In India, there is significant reduction in the unmet need of FP by more than 50% over the past three decades (19.5% in NFHS 1 to 9.4% in NFHS 5), however the unmet need among the young population (age 15-29 years) has always been more than the national average, which requires immediate attention. Further, the availability of newer implant seems to have potential to reduce the maternal and perinatal morbidity and mortality among women of reproductive age. However, while doing so, the enhanced contraceptive choice can also be read as a synonym of reproductive autonomy among these women. This enhanced autonomy, providing control of contraception amongst women, seems promising and an optimistic way to avoid unintended pregnancies and related deaths, and further improve overall women's health and wellbeing.

### **Audience Take Away Notes**

- What are the Family Planning data showing on unmet FP need over last 30 years.
- How the unmet need of women of reproductive age changed since 1992.
- How reproductive autonomy among women can influence the maternal and perinatal morbidity and mortality and overall health of women.
- What steps are taken to enhance the basket of contraceptive choices for women of reproductive age

## **Biography**

Dr. Vandana Dabla is a qualified Doctorate and an eminent thought leader in public health. With more than 20 years of industry experience, she is an expert in Health Economics, Health Systems Strengthening, Monitoring, Evaluation and Research, Program Design and Implementation. She has multi-sectorial experience across verticals in Public & Private sector supporting Govt of India Health Programs; supporting South-Asian countries at International Diplomatic Mission; Corporate organisations & Development projects supported by international donors. She demonstrates an extensive work expertise in leading programs for Infectious and Communicable Diseases, Epidemiology and Outbreak Management, Reproductive Health & Family Planning, Adolescent Health, Gender & Social change, Climate etc. She has significant contribution in research domain, including large scale Implementation Research, Clinical Trial and Behavioural Studies, and has various research publications to her credit. She has been guiding projects as Principal Investigator (PI) and Co-PI and have published significant Research Publications, Policy Papers, Thought Papers, Editorials, including submissions at G20 & Y20. She has also authored a full chapter for the University level Undergraduate programme, for Asia's largest University, named Indira Gandhi National Open University under the University Grant Commission, Govt of India. She has been a reviewer for various research efforts, and has been an eminent speaker at national & international platforms. Currently, she is leading the Research & Evaluation division of USAID supported Momentum Country & Global Leadership India project at Jhpiego, a John Hopkins University Affiliate, in India.



### **Voznesenskaya Tverdaya Julia V<sup>1\*</sup>, Volodyaev Ilya V. Ph.D<sup>2</sup>**

<sup>1</sup>Head of EMC IVF Medical School, Head of EMC IVF Clinic, gynaecologist-fertility specialist

<sup>2</sup>Biology, Embryologist of EMC IVF Clinic, Senior associate of Embryology Department, Moscow State University

## **Abnormal embryos: Transfer impossible to disposed of**

Today, IVF clinics are competing for pregnancy rates. This competition is on the rise, at clinics' websites displaying increasing figures on laboratory efficiency. This information attracts both patients and insurance companies. The most common indicator used in such reports is PR - The number of pregnancies achieved in relation to embryo transfers. This is a detail where the devil is: Embryos at the blastocyst stage, of good morphological quality, and even better, those that have undergone preimplantation genetic diagnosis, are reliably better at implantation. Thus, a large number of women who have started stimulation, received oocytes during the ovarian puncture and even have embryos are simply not allowed to transfer because the embryos do not fulfil the specified criteria. Patients are often informed that the probability of pregnancy through such "low-quality" embryos is extremely low, and the probability of complications (missed abortions, miscarriages, abnormal developments) is high. Certainly intimidated patients are forced to agree to start a new protocol and this is going round in circles. This is not an altogether rare occurrence to see a patient who has undergone 5-6 stimulation programs and has not had a single transfer. My report purpose is to give these babies a chance to be born, even if not with the glorious success rates that I would like to share with the world.

### **Audience Take Away Notes**

- Understand how poor quality embryos are implanted.
- Find out how pregnancies are carried to term and what kind of babies are born.
- Discuss outstanding issues when working with abnormal embryos.
- There will be presented own data on working with such embryos.
- There will be presented an alternative way of working with patients having the recurring problem of low quality embryos.

### **Biography**

Dr. Julia graduated from I.M. Sechenov First Moscow State Medical University. Special field-General Medicine, graduated with honours June 1999. From 1999 till 2001-medical residency at Maternity Hospital, Moscow. Special field-Obstetrician-gynaecologist. From 2006 worked as fertility specialist, from 2013-Head of the ART Department in European Medical Center in Moscow. From 2016 hold the mCARM Conference (Cornerstone Aspects of Reproductive Medicine). One of Founder of the "Interdisciplinary Clinical Association of Reproductive Medicine" Association in 2021.





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# Gynecology & Women's Health

**POSTER  
PRESENTATIONS**



**Dr. Alexandra Hughes\* MBChB, MRCEM; Dr. James Pearson MBChB;  
Dr. Victoria Webster MBChB, BSc (Hons)**  
Sheffield Teaching Hospitals, United Kingdom

## **Quality improvement project: Reducing the length of time women with early pregnancy complications, leading to possible pregnancy loss spend in the emergency department at Sheffield Teaching Hospitals (STH), UK**

**Background:** Prolonged waiting times in the Emergency Department have a significant psychological impact on women experiencing early pregnancy complications and possible pregnancy loss. Sheffield Teaching Hospitals operates across split sites, with the Obstetrics & Gynaecology department at a separate site to ED. This, amongst other factors, creates a barrier to a timely Gynaecology review.

**Aim:** Reduction in time spent in ED for women presenting with early pregnancy complications.

**Methods:** QIP involving 4 PDSA cycles - 4 interventions implemented with data analysis of various waiting times after each intervention. Interventions include:

- Introduction of urine test pots at initial booking
- Updated Trust intranet ED guidelines
- Introduction of an ED 'Gynae equipment grab bag'
- Introduction of direct access to EPAU appointments via online booking systems

**Results:** Average waiting times across several domains were successfully reduced for this patient cohort.

**Conclusions:** We highlight the importance of understanding the psychological impact on women with early pregnancy complications, who are experiencing long wait times in ED until specialist review. Providing urine sample pots at first point of contact to attain a urinary pregnancy test early, and introducing a 'gynae grab bag' to enable quick access to relevant equipment, improves departmental efficiency. Guideline updates provide staff with clear instructions on how to manage this cohort of patients, which reduces need for discussions and in turn, also increases efficiency. Despite the challenge of working across split sites, our introduction of direct access to EPAU appointments via online booking systems have reduced the additional steps of telephone discussions with our Gynae colleagues. We demonstrate a number of achievable changes that can be implemented across other Emergency Departments, that result in more efficient management and reduction in waiting times. Whilst this will be a traumatic time for the patients involved, effective management and reduced waiting times ensure as medical professionals, we alleviate where possible some of the distress on women presenting with early pregnancy complications and possible pregnancy loss.



**A. D. Khalikov<sup>1</sup>, A.M. Korostyshevskaya<sup>2\*</sup>**

<sup>1</sup>Clinic “Skandinavia”, Sankt-Peterburg, Russia

<sup>2</sup>The Institute International Tomography Center of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia

## The brainstem beyond the “Blind Spot” of prenatal diagnosis: MRI observation series

**Purpose:** To analyze the contribution of Magnetic Resonance Imaging (MRI) to the prenatal diagnosis of anomalies of brainstem structures using the example of describing our own rare clinical observations and comparing the results of MRI with the changes identified during a previous Ultrasound.

**Materials and Methods:** A retrospective analysis was conducted of 5 cases of various brain stem anomalies identified by fetal MRI (gestational age range 19–29 weeks) on 1.5T (Achieva) and 3T (Ingenua) Philips scanners at the International Tomography Center of the SB RAS, on a 3T (GE HealthCare) at the “Scandinavia” clinic.

**Results:** In all 7 cases, MRI revealed a brainstem malformation: dysplasia of the diencephalic-mesencephalic junction (1), pontocerebellar hypoplasia (1), Joubert syndrome (2), brainstem kinking (2), and brainstem disconnection (1). Most of the anomalies were not detected by Ultrasound or was interpreted as a cerebellar abnormality (5/7). In addition, MRI revealed concomitant pathologies: cerebellar hypogenesis (6/7), ventriculomegaly (5/7), anomalies of cortical development (3/7), microcephaly (1/7), the corpus callosum anomaly (4/7), cleft lip and palate (1/7).

We represent the embryogenetic principles of the concomitant development of the brainstem structures and the posterior cranial fossa anomalies. Presented US and MR imaging data of all 7 cases of rare brain anomalies provide a practical benefits for radiologists, focusing their attention on the difficulties of diagnosing brain stem structures using only US.

**Conclusions:** Ultrasound has limitations in imaging the brainstem in the 2nd trimester, in most cases identifying only an associated cerebellar abnormality. MRI provides the necessary quality of visualization for detecting anomalies of stem structures and identifying the entire spectrum of associated intrauterine developmental defects, which helps to timely determine the necessary tactics and suspect a genetic syndrome.

### Audience Take Away Notes

- Presented US and MR imaging data of rare brain anomalies provide a practical benefits for radiologists, focusing their attention on the difficulties of diagnosing brainstem structures using only US.
- The audience will be able to use what they learn in the practice of prenatal diagnosis of brain malformations, increasing their accuracy and specificity in detecting brain stem abnormalities
- Considering the critical importance of early detection of abnormalities of the brainstem, the presented information will help to avoid mistakes in determining pregnancy management
- We show practical useful diagnostic pitfalls and life hacks of MRI diagnosis of brainstem anomalies

## **Biography**

Dr. Korostyshevskaya studied Pediatric Medicine at the Novosibirsk Medical Institute, Russia, and graduated as MS in 1995. She then joined the research group at the Institute International Tomography Center of the Siberian Branch of the Russian Academy of Sciences (ITC). She received her PhD degree in 2000 and Dr. of Medicine at the same institution in 2010. She trained her skills in Fetal MRI in Neuroradiology Department of Children's Hospital of Philadelphia (USA) in 2008. Now she is a leading researcher, staff Radiologist, obtained the position of the chief of Medical Department at the ITC from 2013. She has published more than 100 research articles in journals.



**Chelsea S. de Leon, MD<sup>1\*</sup>, Chicane M. Alvarina, MD, FPOGS, FSGOP, FPSCPC<sup>1</sup>**

<sup>1</sup>Department of Obstetrics and Gynecology, Eastern Visayas Medical Center/Tacloban City, Leyte, Philippines

## **Factors associated with interpretation of physical exam findings among child sexual abuse victims assessed at the women and children protection unit in a tertiary government hospital: A retrospective study**

**Introduction:** Child sexual abuse (CSA) is a health emergency associated with devastating physical, behavioral, interpersonal and psychological consequences for survivors. Because children rarely disclose sexual abuse immediately, the physical examination (PE) is often delayed, and most injuries have healed by consultation time.

**Objective:** To describe the socio-demographic, incident and clinical profiles of CSA victims and their association to PE findings.

**Methodology:** This is a retrospective analytical study with 132 randomly selected CSA medicolegal certificates. A researcher developed data collection tool was used for collation. Descriptive statistics and chi-square analyses were utilized.

**Results:** Most CSA victims were 12 to 18 years old (72.73%), from rural areas (69.70%), abused multiple times (58.33%) and were students (95.45%). Majority have been assessed after >72 hours (73.48%). Half were abused between 12:00 PM to 11:59 PM, usually at their own home (54.55%) by a relative (57.58%). Most already had menarche (74.24%) while many had Tanner breast (39.39%) and pubic hair (39.39%) maturity at Stage 3. The perineum and anal examinations showed no lesions in almost all (96.21%), many had hymenal lesions (78.79%) and half had vaginal discharges. Majority had PE findings suspicious for sexual abuse (75%). These are significantly associated with interpretation of CSA PE findings: age, occupation, weight, height, menarche, breast and pubic hair Tanner staging, hymen and vaginal discharge.

**Conclusion:** Majority of CSA victims are 12 to 18 years old, abused by relatives in the home. These have significant association with PE findings: Age, occupation, weight, height, menarche, breast and pubic hair Tanner staging, hymen and vaginal discharge.

**Keywords:** Child Sexual Abuse, Medico-legal Profile.

### **Audience Take Away Notes**

- The findings of this study may provide OB-GYN practitioners a clearer insight and raise their levels of suspicion for CSA victims through their characteristics despite nondiagnostic PE findings.
- The findings of this study may help other health practitioners understand the clinico-demographic, incident and clinical profiles of child sexual abuse victims and make necessary referrals to appropriate authorities.

- The findings of this study will help women and child protection units to better serve sexually abused and at-risk children with compassion and competence.

**Results:** Average waiting times across several domains were successfully reduced for this patient cohort.

**Biography:**

Dr. Chelsea de Leon graduated with a degree in Social Studies major in Psychology at the University of the Philippines in 2009. She proceeded to study Medicine at the RTR Medical Foundation and graduated in 2015. After completing a year of internship at Davao Doctors Hospital, she passed the Physicians Licensure Exam in 2017. She completed her residency specializing in Obstetrics and Gynecology in November, 2022 where she was chief resident during her last year. She has acquired awards for research and case presentations during her training years.



**Hannah Puckett<sup>1\*</sup> MD, Shelby Smith<sup>2</sup> MS-3, Meredyth Shaffer<sup>3</sup> DO, Bhairav Shah<sup>4</sup> MD, Matthew Marcus<sup>5</sup> MD, William Richardson<sup>3</sup> MD, Kristl Tomlin<sup>6</sup> MD**

<sup>1</sup>Prisma Health Richland (PHR)–Dept. of OB/GYN, Columbia, SC

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<sup>3</sup>PHR–Dept. of Emergency Medicine, Columbia, SC

<sup>4</sup>PHR–Dept. of Pediatric Surgery, Columbia, SC

<sup>5</sup>PHR–Dept. of Radiology, Columbia, SC

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## **Ed to or door-to-door time after implementation of the composite adnexal torsion prediction score in adolescent patients at prisma health midlands**

**Background:** Adnexal torsion is a surgical emergency in children and adolescents and is a diagnosis that continues to stump healthcare providers. Independent predictors of torsion, both clinical and radiographic, have been identified and incorporated into a composite scoring system. Research studies are underway to determine the generalizability of these scores in diverse patient populations in hopes that this becomes a widely accepted tool used by healthcare professionals to improve prompt diagnosis and treatment of adnexal torsion. Previously, a retrospective chart review using this composite score on the Prisma Health pediatric population did find that it successfully predicted torsion in the study population. This study also found an average door-to-door time from ED to OR of 47.1 hours (n=53) for adnexal torsion cases between 2010 and 2019.

**Purpose:** The purpose of this study is to use the original Schwartz et al. composite score to predict adnexal torsion and apply it to our patient population at Prisma Health Midlands in a prospective manner in order to further validate its generalizability. We aim to investigate the average time to OR for suspected cases of torsion between 2021 to 2023 after implementing the CAT score. We will compare door-to-door time of previous adnexal torsion retrospective study to that of our preliminary prospective study to assess improvement in time to intervention.

**Methods:** We created an Epic smartphrase for the torsion predictor scoring system and encouraged OBGYN, Emergency Medicine, and Pediatric providers at Prisma Health Midlands to utilize this diagnostic tool when evaluating their patients with concern for adnexal torsion. Statistical analysis will then be performed on the data to determine how reliable the torsion predictor score is at identifying adnexal torsion in pediatric and adolescent patients as well as identifying any improvement in ER to OR door-to-door time.

**Results:** Currently, our early prospective data also appears to be corroborating the utility of this composite score in predicting adnexal torsion. Composite score had 100% sensitivity and 96% specificity in our patient population. Average time to OR for confirmed torsion cases, thus far, after presentation to the ED decreased from 47.1 hours (n=53) to 8.14 hours (n=5).

**Conclusions and Implications:** The torsion predictor score appears to be generalizable to our diverse patient population and will likely serve as a valuable diagnostic tool in providing prompt surgical management for adnexal torsion in the future. From the data gathered thus far, the ER to OR door-to-door time has significantly decreased. However, our sample size of surgically proven torsion cases remains low and data is still being collected.



### **Audience Take Away Notes**

- The audience will be able to use this user-friendly algorithm in their own clinical duties to assist in identifying patients who may presenting with adnexal torsion in a timely manner.
- Other faculty could also implement the CAT score at their institutions in order to further attest to its generalizability.

### **Biography**

Dr. Puckett studied Biological Sciences at Clemson University and graduated with Summa cum laude from their honors College in 2016. She then received her Doctorate of Medicine from the University of South Carolina School of Medicine in 2021. From there, she matched into an OBGYN residency program at the University of South Carolina/Prisma Health Midlands, where she is currently in her PGY-3 year of training. After residency, she plans to practice as a Generalist OBGYN provider.



**Iris T. Smith<sup>1\*</sup> BA, Michael J. Fassett<sup>2,3</sup> MD, David A. Sacks<sup>4</sup> MD, Nana A. Mensah<sup>5</sup> PhD, Nehaa Khadka<sup>5</sup> PHD, MPH, Morgan R. Peltier<sup>6</sup> PhD; Vicki Y. Chiu<sup>5</sup> MS; Fagen Xie<sup>5</sup> PhD; Jiaxiao Shi<sup>5</sup> PhD; Darios Getahun<sup>5,7</sup> MD, PhD, MPH**

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## Recurrence risk of preterm birth in successive pregnancies based on its subtypes

**Objective:** Although a prior history of Preterm Birth (PTB) is a potential risk factor for recurrence in successive pregnancies, little information is available on whether recurrence risk is modified by race/ethnicity, gestational age at birth, PTB subtypes, and Interpregnancy Intervals (IPI); therefore, we examined whether PTB recurrence risk is modified by these factors.

**Methods:** A retrospective cohort study of singleton pregnancies in Kaiser Permanente Southern California (2009-2022) using data extracted from Electronic Health Records (EHR) on first 2 (n= 82,610) and 3 (n=14,925) pregnancies. Data on preterm labor triage extracted from EHRs by implementing Natural Language Processing were used to define PTB subtypes (spontaneous PTB [sPTB] and iatrogenic PTB [iPTB]). Logistic regression models were used to estimate adjusted Odds Ratios (aOR) and their 95% Confidence Intervals (CI).

**Results:** A first pregnancy complicated by PTB was associated with 6-fold increased risk of PTB in the second pregnancy compared with a first uncomplicated pregnancy (23.29% vs. 4.98%, respectively; aOR, 5.60, 95% Confidence Intervals [CI]: 5.23-5.99). Stratified by their subtypes, those with a history of sPTB (aOR: 5.32, 95% CI 4.87, 5.81) and iPTB (aOR: 8.26, 95% CI 7.18, 9.50) had increased risk for the same respective subtype at their second pregnancy. PTB recurrence risk persisted across race/ethnicity and PTB subtypes with the highest risks observed for iPTB. Compared to pregnancies without PTB in the first two pregnancies (4.58%), those with PTB in both pregnancies (40.94%) were associated with significantly increased PTB risk in their third pregnancy (aOR, 14.59; 95% CI, 11.28-18.88). The recurrence of PTB between 1st and 2nd pregnancy was substantially higher for those who delivered in 20-33 weeks of gestation, regardless of PTB subtype. Risk of both sPTB and iPTB recurrence in successive pregnancies were not related to the length of IPI or pre-pregnancy BMI categories. Non-Hispanic Blacks and Asian/Pacific Islanders had a higher recurrence risk in

both subtypes of PTB when compared to their Non-Hispanic White counterpart.

**Conclusion:** We observed significant disparities in recurrent PTB by their subtypes and maternal race/ethnicity among a large integrated healthcare system in Southern California. In women with a previous sPTB, a short IPI has a strong impact on the risk of recurrence in the second pregnancy.

### **Audience Take Away Notes**

- Learn more about the recurrence risk of spontaneous vs iatrogenic preterm birth.
- Use of Natural Language Processing to ascertain preterm birth subtypes.
- Data on health inequities in preterm birth.

### **Biography**

Iris Smith is currently a medical student at the Kaiser Permanente Bernard J. Tyson School of Medicine, expected to graduate in May 2025. She completed her undergraduate studies at Northwestern University in 2020 with a degree in Cognitive Science. She plans to pursue a career in Obstetrics and Gynecology.



**Jack Considine<sup>1\*</sup>, Codrut Radoiu<sup>1</sup>, Sophie Wittenberg<sup>1</sup>, Nivedita Dhar<sup>2,3</sup> MD, Raghav Madan<sup>1</sup> MD, Jack Vercnocke<sup>1</sup> MD, Aron Liaw<sup>1</sup> MD, Alaa Hamada<sup>2</sup> MD**

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## Amniotic bladder therapy in patients with interstitial cystitis/bladder pain syndrome

**Introduction and Objectives:** Our study hypothesis postulates that if patients with Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) bladders exhibit increased inflammation, fibrosis, and urothelial dysfunction then treatment modalities that modulate inflammation and fibrosis, while promoting a regenerative urothelium environment may have a therapeutic effect in such patients. Amniotic Membrane (AM) has been shown to foster a regenerative wound-healing environment through its anti-inflammatory and anti-fibrotic properties. In this study, we investigate the safety and efficacy of bladder injections of AM in patients with treatment resistant IC/BPS.

**Methods:** Fifteen consecutive IC/BPS patients (mean age 50.7±14.4 years) with a median disease duration of 7 years (5-12 years) who were recalcitrant to multiple therapies including anti-cholinergic (n=15), beta-3 adrenergic agonist (n=15), tricyclic anti-depressant (n=15), anti-histamine (n=5), hydrodistension (n=15), pentosan polysulfate (n=9), vaginal valium (n=15), intravesical instillation (n=8), botulinum toxin (Botox) injection (n=15), and neuromodulation (n=5) were included in the study. Under general anesthesia patients received intra-detrusor injections of reconstituted 100mg micronized AM and were followed for 24 weeks. Clinical evaluation and patient-reported outcome measures including Interstitial Cystitis Symptom Index (ICSI), Interstitial Cystitis Problem Index (ICPI), Bladder Pain/ Interstitial Cystitis Symptom Score (BPIC-SS), Overactive Bladder Assessment Tool (OAB) were assessed.

**Results:** After Amniotic Bladder Therapy (ABT), the lower urinary tract symptoms improved gradually up to 12 weeks in all patients. At 16 weeks, 3 patients experienced a resurgence of symptoms and requested another injection which resulted in improvement after 2, 4, and 8 weeks respectively. For the twelve patients who only received one injection, the symptoms were still significantly lower at 20 and 24 weeks compared to baseline. No safety concerns were noticed during the study.

**Conclusions:** Our findings suggest that ABT shows promise as a treatment for refractory IC/BPS patients. However, further study is needed to establish treatment protocol, better understand the mechanism of action and determine the durability of therapeutic response of ABT in IC/BPS.

### Audience Take Away Notes

- **Innovative Therapeutic Approach:** Attendees will gain insights into the innovative use of Amniotic Bladder Therapy (ABT) as a potential breakthrough in the treatment of refractory Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS). Understanding the methodology and outcomes of our study will equip healthcare professionals with valuable knowledge about an alternative approach to managing this challenging condition.
- **Clinical Application of Amniotic Membrane:** The presentation will elucidate the clinical application

of amniotic membrane in fostering a regenerative urothelial environment. Attendees will learn how the anti-inflammatory and anti-fibrotic properties of amniotic membrane can be harnessed for therapeutic purposes, expanding their toolkit for managing IC/BPS patients who are unresponsive to conventional treatments.

- **Research Expansion Opportunities:** This research represents a potential avenue for other faculty members to expand their own research or teaching endeavors. The study's findings could inspire further investigations into the mechanisms of action, optimal treatment protocols, and broader applications of amniotic membrane in urological and gynecological contexts.
- **Practical Solutions for Treatment Resistance:** For healthcare practitioners dealing with treatment-resistant IC/BPS cases, the presentation offers a practical solution in the form of Amniotic Bladder Therapy. Understanding the positive outcomes and safety profile of ABT may simplify clinical decision-making, providing a new and effective tool for addressing a challenging aspect of patient care.
- **Additional Benefits:**
  - **Enhanced Patient Outcomes:** Implementation of ABT based on the presented findings has the potential to significantly improve the quality of life for IC/BPS patients who have not responded to traditional treatments.
  - **Contributions to Medical Advancement:** The presentation contributes to the broader field of urology and women's health by introducing a novel therapeutic approach, potentially paving the way for further advancements in the understanding and treatment of urological conditions.
  - **Optimization of Treatment Protocols:** The insights shared during the presentation could lead to the optimization of treatment protocols, helping clinicians tailor interventions for better outcomes in IC/BPS patients.

### Biography

Jack Considine, a dedicated 3rd-year medical student at Wayne State School of Medicine, graduated with honors from Michigan State University. Fostering a profound interest in urology and urogynecology within Dr. Nivedita Dhar, MD's esteemed research group, Jack played an integral role in establishing foundational knowledge in amniotic bladder therapy research. His leadership was pivotal in establishing the groundwork for understanding the regenerative potential of amniotic bladder therapy in urological and urogynecological contexts. Jack's unwavering commitment and passion for advancing medical research underscore a steadfast dedication to making meaningful contributions to the field.



**Jack Considine<sup>1\*</sup>, Sophie Wittenberg<sup>1</sup>, Codrut Radoiu<sup>1</sup>, Nivedita Dhar<sup>2,3</sup> MD, Aron Liaw<sup>1</sup> MD**

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## Exploring the effects of amniotic bladder therapy on female sexual dysfunction in interstitial cystitis/bladder pain syndrome patients

**Introduction and Objectives:** Female Sexual Dysfunction (FSD) is a commonly associated issue in patients with Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS). FSD manifests through various abnormalities in sexual desire, arousal, orgasm, pain, distress, and satisfaction. We previously detailed the benefits of intra-detrusor micronized Amniotic Membrane (AM) injections in alleviating Lower Urinary Tract Symptoms (LUTS) in IC/BPS patients. In this study, our primary objective was to assess the impact of the micronized AM injections on FSD and LUTS using comprehensive measures, including the multi-domain Female Sexual Function Index (FSFI), the Pain Visual Analog Scale (VAS), and the Interstitial Cystitis Symptom Index (ICSI) and Interstitial Cystitis Problem Index (ICPI).

**Methods:** Study participants included patients diagnosed with IC/BPS and refractory FSD, unresponsive to therapeutic interventions. Under general anesthesia, these patients received intra-detrusor injections of reconstituted 100mg micronized AM. We collected data on ICSI, ICPI, FSFI, and VAS scores before the procedure and at 4-, 8-, 12-, and 24-weeks post-injection. Our primary study endpoint was the impact of Amniotic Bladder Therapy (ABT) On Sexual Function, With a parallel evaluation of Injection Safety.

**Results:** Eleven consecutive patients, with an average age of 49±12 years, demonstrated progressive improvements in their baseline IC/BPS symptoms over the 24-week study duration. These improvements were mirrored by enhanced FSFI scores, and reduced pain (VAS) related to intercourse over the 24-week study period. No adverse events were observed.

**Conclusions:** Our findings suggest that ABT therapy holds promise for IC/BPS patients, particularly females grappling with severe FSD symptoms. However, further research is imperative to deepen our understanding of the mechanisms through which ABT effectively addresses these complex disorders. Additionally, the long-term durability of this treatment response warrants investigation.

### Audience Take Away Notes

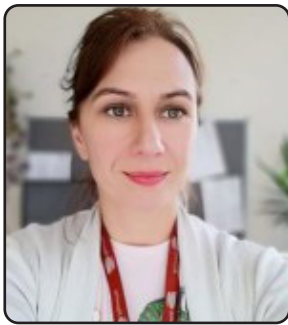
- **Comprehensive Understanding of ABT Impact:** Attendees will gain insights into the transformative potential of Amniotic Bladder Therapy (ABT) in addressing both Lower Urinary Tract Symptoms (LUTS) and Female Sexual Dysfunction (FSD) in patients with Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS). The presentation will detail the study's findings on the positive changes observed in IC/BPS symptoms and improvements in various domains of sexual function.
- **Clinical Application of ABT in IC/BPS Patients:** Healthcare professionals will learn about the practical application of ABT as a potential therapeutic intervention for IC/BPS patients, particularly those struggling with severe FSD symptoms. Understanding the methodology and positive outcomes of the study will equip clinicians with valuable information that can be directly applied in their

clinical practice.

- **Dual-Benefit Approach to Patient Care:** The presentation highlights the dual benefits of ABT, offering a comprehensive approach to patient care by simultaneously addressing LUTS and FSD. Attendees will gain insights into how this integrated therapeutic strategy can enhance the quality of life for IC/BPS patients facing challenges in both urinary and sexual health.
- **Future Research Directions:** The presentation will display promising results while emphasizing the need for further research to unravel the mechanisms of ABT and investigate the long-term durability of treatment responses, providing potential avenues for future research initiatives.
- **Additional Benefits:**
  - **Enhanced Patient Care:** Implementing ABT based on the presented findings could lead to improved patient outcomes, especially in cases of IC/BPS with concurrent FSD, contributing to better overall well-being.
  - **Expanded Treatment Options:** The study introduces ABT as an additional treatment option, broadening the toolkit available to healthcare professionals for managing complex cases of IC/BPS and FSD.
  - **Collaborative Opportunities:** The research presents opportunities for collaboration among healthcare professionals, fostering discussions and partnerships in the exploration of novel therapeutic approaches in urology and gynecology.

### Biography

Jack Considine, a dedicated 3rd-year medical student at Wayne State School of Medicine, graduated with honors from Michigan State University. Fostering a profound interest in urology and urogynecology within Dr. Nivedita Dhar, MD's esteemed research group, Jack played an integral role in establishing foundational knowledge in amniotic bladder therapy research. His leadership was pivotal in establishing the groundwork for understanding the regenerative potential of amniotic bladder therapy in urological and urogynecological contexts. Jack's unwavering commitment and passion for advancing medical research underscore a steadfast dedication to making meaningful contributions to the field.



**Owusu Emmanuel<sup>1</sup>, Jayatunge Nishani<sup>1</sup>, Turnbull Hilary<sup>2</sup>, Mazibrada Jasenka<sup>1\*</sup>**

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<sup>2</sup>Gynaecology, Norfolk and Norwich University Hospital, Norwich, Norfolk, United Kingdom

## **Dedifferentiated mucinous ovarian carcinoma: A case report and literature review**

**Introduction:** Dedifferentiated mucinous carcinoma of the ovary is a rare, highly aggressive and molecularly distinct ovarian malignancy, characterised by frequent inactivation of core SWI/SNF complex and typically a low response rate to platinum-based standard care for ovarian cancer.

**Presentation of case:** We here report a case of dedifferentiated mucinous carcinoma in a 50-year-old patient, who morphologically showed spectrum of well, moderate and undifferentiated carcinoma and a distinct immunohistochemical profile, as documented by application of wide range immunohistochemistry. It also underwent detailed molecular testing in two independent institutions. Results show alterations in numerous genes such as BRCA2, SMARCA4, ARID1A, TP53, STK11, EP300, KRAS and MTAP. Tumour was also MMR deficient. Moreover, distinct expression patterns in B-Catenin and E-Cadherin are noted in different areas of tumour, which warrant further studies, but raise the possibility of post-transcriptional alterations in Wnt signalling pathway.

**Discussion:** Morphological and immunohistochemical characteristics of tumour, differential diagnoses and review of literature have been discussed, as well as the utility of molecular profiling for precision cancer therapies.

**Conclusion:** Dedifferentiated mucinous carcinoma of the ovary is an aggressive neoplasm, characterised by alterations in core SWI/SNF complex. Detailed molecular profiling of these tumours can optimise the selection of molecular-matched therapies.

### **Audience Take Away Notes**

- The audience will learn about morphological, immunohistochemical and distinct molecular characteristics of this rare but highly aggressive ovarian malignancy. Main differential diagnoses will be discussed, and review of literature will be presented together with the up-to date molecular findings which may help to optimize therapeutic protocols.
- Learning about tumour characteristics may help in its early recognition and diagnosis and tempestive request of ancillary analysis for precision therapy.
- Recognizing the type of tumour and its aggressive course and resistance to standard therapy will direct the audience toward molecular profiling to address optimization of therapy protocol relative to specific molecular alterations found in tumour.
- These tumours show inactivation of core SWI/SNF complex, involved in chromatin remodelling and cell differentiation. This molecular aberration is shared with several other gynaecological malignancies and understanding the exact mechanism or carcinogenesis may be of interest to other research group and applicable to other malignancies which share alterations within the same



complex.

- Detailed molecular profiling leads to selection of the most suitable therapeutic regime for each patient, based on specific molecular profile of disease.
- As a targeted cancer therapy, it improves the accuracy of a design, or provide new information to assist in a design problem
- **Other Benefits:**
  - Preventing misdiagnoses (e.g. our case was suspected to be a gastrointestinal metastasis, which caused delay in definitive diagnosis and therapy).
  - Preventing delays in application of therapy due to incomplete diagnosis or request for expert opinions.
  - Preventing delays in molecular testing, as this has proven crucial in determining the most suitable therapeutic protocols.
  - Raising awareness of highly aggressive course of the disease to a patient and her family, allowing family and patient to organize and offer best psychological and emotional help

### **Biography**

Dr. Jasenka Mazibrada graduated from Medical School in 2001, completed PhD in Immunology and Cellular Biology in 2008 and the Histopathology Specialty Training in 2013 from the University of Turin, Italy. She has worked in the UK since 2016. Her special interest is the integration of molecular information into routine pathology reporting and application of Fourier transform InfraRed microspectroscopy (microFTIR) as an alternative diagnostic tool in histopathological diagnostics.



**Liping Lu<sup>1\*</sup>, Yijia Zhang<sup>2,3</sup>, Meghan Angley<sup>2,3</sup>, Uma Reddy<sup>2</sup>, Alyce D. Fly<sup>1</sup>, Ka Kahe<sup>2,3</sup>**

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<sup>3</sup>Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA

## Preconception maternal zinc intake and antenatal depression: The nuMoM2b study

**Objectives:** Depression is a common mental health issue during pregnancy. Previous studies suggested a potential link between zinc and mood regulation. We aimed to investigate preconception maternal zinc intake in relation to depression during pregnancy.

**Methods:** This secondary analysis utilized data from the Nulliparous Pregnancy Outcomes Study: Monitoring Mothers-To-Be (nuMoM2b) (n=10,038). Participants were followed prospectively during pregnancy with 4 study visits: visit 1 (60-136 weeks' gestation, baseline), visit 2 (160-216 weeks' gestation), visit 3 (220-296 weeks' gestation), and visit 4 (at the time of delivery). Baseline dietary information was collected using the modified Block 2005 Food Frequency Questionnaire, assessing intake three months prior to pregnancy. Zinc intake was obtained from dietary and supplemental sources. Prenatal depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS) at baseline and visit 3. High scores ( $\geq 12$ ) are strongly indicative of depressive symptomatology. A total of 3,661 participants with available data, plausible calorie intake and free of depression or mental health disorders (e.g., stress, anxiety) at baseline were included in the analysis. A multiple linear regression model was used to examine the association between zinc intake and the natural logarithmic-transformed EPDS score at visit 3.

**Results:** After adjusting for potential confounders, including demographics, lifestyle, and other dietary variables, an inverse association between zinc intake and EPDS score was observed. Comparing participants with the highest zinc intake (quintile 5) to those in the lowest intake quintile (quintile 1), the EPDS score was 15% lower (95% CI: 7%, 22%) (p for trend < 0.01).

**Conclusions:** Data from this large cohort of US nulliparous women suggest an inverse association between preconception maternal zinc intake and antenatal depression risk.

### Audience Take Away Notes

- Despite the biological plausibility, current research on zinc intake and depression in pregnant population is limited. This large-scale longitudinal study provides valuable insights into the role of zinc in mental health during pregnancy, filling a significant gap in the literature.
- Findings from this study highlight the importance of monitoring zinc status during pregnancy in terms of mental health among pregnant individuals.
- This study underscores the need for further research to establish causal inference and elucidate the underlying mechanisms.

## **Biography**

Dr. Lu has a background in medicine, nutrition, and statistics. She received her MD in 2006 and her PhD in Nutrition in 2017 from Shanghai Jiao Tong University. After practicing as a physician in Clinical Nutrition for over 10 years, she pursued further training in Epidemiology and Biostatistics as a postdoctoral research scientist in the US. In 2023, she received an MS in Biostatistics from Columbia University. Currently, she is an Assistant Professor at Ball State University, focusing her research on dietary, environmental factors, and maternal and child health. Dr. Lu has published over 50 papers in peer-reviewed journals.



### **Madison Hurst<sup>1\*</sup>, Kristin Hare<sup>2</sup> MD, Brytanie Marshall<sup>2</sup> MD**

<sup>1</sup>Geisinger Commonwealth School of Medicine, Medical Student, Scranton, PA, USA

<sup>2</sup>Department of Obstetrics and Gynecology, Geisinger Medical Center, Danville, PA, USA

## **Medical student expectations and understanding of reproductive healthcare in an integrated curriculum**

**F**or many physicians, exposure to reproductive healthcare is limited based upon their chosen specialty. For this reason, it is imperative that medical students obtain a strong foundation in women's health during their preclinical years so that they may carry this knowledge base through their career. The Geisinger Commonwealth School of Medicine uses an integrated curriculum model in which both the normal and abnormal anatomy and physiology of an organ system are taught simultaneously, with each organ system given its own block of time. We aimed to evaluate the self-reported proficiency of second-year medical students in comprehending and advising on women's health topics following the completion of an integrated curriculum, and to assess the extent to which the curriculum met their expectations.

Second year medical students participating in an integrated science curriculum were administered an anonymous 23-question survey before and after their participation in their reproductive system block to see how formal exposure to reproductive health material changed their attitudes and perceptions. Using a 5-point Likert scale, students were asked to rate their attitudes and comfort levels regarding their understanding of reproductive health in general as well as how it relates to other specialties, and their ability to counsel patients on conditions treated by gynecologists.

A total of 62 students completed the pre-block survey and 41 students completed the post-curriculum survey. Before completion of the block, 21% of students agreed the curriculum gave them a broad understanding of women's health, 21% agree they were satisfied with the amount of material dedicated to women's health, 84% agreed or strongly agreed understanding women's health would be important to the specialty in which they practice, and 18% were neutral, agreed or strongly agreed that discussing gynecologic topics was uncomfortable for them. After completing the curriculum, 64% agreed or strongly agreed the curriculum gave them a broad understanding of women's health, 46% agreed or strongly agreed they were satisfied with the amount of material dedicated to women's health, 92% agreed or strongly agreed understanding women's health would be important to the specialty in which they practice, and 12% were neutral, agreed or strongly agreed that discussing gynecologic topics was uncomfortable for them. Of the 12 questions relating to comfortability discussing various gynecologic complaints with patients, 0% of students would be very uncomfortable speaking with patients after they completed the curriculum.

This survey allowed us to obtain feedback from medical students on an integrated curriculum's ability to prepare them to provide women's reproductive healthcare. Students report they are comfortable discussing a wide variety of reproductive health topics with patients ranging from menarche to menopause. Learning about these topics also influences their belief that an understanding of reproductive health will be important regardless of what specialty they intend to practice.

### **Audience Take Away Notes**

- Audience members will gain a new perspective on medical student attitudes towards learning reproductive health related topics.
- Information gained from this presentation will help to inform clinical preceptors on the mindset of medical students and where their education can be enhanced.
- This presentation serves as the basis of discussion related to comprehensive medical education, curriculum design and professional identity formation.

### **Biography:**

Madison Hurst is a medical student of the Geisinger Commonwealth School of Medicine planning to graduate in May of 2025. She received her Bachelor of Science in biology from Furman University in 2021. Throughout her time as a medical student, she has been a strong advocate for reproductive health and has taken a special interest in medical education. Her love of obstetrics and gynecology combines seamlessly with her passion for curriculum development in this research project.

## Mei Guo

Liangping County People's Hospital of Chongqing, China

# The somatic mutation of PI3KCA and PTEN was associated with poor prognosis of stage I clear cell ovarian carcinomas

**Background:** Ovarian Clear Cell Carcinoma (OCCC) is a less common subtype of epithelial ovarian cancers. It is a challenge for clinical treatment of OCCC due to the resistance to chemotherapy. In this study, we revealed the molecular landscape of ovarian clear cell carcinoma and assess the role of different mutations in prognosis.

**Methods:** This study retrospectively analysed OCCC patients who were seen from 2008 to 2018. The clinicopathological characteristics of OCCC patients were obtained from electronic medical records. Next-generation sequencing (NGS) was performed to identify the somatic mutations of PI3KCA and PTEN. The relationship between PI3KCA and PTEN mutation and survival outcomes was estimated by Cox proportional hazard models. Then the Kaplan–Meier curve was used to estimate Overall Survival (OS) and Progression-Free Survival (PFS), log-rank test was used to test the difference in survival.

**Results:** A total of 38 patients were included in the study, The mean age of the patients was 40.8(±9.28) years, and the median follow-up time was 48 months (range, 8–54). All patients had received initial surgical treatment and 20 patients (53%) received postoperative adjuvant chemotherapy. The genes with the highest mutation frequencies were PI3KCA (63%) and PTEN (42%), 18 patients (47%) had mutations in both PI3KCA and PTEN. Patients with mutations of PI3KCA and PTEN had a higher recurrence rate compared to those without mutations. Then we conducted subgroup analysis of stage I OCCC patients, the results showed that the mutations of PI3KCA and PTEN were associated with poor PFS (media PFS 13.2 months,  $p=0.045$ ) and OS (media OS 55.7 months,  $p=0.032$ ).

**Conclusion:** The study suggests that the presence of PI3KCA and PTEN mutations may have potential value for predicting the prognosis of OCCC. For stage I clear cell ovarian carcinomas patients, it is especially necessary to take NGS test in early stages of the disease, which can be helpful in taking interventions and improving the prognosis of patients.

**Keywords:** Ovarian Clear Cell Carcinoma, PI3KCA, PTEN, Somatic Mutation.

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**Birthing experiences during the COVID-19 pandemic: A mixed methods study of changes to delivery location and companion presence**

COVID-19 has drastically changed the experience of maternal and reproductive healthcare in the United States, amplifying existing disparities. COVID-19-related stressful birthing experiences have been associated with subsequent poor maternal and infant health outcomes including greater postpartum stress, trouble with mother-infant bonding, and difficulties with breastfeeding. This mixed methods study examines changes in birthing plans and experiences due to COVID-19, including birth location and companionship. We describe patients' perinatal experiences during the pandemic and examine associations with sociodemographic variables including age, income, education level, insurance status, geographic location, and race and ethnicity. The study examines if changes in birthing location and restrictions on companions due to COVID-19 are correlated with patients' sociodemographic characteristics. The project utilizes data collected as part of a larger study, COVID-19's Impacts on Reproduction in the United States (CIRUS), which gathered data on the experiences of patients seeking contraception, prenatal, postnatal, miscarriage and abortion care during COVID-19. Participants answered survey questions and a subset of participants participated in qualitative interviews. The qualitative analysis revealed (1) companionship restrictions during delivery increased patient stress, including the stress of choosing between a partner and a parent and the disappointment of not being able to have desired family members present during birth; (2) restrictions on companionship during delivery caused loneliness, as many participants were not able to have any companions with them due to restrictions and other logistical barriers; (3) restrictions and uncertainty around COVID-19 caused patients to consider alternative locations to hospital births. Participants discussed how they contemplated community births due to the restrictions and uncertainty of hospital policies. Through the quantitative analysis, we found sociodemographic differences in birthing location and companion restrictions among people giving birth during COVID-19. Statistically significant variables for delivery location were race, education level, and insurance status. For delivery companionship, the statistically significant variables were race, insurance, and region. Further, we found that restrictions on companionship during delivery increased patient stress and loneliness, and COVID-related uncertainty and restrictions prompted patients to consider alternative locations to hospital birth.

**Audience Take Away Notes**

- Research on COVID-19-related restrictions' impacts on patients' experiences with pregnancy care is lacking. Studies relating to birth and the pandemic have largely focused on the clinical pregnancy outcomes, but less so on patients' experiences and thoughts. This study helps to answer the question of how COVID-19 impacted birthing experiences, especially in correlation with sociodemographic data.
- This presentation will describe patients' perinatal experiences during the pandemic, particularly regarding birthing location and companionship restrictions. The presentation describes the associations between these perinatal experiences and patients' sociodemographic variables, including age, income, education level, insurance status, geographic location, and race and ethnicity.

- The presentation provides information on how different sociodemographic groups experienced birth plan changes during the pandemic, which can help providers and researchers identify specific obstacles that may increase restrictions. This data can be shared to improve the quality of birthing experiences as pandemic-related restrictions evolve and in preparation for future public health crises.

### **Biography**

Molly studied History & Literature and Global Health & Health Policy at Harvard University and graduated with a BA in 2020. She spent two years working at Brighter Beginnings, a nonprofit which runs community health clinics for low-income populations in the East Bay Area, where she established a maternal mental health program and led the quality improvement team. She is currently in her second year of medical school at the University of California, San Francisco and will graduate with her MD degree in 2026. She plans to pursue residency in Ob/Gyn and is especially interested in reproductive health & justice.





**Mona Kamal Eldeeb<sup>1\*</sup>, Mona Hassan Elsayad<sup>2</sup>, Naglaa Fathi AbdElatif<sup>3</sup>, Shihab Ahmed Mutlak<sup>4</sup>**

<sup>1</sup>Professor clinical laboratory sciences, Collage of applied medical sciences, Jouf. Saudi

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## **Female sex hormones and inflammatory cytokine in relation to occurrence of abortion in toxoplasma gondii infected females**

**Objectives:** Toxoplasma gondii is an obligatory- intracellular protozoan with variable prevalence observed worldwide. Alexandria has high Toxoplasma prevalence among pregnant females between Egyptian governorates 59.7%. Toxoplasmosis in pregnancy has variable outcomes such as miscarriage, stillbirth, or congenital defects. Estrogen and progesterone have profound effect on immune system during pregnancy especially in response to parasitic infection. Cytokines (gamma Interferon (IFN- $\gamma$ ) and IL-2) causes abortion in pregnant mice and production of nitric oxide, which kill intracellular Toxoplasma. We aimed to study the relation of female sex hormones (estrogen and progesterone) and IL12 and IFN- $\alpha$  with the occurrence of abortion in Toxoplasma infected pregnant women.

**Material and Methods:** Three patient's groups were studied (50 control subjects, 50 toxoplasma infected pregnant females and 50 aborted toxoplasma infected females).

**Results:** IgM +ve infection was higher in the aborted group (50%), while IgG +ve infection was higher in pregnant infected group (72%) with statistically significant difference in sero-positivity of T. Gondii ( $p=0.001$ ). Estrogen level in the aborted group was 547.5 ng/ml less by three times than pregnant infected and also less than control group while progesterone were approximately equal levels in pregnant infected and aborted group and equal in the aborted and control group with no statistical significance difference. IFN- $\alpha$  was significantly higher in the aborted than the pregnant infected group ( $p=0.006^*$ ) and IL-12 was significantly higher in the aborted than control group ( $p=0.018^*$ ). In the pregnant infected group IL-12 was negatively correlated with Progesterone ( $rs=-0.769$ ,  $p=0.009$ ) while IFN- $\gamma$  was positively correlated with Estrogen and Progesterone ( $rs=0.972$ ,  $p=0.001$ ) ( $rs=0.351$ ,  $p=0.036$ ) respectively, In the whole infected groups (both pregnant and aborted group), IL-12 was positively correlated with Estrogen ( $r=0.490$ ,  $p=0.028$ ).

**Conclusion:** Estrogen and progesterone may act as an immune regulator through effect on inflammatory markers with protective effect against abortion due to toxoplasma.

### **Audience Take Away Notes**

- Increase their knowledge regarding the various causes of abortion.
- List the importance of eradication of toxoplasma and control of inflammatory process to decrease the occurrence of abortion.
- Expand the research base regarding the importance of female sex hormones in controlling inflammation.
- Add to the published data regarding etiology of toxoplasma and contributing factors.

### **Biography**

Mona Kamal ElDeeb is a Professor of Medical Laboratory Sciences at Al Jouf University. Dr. Mona Graduated from Faculty of Medicine Alexandria University at 1996. She then got her Msc and MD degree from Medical Research institute Alexandria Egypt where she joined university staff members and promoted finally to professor degree. Working with other research team she aimed to increase the impact of various laboratory methods on efficiency of diseases diagnosis and follow up. ElDeeb has many publications in international journals and reviewed research articles. She participated many international and local conferences.



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## **Efficacy of Methotrexate treatment in ectopic pregnancy: A retrospective cohort study**

**E**ctopic pregnancy, a potentially life-threatening condition where fertilized eggs implant and develop outside the uterus, presents considerable risks to maternal health. This retrospective cohort study, conducted at BronxCare Hospital between January 2020 and September 2022, focused on 101 patients diagnosed with tubal ectopic pregnancies. Ectopic pregnancy occurs when a fertilized egg implants and grows outside the uterine cavity, typically in the fallopian tubes but can also occur in other locations such as the ovaries or cervix. Methotrexate (MTX), a medication commonly used to terminate ectopic pregnancies, was administered to eligible participants. Criteria for diagnosis and treatment outcomes were established, with statistical analysis performed using SPSS Version 23.0.

The results revealed a 74.2% success rate with MTX treatment (Group A), while 25.7% required surgical intervention (Group B), with a particular emphasis on cases where initial  $\beta$ -hCG levels exceeded 3000 IU/L. Demographic characteristics and risk factors were analyzed, uncovering significant differences in  $\beta$ -hCG levels between the two groups on days 0, 4, and 7. Factors such as age, previous ectopic pregnancies, and gestational age at diagnosis were also assessed for their impact on treatment outcomes.

This study provides valuable insights into the efficacy of MTX treatment and associated factors in managing tubal ectopic pregnancies, shedding light on optimal strategies for patient care and highlighting the importance of early detection and intervention in mitigating risks to maternal health. Further research is warranted to explore additional predictors of treatment success and refine treatment protocols for improved patient outcomes.

### **Audience Take Away Notes**

- Improved medical management of patients with ectopic pregnancy.
- Reduction in morbidity related to emergency surgery for ectopic pregnancy by identifying patients likely to fail medical management earlier.
- Enhanced informed consent for patients, allowing them to understand the impact of their  $\beta$ -hCG levels on the failure of medical management.
- Our study reveals that a  $\beta$ -hCG level lower than current guidelines is associated with failure of medical management, suggesting a need for reevaluation of existing protocols and potentially prompting further research in this area.
- Other faculty could utilize this research to explore different protocols of medical management beyond a single dose of methotrexate, thus expanding the scope of their research or teaching.
- This research provides insight into how  $\beta$ -hCG levels impact the failure of medical treatment, offering a practical solution for medical professionals to optimize medical management approaches for ectopic pregnancy, potentially simplifying their job and improving efficiency.

- It will likely improve the accuracy of design in medical management approaches for ectopic pregnancy by considering the impact of  $\beta$ -hCG levels on treatment failure, providing new information to assist in addressing this clinical problem.
- **Other Benefits:**
  - Increased awareness among medical professionals and patients about the importance of  $\beta$ -hCG levels in medical management of ectopic pregnancy, contributing to improved patient outcomes and reduced morbidity related to surgery.

### **Biography**

Swati Kumari is currently a second-year resident at BronxCare in the Department of Obstetrics and Gynecology. She previously completed her residency in Obstetrics and Gynecology at the Institute of Medicine in Nepal and received specialized training in Reproductive Endocrinology in India. Swati has also worked as a Reproductive Endocrinologist for three years, bringing a wealth of experience and expertise to her current role. Swati has contributed significantly to the field through her research and numerous publications in peer-reviewed journals. Her work includes studies on ovarian torsion in pregnancy, spontaneous conception during IVF, live birth from TESA ICSI, unique presentations of chimerism, ovarian ectopic pregnancy, and more. She has presented her research at various national and international conferences, including poster presentations on abnormal uterine bleeding, conception outcomes post-earthquake, and hematometra in hermaphrodites, as well as an oral presentation on the optimization of IUI.

**Xiaolan Chen**

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**Analysis of risk factors and development of a predictive model for placental abruption—a single-center retrospective study**

**Background and Objective:** Placental Abruption (PA) causes numerous neonatal and maternal complications and increases their mortality. However, PA might occur asymptotically, and the diagnosis was made only when fresh or long-standing clots were detected on placental examination, or during cesarean section or delivery of the placenta. Therefore, early recognition of PA is particularly important. The aim of this study was to identify risk factors for PA and to construct a predictive model for PA in order to facilitate early identification of patients with PA.

**Methods:** This retrospective study included 5181 pregnancies delivered from January 2013 to December 2023 in XX hospital. Pregnancies with combined placenta praevia, multiple pregnancies and fetal anomalies were excluded. There were 50 cases of PA (0.97%) and 5131 cases without placental abruption (99.03%). General and treatment-related information of patients was collected. Univariate and multivariate logistic regression was used to correct for potential confounding variables and to identify independent risk factors for placenta abruption. A prediction model was constructed based on the independent risk factors, and the predictive efficacy of the prediction model was validated by the area under the ROC curve and the clinical decision curve.

**Results:** Independent risk factors for PA included preterm premature rupture of membranes (adjusted OR=6.4; 95% CI=4.9-9.4), gestational hypertension (adjusted OR=6.3; 95% CI=4.1-9.2), preeclampsia (adjusted OR=1.9; 95% CI=1.1-2.6), smoking during pregnancy (adjusted OR=8.4; 95% CI=3.0-14.1), oligohydramnios in pregnancy (adjusted OR=4.7; 95% CI=2.9-6.1), and polyhydramnios in pregnancy (adjusted OR=3.3; 95% CI=1.4-7.7). A risk prediction model for PA was constructed by independent risk factors. The ROC curve of the prediction model suggested a good discrimination of the outcome (AUC=0.878, 95% CI 0.814~0.926). The DCA curve demonstrated that the prediction map had a good clinical application.

**Conclusion:** Risk factors for placental abruption include preterm labor with premature rupture of membranes, gestational hypertension, preeclampsia, smoking during pregnancy, hyponatremia in pregnancy, and polyhydramnios in pregnancy. We can improve the prognosis of high-risk pregnancies by early identification of placental abruption through nomogram and appropriate monitoring or treatment.

**Keywords:** Placental Abruption, Early Identification, Pregnancy, Risk Factor.

## Xiaoyan Peng

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# Relationship between serum VEGF, IL-6 levels and pregnancy outcome in patients with gestational diabetes

**Objective:** To analyze the levels of serum Vascular Endothelial Growth Factor (VEGF) and interleukin-6 (IL-6) in patients with Gestational Diabetes Mellitus (GDM) and their relationship with pregnancy outcome.

**Methods:** 90 patients with GDM admitted to our hospital from January 2021 to December 2022 were selected as the observation group, and divided into good outcome subgroup and poor outcome subgroup according to different pregnancy outcomes, and 60 healthy pregnant women who underwent prenatal examination during the same period were selected as the control group. Serum levels of VEGF, IL-6, Fasting Blood Glucose (FBG) and glycosylated Hemoglobin (HbA1C) were detected, the relationship between VEGF, IL-6 and FBG and HbA1C was analyzed by Pearson correlation analysis, and the influencing factors of adverse pregnancy outcomes in GDM patients were analyzed by Logistic regression. Combined with the subject work characteristic curve (ROC), the predictive value of serum VEGF and IL-6 on adverse pregnancy outcomes in GDM patients was analyzed.

**Results:** Compared with the healthy control group, the serum levels of VEGF and IL-6 in observation group were significantly increased ( $P < 0.05$ ). Among the 90 patients in the observation group, 62 cases had good pregnancy outcome and 28 cases had poor pregnancy outcome, with an adverse incidence of 31.11%. Moreover, the serum levels of VEGF and IL-6 in the poor outcome group were higher than those in the good outcome group, and the difference was statistically significant ( $P < 0.05$ ). Pearson correlation analysis showed that VEGF and IL-6 were positively correlated with FBG and HbA1C levels (VEGF:  $r = 0.435, 0.483$ ; IL-6:  $r = 0.486, 0.472$ ). Logistic regression analysis showed that high levels of VEGF, IL-6, FBG and HbA1C were independent risk factors for adverse pregnancy outcomes in GDM patients [OR (95%CI) = 1.064 (1.038~1.125), 1.072 (1.028~1.134), 2.567 (1.326~4.867), 2.378 (1.474~3.586)]. ROC curve analysis showed that the AUC predicted by VEGF and IL-6 levels in GDM patients was 0.624 and 0.756, respectively, and the AUC predicted by the two levels combined was 0.831, which was higher than that predicted by alone ( $P < 0.05$ ).

**Conclusion:** VEGF and IL-6 are independently correlated with adverse pregnancy outcomes in GDM patients, and the combined detection of serum VEGF and IL-6 levels has certain predictive value for adverse pregnancy outcomes in GDM patients.

### Audience Take Away Notes

- The combined detection of serum VEGF and IL-6 levels has certain predictive value for adverse pregnancy outcomes in GDM patients.
- Help the clinical physicians identify the very sick GDM patients timely.
- Help the clinical physicians give the proper treatment for such patients.

### Biography

Ms. Xiaoyan Peng is a doctor of obstetrical department from Chongqing City. She borned in 1974 and have a undergraduate degree. She is now working in The People's Hospital Tongliang District in Chongqing as a deputy chief physician.



**Deaziah Ford, Zoe Harris, Mahnoor Khan, Farhan Khan\***

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## **Treatment of sickle cell crisis in a pregnant patient complicated by multiple associated comorbidities: A case study**

Sickle Cell Disease (SCD) is an inherited hemoglobinopathy present in 8% of the African American population. High-risk complications include acute chest syndrome, avascular necrosis, thromboembolic events, and vaso-occlusive crises, the last of which occurs in 50% of pregnant patients with SCD, challenging therapeutic management. Given the many contraindications associated with SCD treatment, risk-benefit discussions are necessary when treating high-risk pregnant patients with SCD in the presence of pertinent comorbidities. Retrospective chart review of EHR focused on clinical history, laboratory results, imaging, and management. A 35-year-old African American G4P3003 female with a past medical history of sickle cell- $\beta^+$  thalassemia, osteoarthritis, avascular necrosis of shoulder joint, and DVT presented with her third sickle cell crisis with diffuse arthralgias and chest pain. Treatment included IV fluids and opioids for pain control and ASA and folate to decrease risk of gestational complications and help maintain hemoglobin above 8 mg/dl with blood transfusions. Hydroxyurea was offered to curb the crisis after determining a higher risk of hemolysis from transfusions, although this posed a higher threat to her pregnancy. Her course was further complicated by unrelenting shoulder pain and a positive chlamydia and gonorrhea test. Due to the ongoing SCD crisis and pain, the transition back home was prolonged. While SCD itself makes for a complex treatment plan in pregnancy, further research into treatment options, like the safety of hydroxyurea after the crucial 3-8 weeks gestational period, is warranted to assist in medical decision making to ultimately decrease the frequency of SCD crisis in pregnancy.

### **Audience Take Away Notes:**

- Use of hydroxyurea for SCD in pregnancy (for which it can be teratogenic).
- How pregnancy and SCD reciprocally contribute to the proliferation of symptoms for each other.
- How to account for pertinent comorbidities when treating SCD and pregnancy.
- Types of blood transfusions appropriate for SCD + pregnancy.

### **Biography**

Mahnoor Khan graduated with a Bachelor of Science in General Biology and Music Minor in 2018 and Master of Science in Cell/Molecular Biology in 2020 from University of California, San Diego. She matriculated to Michigan State University College of Human Medicine in August 2023, where she is now currently an MD-PH candidate for the class of 2027. She has been involved in various clinical settings, research opportunities, and interest groups, including the OB/GYN and Women's Health Interest Group. Her current specialty interests lie in OB/GYN and Reproductive Endocrinology.






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