

GLOBAL CONFERENCE ON
**GYNECOLOGY &
WOMEN'S
HEALTH**

EXHIBITOR'S



20-21

APRIL, 2023

**ORLANDO,
FLORIDA, USA**

Venue:

Hilton Garden Inn Lake Buena Vista/Orlando
11400 Marbella Palm Ct, Orlando, FL 32836, United States

20-21 APRIL

BOOK OF
ABSTRACTS

GLOBAL CONFERENCE ON
**GYNECOLOGY &
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Welcome Message

Dear attendees of the global conference on Gynecology & Women's Health. It is my honor and great pleasure to write a few sentences to welcome you. Today, the progress in the biotechnology era is the most advanced in the history. Many opportunities have become available, which are helpful in addressing various problems that need urgent attendance.

Only in the biomedical field, we have seen many developments, from gene sequencing to gene editing, gene therapy, regenerative medical therapy, personalized drugs, diagnosis of rare disease, wearable medical devices, robotic surgeries and artificial intelligence. Biomedical engineering is a new discipline and has developed significantly in a few years to address multiple fields from nanoengineering, synthetic biology and telehealth to medical imaging and tissue engineering. Multidisciplinary collaboration plays a critical role in addressing issues and making our world a better place for us and the future generation.



Neda Zarrin-Khameh, MD, MPH

Baylor College Of Medicine, Houston, Texas, United States



Welcome Message

Dear Colleagues,

On behalf of the scientific committee, we are pleased to announce our forthcoming Hybrid Event, solely dedicated to Gynecology and its advancements. The "Global Conference on Gynecology & Women's Health" will take place in Orlando, USA, and virtually during April 20-22, 2023, with the theme "Enriching Women's Health Through Innovations in Gynaecology."

The conference focuses on trends and crucial global challenges obstetricians and gynecologists face, including updates on Women's Health Issues.

The scientific committee has teamed up to offer a comprehensive program that provides an international podium for discussing and persuading significant discoveries in the field. Apart from Presentations, Plenary Speeches, Keynote sessions, Discussions, Symposiums, and Workshops, the global summit provides an unparalleled opportunity for renewing professional ties, networking, and staying updated with changes in our challenging and developing field.

The meeting will feature some world-class obstetrics and gynecology experts from the USA, Asia, Africa, North America, South America, Antarctica, Europe, and Australia to exchange acknowledgment and experiences for best practices for the betterment of Women's Health.

We look forward to welcoming you on April 20-22, 2023!



A handwritten signature in blue ink, appearing to read 'C. Leal'.

Carlos Leal MD, PhD

Autonomous University of Chihuahua, Mexico

Welcome Message

Since the Pregnancy Mortality Surveillance System was implemented, the number of reported pregnancy-related deaths in the United States steadily increased from 7.2 deaths per 100,000 live births in 1987 to 17.3 deaths per 100,000 live births in 2018.

The reasons for the overall increase in pregnancy-related mortality are unclear. Identification of pregnancy-related deaths has improved over time due to the use of computerized data linkages between death records and birth and fetal death records by states, changes in the way causes of death are coded, and the addition of a pregnancy checkbox to death records. However, errors in reported pregnancy status on death records have been described, potentially leading to overestimation of the number of pregnancy-related deaths.¹ Whether the actual risk of a woman dying from pregnancy-related causes has increased is unclear, and in recent years, the pregnancy-related mortality ratios have been relatively stable.

This International meeting will highlight many aspects of obstetrics and gynaecology, but this worrying information on the alleged increased mortality of pregnancy related deaths in USA is enough to justify any effort to offer the best for new mother in USA and in the world.



Alberto Maringhini

ARNAS Civico Palermo, Italy



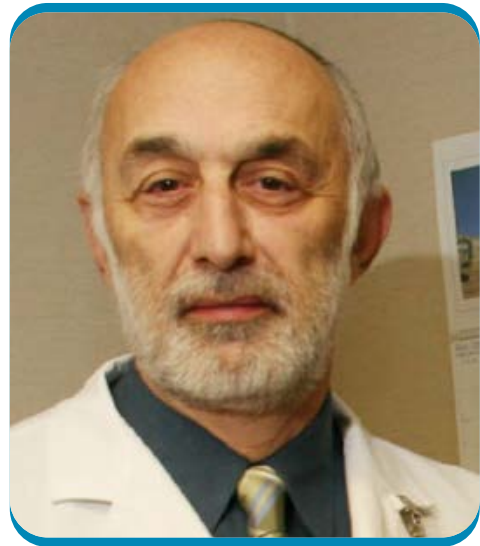
Welcome Message

For professionals active in Obstetrics and Gynecology in general and Autism in particular, it is suggested that they connect or attend the Magnus Conference in April of 2023, in Orlando, Florida.

Today it be my privilege to review our studies on the putative cause and prevention of AUTISM, as elucidated in our research at Hadassah Hospital of Jerusalem, Israel over the last 10 years (see publication list). Such studies have resulted in several published articles, books, and chapters (see list) on processes in the female body. This project was aided by the in depth knowledge of human reproduction and physiologic development in the fetus and neonate. Of special importance was relating the biochemical trend modifications of insulin-like growth factor-1 (IGF-1), as affected by interleukin changes in mothers and their offspring during reproduction and neonatal development. In particular, these studies have reinforced the protective value of human breast feeding to the offspring, especially where maternal fever (with Covid-19, for example) had complicated the biochemical/biophysical development of the antepartum fetus.

Gary D Steinman

Hebrew University, Israel



Keynote Speakers



Alberto Maringhini
ARNAS Civico Palermo, Italy



Carlos Leal
Universidad Autónoma de
Chihuahua, Mexico



Neda Zarrin-Khameh
Baylor College of Medicine,
United States



Steinman Gary
Hebrew University, Israel

*Thank You
All...*

ABOUT MAGNUS GROUP

Magnus Group (MG) is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus Group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conferences and workshops can be well titled as 'ocean of knowledge' where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the world, without compromising service and quality.

ABOUT Gynec 2023

Magnus Group is thrilled to invite you to its upcoming scientific gathering "Global Conference on Gynecology and Women's Health" (GYNEC 2023) to be held as a hybrid event during April 20-22, 2023 at Orlando, Florida, USA and virtually. The conference strives to provide a meaningful theme of "Enriching Women's Health through Innovations in Gynaecology."

The agenda of the summit is to empower and expose our attendees to maximum information, thus, we make sure that this event is a rich mix of professionals, including researchers, scientists, academicians, gynecologists, healthcare practitioners, obstetricians, physicians, medical assistants, midwives, nursing assistants, nurses, nutritionists, therapists, women health care professionals, and students, to illustrate and examine advanced developments. Infertility, ectopic pregnancies, breast cancer and other women's cancers, neonatal health, abortion, and other topics will be discussed during the event. We hope you have a fantastic conference, returning home with scientifically revitalized ideas and international colleagues.

EXHIBITOR



Myovant Sciences and Pfizer aspire to redefine care for women by developing empowering medicines that can change treatment paradigms for various conditions that impact women's health. By combining Myovant's commitment to purpose-driven science with Pfizer's deep heritage and leadership in women's health, we are uniquely positioned to provide innovative treatments that fulfill significant unmet needs and make a meaningful difference in women's lives.

EXHIBITOR



Family owned since 1973, R&S Northeast has been a supplier of various healthcare products, including Brand and Generic Pharmaceuticals, Medical and Surgical supplies, and Infection Control products. R&S is committed to providing our customers with top quality healthcare products and unmatched customer service.

Operating as a National Wholesaler, R&S develops third party contract sales to 340B eligible customers, State and Local Governments as well as the Department of Defense. R&S also functions as a primary and/or secondary source of supply to a number of pharmacies and universities throughout the United States.

And new through a combined effort with our sister company, AvKARE, LLC, R&S's new Target Supply Program has been created to allow our members to allocate products that are in need or in high demand, without the wholesaler fee. The combined catalogs and sales teams of the two companies, along with R&S's warehouse capacity allows us to hold products for our customers and ship when needed with no wholesaler fee.

PUBLISHING PARTNER



Clinical and Experimental Obstetrics & Gynecology

Clinical and Experimental Obstetrics & Gynecology (CEOG) is an international, peer-reviewed, open-access journal. It has been indexed in SCIE, Scopus, DOAJ, Google Scholar and other databases. CEOG covers all aspects of Obstetrics and Gynecology, including general gynecology, gynecological oncology, gynecology endocrinology and infertility, uro-gynecology, obstetrics, prenatal diagnosis, maternal fetal medicine, perinatology, reproductive medicine, reproductive ethics, family planning, sexual medicine, women's health care, minimally invasive surgery in women. All submissions of high-quality basic and clinical research relating to obstetrics and gynecology, as well as research from any of the disciplines related to this field, are encouraged.

For all participants in this conference, we are pleased to offer you a 20%-30% discount for your original research and review paper, respectively. We warmly welcome your submission in the field of Obstetrics & Gynecology!

For more details about the journal, please visit: <https://www.imrpress.com/journal/CEOG>



Continuing Professional Development (CPD) credits are valuable for Gynec 2023 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 2023 and earning CPD credits can help attendees stay current with the latest developments and advancements in their field.

Networking opportunities: Gynecology 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 17 CPD credits.

20-21 APRIL

DAY 01

KEYNOTE FORUM

GLOBAL CONFERENCE ON
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Endometrial polyp, when should we be alarmed?

Eight-year search of our database disclosed ten patients with a malignancy arising from an endometrial polyp. The patients were between 51 to 79-years-old and presented primarily with post-menopausal bleeding. Seven patients had serous carcinoma, two were diagnosed with endometrioid endometrial adenocarcinoma and one had clear cell carcinoma. All of the patients were either obese, or had a history of obesity. The only patient with BMI of 19, had BMI of 32 three years prior.

Audience Take Away Notes

- Obesity is on the rise and one of its adverse effects is increase the chance of developing malignancy in endometrial polyp
- Obese patients should be followed up more closely
- Yes this research that other faculty could use to expand their research or teaching
- Yes does this provide a practical solution to a problem that could simplify or make a designer's job more efficient



Neda Zarrin-Khameh

Baylor College of Medicine,
United States

Biography

Neda Zarrin-Khameh, MD, MPH is a Professor of Pathology & Immunology at Baylor College of Medicine. She is Director of the Baylor Cytopathology Fellowship and Medical Director of Ben Taub Anatomic Pathology. She received her MD from Tehran University of Medical Sciences in Tehran/Iran and received her Masters of Public Health from the University of Texas at Houston. She completed her Pathology Residency at Baylor College of Medicine. She received the inaugural "Resident Good Citizen Award", based upon her helpfulness to her resident colleagues. She completed a Cytopathology Fellowship at Baylor College of Medicine and a Surgical Pathology Fellowship at Houston

Methodist Hospital. Since becoming faculty at Ben Taub Hospital, she has received "Faculty Award for Outstanding Resident Teaching Anatomic Pathology" three times. She also received Norton Rose Fulbright Award, Star Award for Excellence in Patient Care and Women of Excellence award. Although she enjoys all areas of pathology, she has particular interest in GI, Gyn, soft tissue and cytology. She is passionate about teaching. She has published multiple papers and is involved in multiple transitional research projects, some collaborative with other clinicians. She is the co-chair of cytopathology committee for American Society of Clinical Pathology.

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 developing AP in the 2 years after delivery.



Alberto Maringhini

ARNAS Civico, Palermo Italy

Biography

The long-standing research Interest of 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 direttore of internal medicine in the largest hospital in Sicily and in southern Italy after "Cidarelli Hospital" in Naples.

Complex total laparoscopic hysterectomy “severe deep endometriosis”

Hysterectomy is the most common no obstetric surgery performed in women, with approximately 600,000 performed annually at a cost of more than \$5 billion.^{1, 2} Since the first laparoscopic hysterectomy was performed in 1988 by Harry Reich MD, there has been a 38% decrease in abdominal hysterectomy, as laparoscopic hysterectomy is associated with less post-operative pain, less intraoperative and postoperative complications, shorter hospital stays, and faster recoveries.

The American College of Obstetricians and Gynecologists (ACOG) recommends that minimally invasive approaches to hysterectomy should be performed whenever feasible and explicitly recommends the use of Total Vaginal Hysterectomy (TVH) over Total Laparoscopic Hysterectomy (TLH) or Laparoscopic-Assisted Vaginal Hysterectomy (LAVH), citing improved patient outcomes and decreased operative time. Despite these recommendations, there is a national shift toward laparoscopic hysterectomy as the predominant form of hysterectomy.

The number of hysterectomies had been decreasing over the past 5 years; there is an important decrease in abdominal and vaginal hysterectomies and an increase in laparoscopic hysterectomies by more than 100. Endometriosis is an inflammatory disease that affects women in their reproductive years, and it is a common cause of pelvic pain and decreases the quality of life. Hysterectomy is one of the surgical treatments but sometimes the surgery becomes complex surgery given the fact that the inflammatory disease gets the pelvic anatomy distorted.

The knowledge of pelvic anatomy is mandatory in order to resolve a complex surgery.

Conclusion: Every pelvic surgeon needs to have complete pelvic anatomy knowledge to have a better performance during complex laparoscopic hysterectomy.

In this presentation, we will give tips and tricks to perform a successful laparoscopic surgery in a very complex or frozen pelvis.

Audience Take Away Notes

- Will remember the pelvic anatomy
- Will develop skills to get into the retroperitoneal space
- Will be more confident during surgical gynecological surgery
- Will have tips and tricks to resolve complex gynecological surgery



Carlos Leal*, Victor Alejandro Rubio, Jesus Villegas, Miguel Guigon, Manuel Rodriguez, Nahomi Covian, Yousset Garcia

Department of Obstetrics and Gynecology, Division of Gynecology Oncology, Universidad Autonoma de Chihuahua, Hospital Christus Muguerza Del Parque, Chihuahua Mexico

Biography

Dr. Carlos Leal studied medicine at the Universidad de Monterrey, Monterrey México, and graduates with honors in 1992, starting residence in Gynecology & Obstetrics getting a grade of Ob & Gyn in 1998. Started a fellowship in Gynecology Oncology and Colposcopy supervised by Michael Fung Kee Fung at the University of Ottawa, Ontario Canada, and a diploma in Epidemiology and Clinical Trials Master at the same institution getting graduated in 2003. He has been doing laparoscopic surgery for more than 20 years and did his first radical laparoscopic hysterectomy in Mexico in 2003. He is the program director in minimally invasive gynecological surgery at the Universidad Autónoma de Chihuahua. He has been a speaker for more than 100 presentations all over the world also he has published more than 40 research articles in indexed journals.

The biochemical etiology of autism

As early as 1988, Insulin-Like Growth Factor-1 (IGF1) and truncated IGF1 were identified in bovine colostrum. Subsequent studies, to be reviewed here, suggested links between autism arising in young children and deficient IGF1 in their biochemical constitution. With prolonged maternal breast feeding as an IGF1 source for the neonate, the incidence of autism is reduced. It was also reported that ingested vitamin D3 increases the circulating level of IGF1.

Many new mothers are unable to breastfeed their neonates exclusively for more than a few weeks after delivery. Other obligations and activities often curtail a mother's commitment to continue this for several months. Medical studies support the conclusion that enhanced IGF1 ingestion to prevent autism should last 6-12 months. A literature review here describes some synthetic methods that might soon lead to industrial preparation of supplementary IGF1 for addition to the baby's feedings to substitute for maternal lactation.

Human breast milk is a positive promoter of this biosynthetic function and is encouraged for feeding the newborn for the first 6-12 months. Means for manufacturing IGF1 which can be added to formulas or bovine milk are reviewed here as well.

Acknowledgements: The complete work on this review required no external financial support. The authors declare there is no conflict of interest, thank Roberta Zuckerman for her helpful discussions about this presentation, cite Yosi Toker for his expert graphic presentation, and acknowledge the major help of Aviva Adler, librarian, for her cooperative assistance in locating relevant literature references.

Keywords: Autism, Colostrum, Myelination, Interleukin, Inflammatory



Gary Steinman*,
David Mankuta

Department of Obstetrics &
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Biography

Dr. Steinman earned his B.S. in chemistry and his master's degree in biochemistry at Michigan State University. Dr. Steinman began his professional career studying for his doctorate in biophysics at the University of California, Berkeley, under Nobel Prize winner Prof. Melvin Calvin. After co-authoring the book, *Biochemical Predestination*, on the origin of life on Earth, Dr. Steinman responded to a call from NASA for applicants to the Scientist-Astronaut Program. Though he qualified for the program, he elected to pursue other interests, including the position of Managing Director of a science-based company in Israel. This was followed by a medical degree from the University of Miami and then an office- and hospital-based career in Obstetrics and Gynecology. He subsequently wrote *Doctor-to-Doctor: Avoiding financial suicide*, the forerunner to the present book.

The author is now Chairman of Biochemistry at Touro College of Osteopathic Medicine in New York and Assistant Clinical Professor at Albert Einstein School of Medicine. His research interest is twinning and he has appeared on National Geographic TV, among others, discussing this subject. He has lectured internationally and recently published the book, *Womb Mates – A Modern Guide to Fertility and Twinning*.

20-21 APRIL

DAY 01

SPEAKERS

GLOBAL CONFERENCE ON
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WOMEN'S HEALTH**

Nadia Fazal

Rowan-Virtua University School of Osteopathic Medicine, United States

Alternative treatment options for endometriosis patients when traditional pain management is not working

Purpose Statement: The purpose of this literature review is to examine the current pain management options for endometriosis patients and explore cannabis and acupuncture as alternative options to optimize treatment.

Background: Endometriosis is a gynecologic inflammatory disorder that affects 10% of women of reproductive age. The most central clinical feature is pain and only 72-93% of patients experience pain relief with treatment. There are three established mechanisms of pain: inflammation, central sensitization, and myofascial dysfunction. These mechanisms are useful targets for pain management therapy.

Methods: This literature review research study used PubMed as a primary database, after preliminary research using Google Scholar and The American College of Obstetricians and Gynecologists (ACOG). The following search terms were used to compile relevant literature: endometriosis, pain, cannabis, acupuncture, efficacy, pelvic pain, endocannabinoid.

Results: Patients who self-reported use of cannabis for pelvic pain related to endometriosis experienced improved quality of life which includes symptomatic relief, better sex lives, and less visits to the doctor. When reviewing how the endocannabinoid system plays a role in endometriosis pathology, studies showed that the endocannabinoid receptor, Transient Receptor Potential Vanilloid 1 (TRPV1), contributes to chronic inflammation. Additionally, CB1/2 receptors may also contribute to endometriosis pathology however more research is needed to support this mechanism. Studies also showed that patients who underwent acupuncture therapy for endometriosis experienced symptom relief.

Discussion: As previously stated, there is a need for more treatment options due to the lack of pain relief some patients experience. For this reason, it is important to explore cannabis and acupuncture as treatment options for pelvic pain in endometriosis. Studies have shown promising results indicating that both cannabis and acupuncture can alleviate endometriosis symptoms.

Conclusion: Studies are still working to establish the exact mechanism of action for both cannabis and acupuncture. These future studies are essential in addressing the efficacy of alternative treatment options. There is a demand for expanding pain management options in endometriosis patients due to the poor quality of life and mental health of patients suffering with uncontrolled pain. Limitations to the current literature review compiled include drug dependency, medical marijuana legislation, negative bias towards both cannabis and acupuncture, and patients being perceived as “desperate”. While other alternatives have been explored, such as diet and exercise, the evidence does not strongly prove that they will be as impactful as cannabis and acupuncture.



Nora Shero^{1*}, David S. Kim²

¹Medical University of the Americas, medical student, Nevis, West Indies

²Hollywood Presbyterian Medical Center, Attending physician-Obstetrician-gynaecologist, Los Angeles, CA, USA

Laparoscopic removal of a dermoid cyst in one ovary and an endometrioma in the other: A case report and literature review

The coexistence of an endometrioma and a dermoid cyst is very uncommon, and there are few case reports of both conditions in the ovaries. A 41-year-old patient presented with left pelvic pain. She was referred with a bilateral pelvic mass. Magnetic Resonance Imaging (MRI) confirmed a dermoid cyst on the left ovary and an endometrioma on the right side. The patient was taking ibuprofen to relieve pain until the day of surgery. She was advised to proceed with bilateral laparoscopic cystectomy. During the laparoscopic procedure, the inspection showed that ovaries were bilaterally enlarged with cystic appearances. Bilateral ovarian cystectomy was performed in which a left dermoid cyst was removed intact within the ovary followed by a rupture of the endometrioma on the right. The patient tolerated the procedure without any complications. This case of coexistence of endometrioma and dermoid cyst in each ovary, confirmed by MRI due to atypical findings on ultrasound, highlights how efficient removal of both cysts is crucial.

Audience Take Away Notes

- An endometrioma and a dermoid cyst can coexist silently in the ovaries
- An endometrioma and a dermoid cyst can coexist unilaterally, bilaterally or mixed
- Ultrasound and magnetic resonance imaging should be used prior to surgery for coexistent endometrioma and dermoid cyst
- Laparoscopic surgery must be performed by an experienced surgeon to help keep the ovarian reserve

Biography

Nora Shero is a 4th year medical student from Medical University of the Americas. She is currently completing her rotations in Miami, FL. Her interest in obstetrics and gynecology happened during her Master's in Interdisciplinary health sciences at the University of Ottawa. Nora used pregnant guinea pigs as animal model and fed them an iron deficient diet to better understand its impact on its progeny compared to the iron sufficient group. She published several articles as first author related to obstetrics and gynecology. Nora is a mother of two beautiful children who also gets all the support from her amazing mother during work.

**Dana Moskowitz**

The George Washington University, Milken Institute of Public Health,
Department of Environmental and Occupational Health, Washington D.C., United
States

Oral and vaginal probiotic use as adjunctive therapy or preventative measure for vulvovaginal candidiasis: A systematic review

Background: Vulvovaginal Candidiasis (VVC) affects the majority of people with vaginas at least once in their lifetime. Recurrent VVC (RVVC) is a big concern due to anti-fungal resistance. Alternative or adjunctive treatments need to be assessed.

Objectives: The objective of this review is to learn if probiotics can be an alternative or adjunctive treatment for preventing, curing, or improving recovery time of vaginal yeast infections.

Methods: Methods were based on the Navigation Guide's and fitted to this research question. Covalence was used to screen and extract data. 756 articles were screened and 18 were selected for data extraction. Articles were assessed for bias using the Navigation Guide's criteria.

Results: Half of the articles showed an association between probiotic use and recurrence of VVC or efficacy as adjunctive therapy. Half of the articles did not find an association. The overall quality and strength of the evidence was low.

Discussion and Conclusion: Though the reviewed articles are suggestive of a possible association, the quality of the evidence is low and there are inconsistent results. Based on the state of the evidence there is not enough information to claim that probiotics are effective as an alternative or adjunctive treatment for VVC. Well-designed randomized control trails with standardized methodology, large sample sizes, and long follow-up are needed.

Audience Take Away Notes

- Possible alternative treatments for vaginal yeast infections
- Future research to conduct in the field of the vaginal microbiome

Biography

Dana Moskowitz is a graduate student at George Washington University earning her Master's in Public Health with a concentration in Environmental Health Science and Policy. She has a diverse background in reproductive health, environmental justice, and public health.



Shailja Dixit

Postpartum Depression, Curio Digital Therapeutics, Inc., Princeton, New Jersey, USA

Assessing the incremental health care burden of postpartum depression

Background: Management and treatment of Postpartum Depression (PPD) incurs a significant utilization of inadequate health care resources, including costs associated with therapy, medications and both in- and out-patients visits. The availability of large health claims databases affords an opportunity and means to determine the prevalence of PPD and thereby estimate the incremental costs attributable to PPD by contrasting the PPD patients’ claims vs non-PPD patients.

Methods: Commercial claims datasets from 2 large providers (A and B) were used to estimate PPD prevalence and to summarize claims costs by PPD diagnosis. The longitudinal claims data (4+ years) was curated with the following conditions: (i) pregnancy indicator at least 2 months prior to birth, (ii) a minimum of 10 months medical history pre-birth, and (iii) a minimum of 6 months of medical history after birth (or until PPD diagnosis if earlier). Data A yielded ~110k pregnant women meeting the above criteria, of whom ~20k (18%) went on to develop PPD while Data B had ~440k women of whom ~93k (21%) went on to develop PPD. For Data A, claim codes were used to categorize the costs (for the period 10 months prior to birth and 6 months after birth) for “mental health”, “birth related” and “Total”. Given the richer information in Data B, the costs were categorized by “in-patient” (includes clinic and office visits), “out-patient” and “Total”.

Results: Claims database showed significantly higher costs for PPD patients as compared to non PPD patients, ~\$120k higher per patient. The incremental “mental health” costs (pre and post birth) were ~\$41k.

PPD DIAGNOSIS	COSTS UP TO BIRTH		COSTS POST BIRTH		TOTAL COSTS
	Non-Mental Health	Mental Health	Non-Mental Health	Mental Health	
PPD = YES (N = 20,287)	\$170k	\$21.5k	\$145.6k	\$20.8k	\$357.9k
PPD = NO (N = 91,867)	\$111k	\$0.4k	\$125.4k	\$0.8k	\$237.6k

The findings from Claims database B (not shown), though the categorizations differed, were overall consistent with higher burden for PPD patients (\$9.7k incremental).

Conclusions: The estimated prevalence of PPD is similar in both databases (18% and 21%) and is consistent with published literature, with the caveat that a significant percentage of women may be undiagnosed. Incremental costs were significantly higher for PPD patients, and the observed difference was only partially due to “mental” health care. However, this may be an underestimate as diagnostic codes may not have fully captured the relevant items. There are a number of factors that could be influencing why the differences in mental health costs are not so large such as stigma and attitudinal barriers that could prevent women from seeking mental health services.

Audience Take Away Notes

- Given the recent focus on Maternal Health and Maternal mental health specifically, this paper highlights the needs to develop tools/strategies for identification and early intervention for women who have PPD. Highlights the prevalence of PPD and the difference in healthcare costs for women with PPD vs those without. Audience will become aware of the impact of PPD on overall health care resource use
- This is a pressing issue that prevents diagnosis due to related costs and thus, many women go undiagnosed and uncared for. The audience, being made aware of this issue, will be able to use the data provided by this study to demand comprehensive care for PPD women and mitigate the cost burden placed upon them
- Yes, other faculty can use the statistics to present concrete evidence of the reason for financial burden and under diagnosis of PPD and conduct a comparative analysis to women without PPD
- Yes. Given specifics on costs up to birth, costs per birth, and total costs, a plan of cost management and cost benefits can be developed to assist the patient
- These findings can also be used to provide insurance companies with additional plans to cover those suffering from PPD
- It provides a reliable estimate of PPD prevalence which may be used in future policy planning and clinical research

Biography

Dr. Shailja Dixit is a Physician Executive with more than 20 years of experience in the healthcare and life sciences industry. She has been in executive leadership at Sanofi, Allergan, and GE and has been responsible for launching a number of innovative medicines. She was voted innovator of the year at GE in 2008, nominated as a Top 50 Thought Leader in “Big Data” in Life Sciences in 2016, and featured in the Pharma Executive Magazine cover-page article “Real-World Evidence: From Volume to Value” (Oct 13, 2016). Shailja has built and has had successful exits with many projects.



Agnieszka Wołowicz

University of Warsaw, Poland

Women with disabilities and access to gynecological services in Poland

There is little data on the access of binary and non-binary women with disabilities to gynecological services in Central and Eastern Europe, where the shaping of public policies towards disability has been dominated by medical approaches and has not taken into account the complexity and intersectional character of the phenomenon. The aim of the presentation is to analysis the challenges faced by women with disabilities in accessing and using gynaecological care services in Poland. A participatory, qualitative study was conducted, in which 23 women with disabilities participated. The data was collected using structured in-depth interviews. The results suggest that disability causes multilevel difficulties in the access of women to gynecological care. The misguided organisation of the support system leads to disability-based disparity in health system responsiveness as it lacks the flexibility and responsiveness to meet the special needs of women with disabilities.

Audience Take Away Notes

- Current health systems are primarily normative and focus on ideal or desired patients, requiring typical interventions and treatment procedures. Support is not validated or nuanced and does not take into account the intersectional needs of patients. This is contrary to the assumption of the principle of social solidarity – i.e. equality in access to medical services – as well as assumptions resulting from accepted international obligations (e.g. Convention on the Rights of Persons with Disabilities)
- Women with disabilities do not receive the healthcare they are entitled to and experience infrastructural, mobility, Organisational, and communication barriers
- There are also ethical issues relating to authority and power. The study shows that women with disabilities are often neither (fully) informed about, nor involved in, decision-making regarding their health

Biography

Dr. Agnieszka Wołowicz, psychologist, educator, works at the Faculty of Education, University of Warsaw. Author of publications on women with disabilities, reproductive rights of women with intellectual disabilities, currently conducting research on LGBT+ people with disabilities. Social activist and ally of people with disabilities in efforts to implement the principles of the UN Convention on the Rights of Persons with Disabilities.



Neda Zarrin-Khameh

Baylor College of Medicine, United States

Glycogenated cells, forgotten or ignored?

The Papanicolaou Test (Pap test) is the most widely used screening test utilized for evaluation of atypical cells that eventually may cause uterine cervical cancer. The Bethesda criteria were established to assign abnormal cells to various categories, which dictate clinical management. Glycogenated atypical squamous cells are usually seen on cervical Pap smears, but there is no published information regarding interpretation of their cellular changes and whether they correspond to the changes seen in non-glycogenated atypical cells. We evaluated 100 Pap tests with diagnosis of “Atypical Squamous Cells of Undetermined Significance” (ASCUS) and 95 Pap tests with diagnosis of “Low Grade Squamous Lesion” (LSIL) to evaluate presence or absence of glycogenated squamous cells with the characteristic cellular changes required for the diagnoses of ASCUS and LSIL, respectively. Among 100 Pap tests with diagnosis of ASCUS, 49 (49%) cases had atypical glycogenated cells, 40 (40%) of which had features diagnostic of ASCUS. We found 46 atypical glycogenated cells (49%) in review of 95 LSIL Pap tests, and 60 of them had features diagnostic of LSIL (63%). At the time of diagnostic screening, there were 17 ASCUS cases (17%) in which the abnormal glycogenated cells had been marked and 13 LSIL cases (14%) in which the abnormal glycogenated cells had been marked. A low percentage of abnormal glycogenated cells were noted to be marked during the diagnostic screening process, which may indicate the challenge in evaluating changes in glycogenated cells. This is more problematic when the only abnormal cell is a glycogenated one. The changes in glycogenated cells are important and should be emphasized when Pap tests are screened by cytotechnologists and evaluated by cytopathologists.

Biography

Neda Zarrin-Khameh, MD, MPH is a Professor of Pathology & Immunology at Baylor College of Medicine. She is Director of the Baylor Cytopathology Fellowship and Medical Director of Ben Taub Anatomic Pathology. She received her MD from Tehran University of Medical Sciences in Tehran/Iran and received her Masters of Public Health from the University of Texas at Houston. She completed her Pathology Residency at Baylor College of Medicine. She received the inaugural “Resident Good Citizen Award”, based upon her helpfulness to her resident colleagues. She completed a Cytopathology Fellowship at Baylor College of Medicine and a Surgical Pathology Fellowship at Houston Methodist Hospital. Since becoming faculty at Ben Taub Hospital, she has received “Faculty Award for Outstanding Resident Teaching Anatomic Pathology” three times. She also received Norton Rose Fulbright Award, Star Award for Excellence in Patient Care and Women of Excellence award. Although she enjoys all areas of pathology, she has particular interest in GI, Gyn, soft tissue and cytology. She is passionate about teaching. She has published multiple papers and is involved in multiple transitional research projects, some collaborative with other clinicians. She is the co-chair of cytopathology committee for American Society of Clinical Pathology.



Carlos Leal*, Victor Alejandro Rubio, Jesus Villegas, Miguel Guigon, Manuel Rodriguez, Nahomi Covian, Yousset Garcia

Department of Obstetrics and Gynecology, Division of Gynecology Oncology, Universidad Autonoma de Chihuahua, Hospital Christus Muguerza Del Parque, Chihuahua Mexico

Knowing pelvic architecture without being an architect

Le Corbusier defined architecture as "the masterly, correct, and magnificent interplay of masses brought together in light". If I speak about architecture, I need to mention the greatest architect Leonardo da Vinci (15 April 1452 – 2 May 1519) was an Italian polymath of the High Renaissance who was active as a painter, draughtsman, engineer, scientist, theorist, sculptor, and architect.

The woman is the masterpiece of creation.

The science of anatomy is a discipline that involves observation, understanding, and experimentation.

Surgery is the best way to apply the acknowledgment of anatomy science.

For a pelvic surgeon is mandatory to have a complete acknowledgment of the pelvis anatomy, having this in mind more than 50% of your surgery is already done.

We will review the pelvic bones, the connective tissue, the muscular tissue, the vessels, the nerves, and the urogenital tissue.

With the advantage of the new technological education, we will review the pelvic anatomy in a graphic model and then with in vivo model.

With the endoscopic view, we see the anatomical structures 8 more times than the human eye.

Conclusion: Every pelvic surgeon needs to have complete anatomical knowledge of normal pelvic anatomy. In this way, you can find any anatomical variation. The bottom line is to perform better surgical procedures. There are some anatomical variations described in the global literature that we must consider during every surgical procedure.

Audience Take Away Notes

- Will remember the pelvic anatomy
- Will develop skills to get into the retroperitoneal space
- Will be more confident during surgical gynecological surgery

Biography

Dr. Carlos Leal studied medicine at the Universidad de Monterrey, Monterrey México, and graduates with honors in 1992, starting residence in Gynecology & Obstetrics getting a grade of Ob & Gyn in 1998. Started a fellowship in Gynecology Oncology and Colposcopy supervised by Michael Fung Kee Fung at the University of Ottawa, Ontario Canada, and a diploma in Epidemiology and Clinical Trials Master at the same institution getting graduated in 2003. He has been doing laparoscopic surgery for more than 20 years and did his first radical laparoscopic hysterectomy in Mexico in 2003. He has been a speaker for more than 100 presentations all over the world also he has published more than 40 research articles in indexed journals.



Nora Shero^{1*}, Dipendra Raj Pandeya²

¹Medical University of the Americas, medical student, Nevis, West Indies

²Hollywood Presbyterian Medical Center, Attending physician-Obstetrician-gynaecologist, Los Angeles, CA, USA

Impact of Crohn's disease during pregnancy on children with attention deficit hyperactivity disorder: A review

Background: Iron Deficiency Anemia (IDA) is a common complication of Inflammatory Bowel Disease (IBD) in pregnant women. Although studies have shown that certain maternal autoimmune diseases are associated with Attention Deficit Hyperactivity Disorder (ADHD) in children, no studies have found a relationship specifically between IDA in pregnant women with IBD and ADHD in their children. This review aims to identify a relationship between maternal Crohn's Disease (CD) with IDA and ADHD in children.

Materials and methods: A review of existing literature was conducted using PubMed to search for articles on pregnant women with CD and IDA and children with ADHD. The studies included nested case-control studies, cohort studies, cross-sectional studies, case-control studies, and literature reviews published from 2012 to 2021.

Results: Among 876 articles generated, 11 studies were chosen for this review. Inclusion criteria consisted of no animal studies; meta-analysis or systematic reviews followed by ADHD related topics and maternal CD and IDA. The findings show that ADHD in progeny may be attributed to maternal CD. Although no studies have shown that IDA in mothers with CD is related to ADHD in offspring, several studies have shown a positive correlation between maternal IDA and ADHD in offspring. Some studies suggest inflammation in IBD during pregnancy can inflame the central nervous system, leading to ADHD in offspring.

Conclusion: IDA is a prevalent complication in CD, and inadequate iron levels are associated with neurodevelopmental problems, such as ADHD. Iron therapy for pregnant mothers diagnosed with CD is suggested to prevent ADHD in offspring.

Audience Take Away Notes

- IDA in CD in pregnant women can potentially be considered as a risk factor in the pathophysiology of ADHD in offspring
- Iron deficiency is the main cause of anemia in CD
- Children with ADHD tend to have a higher risk of iron deficiency
- Iron is involved in the dopaminergic pathway in the central nervous system
- Iron supplementation should be given to pregnant mothers with CD in active bleeding state

Biography

Nora Shero is a 4th year medical student from Medical University of the Americas. She is currently completing her rotations in Miami, FL. Her interest in obstetrics and gynecology happened during her Master's in Interdisciplinary health sciences at the University of Ottawa. Nora used pregnant guinea pigs as animal model and fed them an iron deficient diet to better understand its impact on its progeny compared to the iron sufficient group. She published several articles as first author related to obstetrics and gynecology. Nora is a mother of two beautiful children who also gets all the support from her amazing mother during work.



Meron Tekalign Tilahun

Ghandi Memorial Hospital, Ethiopia

Maternal health improvement among low socioeconomic status women in Addis Ababa, Ethiopia

Well-beingness of mothers & their children are of critical importance, both as a reflection of the current health status of a large segment the world's population and as a predictor & indicator of the health of the next generation.

Though the commonest causes of maternal health obstacles are preventable, its impact and complications worsens in a women with low socioeconomic status.

Among the commonest causes direct obstetric complications accounts for 85% the deaths. The long term conditions & complications such as fistula, uterine prolapse, chronic pelvic pain, depression and exhaustion also affects the maternal health.

Even though there is an improvement in maternal mortality rate in Ethiopia, 401/100,000, a lot of work has to be done to improve the maternal health. The betterment of maternal health has a direct relation with the socioeconomic status of women.

Therefore necessary measures have to take to improve the quality of maternal health.

Some of the measures can be:-

- Empower and educate women
- Improve nutritional status
- Access to resources and income
- Enhance access to family planning
- Timely ANC follow up during pregnancy
- Improve management of normal delivery by skilled professional
- Access to emergency obstetric and neonatal care when needed
- Timely post natal care

This study will give a clue on some important methods to improve maternal health especially for a women living in low socioeconomic status.

It also enlightens the government and non-governmental organizations who are working in this area to correct and revise their policies regarding maternal health in Addis Ababa, Ethiopia.

Biography

Meron Tilahun, MD, I received my MD from bethel medical college in year 2017, I received my BSc in information science in year 2009 from Addis Ababa University. Currently i work in the antenatal care unit in Gandhi memorial hospital. I have 4 years' experience in medicine mostly in NICU and ANC. I participated in many training programs regarding to maternal health and neonatal care. I have been working on neonatal death auditing program in our hospital aiming on minimizing neonatal deaths. I am happily married and a mother of 2.



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Targeting microenvironment induced microRNAs to treat ovarian cancer metastasis

Metastasis and frequent relapse contribute to the high mortality rate of Ovarian Cancer (OC) patients. However, the mechanisms of regulation of critical steps during metastasis is poorly understood and treatment strategies have not been developed to specifically target them. Using an organotypic 3D culture model of the human omentum, we have studied the productive cross-talk between metastasizing OC cells and the metastatic microenvironment that is essential for establishment of metastasis. To identify the clinically relevant microRNAs that can regulate both early and advanced metastasis, we combined our 3D omentum culture approach with the end point analysis of microRNA expression profiles of 42 matched primary and metastatic tumors from OC patients. miR-193b and miR-4454 was thus identified as an important metastasis suppressor, downregulated by signals from the metastatic microenvironment.

Both miR-193b and miR-4454 were downregulated by signals from the site of metastasis. Decreased microRNA expression promoted metastatic colonization by enhancing the ability of the OC cells to attach and invade through the outer layers of the omentum. These metastasis initiating cells have cancer stem cell like characteristics. The induction of cancer stem cell-like phenotype by the decreased expression of miR-193b was important for establishment of metastatic tumors, and could potentially regulate chemoresistance and recurrent disease in OC. Stably overexpressing miR-193b resulted in a significant decrease in metastases in OC xenografts while stable inhibition had the opposite effect. Moreover, treating a chemoresistant OC Patient Derived Xenograft (PDX) model of metastasis with miR-193b significantly reduced metastasis. Using heterotypic coculture models, conditioned medium experiments, secretome analysis, inhibition, and rescue experiments, we have identified the microenvironmental signals and the mechanism of miR-193b downregulation via the ERK/EZH2/DNMT1 axis. By performing RNA-seq in OC cells overexpressing miR-193b, we identified cyclin D1 (CCND1) as a key target. Knockdown and functional rescue experiments confirmed CCND1 as the functional effector of miR-193b responsible for the metastasis initiation phenotype.

miR-4454 was downregulated in the metastasizing ovarian cancer cells through paracrine signals from microenvironmental fibroblasts, which promoted migration, invasion, proliferation, and clonogenic growth in ovarian cancer cells as well as their ability to penetrate through the outer layers of the omentum. Stable overexpression of miR-4454 decreased metastasis in ovarian cancer xenografts. Its mechanism of action was through the upregulation of its targets, Secreted Protein Acidic and Cysteine Rich (SPARC) and BCL2 Associated Athanogene 5 (BAG5), which activated Focal Adhesion Kinase (FAK) signaling, promoted mutant p53 gain of function by its stabilization, and inhibited apoptosis. Our studies suggest the possible application of miR-193b and miR-4454 replacement therapy as a novel approach to treat OC metastasis.



Allyson Augusta Shrikhande^{1,2*}, Alexa Rains^{1,2}, Tayyaba Ahmed^{1,2}, Marjorie Mamsaang^{1,2}, Rakhi Vyas^{1,2}, Janaki Natarajan^{1,2}, Erika Moody^{1,2}, Christian Reutter^{1,2}, Kimberlee Leishear^{1,2}, Yogita Taylor^{1,2}, Sandra Sandhu-Restaino^{1,2}, Lora Liu^{1,2}, Neha James^{1,2}, Rosemarie Filart^{1,2}

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Outpatient, multimodal neuromuscular treatment reduces pelvic pain and improves functionality for women with endometriosis

Characterized by abnormal growth of uterine tissue outside the uterine cavity, Endometriosis affects up to 10% of women and girls of reproductive age. Although awareness and access to treatment have improved in recent years, Endometriosis can take months or years to diagnose, and even longer to adequately treat. Patients with endometriosis often present with dysmenorrhea, pelvic pain, abdominal pain, and dyspareunia. These symptoms, and others, significantly inhibit patients' quality of life by disrupting sleep, work, exercise, intercourse, bladder and bowel function, and mood. Treatment options are limited and often require surgery.

The purpose of this study was to test the effectiveness of a multimodal neuromuscular treatment protocol in treating the symptoms of Endometriosis, improving pain and function. 73 patients' ages 20-79 who had previously been diagnosed with Endometriosis presented to an outpatient clinic for treatment of Endometriosis-related symptoms. These symptoms had persisted for an average of 8 years. All patients underwent a once weekly, six-week treatment consisting of ultrasound-guided pelvic floor musculature trigger-point injections and peripheral nerve hydrodissection.

To measure the effects of this treatment, a 0-10 Visual Analogue Scale (VAS) was used to measure pelvic pain intensity and the Functional Pelvic Pain Scale (FPPS) was used to measure function across multiple areas. These measures were taken at patients' first visit to a clinic, and three months after treatment began.

Pelvic pain intensity reduced by 42% after three months. Before treatment, the mean VAS score was 7.81 (SD 1.73) ($a=0.05$; CI 7.41-8.21) and the posttreatment mean VAS score was 4.51 (SD 2.23) ($a=0.05$; CI 3.99-5.02). Pelvic pain functionality improved by 23% after three months. Pretreatment FPPS scores averaged at 13.19 (SD 5.95) ($a=0.05$; CI 11.82-14.56), which decreased to 10.1 (SD 5.64) ($a=0.05$; CI 8.8-11.39) after treatment. Among FPPS categories, participants saw the greatest changes in bladder pain and function (35% improvement) and intercourse pain and function (28% improvement). These results indicate that this unique treatment was very effective at relieving pain and increasing function for patients with Endometriosis.

Audience Take Away Note

Information about a once weekly, six-week treatment protocol involving ultrasound-guided pelvic floor musculature trigger-point injections and peripheral nerve hydrodissection

- Key outcomes of a retrospective study of 73 patients with Endometriosis who underwent the treatment
- Why each aspect of this unique treatment results in improvements in pain and function for patients with Endometriosis

Biography

Dr. Allyson Augusta Shrikhande is a board-certified Physical Medicine and Rehabilitation specialist. She is the Chief Medical Officer of Pelvic Rehabilitation Medicine, and also serves as the Chair of the Medical Education Committee for the International Pelvic Pain Society. A leading expert on pelvic health, Dr. Shrikhande works with expert physicians, urologists, gynecologists, surgeons, and physical therapists to help those with pelvic pain who often suffer without anyone willing to listen, understand, or find the cause of their pain.



Leen Al Kassab AB^{1*}, Sarah Johns MPH², Helen Noble MD³, Nawal Nour MD MPH⁴, Elizabeth Janiak ScD MSc MA⁵, Sarrah Shahawy MD MPH⁶

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⁶Department of Obstetrics & Gynecology, Division of Global and Community Health, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA

Assessing sexual and reproductive health literacy and engagement among refugee and immigrant women in Massachusetts: A qualitative community-based study

Introduction: Immigrant and refugee women experience disparities in Sexual and Reproductive Health (SRH) outcomes, partially as a result of barriers to SRH literacy and to regular healthcare access and engagement. Despite the existing data highlighting growing needs for culturally relevant and structurally competent care, interventions are scarce and not well-documented.

Methods: In this IRB-approved study, we used a community-based participatory research approach, with the assistance of a community advisory board, to conduct a qualitative needs assessment of SRH knowledge and service engagement with immigrant and refugee women from Africa or the Middle East and currently residing in Boston. We conducted a total of nine Focus Group Discussions (FGDs) in partnership with medical, community, and religious centers, in six languages: Arabic, English, French, Somali, Pashtu, and Dari. A total of 44 individuals participated. We explored migrant and refugee women's current and evolving SRH care needs and gaps, specifically related to the development of interventions and clinical best practices targeting SRH literacy, healthcare engagement, and informed decision-making. Recordings of the FGDs were transcribed verbatim and translated by interpreter services. We used open coding with multiple coders who resolved discrepancies through consensus and iteratively refined our codebook while coding data in batches using Dedoose software.

Results: Participants reported immigrant adaptation experiences, discrimination, and feelings of trust, autonomy, privacy, and connectedness to family, community, and the healthcare system as factors surrounding SRH knowledge and needs. The context of previously learned SRH knowledge was commonly noted to be in schools, at menstruation, before marriage, from family members, partners, friends, and online search engines. Common themes included empowering strength drawn from religious and cultural communities, difficulties bridging educational gaps with their US-born daughters, and a desire for more SRH education from multiple sources including family, health care providers, and religious experts & communities. Regarding further SRH education, participants' preferences varied regarding ideal platform (virtual vs. in-person), location (in religious and community centers or not), smaller group sizes, and the involvement of men.

Conclusions: Based on these results, empowering SRH initiatives should include both community and religious center-based, as well as clinic-based, interventions. Interventions should be composed of frequent

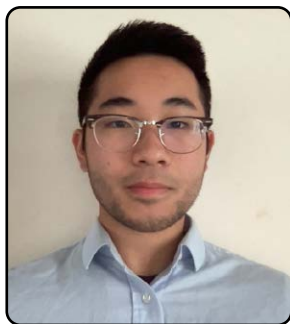
educational workshops in small groups involving age-grouped women, daughters, and (sometimes) men, tailored SRH messaging, and the promotion of culturally, religiously, and linguistically competent care.

Audience Take Away Notes

- The audience will learn common experiences faced by immigrant and refugee women living in a state in the U.S., and the existing gaps in their Sexual and Reproductive Health needs. Armed with that, providers will be able to deliver more culturally competent care to their diverse patient populations. Providers can also incorporate suggested initiatives of educational focus group discussions in their local clinics and community centers to meet these needs

Biography

Leen Al Kassab is a fourth-year MD candidate at Harvard Medical School (HMS). She earned her A.B. degree in 2018 from Harvard College, where she studied Molecular and Cellular Biology with a secondary in Global Health and Health Policy. Leen is Syrian-Lebanese, and at HMS, her interests and research focus on women's health and refugee healthcare, culminating in the project she is submitting for presentation, with plans to pursue a career in Obstetrics and Gynecology.



Wing Kiu Chou^{1*}, Nazifa Ullah², Arian Arjomandi Rad^{3,4}, Robert Vardanyan^{3,4}, Viraj Shah³, Alina Zubarevich⁵, Alexander Weymann⁵, Nishel Shah⁶, George Miller^{4,7}, Johann Malawana^{4,7}

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Simulation training for obstetric emergencies in low- and lower-middle income countries: A systematic review

Background: This review aims to systematically evaluate the currently available evidence investigating the effectiveness of Simulation-Based Training (SBT) in Emergency Obstetrics Care (EmOC) in Low- and Lower-Middle Income Countries (LMIC). Furthermore, based on the challenges identified we aim to provide a series of recommendations and a knowledge base for future research in the field.

Methods: A systematic database search was conducted of original articles that explored the use of simulation-based training for EmOC in LMIC in EMBASE, MEDLINE, Cochrane database and Google Scholar, from inception to January 2022.

Results: The literature search identified 1,957 articles of which a total of 15 studies were included in this review, featuring 8,900 healthcare professionals from 18 countries. The SBT programmes varied in the reviewed studies. The most common training programme consisted of the PRONTO programme implemented by four studies, comprising of 970 participants across four different countries. In general, programmes consisted of lectures, workshops and simulations of emergency obstetric scenarios followed by a debrief of participants. There were thirteen studies, comprising of 8,332 participants, which tested for improvements in clinical knowledge in post-partum haemorrhage, neonatal resuscitation, pre-eclampsia, shoulder dystocia and sepsis. All the included studies reported improvements in clinical knowledge following the simulation of scenarios. Changes in teamwork, improvement in leadership and in communication skills were also widely reported.

Conclusion: The use of SBT programmes is not only sustainable, feasible and acceptable in LMIC, but could also improve clinical knowledge, communication, and teamwork among healthcare providers, thus directly addressing the UN Sustainable Development Goals.

Biography

Mr Wing Kiu Chou AFHEA MRSPH is currently a final year medical student at the University of East Anglia in the United Kingdom. He finished a Masters of Research in Clinical Science and has interests in Global Health and Academic Surgery.



Mohamed M Hosni

London North West University Hospitals NHS Trust, United Kingdom

To ablate or not to ablate the endometrium in dysfunctional uterine bleeding: That is the question!

Endometrial Ablation (EA) has become one of the most commonly performed gynecologic procedures in the developed and developing countries. Global Endometrial Ablation (GEA) devices have supplanted resectoscopic ablation, primarily because they have brought with them technical simplicity and unprecedented safety. These devices are typically used to treat Dysfunctional Uterine Bleeding (DUB) in premenopausal women. However, there is a widespread concern about the effect of ablation on the incidence and development of endometrial cancer in such population, and whether such ablative techniques introduce a masking effect resulting in delayed diagnosis of endometrial cancer or does it provide a protective effect against it?

Audience Take Away Notes

- Endometrial sampling must be done in a different setting before the patient is booked for endometrial ablation
- Endometrial ablation should not be done with any type of endometrial hyperplasia, even the simple one
- Endometrial ablation might introduce a protective effect against endometrial carcinoma
- There should not be a widespread concern about the effect of ablation on the incidence and development of endometrial cancer
- Endometrial ablative techniques do not introduce a masking effect resulting in delayed diagnosis of endometrial cancer

Biography

Mr. Mohamed Hosni is a Consultant Obstetrician and Gynecologist 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 he has a broad clinical research background and has collaborated with numerous doctors and scientists on different projects in Obstetric 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 Gynecologists. He is a firm believer in a patient-centered 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.

Chiara Di Tucci

Sapienza University of Rome, Italy

The role of alpha lipoic acid in female and male infertility: A systematic review

Objective: Infertility is an increasingly frequent health condition, which may depend on female or male factors. Oxidative Stress (OS), resulting from a disrupted balance between Reactive Oxygen Species (ROS) and protective antioxidants, affects the reproductive lifespan of men and women. In this review, we examine if Alpha Lipoic Acid (ALA), among the oral supplements currently in use, has an evidence-based beneficial role in the context of female and male infertility.

Methods: We performed a search from English literature using PubMed database with the following keywords: 'female infertility', 'male infertility', 'semen', 'sperm', 'sub-fertile man', 'alpha-lipoic acid', 'alpha lipoic acid', 'lipoid acid', 'endometriosis', 'chronic pelvic pain', 'follicular fluid' and 'oocytes'. We included clinical trials, multicentric studies and reviews.

The total number of references found after automatically and manually excluding duplicates was 180. After primary and secondary screening, 28 articles were selected.

Results: The available literature demonstrates the positive effects of ALA in multiple processes from oocyte maturation ($0.87 \pm 0.9\%$ of oocyte in MII vs $0.81 \pm 3.9\%$; $p < .05$) to fertilization, embryo development (57.7% vs 75.7% grade 1 embryo; $p < .05$) and reproductive outcomes. Its regular administration both in sub-fertile women and men shows to reduce pelvic pain in endometriosis ($p < .05$), regularize menstrual flow and metabolic disorders ($p < .01$) and improve sperm quality ($p < .001$).

Conclusions: ALA represents a promising new molecule in the field of couple infertility. More clinical studies are needed in order to enhance its use in clinical practice.

Keywords: Alpha lipoic acid; endometriosis; infertility; male factor; polycystic ovary syndrome.

20-21 APRIL

DAY 02

SPEAKERS

GLOBAL CONFERENCE ON
**GYNECOLOGY &
WOMEN'S HEALTH**

**Roy KK, Poojitha Kalyani Kanikaram*, Singh N**

Department of Obstetrics and Gynaecology, All India Institute of Medical Sciences, New Delhi, India

Vaginal vault infiltration with bupivacaine for postoperative pain control after total laparoscopic hysterectomy: A randomized control trial

Objectives: To assess the effect of local infiltration of anaesthetic to the vaginal vault on post-operative pain after total laparoscopic hysterectomy.

Methods: A single centre, randomized trial. Women assigned to laparoscopic hysterectomy were randomly divided into two groups. In the intervention group (n=30) the vaginal cuff was infiltrated with 10ml of bupivacaine whereas the control group (n=30) did not receive local anaesthetic infiltration to vaginal vault. The primary outcome measure was to analyse the efficacy of bupivacaine infiltration in the study group by comparing the postoperative pain in both the groups at 1, 3, 6, 12, 24 hours using Visual Analogue Pain Scale (VAS). Secondary outcome was to measure the need for rescue opioid analgesia.

Results: Group I (intervention group) has lesser mean VAS score at 1st, 3rd, 6th, 12th and 24 hours compared to Group II (control group). There was an additional requirement of opioid analgesia for postoperative pain in group II than in group I which is statistically significant ($p < 0.05$).

Conclusion: Injection of local anaesthetic into the vaginal cuff increased the number of women experiencing only minor pain after laparoscopic hysterectomy and decreased postoperative opioid usage and its side effects. Local anaesthesia of the vaginal cuff is safe and feasible.

Biography

Dr Poojitha Kalyani Kanikaram
MD obstetrics and gynaecology, AIIMS Delhi, India.
MBBS Osmania medical college, Hyderabad, India.
Currently, Senior Resident, AIIMS.

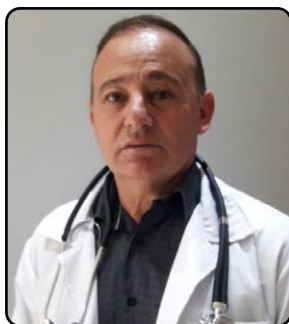
Audience Take Away Notes

- Cross-talk between cancer cells and its tumor microenvironment (mesothelial cells and fibroblasts)
- Epigenetic regulation by micro environmental signals
- Potential clinical application of microRNAs to treat OC metastasis

Biography

Dr. Subramanyam Dasari completed his PhD (2014) in Cancer Biology (Gynecological cancers) at the School of Herbal Studies and Naturo Sciences, Department of Biotechnology from Dravidian University, Andhra Pradesh (India). During his doctoral studies, he studied the use of potential serum protein biomarkers used to evaluate the diagnosis and prognosis of the gynecological cancers (cervical cancer, ovarian and endometrial) and Breast Cancers. The study also focused on the role of microbial flora and their enzymes as risk factors in the development of gynecological cancers. Then he joined as Postdoctoral research fellow at UIC, College of Medicine at Rockford, USA (2015-2017) to study the anticancer effects and their mechanism of biotherapeutic compounds against prostate cancer and cervical cancers. Then he moved to Indiana University, School of medicine, Bloomington, Indiana as a Post-doctoral research associate (2017-till). Dr. Dasari is seeking to understand the reciprocal interactions between ovarian cancer cells and their tumor microenvironment for the regulation of metastatic colonization in ovarian cancer. They used in vitro organotypic 3D culture models, live 3D time-lapse microscopy and mouse xenograft models of metastasis along with cell and molecular biological approaches to study the reciprocal interactions between the metastasizing cancer cells with their microenvironment at the site of metastasis.

Dr. Dasari is author of over 38 original papers, reviews, and book chapters, and presented numerous national and international conferences. In addition, Dr. Dasari is serving in several international organizations: member of the American Association of Cancer Research (AACR), Indiana Science congress. Dr. Dasari is topic editor for journal Biomolecules, cells (MDPI), topic editor for Frontiers in Molecular Biosciences and Review Editor for Molecular Diagnostics and Therapeutics.



Oslei de Matos, PhD

†Federal University of Technology-Physical Education and Health Postgraduate program, Curitiba, Parana, Brazil

Postural changes and women's aging: Association with osteoporosis and osteoarthritis

The aging of women is associated with postural changes and bone deterioration. These alterations are usually associated and require a broader therapeutic approach, from diagnosis to overall treatment. Densitometric exams allow an evaluation of these alterations, allowing a more effective and generalist treatment.

Audience Take Away Notes

- Aging and postural changes-sarcopenia
- Osteoporosis after menopause
- Osteoarthritis and postural changes
- Global assessment and therapeutic indications
- The relationship between pathologies and the global vision for the complete treatment

Biography

Bachelor in Physical Therapy from the Pontifical Catholic University of Paraná (1994), Bachelor in Physical Education from the Pontifical Catholic University of Paraná (1989), Master in Education from the Pontifical Catholic University of Paraná (1996) and Doctor in Sports Sciences from the Faculty of Sport of University of Porto (2007), Visiting Researcher at the University Health Network-Toronto General Hospital in Internal Medicine July 2019 to January 2020. Professor of the Graduate Program in Biomedical Engineering and Professor of the Graduate Program in Physical Education and Health at Federal University of Technology. Research developed in fibromyalgia, osteoporosis, and bariatric surgery. He is currently developing a primary health project on the risk of falls and fractures in the elderly people.



Jing Zhang*, Xiao Liang Lin, Zhiyu Han, Fangyi Liu, Jie Yu, Xuejuan Dong Shuilian Tan

Department or Division Name, Organisation/Affiliation, City, State, Country, Department of interventional Ultrasound Fifth Medical Center Chinese, PLA General Hospital, Beijing China

Pregnancy and prognosis of patients after microwave ablation of uterine fibroids

Objective: To study the pregnancy and prognosis of patients after Microwave Ablation (MWA) of uterine fibroids and explore the influence factors on pregnancy.

Methods: A prospective study was conducted on patients who were treated by MWA for uterine fibroids and need fertility from August 2010 to September 2020. The fibroids were ablated with MW under ultrasound guidance percutaneous or transvaginal puncture. Fertility desiring was interviewed regularly to assess her pregnancy situation and fertility outcomes. Analyses of successful pregnancy patients were conducted and multiple factors affecting pregnancy after MWA were analyzed.

Results: 154 patients with fertility requirements were successfully followed-up, of which 81 women were enrolled in the study. Among them, there were 45 patients with 50 pregnancies. The pregnancy rate was 55.56% (45/81), and the median conception time was 18 months (1– 60 months). Natural and artificially assisted pregnancy rates were 48.15% (39/81) and 7.41% (6/81), respectively. The number of pregnancies that ended in spontaneous and induced abortion was 11 and 9, respectively. And 25 pregnancies resulted in deliveries, with 1 of patients having two deliveries. Cesarean sections were performed by 76% (19/25) of Theravada, and 24% (6/25) opted for a vaginal delivery. All the 25 new-borns survived and were in good health at the end of the follow-up. 1 case had placental abruptions at 26 weeks gestation, while the others had no serious complications during the perinatal period. For UFs patients with fertility requirements, the patient's age, and history of spontaneous abortion and fibroid types are relevant factors affecting pregnancy after MWA.

Conclusions: MWA could be considered a promising treatment for women with UFs and need fertility.

Keywords: Uterine fibroids, Microwave ablation, Treatment, pregnancy, Fertility

Biography

Dr. JingZhang studied minimally invasive treatment of uterine disease under ultrasound guidance at the PLA General Hospital, Beijing of China and graduated as B.M in 1982. She started research of microwave ablation for uterine fibroid and adenomyosis under ultrasound guidance from 2000. She received her MD degree in 2000. She has published 14 research articles on microwave ablation for uterine fibroid or adenomyosis in SCI(E) journals.



Dragana Krstic^{1*}, Tatjana B. Miladinovic², Milena Zivkovic¹

¹Faculty of Science, University of Kragujevac, Kragujevac, Serbia

²Institute for Information Technologies, University of Kragujevac, Kragujevac, Serbia

Monte Carlo MCNP simulation of cervical cancer in brachytherapy

Brachytherapy plays a significant role in gynecology by delivering high doses of radiation directly to cancerous tumors within the body, while minimizing exposure to surrounding healthy tissues. This approach often results in improved outcomes and reduced side effects compared to other forms of radiation therapy. Brachytherapy can be used alone or in combination with other treatments, such as surgery or chemotherapy, to effectively manage gynecological cancers. The use of brachytherapy in gynecology has expanded over the years to include treatment for various types of cancer, such as cervical, endometrial, vaginal, and vulvar cancer.

In this paper Monte Carlo MCNP6 software was applied for simulation brachytherapy of cervical cancer. For this purpose, a voxel phantom was applied, as a presentation of a female patient. The device Micros electron after loading is often used in the HDR regime for intracavitary brachytherapy with small radioactive source of ¹⁹²Ir. Doses in relevant points of uterus were obtained by MCNP and compare them with planning system for patient.

In addition, doses in urinary bladder and colon, as Organs At Risk (OAR), were calculated and compared them with maximal doses in these organs obtained from planning.

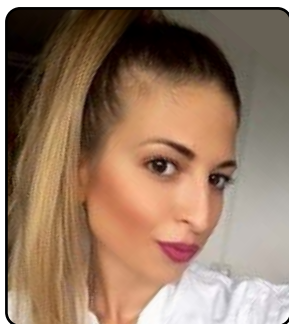
There is a good agreement between results obtained with MCNP software and the planning system for brachytherapy.

Audience Take Away Notes

- Brachytherapy as a kind of radiotherapy
- Monte Carlo simulations
- Calculation of doses and comparison with planning system for brachytherapy
- The comfort of therapy in order to improve the health of women

Biography

Prof. Krstic studied Physics at the University of Kragujevac, Serbia. She received her PhD degree in 2007 at the same institution. Main subject of research was radiation and medical physics. For dose determining particle by particle transport codes were involved, such as MCNP; owner of the license for the latest MCNP6.2 software. It is also an ongoing research in the field of nuclear medicine; recently there was emphasis to Proton Boron Fusion Therapy (PBFT) investigations; Participation in the Voxel Phantom Intercomparison, organized by Eurados 2017. Dragana Krstic has published about 90 papers in journals and the most of them were related to the calculation with MCNP. She and D. Nikezic developed input files for MCNP with ORNL and voxel model of standard man in standing position. ORNL phantoms are in MCNP Medical Physics Geometry Database (D. Krstic and D. Nikezic, U. of Kragujevac, Serbia). Hirsch index is 11 (according to Scopus) and she obtained about 300 citations (excluding self-citations).



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²Institute for Information Technologies, University of Kragujevac, Kragujevac, Serbia

The role of radiation physics in gynecology

Radiation physics plays an important role in Gynecology, particularly in the diagnosis and treatment of various gynecological cancers. In this presentation, the various applications of radiation physics in Gynecology, including imaging techniques like X-rays, CT, MRI, and ultrasound, will be explored. The use of radiation therapy, including external beam radiation and brachytherapy, in treating gynecological cancers will also be presented. Radiation therapy, which is a cancer treatment that uses high-energy radiation to kill cancer cells, has been used in the treatment of gynecological cancers for many years. External beam radiation, which is the most common type of radiation therapy used in gynecological cancers, involves the use of a machine that delivers high-energy beams of radiation to the tumor from outside the body. Brachytherapy, on the other hand, involves placing a small radioactive source inside or near the Tumor to deliver a high dose of radiation directly to the Tumor while minimizing the exposure to surrounding healthy tissues. Furthermore, safety considerations and radiation protection measures that are necessary for both patients and medical personnel involved in these procedures will be reviewed. In general, a summary of the major contributions of radiation physics to the field of Gynecology will be given, emphasizing its significance in enhancing patient outcomes and furthering the study of women's health.

Audience Take Away Notes

- The importance of radiation physics in gynecology
- Imaging techniques in gynecology: X-rays, CT, MRI, and ultrasound
- Radiation therapy in the treatment of gynecological cancers
- Safety considerations and radiation protection measures
- How radiation physics contributes to improving patient outcomes
- Advancements in the field of women's health

Biography

Milena P. Zivkovic was born in Kragujevac on September 1, 1995. In the 2018/2019 academic year, she completed her undergraduate studies with a 9.49 average. She was named the best student at the Faculty of Sciences and Mathematics for four years in a row. She continues her education at the Faculty of Natural Sciences and Mathematics in Kragujevac, within the Institute of Physics, in 2018 thesheademic master's studies, majoring in physics, average grade (9.6 of 7). So far, she has participated in the implementation of the project of the Ministry of Education: "Experimental and theoretical research in radiation physics and radioecology". So far, she has published 30 papers, 8 of which are from the SCI list. The doctoral includes the use of voxelization in radiotherapy.

**Yuan He*, Hong Gu**

Pediatric Cardiology, Beijing Anzhen Hospital, Capital Medical University,
Beijing, China

Pregnancy and Delivery in Pulmonary Hypertension

Pulmonary hypertension is known to complicate pregnancy and historically been associated with unacceptably high maternal mortality. Patients with PH of any cause have been classified at the highest risk level in the Modified World Health Organization Classification of Maternal Cardiovascular Risk (mWHO). In this talk, I will review the researches from both our and other medical centers about status quo, clinical characteristics, maternal outcomes of pregnant women with PH and share the experiences of our center based on a case (a PAH-CHD pregnant woman who also carries a BMPR2 mutation).

Audience Take Away Notes

- Pathology change of pregnancy in PH patients.
- Clinical characteristics and pregnancy outcomes in patients with PH
- Help to conduct a multi-center registry studies on pregnancy in PH patients to optimize the outcomes of these patients.

Biography

Dr Yuan He is now studying at Pediatric Cardiology, Beijing Anzhen Hospital, Capital Medical University for MD degree, under the supervision of professor Hong Gu. Her research direction is: Congenital heart disease and pulmonary arterial hypertension.



Marianne J. Real*, MD, OTR, OTRP, Mary Christine F. Palma, MD, FPOGS, FSGOP

Institute for Women's Health, the Medical City, and Pasig City

Outcomes comparison for benign gynecologic laparotomy before and after enhanced recovery after surgery implementation in a Philippine private tertiary hospital

Background: Enhanced Recovery after Surgery (ERAS®), a multidisciplinary approach developed to improve care processes, is utilized by The Medical City, and expanded to include gynecologic cases in 2017. These evidence-based guidelines were disseminated to gynecologists and utilized for patient management. We determined the frequency of compliance to the ERAS Guidelines and the difference in outcomes of benign gynecologic surgeries between pre- and post- ERAS implementation, specifically: length of stay, complications, readmission, re-operation, 30-day morbidity, and mortality rate. This is to further optimize the use of ERAS, improve patient care, and outcome.

Methods: The gynecology interventions published by the ERAS society were followed, with data encoded in the ERAS Interactive Audit System version 4.5.3.3. A retrospective chart review of patients in The Medical City who underwent hysterectomy with or without adnexal surgery, myomectomy, and adnexal surgeries was done and assigned the period of January 2015 to March 2017 as pre-ERAS, and April 2017 to January 2022 as post-ERAS. We excluded patients who were pregnant, pre-operatively admitted in the Intensive Care Unit (ICU) and underwent emergency surgeries in less than 30 minutes. We included in our analysis 739 patients, subdivided according to the three surgical procedures and into pre-ERAS (n=319) and post-ERAS (n=420). Analysis was carried out using an Independent T-test, Mann Whitney U test, and Chi-Square test or Test on Proportions.

Results: Across all three surgical procedures, total length of hospital stays, duration from operation to ready for discharge, and length of stay post-operatively were shorter by one day in the post ERAS period ($p < .0001$). Pre-operatively, ERAS components (pre-admission education, nutritional status evaluation, oral carbohydrate treatment, and sedative medication prior to anesthesia regardless of route) were accomplished more frequently during post-ERAS period ($p < .0001$). Post-operatively, post-ERAS patients were more frequently able to tolerate solids in less than 24 hours, had significant earlier time to pass flatus and stool without medication, termination of intravenous fluid infusion on post-operative day one, earlier foley catheter removal within 24 hours, and shorter recovery period prior to return to mobilization ($p < .033$ to $.0001$). Pre- and post-ERAS periods were comparable in terms of intraoperative compliance, complication, and readmission. There were no reoperation, morbidity, and mortality for both.

Conclusion: Findings showed improved outcomes with the use of ERAS Guidelines in terms of length of hospital stay and clinical parameters for compliance. Further studies regarding impact of ERAS implementation on cost is recommended.

Audience Take Away Notes

- Across all cutting specialties, this study proved that application of pre-operative, intra-operative and post-operative ERAS guidelines would facilitate faster recovery and earlier participation in work and daily activities
- This also highlights the importance of having a well-coordinated team in providing the best quality of care to all gynecologic patients
- Knowledge of ERAS protocols would further motivate and strengthen this practice in managing patients

Biography

Marianne J. Real graduated from the University of Santo Tomas with a degree in Bachelor of Science Major in Occupational Therapy in 2011. A licensed Occupational Therapist in the Philippines and United States of America, she chose to pursue a degree in Doctor of Medicine from the De La Salle Medical and Health Sciences Institute under a scholarship program. She continued her postgraduate internship in University of the Philippines – Philippine General Hospital. In June 2022, she completed her Obstetrics and Gynecology Residency Training in The Medical City. Currently, she is practicing as an Obstetrician-Gynecologist in her hometown in Laguna, Philippines.



Natalya Alekseevna Kolpakova*, S.G. Gorelik

Belgorod State University, Belgorod, Russia

Psychoemotional disorders in female patients with urinary incontinence as a medical and social problem

The problem of urinary incontinence is one of the leading ones in reducing the quality of life in women during pre- and postmenopausal periods, as well as in women of childbearing age. The issues of urinary incontinence treatment have been relevant for many decades. The prevalence of urinary incontinence in elderly and senile patients progresses gradually, leading to an increase in psych emotional disorders. The purpose of the research – study of the incidence of psych emotional disorders in patients of various ages with urinary incontinence and the impact on the quality of women's life.

Material and research methods: The study involved patients aged 20-89 years with newly diagnosed urinary incontinence. A total of 281 patients were examined, including 56 (19, 93%) patients aged 20–59 years, 156 (55, 52%) elderly age, 69 (24, 56%) senile age. The questionnaire survey was carried out according to the author's questionnaire developed by N.A. Kolpakova and S.G. Gorelik, consisting of 2 blocks: 24 special questions, aimed at determining the types of urination disorder, and 9 general questions determining assessing the quality of patient's life. The study of the association between urinary incontinence and psych emotional disorders was carried out using the Hospital Anxiety and Depression Scale (HADS).

Research results: It was established that for middle-aged and elderly patients with urinary incontinence subclinical anxiety is significantly more characteristic, in old age with stress urinary incontinence - clinically pronounced anxiety with a sub depressant component, in middle and old age - subclinical anxiety, subclinical anxiety and depression, and clinically pronounced anxiety with a sub depressant component. Clinically pronounced anxiety and depression were significantly most associated with urgent urinary incontinence and complete urinary incontinence, as well as in women with severe comorbidity and risk factors for urinary incontinence. Patients with urinary incontinence accompanied by severe psych emotional impairment assessed urinary incontinence as more severe and reported more severe deterioration in quality of life.

Psych emotional disorders combined with urinary incontinence are common conditions in all age groups. Our study demonstrates that anxiety and depression are associated with all forms of urinary incontinence in women, with the strength of connecting increasing with increasing severity of conditions.

Audience Take Away Notes

- There is a need to identify and treat urinary incontinence in middle age for timely treatment and prevention of negative consequences
- The study of psych emotional symptoms among elderly women with urinary incontinence is crucial importance for the formation of accurate ideas about the mental health and functioning of patients with urinary incontinence
- The high prevalence of urinary incontinence in old age dictates the need for the introduction of active screening of psych emotional disorders in urinary incontinence by medical workers, social workers, and the use of self-questionnaires by patients. This will ensure timely high-quality diagnostics prevent

the socio-economic consequences of incontinence. At the same time, modern, maximally effective and sparing treatment will completely solve or significantly alleviate the problem of incontinence, and therefore significantly improve the quality of life of female patients, reduce the economic costs of treatment and rehabilitation

- Thus, in modern conditions, when providing urological care to patients with urinary incontinence, the role of specialized psychological and psychiatric care as an important supplement to incontinence therapy accompanied by neurotic symptoms increases

Biography

Dr. Natalya Kolpakova qualified as a doctor at Belgorod State University, Russia, in 2010. She is a board-certified Urology, Pediatric urology, Surgery and Health Care Specialist. She has been engaged in research work for 10 years on the most delicate medical and social problem of women - urinary incontinence. She is a candidate for the degree of Candidate of Medical Sciences (Ph.D). She has published more than 25 research articles in SCI (E) journals and 2 books, including guidelines for patients with urinary incontinence.

**Vandana Dabla**

USAID's Momentum Country and Global Leadership: India-Yash, Jhpiego, New Delhi, India

Advancing women's health with adaptive management: A paradigm of holistic & quality healthcare approach

Adaptive learning is an advanced quality improvement process, which entails a multi-level coordinated action. It provides an insight to project implementation activities that guides project actions and also encourage useful programmatic changes. The process not only involves continuous learning, but also the encourages project adaptation.

When this integration of adaptive learning is overlooked in any project cycle; the opportunities to improve project design are lost and outcomes suffers. This is evident through the Better Birth Trial, which was the randomized study of the implementation of the World Health Organization (WHO) Safe Childbirth Checklist in India. Here, the coaching of birth attendants and managers produced greater adherence to essential birth practices, representing significant improvements in care for women and newborns. However, the program failed to reduce neonatal and maternal morbidity and mortality. Only after the study period was recorded the lack of impact on death rates attributed to persistent gaps in skills, supplies, or systems for care of complications.

Thus, adaptive learning supports the operationalization of complexity-aware monitoring and adaptive management by creating the culture, institutional support, and practices needed for project staff to be ready to use new information and effectively adapt projects to changes. This facilitates an enhanced presence and demand for quality and equitable services. It strengthened local capacity, and strengthened multisectoral partnerships, leading to improvements in maternal, neonatal, and child health. Nonetheless, defining applicable procedures, approaches and policies are vital; the available literature advocates that for proactive health priorities, adaptive learning is a progressive approach to adapt to ever changing health circumstances. And this specially holds importance in today's modern world of unpredictable health menaces.

Audience Take Away Notes

- The proposed adaptive strategies shall improve the program design accuracy and support in documenting programming assumptions
- To provide insight on how to inform decisions that optimizes health program implementation and hence output
- Using the After Action Reviews to expand research or teaching effort
- The model discussed shall provide a practical solution to loop-in problems that occur continuously in health programs
- Collecting a variety of quantitative and qualitative monitoring information during health program implementation

Biography

Dr Dabla is an eminent public health specialist and carries about two decades of expertise in Health Systems Strengthening, Monitoring, Evaluation and Research, Program design and implementation. She has multi-sectorial experience across health vertical in Communicable Diseases, Maternal Health, Epidemiology and Reproductive Health. Currently, she is leading the Evaluation & Research division of USAID supported Momentum Country & Global Leadership India project at Jhpiego, a John Hopkins University Affiliate, in India. She has significant contribution at various researches, including large scale Clinical Trial and behavioural studies, and has various publications in journals of repute. Besides presenting her work at international events, conferences; Dr Dabla has special academic contribution by authoring a Full Chapter for University Undergraduate Programme on Total Quality Management for Asia's largest University, named Indira Gandhi National Open University under University Grant Commission.



Sonia Gupta, Vijay Prabha*

Department of Microbiology, Panjab University, Chandigarh, India

Efficacy and safety of a new vaginal contraceptive formulation containing sperm immobilizing factor isolated from *Staphylococcus Aureus*

The growing population is a worldwide problem today – the total earth's population of 7 billion is expected to rise by approximately two more billions by 2050. Besides population explosion, unintended pregnancies and elective abortions are a major public health issue. Contraception is considered as the key solution to cope up with these issues. Although an array of methods is known for female contraception, which includes barrier methods, hormonal methods, IUDs, sterilization and natural methods, none of these methods can be considered as ideal. Consequently, one of the challenging pursuits in the realm of contraceptive field is the development of contraceptives that are effective, safe, reversible, cost effective and virtually imperceptible is extremely desirable to combat the population menace. Sperm impairing agents that can be applied topically for the prevention of fertility may offer one of the most promising contraceptive interventions. Spermicides have a long history of use as vaginal contraceptives, but no systematic investigation has been carried out. The rationale for using spermicides as vaginal contraceptives stems from the easy affordability, self-controlled reversibility, minimal systemic exposure, reasonable effectiveness, and need based usage, uninterrupted sexual act, and no requirement of medical supervision. Various vaginal contraceptives are currently available over the counter and most of these products are based on surfactants, with Nonoxynol-9 (N-9), taking the lead as an active spermicidal agent. However, frequent use of N-9 has been shown to cause detrimental effects on vaginal epithelium, making the users more prone to HIV and other microbial infections. Thus, an unanticipated void has been developed as no other agent is available to substitute surfactant spermicides in vaginal contraceptive products. This has provided the impetus for an increased emphasis on the development of safe, highly effective and inexpensive sperm impairing agents as vaginal contraceptives. In a Portfolio geared towards the development of new vaginal contraceptives, microbial factors have flared up as the most reliable alternative to the chemical/ detergent ingredients. Microorganisms are known to impede sperm motility, either by secreting extracellular products that immobilize the sperm or directly by agglutinating the spermatozoa. Corresponding factors responsible for immobilization are worth pursuing for the development of a successful vaginal contraceptive device. In our laboratory in pursuit of a newer contraceptive agents Sperm Immobilizing Factor (SIF) has been extracted and purified from a strain of *Staphylococcus Aureus*. SIF holds the great potential as contraceptive agent as it exhibited noteworthy sperm immobilizing and spermicidal effect in vitro. Given that, one cannot rely entirely on an in vitro spermicidal data to evaluate the vaginal potency of a new compound, an attempt was made to assess its contraceptive efficacy in mice. When different concentrations of SIF (2.5, 5,10,25,50 and 100µg) were instilled in the vagina of female Balb/c mice as a single dose before mating, it was observed that SIF at a concentration of $\geq 5 \mu\text{g}$ / animal rendered female mice infertile, while the mice receiving lower doses of SIF i.e. $2.5 \mu\text{g}$ became pregnant. These results highlighted that the SIF at the concentrations $5 \mu\text{g}$ and above incur a contraceptive effect in mice when applied intravaginally. Taking into consideration the potent ant fertilizing activity of SIF it was formulated into gel in order to develop a new vaginal contraceptive formulation.

Audience Take Away Notes

- The audience will come to know about the development of newer vaginal contraceptive
- These experimental studies can be further extrapolated to clinical studies
- The newer contraceptive has been found to be quite safe as compared to vaginal contraceptives available in the market

Biography

Dr. (Mrs) Vijay Prabha is working as Professor in the Department of Microbiology, Panjab University, and Chandigarh, India. She has 33 years of teaching and 38 years of research experience. Her area of expertise is “Role of microorganisms in male and female infertility and exploitation of microbial factors as male and female contraceptive agents”. She has guided number of M.Sc. and Ph.D students. She has about 102 publications in national and international journals. She has also presented her work in various national and international conferences as an invited speaker. She is life member of Association of Microbiologists of India and Panjab University Research Journal of Science. She is editorial board member of various international and national journals.



Mohamed G. Ali^{1*}, Mohammad Auais², Mohammed A.M. Sarhan³, Amel M. Yousef⁴, Fahima M. Okeel⁴, Rehab S. Mamoon⁵ and Abeer A. Mohammed⁶

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²Department of Physical Therapy, School of Rehabilitation Therapy, Queen's Health Sciences, Queen's University, Kingston, Ontario, Canada

³Department of Physical Therapy for Musculoskeletal Disorders, Faculty for Physical Therapy, South Valley University, Qena, Egypt

⁴Department of Physical Therapy for Women's Health, Faculty for Physical Therapy, Cairo University, Giza, Egypt

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Measurement of lumbar spine movements from different planes of motion in women after exposure to cesarean delivery using several types of anaesthesia

Background: Pregnancy is involved in different lumbar spine changes including increased ligamentous laxity, increased lumbar lordosis, and increased mechanical stress on the facet joints due to the associated postural changes. By the end of puerperium, these changes are anticipated to return to the prepregnant status. This study assessed the pain-free active lumbar spine range of motion (ROM) from different planes of motion (Sagittal plane: flexion and extension, Frontal plane: right and left side bending, and Transverse plane: right and left axial rotation) in women who were exposed to Cesarean Delivery (CD) using several types of anaesthesia. The measurements were taken at 6-12 weeks postpartum to make sure that they finished their puerperium according to the illustrated WHO definition. Then the study compared these measurements with those of the control group who were without previous pregnancy or anaesthesia.

Method: This historical (retrospective) cohort study included 63 participants. Their ages were from 18 to 35-years-old. They were classified into 4 groups. Group A: 9 women who had CD using epidural anaesthesia, Group B: 22 women who had CD using spinal anaesthesia, Group C: 10 women who had CD using general anaesthesia, and Group D: 22 women who represented the control group. The women in the three cesarean groups were either primiparous or multiparous who did not experience any type of anaesthesia for at least one year from the last delivery. We excluded women who experienced vaginal delivery, women who did not continue all assessment procedures, and women who experienced previous specific low back dysfunctions such as those who were diagnosed with lumbar disc prolapse, spondylolisthesis, scoliosis, and true or apparent leg length discrepancy more than one cm.

Results: All of the measured pain-free active lumbar spine range of motion showed a statistical non-significant difference among the four groups, except that of the active lumbar spine extension ROM. Despite there was a significant decrease in the mean of the active lumbar spine extension ROM among women of the three CD groups when compared to the controls, there was non-significant difference among the three CD groups regardless the type of anaesthesia.

Conclusion: By the end of puerperium, women who were exposed to CD using epidural, spinal, and general anaesthesia restored their physiological movements of the lumbar spine in all planes of motion, except that of extension. The decreased active lumbar extension ROM may be attributed to the restricted impact of the CD abdominal scar. Physical Therapists should be aware by the decreased active lumbar extension ROM after CD. further studies may be necessary to examine the possible causes for this decrease and the affordable approaches to target it.

Keywords: Anaesthesia; Bubble inclinometer; Cesarean delivery; Lumbar spine range of motion

Audience Take Away Notes

- By the end of puerperium after cesarean delivery, all lumbar spine ROM returns to its prepregnant measures except in Extension ROM.
- The type of anaesthesia may have no effect on the lumbar spine ROM after cesarean delivery
- This research opens the door for investigating the risk factors or causes of restricted lumbar Extension ROM
- This presentation draws the attention of Physical Therapists for women health to the restricted lumbar Extension ROM, which may be a risk factor to postpartum low back pain
- By identifying the restricted lumbar Extension ROM, the Physical Therapists can design different approaches to regain this restricted lumbar movement

Biography

I am Mohamed Shehata. I am a Lecturer of Physical Therapy at South Valley University in Egypt. I graduated from the faculty of Physical Therapy, Cairo University. I finished my master's degree in physical therapy from Cairo University in 2015. I started my PhD studies in 2016 at Cairo University. I spent one year as a PhD Researcher at Queen's University, Kingston, Ontario, Canada. I am a licensed Physical Therapist at New York State, and An Associate Alumni, Harvard Medical School, USA. I taught many lectures in Physiotherapy for Women's Health.

**Daffalla Alam Elhuda, MBBS, MIH, MPH, MD*, Eilaf Ali
Mohamed, BSC**

Federal Ministry of Health, Sudan

Satisfaction of pregnant women with antenatal care services at Omdurman maternity and Bashair Hospitals, Khartoum state,2022

Introduction: Satisfaction about health care services is used as an indicator to measure the quality of care (8-12); which reflect some factors related to compliance, effectiveness, and continuity of care. An increase in patient satisfaction with certain health institutions will attract the patient to come back to receive care the next time and to recommend this institution to others (10). The utilization of ANC services by pregnant women is affected by the quality of care and hence their satisfaction with the services they receive at the health care facility (8). This study aimed to study the satisfaction of pregnant women with antenatal care services at Omdurman

Methods: A descriptive cross-sectional hospital-based study was conducted among 241 women at Omdurman maternity and Bashair hospitals. The respondents were selected using convenience sampling technique because it was not possible to take control and to select them from the waiting list by using another method because the clients were moving and not available all the time at the same place. An interviewer-administered pretested structured questionnaire with closed-ended questions was used.

Results: The study findings revealed that the overall level of pregnant women's satisfaction with the quality of antenatal care services at Omdurman maternity and Bashair hospitals was high (82.6%). 1 Pregnant women were least satisfied with lab services (89.2%), followed by waiting time (85.1%), and privacy in consultation rooms (77.6%). About three-quarters of respondents were satisfied with the cleanliness.

Conclusion: Satisfaction of pregnant ladies with ANC at Omdurman maternity and Bashair hospitals was relatively high. It was found that the physical environment, the performance of the provider, and waiting time were significantly associated with satisfaction with ANC. Although about three-quarters of respondents were satisfied with the general environmental cleanliness, many of them were complaining about toilets' hygiene.

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Effect of extracorporeal shock wave therapy on induced uterine fibroids in rats

Uterine leiomyoma or fibroids are the most common benign tumors in reproductive women. Although their negative impact on women's health, there are few conservative treatment options for women suffering from fibroid symptoms. This study was conducted to investigate different doses related to the effect of radial extracorporeal shock wave therapy on induced uterine leiomyoma in rats. Thirty mature virgin female Wister strain rats, weighting 150-190 grams were used in this study; 3 rats used as a negative control group, and the other 27 rats were subjected for induction of leiomyoma. The induced groups (untreated group and 2 experimental groups (A& B), were administrated Monosodium Glutamate (MSG) for 8 weeks, and from the 3rd week; Estradiol benzoate was injected intramuscularly twice per week for 6 weeks. After induction, the induced rats were divided into: 5

rats untreated group, 18 rats treated conservatively with Shock Wave Therapy (SWT) as; 9 rats in group A were treated by Low intensity SWT and 9 rats in group B were treated by High intensity SWT, while the other 4 rats had died during the induction phase. All rats were assessed for developing uterine fibroids with Doppler ultrasonography. The collected blood samples: Estradiol (E2), Estrogen Receptor (ER), Progesterone (P4), and Progesterone Receptor (PGR), were assayed. Total cholesterol, protein, albumin, and globulin were measured also. Uterine arteries' blood flow velocities, indices, and volume were obtained. Tissue samples were stained with Smooth Muscle Actin (SMA), trichrome-three, and (hematoxylin and eosin). Rats developed leiomyoma had the highest ($P=0.0001$) gross and sonographic uterine horns diameters, uterine weight, uterine coefficient, E2, and ER. Both trichrome-three and SMA staining confirmed the leiomyoma development and the response to shock waves treatment. In conclusion, low-intensity and high-intensity radial shock waves are proved to be curative for the induced leiomyoma in rats.

Biography

Rehab Mamoon is a 35-year-old Egyptian physical therapist and assistant professor of physical therapy for women's health at South Valley University. With over 10 years of clinical experience in the field, she has worked at the Ministry of Health and as an assistant lecturer since 2016. Rehab graduated from Cairo University's faculty of physical therapy with honors in 2008 and completed her Master's degree in 2015 with a focus on post-menopausal depression. She obtained her PhD from Cairo University 2021; her research is centered on the effects of radial extracorporeal shock wave therapy on induced uterine leiomyoma in experimental rats.



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Tetanus toxoid immunization coverage and associated factors among postnatal mothers

The risk of neonatal tetanus infection will be reduced while the pregnant women took two doses of maternal tetanus toxoid vaccine. However, low levels of immunization coverage, mostly due to missed opportunities, are a concern. This study was conducted among 505 mothers who had given birth in the last 12 months. A two-stage stratified sampling technique was applied and the participants were selected using a systematic random sampling technique. Bivariable and multivariable logistic regression analysis was performed. Adjusted odds ratios (AORs) at 95% CIs were used to identify factors associated with tetanus toxoid immunization. The total tetanus vaccine intake (TT+2) doses were found 71.2 %. Mothers who were attended primary school [AOR: 0.07, 95% CI: (0.01-0.6)], mothers whose husbands had secondary education [AOR: 0.26, 95% CI: (0.08-0.84)], mothers attended 2-3 for Antenatal Care (ANC) visit [AOR: 0.05, 95% CI: (0.01-0.3)], good quality service [AOR: 2.8, 95% CI: (1.05-7.5)], appropriate behavior of health workers [AOR: 6.2, 95% CI: (2.2-18.7)] and who visited with health extension workers [AOR: 7.6, 95% CI: (2.3-25.3)] were significantly associated with TT vaccine utilization. In conclusion, only three out of four pregnant women received the current TT vaccine during their previous pregnancy. The most influencing factors in TT vaccine utilization were the mother and her husband's low educational level, 2-3 times ANC visit during pregnancy, the standard of health care service, the health care provider's behavior, and the mother's visit with health extension staff.

Biography

Jembere Tesfaye has completed his Bachelor of Science in Midwifery from Addis Ababa University in 2007. After he served as clinician and academician, he won scholarship and completed his Master of Science in Maternal and Child Health from Central South University, China in 2017. Currently, he is the Coordinator of Midwifery department at Addis Ababa University, Ethiopia. He has published about 30 research papers in reputable journals and presented more than five papers on the conference. He is serving as Assistant Professor in the University and a member of Federal Health Professionals Ethics Committee in Ethiopia.



Kishuar Parveen

Obstetrics and Gynecological Society of Bangladesh, Bangladesh

Near miss case presented with toxic shock syndrome

A 24 years, P-1, lady underwent dilatation, evacuation and curettage for incomplete abortion for her 2nd pregnancy loss at +10 weeks of gestation in a rural setup. She was given IUCD following the procedure as long acting reversible contraceptive method at the same sitting.

After 48 hours she was transferred to our tertiary care centre due to septic shock.

She had H/O, recurrent UTI before and during pregnancy and was treated by antibiotics inadvertently for several occasions.

She developed fever and diarrhoea next day and had hypotension after 48 hours.

On admission, she had a temperature of 101°F, tachycardia, hypotension and SPO₂ was 90%.

Per speculum examination revealed, parous cervical os with scanty foul smelling blood stained discharge and Cu-T thread seen, which was removed.

She was resuscitated and managed in ICU, her blood culture grew Staphylococcus Aureus while cervical vaginal swab and urine cultures were negative.

She initially received injection Ceftriaxone and Metronidazole for 48 hours and later on injection Cefuroxime for which Staph.Aureus was sensitive. She recovered after a week and was discharged on day 23 of admission.

Audience Take Away Notes

- The presentation is a bit unusual, the patient had recurrent urinary tract infection which might be the predisposing factor for the abortion and later on development of TSS soon after insertion of IUCD following evacuation, I am sure, the audience will be able to use my experience in their daily practice.
- How will this help the audience in their job? As this is a rare but life threatening condition, prompt diagnosis and immediate management is utmost important for the life saving purpose. So the audience could be able to save such near miss cases.
- Is this research that other faculty could use to expand their research or teaching? Yes, certainly they can use.
- Does this provide a practical solution to a problem that could simplify or make a designer's job more efficient? Yes, I hope so.
- Will it improve the accuracy of a design, or provide new information to assist in a design problem? In my opinion, it will improve but further research and more study is required to provide more new information.
- List all other benefits. Low resource countries, where septicemia due to abortion and other post partum infection is more common and the second cause of maternal mortality could be benefitted and able to reduce maternal mortality significantly.

Biography

DR. Kishuar Parveen studied in medicine and graduated in 1996 from M.A.G. Osmani Medical College in Sylhet, Bangladesh. Thereafter she did her Fellowship in OBGYN in the year 2008 from Bangladesh college of Physicians and Surgeons. She worked in different rural setting in her place and attended a number of training in emergency obstetric care. At present, she is working as a chief OBGYN consultant in Mount Adora hospital. She is also working as a faculty member of BCPS and is related with different training program of this institute. Her main goal is to reduce maternal mortality to zero.



Rostam Jalali

Kermanshah University of Medical Sciences, Iran

Women's experiences of rectovaginal fistula: An ethno- religious experience

Background: Obstetric fistulas are one of the most tragic injuries that occur after difficult, prolonged childbirth without timely intervention. These fistulas cause discomfort to patients and result in emotional, social, and even physical suffering. The present study aimed to explore the experiences of women with rectovaginal fistula in Kamyaran city, in Kurdistan province, west of Iran.

Methods: In a phenomenological study, 16 patients, healthcare personnel, and patients' families were investigated. Purposive sampling was performed and Study participants were interviewed in-depth semi-structured interviews. All interviews were audio-recorded, transcribed verbatim (word by word), and analyzed by Colaizzi's method. For determining the validity of the study, Lincoln and Guba's criteria, which include credibility, dependability, transferability, and confirmability, were considered.

Results: Five general themes and 10 sub-themes emerged after investigating interviews. Themes include religious harassment (the sub-theme of being defiled), pain (sub-themes of loss and negative attitudes, disrupted sex (the sub-theme of sexual dissatisfaction), consequence (three sub-themes of sleep disturbance, mental crisis, and isolation), and ultimately panic (three sub-themes of humiliation, secrecy, and fear).

Conclusion: The rectovaginal fistula is a complex and multifaceted problem with social, individual, familial, religious, and ethnic-environmental dimensions, so there is no simple solution to interact with this problem and there is a need to find a solution, considering the dimensions of the problem and plan for help these patients cope with their disease, and take steps to fully treat it.

Biography

Rostam Jalali is a Professor in the School of Nursing and Midwifery at the Kermanshah University of Medical Sciences where he has been a faculty member since 1997. He is the Nursing and Midwifery School's Vice Director, from 2017–2022. Rostam completed his Ph.D. at Shaheed Beheshti Medical University and his undergraduate studies at Isfahan Medical University. His research interests lie in the area of qualitative research, critical care and medical-surgical nursing. He has collaborated actively with researchers in several other disciplines, particularly in the field of medicine. Rostam has served on roughly 120 conference and workshop program committees and served as the Program Chair. Rostam has written 11 books and more than 150 journal articles.



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Role of mass media in understanding about cervical cancer and its screening among married women

Cervical cancer besides being preventable and curable is quite an alarming situation. But unfortunately, measures remain inaccessible to the majority especially in developing countries. This study is to discover role of mass media in cervical cancer and its screening awareness with socio-demographic profile, understanding, source of information and advocacy towards the disease. This cross-sectional study was designed involving quantitative research method which was done through self-administered questionnaire after reviewing the studies already published taking married woman as a sample in Lahore, Pakistan. The study revealed poor understanding and minimal role of mass media in awareness in third world country but with the help of health care workers, print and digital media, respondent's knowledge on cervical cancer and its screening may enhance as well as awareness on their health spectrum may broaden. Incidence of Cervical cancer is increasing worldwide. We can use media to help creating awareness for its prevention and screening cervical malignancy being preventable disease can be caught in time by spreading awareness. This study gave facts and figures of developing country, so that work must be done to limit spread of preventable cancer. With the help of health care workers, print and digital media, respondent's knowledge on cervical cancer and its screening may enhance as well as awareness on their health spectrum may broaden.

Audience Take Away Notes

- Incidence of Cervical cancer is increasing worldwide. We can use media to help creating awareness for its prevention and screening
- Cervical malignancy being preventable disease can be caught in time by spreading awareness
- This study gave facts and figures of developing country, so that work must be done to limit spread of preventable cancer
- with the help of health care workers, print and digital media, respondent's knowledge on cervical cancer and its screening may enhance as well as awareness on their health spectrum may broaden

Biography

I, Dr. Ayesha is currently doing residency in gynecology and obstetrics from Pakistan. I have studied MBBS from KING EDWARD MEDICAL UNIVERSITY, LAHORE, PAKISTAN. I have keen interest Research work and public health. I have published multiple research articles during my residency on Covid, women's health, pregnancy and a couple of case reports as well. I have participated in both National & International Conferences.



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The effect of magnesium sulfate on maternal serum electrolytes in preeclampsia

Magnesium sulfate is the drug of choice in the management of preeclampsia / or eclampsia during pregnancy. Magnesium sulfate (MgSO₄) is the drug of choice in the management of preeclampsia / or eclampsia that prevents convulsion and dispenses fetus neuroprotection in preterm labor. Since over-dosage of magnesium sulfate could lead to respiratory and cardiac failure, precise monitoring regarding drug toxicity is performed by periodic assessment of the deep tendon reflexes, urinary output, and respiratory rate.

A total of 30 pregnant women with preeclampsia were evaluated. The patients were administered 4 grams of intravenous MgSO₄ followed by a 2 g/hour infusion up to 24 hours after delivery. Sequential blood samples were drawn from each patient and used to measure the serum levels of sodium, potassium, calcium, phosphorus, magnesium, and parathyroid hormone.

The patients were aged between 20 to 41 years with an average gestational age of 36 weeks and 3 days. Only 5 patients reached the therapeutic range of magnesium in at least one of our measuring intervals. Magnesium levels increased significantly during magnesium sulfate administration and dropped remarkably over the next 12 and 24 hours after the infusion cessation ($p < 0.05$). Fifty percent of patients (15 of 30) developed asymptomatic hypocalcemia mainly at the 24 hours of infusion onset. Eleven patients (of 30, 36.6%) developed hyperphosphatemia mainly after 2 and 12 hours of magnesium sulfate infusion.

Our study implies that magnesium sulfate could cause hypermagnesemia-induced hypocalcemia in preeclampsia patients, independent from PTH. A higher risk of severe symptomatic hypocalcemia is anticipated in therapeutic levels of magnesium.

Audience Take Away Notes

- Magnesium sulfate might induce hypermagnesemia-induced hypocalcemia, independent from PTH, in preeclampsia patients. Patients with therapeutic levels of magnesium are at higher risk of developing severe symptomatic hypocalcemia

Biography

Dr. Masoumeh Farahani studied Medicine at the Kashan University, Iran, and graduated as MD. She then started Obstetrics and Gynecology at the Shahid Beheshti University of medical sciences, Iran. After graduation as a gynecologist, she obtained a position at Alborz University, Iran as an assistant professor. She has published more than 10 research articles in different gynecology journals.



Aruna Uprety

Rural Health Education Service Trust, Nepal

Maternal health status of Nepali women_ Stories from the field

Dhiru Bista is from a remote village in Nepal, about 600 kilometers from the capital city of Kathmandu. She is only 35, but looks much older. She was married at 15 and got pregnant at 16. She has had 12 pregnancies in hopes of having a son. Her last pregnancy, a year ago, resulted in a stillbirth, which nearly killed her because of a ruptured uterus and internal hemorrhage. She was saved by the doctors from the nearest hospital, which is about four hours by bus. If her family did not expect her to have a son, she would not have been forced to go through so many pregnancies.

Because of lack of education, awareness, and access to family planning, many women in Nepal suffer from reproductive health challenges. Hoping for a son, they give birth too many children.

A common condition among these women is a prolapsed uterus. According one study done in rural areas of Nepal, about 32% of married women of reproductive age suffer from this problem, but they are too hesitant to share it with their family, which worsens their condition.

I have been working in maternal and reproductive health for the last 20 years. I have conducted research and traveled to many rural communities spreading awareness about this issue.

Thanks to our constant advocacy, the government has made a policy to provide free health service and free operation to women who are suffering from prolapsed uterus. Unfortunately, this policy has not benefitted many of the women in rural communities where it's most needed.

Keywords: Social status, Reproductive Health, policy, discrimination

Biography

Dr. Aruna Uprety is currently working as Executive Director of Rural Health Education Service Trust (RHEST) Nepal. She received her master's degree in Arts from the Women and Development Institute of Social Studies The Hague, The Netherlands. She did her M.D from Kharkiv State Medical Institute Ukraine (Former Soviet Union). She worked with the Ministry of Health for about 8 years on maternity hospital and family planning projects. Her close hands-on experience in the maternity ward inspired her desire to advocate for women's rights and health. Uprety was involved with many different Non-governmental organizations, which allowed her to travel to different Nepalese regions. She also worked in Afghanistan, Iran, India, Laos, China, Sri Lanka, Sudan as a public health specialist and gained experience. She learned about problems associated with malnutrition among children and its reasons while working in rural areas of Nepal. She conducted research on reasons for malnutrition and advocated on how to reduce this. She learned about local food, health, cultural practice, and its importance for healthy living. She has written many articles on this issue and has presented her ideas in many national and international seminars.

Mehdi Kehila

Eve Fertility Center, Sousse, Tunisia

Should we propose IVF to women of 42 years old?

It is already known that the success of IVF is closely linked to the age of the woman. There is a low chance of success after 40 years and chances become extremely low at 42 years. We discuss based on literature and the statistics of our IVF Center the indication of IVF for women of 42 years and more.

Results: We noted in our data a very important decline in IVF results between women of 41 years and those of 42 years old. In unselected patients, especially in low reserve patients, the results of IVF in women of 42 years and more is extremely low (Clinical Pregnancy Rate: 5%, Live Birth Rate 1%).

We explain based on the euploidie rate of embryos the causes of these results in this age range. In these patients, surgery, medical treatments and natural conception gives probably more chance of conception than one IVF attempt.

We try also in this presentation to define a group of patients of 42 years or old with a better prognosis.

Conclusion: When patients consult at age of 41 years with an IVF indication, better realise IVF immediately. In patients of 42 years old or more specially with low ovarian reserve the results of IVF are insignificant. Chances must be well explained to these patients and natural conception should be tried in association with medical treatment or surgery. In a selected group of patients with normal ovarian reserve, IVF can be proposed with low but acceptable expected results.

Audience Take Away Notes

- The audience will be more critic about IVF indication in patients of 42 years and more and will able to explain to the patients the expected results and the causes of these results in this age group
- The audience will be able to avoid in certain patient heavy treatments with insignificant results
- This presentation will help audience to counsel these patients for the best treatment options depending on their ovarian reserve and will help audience to select for IVF patients of this age range with an acceptable chance of success
- This presentation will also encourage other centers to make the same statistics and try to confirm these findings

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. 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.



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A pregnant woman with a history of SLE with PPRM and severe thrombocytopenia: A case study

Systemic Lupus Erythematosus (SLE) has a multisystem effect on patients. Lupus is more prevalent in women of reproductive ages. Pregnant women who have a history of SLE have higher rates of fetal demise, hypertensive disease, thromboembolism, Fetal Growth Restriction (FGR), premature delivery, and neonatal death. Many of these complications can be attributed to SLE treatment more than to the disease itself.

In this study, we discussed a case of a pregnant woman with a history of lupus from 4 years ago and severe thrombocytopenia; who was referred to our hospital. A 41-year-old woman was referred to our hospital at 32 weeks by a rupture of the membrane. She had a history of lupus and she was in the remission phase. In clinical exams, we detected severe thrombocytopenia (8.0×10^3 mm³/dl). Her thrombocytopenia didn't respond to prednisolone at first so we added Intra Venous Immunoglobulin (IVIg) to her treatment. After 2 days of hospitalization because of a decrease in fetal movement, increase in FHR (170-175), and non-reactive Non-Stressed Test (NST) the patient candidate for emergency Cesarean (C/S) with low platelet count (20.2×10^3 mm³/dl) and general anesthesia. Because thrombocytopenia didn't respond to prednisolone and IVIg and hard situation we used 5 units of Platelet before delivery. During surgery, we found placental abruption and post-partum hemorrhage so we fixed Bakri balloon and rectal misoprostol. After C/S she was admitted to the Intensive Care Unit (ICU) for 5 days for continuing her treatment.

The management of severe lupus during pregnancy is so difficult. High-dose corticosteroids and Azathioprine are the accepted medications available for the treatment of severe lupus during pregnancy. In this case, we had a very difficult situation because of severe thrombocytopenia and placental abruption, and post-partum hemorrhage. Managing this difficult situation would be a good experience for other specialists.

Audience Take Away Notes

- This study discusses the management of a pregnant woman with PPRM and a history of lupus. She was found to be severely thrombocytopenic and was unresponsive to prednisolone. During the caesarian section, placental abruption was found and post-partum hemorrhage ensued
- In this case study we describe our different and complicated situations and how we managed her therefore, other physicians can use it for their complicated patients

Biography

Dr. Matineh Nirouei studied Medicine at the Alborz University, Iran, and graduated with an MD degree in 2021. She is a highly motivated and innovative Doctor of Medicine. She is passionate about learning new scientific skills and also enthusiast team player adept at providing leadership while also learning from fellow team members. She has experience in managing multiple projects simultaneously. She is an effective communicator and presenter that can conceptualize complex and rare diseases to audiences with varied expertise. She has published about 10 research articles in different journals.

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The perceived health needs of primiparous mothers referring to primary health care centers

Background: Since the first step in meeting the health needs and requirements of primiparous women involves understanding and analyzing their conditions and needs, the present study was designed to investigate the health needs of primiparous women from their own viewpoints.

Methods: This study had a qualitative approach based on the conventional qualitative content analysis method. The purposive sampling method was used. Data were collected by unstructured interviews, as a result of which data saturation was achieved by interviewing 12 participants. Ongoing data analysis was performed concurrently with the data collection. To ensure the study was rigorous, the four criteria of credibility, dependability, confirmability, and transferability were taken into account.

Results: The findings of the study consisted of 150 codes and 6 pivotal categories, including the intense need for social support (i.e. the need to be the center of attention and receive support from one's family, fear of being left alone or abandoned, and the need to receive care from healthcare workers), the need for prior preparation for pregnancy (psychological preparation, financial/economic preparation, and physical preparation before pregnancy), fears and worries (concerns for the health of the fetus, worries and attempts to adjust to the mothering role, and fear of vaginal delivery), the necessity of the availability of the needed infrastructures and requirements in the health center (the presence of a counseling psychologist, the presence of a nutritional consultant, the necessity of having a close and warm relationship with healthcare workers, the appropriateness of the education received by pregnant women, the need for adequate and appropriate physical space development, the availability environments and spaces that allow for privacy), falling in love with the baby (disregarding trivial issues, embracing the baby, and having feelings of attachment and love towards the fetus), and seeking information from appropriate sources (being interested in attending educational classes, and searching on the Internet).

Conclusion: The present study showed that primiparous women need to receive more social and psychological support from family members and healthcare workers and that it is essential to improve the available infrastructures and services in healthcare centers and to provide the needed counseling to pregnant mothers to enable them to go through the pregnancy period smoothly.

Audience Take Away Notes

- The first step in meeting the health needs of primiparous women is to investigate and comprehend their conditions and needs
- The feeling of anxiety and uncertainty brought about by the lack of proper fulfilment of the need for information caused them to seek this information themselves

- Healthcare workers should manage and meet the mothers' needs for accurate information
- Primiparous women need more social and psychological support from family members and health care workers due to lack of experience
- Some women experience ambivalent feelings during pregnancy, whereas some other women are afflicted by genuine mental distress

Biography

Dr. Shahin Salarvand is an academic member and researcher. She studied Nursing at the Isfahan university of medical sciences, Iran. She received her PhD degree in 2018 at the same university. She has published more than 40 research articles in the various academic/scholarly journals.

20-21 APRIL

DAY 02

POSTERS

GLOBAL CONFERENCE ON
**GYNECOLOGY &
WOMEN'S HEALTH**

**Zehra Rizvi*, Kiran Sharma, Viktor Kunder**

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A scoping review of barriers of care to ovarian cancer

Background: Ovarian cancer remains a serious issue in the United States, with ovarian cancer being a leading cause of female cancer-related deaths, thus making it the most lethal female genital tract cancer. However, patients are being diagnosed late and subjected to disease progression and possible death due to lack of early detection. Previous analysis and research suggest that early stage detection of ovarian cancer could improve survival rates as much as 30%. Early detection and access to care are closely related. However, many barriers to high-quality care exist for patients and a majority of patients do not receive recommended care according to ovarian cancer treatment guidelines. In order to improve care for ovarian cancer patients and decrease healthcare disparities in accessing equitable care, it is important to acknowledge the current gaps in patient knowledge, healthcare availability, and physician practice.

Objective: This scoping review explores the available evidence on ovarian cancer to identify these barriers to care in the effective treatment of ovarian cancer.

Methods: A comprehensive electronic search was conducted to identify articles discussing socioeconomic, racial, and demographic factors as barriers to ovarian cancer. The studies used in this scoping review were found through searches in PubMed, Medline, CINAHL Complete, Cochrane Database of Systematic Reviews, and Biomedical Reference Collection: Comprehensive. The following inclusion criteria were used: (1) articles published between 2002 and 2021, (2) full texts in English, (3) articles discussing socioeconomic, racial, and demographic factors as barriers to ovarian cancer, and (4) articles about barriers to care before diagnosis.

Results: Less than half of women diagnosed with ovarian cancer receive the recommended care due to factors such as low SES, low volume surgeons and hospitals, race, lack of insurance and non-English fluency. Only a small percentage of the patients were aware that genetic testing was available, with worse numbers in African Americans and those with lower education levels. Nearly half of high-risk women were not provided with written resources about Risk-Reducing Bilateral Salpingo-Oophorectomy (RRBSO), and in many cases there was no clear pathway to standardize who should receive additional referrals to other specialists. Another large barrier was the availability of appropriate ovarian cancer providers and patient access to these providers.

The findings of this review will give physicians and patients' better insight into what barriers may exist and how they may be curtailed for more efficient ovarian cancer management.

Audience Take Away Notes

- The aim of this study and presentation is to ensure that both patients and their physicians are aware of all treatment options for ovarian cancer, as well as to acknowledge barriers to guideline care with the goal of reducing these barriers in the future
- The audience will learn of the barriers to care that were identified in this study, such as low SES, low volume surgeons and hospitals, race, lack of insurance, and non-English fluency.
- The audience will be able to better advocate for themselves as patients and have a better understanding of treatment options as healthcare providers

Biography

Zehra Rizvi received her Bachelor of Science degree in Biology from the University of Texas at Dallas. She is now pursuing her medical degree at Nova Southeastern University as a third year medical student.

Kiran Sharma graduated from UF in 2018 with a B.S. in Microbiology and Cell Science. I am currently an OMS-III attending Nova Southeastern University and expect graduate as part of the class of 2024. My future specialty of interest is seen in general surgery.



Isabella R McDonald, MSN, RN¹, Elizabeth S Blocker^{1*}, MSN, RN¹, Elizabeth A Weyman, MSN, RN¹, Corrine K Welt, MD^{2,3}, and Andrew A. Dwyer, PHD, FNP-BC, FNAP, FAAN^{1,3}

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Best practices for co-creating patient facing materials and their application in primary ovarian insufficiency

Unmet health and informational needs contribute to impaired Health-Related Quality of Life (HR-QoL) identified in people with Primary Ovarian Insufficiency (POI). The process of co-creation engages and empowers patients to produce high-quality materials that respond to patient-identified needs. We aimed to use the co-creation process to produce patient-facing materials that mitigate health disparities and improve HR-QOL for people with POI. The project involved three steps. First, we synthesized the state of the science on HR-QoL as well as the care and management of POI. In parallel, we conducted a scoping review to identify best practices for co-creating patient-facing materials and partnered with POI patients to co-create materials using the “design thinking” process materials (i.e., empathize, define the question, ideate/brainstorm, iterate prototypes (n=4), and testing). The “gold standard” Patient Education Materials Assessment Tool (PEMAT) was employed to assess co-created materials.

The HR-QoL scoping review identified three inter-related themes regarding impaired HR-QoL in POI (diagnostic odyssey, isolation & stigma, and ego integrity) along with sub-themes of decreased sexual function, altered body image, psychological vulnerability, and catastrophizing. The co-creation scoping review identified 6 best practices for co-creation: (1) begin with a review of the literature, (2) utilize a framework to inform the process, (3) involve clinical and patient experts from the beginning, (4) engage diverse perspectives, (5) ensure patients have the final decision, and (6) employ validated evaluation tools. We then partnered with patients with POI to employ these practices in the creation of patient-facing materials. The final 2-page patient-facing materials were evaluated using 7 readability algorithms revealing a consensus reading level of 7th grade (fairly easy to read for an 11-13 year-old). The patient partners rated the materials as highly acceptable and actionable. The online PEMAT evaluation is underway in collaboration with POI patient organizations. We envision such co-creation will produce understandable and actionable materials determined with PEMAT domain scores >80%. This project may serve as a roadmap for healthcare organizations and patients to collaborate and surmount health disparities and improve care for other health conditions.

Audience Take Away Notes

- Modifiable factors for targeting health-related quality of life needs in patients with POI
- Best-practices for co-creation of educational materials with patient partners
- Access to high-quality, patient-evaluated educational materials on the diagnosis of, care for, and living with POI

Biography

Liz is pursuing her doctorate as a Women's Health Nurse Practitioner at Boston College William F. Connell School of Nursing. Her clinical and research focus involves correcting health disparities, improving healthcare access to underserved populations, and bringing research attention to women's health conditions. She graduated from Emerson College with a degree in the Arts and worked in marketing and wellness before transitioning to nursing.

Leslie Alonzo RN

Transition to Scholarly Practice Faculty Susan Luhrmann DNP, APRN, ANP-BC, United States

Breastfeeding and postpartum depression

Postpartum Depression (PPD) affects thousands of women a year. However, there are many cases which go undetected. PPD not only affects the mom but the entire family dynamics. PPD is a serious public health issue and for that reason early identification is crucial for the well-being of the mother and child. Recent studies have found a bidirectional correlation between breastfeeding and postpartum depression. This is of importance because in an effort to decrease the incidence of PPD identifying which factor occurs first; PPD or cessation of breastfeeding can aide in identifying those at risk and secure prompt intervention. The Nurse Practitioner amongst other providers is in the position to identify and screen women for PPD. By screening all women in the postpartum period and/or perinatal period women at increased risk can be identified earlier and be providing the services needed to prevent or treat PPD. Numerous women base their decision to breastfeed on past experiences, the mothers understanding of benefits, and social support. During prenatal visits the provider can explore moms feeding choices and address issues they may have in the past or advise them on potential issues they might come across. By providing moms with anticipatory guidance regarding breastfeeding they can set realistic goals to achieve which they will be satisfied with.

Audience Take Away Notes

- Factors affecting breastfeeding
- Early screening of mothers at risk can help ensure timely identification and treatment process
- Prevalence of PPD is high; discussing the prevalence with patients can aide in minimizing the stigma attached to mental health disorders
- Lactation consultants, brief motivational interventions, and improved self-efficacy can improve breastfeeding practices

Biography

Leslie Alonzo is currently a Family Nurse Practitioner student at the Massachusetts College of Pharmacy and Health Services. She graduated from Rhode Island College (RIC) in 2017 receiving her BSN. Prior to attending RIC she attended the Community College of Rhode Island receiving her Associate Degree in Nursing in 2008. In 2009 she started her career in Nursing at Women & Infants Hospital in providence, Rhode Island as a labor and delivery nurse. She currently remains at Women & Infants Hospital working in the labor room assisting women in the Alternative Birthing Center (ABC).



Roxana Belciu Kerns

Amarastesia LTD, United States

Disposable, pass through cervical dilator: A new approach for cervical dilatation

Statement of the problem: The cervical dilators available in the industry are essentially metallic or plastic and have encountered several limitations. They require (re) sterilization, they come in increasing sizes and require multiple instrumentation to achieve a desired opening; therefore, increased risk for trauma, increased operation time and anesthesia. The force exerted by present dilators can cause trauma to cervical canal and even perforate uterus. Other dilators require expensive and complex methodology (e.g. balloon dilators) or need a long time to achieve a dilated state (osmotic dilators, laminaria).

The purpose of this study is to describe a cervical dilator which can prevent and reduce mechanical traumatic risk to the cervical canal and or uterus by the use of a soft, expandable outer material, allowing at the same time passage of surgical instruments (e.g. hysteroscope). This dilator can be self-expanding and able to overcome the compressive forces to result in dilatation of the canal. The dilator may include an inner metallic core made up of a plurality of wires that are held in a compressed position by a string and expand into a dilated pass-through channel by pulling out the string.

Methodology: Inserting the dilator into the canal; expanding the dilator to provide for dilatation of the canal and a channel formed within the tubular member of the dilator.

Findings: the string may be the center piece of the dilator or off-center and when triggered can dilate and open the cervical canal. The string can also be used to measure the uterine cavity. The dilator provides for an unobstructed pass-through channel to allow passage of hysteroscope and other medical devices.

Conclusion: The dilator allows for atraumatic opening of the cervical canal, ease of use (no extraordinary skilled training), and may provide a disposable dilator and pass-through of medical instruments.



Biography

Dr. Roxana Belciu Kerns has her expertise and passion in improving medical devices presently available. With a long-standing career as a clinician, surgeon, anesthesiologist, aesthetic physician, Dr. Roxana B. Kerns combines a true visionary gift with a down-to-earth applicability in generating a new front of medical devices that respect humanity and cut costs.



Li Wu, Li He*

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Effects of suspension training therapy combined with biofeedback electrical stimulation on pelvic floor function and urodynamics in patients with postpartum stress urinary incontinence

Objective: To observe the effects of suspension training therapy combined with biofeedback electrical stimulation on pelvic floor function and urodynamics in patients with Postpartum Stress Urinary Incontinence (PSUI).

Methods: 96 patients with PSUI who were received in our hospital from July 2019 to August 2021 were selected. The patients who met the requirements were divided into control group (48 cases) and study group (48 cases) by envelope lottery. The patients in the control group received suspension training therapy, and the patients in the study group received suspension training therapy combined with biofeedback electrical stimulation. The curative effects, pelvic floor function indexes and urodynamic indexes of the two groups were compared. The leakage volume of urine pad test and the score of international consultation on Incontinence Questionnaire-Urinary Incontinence-Short Form (ICI-Q-SF) questionnaire of the two groups were observed.

Results: The total clinical effective rate of the study group was higher than that of the control group ($P < 0.05$). 1 month after treatment, the leakage volume of 24h urine pad test and the score of ICI-Q-SF questionnaire of the two groups decreased, and the study group was lower than the control group ($P < 0.05$). The improvement effect of pelvic floor muscle strength in the study group was better than that in the control group after one month of treatment ($P < 0.05$). 1 month after treatment, the Maximum Urethral Closure Pressure (MUCP), Functional Urethral Length (LES), Abdominal Pressure, Leak Point Pressure (ALPP) and maximum urinary flow rate (Q_{max}) of two groups increased, and the study group was higher than the control group ($P < 0.05$).

Conclusion: The suspension training therapy combined with biofeedback electrical stimulation intervention in patients with PSUI can effectively improve clinical symptoms and promote the recovery of pelvic floor function and urodynamics, the effect is remarkable.

Biography

Dr. Li HE studied Clinical Medicine at Shandong University, and graduated as Master of Medicine in 2010. She then joined and starts working at Chongqing Health Center for Women and Children Women and Children's Hospital of Chongqing Medical University.

**Mikhail Churnosov*, Oleg Golovchenko**

Department of Medical Biological Disciplines, Belgorod State University, 308015 Belgorod, Russia

Interlocus interactions of the ESR1 gene are associated with preeclampsia

The aim of the study was to detect the interlocus interactions of the ESR1 gene associated with Preeclampsia (PreE).

Material and methods: The sample volume totaled 514 pregnant women, of which 190 had PreE and 324 individuals were with the physiological course of pregnancy. The examination of pregnant women was carried out in the Perinatal Center of the St. Joseph Regional Clinical Hospital in Belgorod. Genotyping of three polymorphisms of the ESR1 gene (rs9340799, rs2234693, rs3798577) was performed. Associations of polymorphisms with PreE were evaluated in the PLINK program using the logistic regression method.

Results: Polymorphisms rs9340799, rs2234693, rs3798577 of the ESR1 gene were not independently associated with PreE. However, epistemic interaction of two loci - rs9340799 and rs3798577, reduced the risk of PreE (odds ratio 0.56, $p=0.004/p_{\text{bonf}}=0.012$). These polymorphisms and six SNPs strongly linked to rs9340799 ($r^2 \geq 0.8$) have significant functional effects: they affect the interaction of DNA with three regulatory proteins (NRSF/SIN3AK20/TCF12) and more than twenty transcription factors such as Foxo, Foxa, Foxf2, Foxd1, Foxj1, HDAC2, Foxk, Sox, p300, TCF12, etc.; they are located in the region of modified histones marking enhancers and promoters, the region of hypersensitivity to DNase 1 in more than thirty different organs (tissues) involved in the biology of PreE.

Conclusion: The interlocus interaction of two ESR1 gene polymorphisms (rs9340799 and rs3798577) is associated with PreE.

Biography

Dr. Professor Mikhail Churnosov qualified as a doctor at Kursk State Medical University. He received the degree of Doctor of Medical Sciences in genetics in 1998 and the academic title of professor in 2000. Since 1998, he has been working as the head of the Department of Medical Biological Disciplines of the Medical Institute of the Belgorod State National Research University. About 50 candidates and doctors of sciences have been trained under his leadership. He has more than 150 scientific papers in the field of studying genetic factors of common diseases in the population of Central Russia (reproductive disorders, cancer, hypertension, etc.).



Marina Ponomarenko

Department of Medical Biological Disciplines, Belgorod State University, 308015 Belgorod, Russia

Functional effects of rs10830963 MTNR1B gene associated with gestational diabetes mellitus and type 2 diabetes mellitus

The aim of the study was to analyze the functional effects of the GWAS-significant polymorphic locus rs10830963 of the MTNR1B gene.

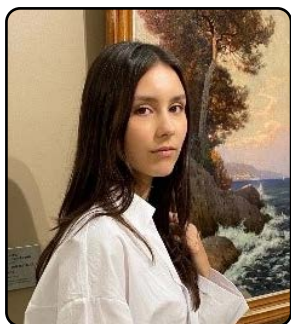
Materials and methods: To evaluate the functional potential according to the GWAS Catalog, a polymorphic locus was selected that was most significantly associated with gestational diabetes mellitus and type II diabetes mellitus (rs10830963 MTNR1B). The functional effects of the GWAS-significant polymorphic locus rs10830963 of the MTNR1B gene were analyzed using the RegulomeDB program.

Results: The GWAS Catalog presents data on more than 100 associations of the polymorphic locus rs10830963 of the MTNR1B gene with gestational diabetes mellitus, type II diabetes mellitus and glucose-involved phenotypes (high fasting blood glucose, insulin secretion rate, insulin disposition index, serum metabolite levels, pulse pressure, birth weight, etc.). It was found that rs10830963 of the MTNR1B gene is located at 11q14.3, in the area of gene enhancers in the musculature of the body, endocrine glands, exocrine glands, liver, strong transcription positions in the brain (neurosphere). Polymorphic locus rs10830963 of the MTNR1B gene is associated with PolyComb in endocrine glands, adipose tissue, adrenal glands, etc. This SNP has a RegulomeDB rank equal to 3A (transcription factors binding + any motif + DNase peak).

Conclusion: SNP rs10830963 of the MTNR1B gene involved in the development of gestational diabetes mellitus and type II diabetes mellitus has significant functional effects.

Biography

Marina Ponomarenko is currently a first-year postgraduate student at the Belgorod State National Research University Medical Institute. In 2022 she graduated from Belgorod State National Research University with a degree in pharmacy. Marina has scientific papers in the area of studying genetic factors of reproductive disorders and endocrine diseases in the population of Central Russia.



Maria Churnosova*, Irina Ponomarenko

Department of Medical Biological Disciplines, Belgorod State University, 308015 Belgorod, Russia

Polymorphism FSHB gene was associated with age of menarche and obesity in women

The aim of this work was to study the correlation of the polymorphism FSHB gene (rs555621) with Menarche Age (AM) and Obesity (Ob) in women of the Central Chernozem region of Russia.

Material and methods: The sample for the study included 171 women (aged 20-30 years) of Russian nationality, living (born) in the Central Chernozem region of Russia (Belgorod region). In women, we assessed age, anthropometric indicators (height; weight; MI), and AM. The SNP rs555621 FSHB was genotyped. Correlations between SNP and AM, Ob were studied using the gPLINK program.

Results: Women with obesity are characterized by an earlier (by 0.7 years, $p < 0.001$) onset of menarche. Using logistic regression analysis, it was found that early AM is a risk factor for obesity (OR= 0.49 [95% CI 0.34-0.71] $p < 0.001$). The rs555621 FSHB was associated with the AM according additive ($\beta = 0.233 \pm 0.116$ $p_{\text{perm}} 0.05$) and dominant ($\beta = 0.357 \pm 0.170$ $p_{\text{perm}} 0.05$) models with correction for covariates (age and BMI). In women who have one or two G allele rs555621 in the genotype (genotypes AG and GG respectively), menarche occurs 0.34 years or 0.43 years later compared to women whose genotype does not have this allele (genotype AA). It was found that among obese women, the frequency of the AA rs555621 genotype is 2.01 times higher than in non-obese women ($p = 0.004$). Also, the frequency of the rs555621 A allele is 1.32 times higher among obese women compared to non-obese women ($p = 0.009$). These genetic variants are risk factors for Ob (OR=3.03 for genotype AA and OR=2.04 for allele A). The rs555621 FSHB is associated with the Ob in women (OR_{additive} = 0.51 [95% CI 0.29 - 0.89] $p_{\text{perm}} 0.02$) and OR_{dominant} = 0.38 [95% CI 0.18 - 0.79] $p_{\text{perm}} 0.009$) with correction for covariates (age and AM).

Biography

Maria Churnosova is a student of the Medical Institute of the Belgorod State National Research University. Studies genetic factors of women's reproductive health disorders (preeclampsia, endometriosis, breast cancer). She is a co-author of scientific publications in journals such as International Journal of Molecular Sciences, Placenta, Biomedicines, and Life.



Maria Abramova*, Irina Ponomarenko, Maria Churnosova

Department of Medical Biological Disciplines, Belgorod State University, 308015 Belgorod, Russia

Association between hypertension susceptibility gene polymorphism and severe preeclampsia

Preeclampsia (PE) is a life-threatening pregnancy-specific disorder and results in maternal and fetal morbidity and mortality. Numerous epidemiological studies indicate that PE has a significant heritable component (more than 60%). The present study aimed to explore the association between Hypertension (HT) susceptibility gene polymorphisms and severe PE in a population of Caucasian origin.

Materials and methods: A case-control study consisting of 217 pregnant women with severe PE and 498 women with uncomplicated pregnancies was performed. The rs1799945 of the HFE gene, rs805303 of the BAG6 gene, rs4387287 of the OBFC1 gene, rs633185 of the ARHGAP42 gene, rs2681472 of the ATP2B1 gene polymorphisms were genotyped and were also associated with the HT according to the Genome-Wide Association Studies (GWAS). The PLINK v. 2.050 program was used to study the associations.

Results: All tested polymorphisms were in agreement with Hardy-Weinberg equilibrium in case/control subjects ($p \geq 0.05$). A significantly increased risk of severe PE was determined to be associated with the rs1799945 GG genotype in recessive genetic model (OR= 2.41; 95% CI= 1.06 – 5.45; $p = 0.03$; $p_{perm} = 0.01$). PE-associated polymorphic locus rs1799945 of the HFE gene have serious prediction weight (identifies the non-synonymous substitutions of the homeostatic iron regulator protein His63Asp with a “probably damaging” score, is located in the DNase-I hypersensitive sites and in the region of promoters/enhancers in the trophoblast, amnion, placenta, brain, is associated with gene expression in various parts of the reproductive and cardiovascular systems).

Conclusion: The polymorphism rs1799945 of the HFE gene is associated with severe PE in Caucasian.

Biography

Maria Abramova is currently a fourth-year graduate student studying at Medical Institute of the Belgorod State National Research University. Previous that, Maria received qualified as a doctor within the field genetics. She has more than 10 scientific papers in the field of studying genetic factors of reproductive disorders and cardiovascular diseases in the population of Central Russia.



Irina Ponomarenko*, Ilya Golovchenko, Mikhail Churnosov

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Genetic determinants of uterus combined proliferative diseases in endometriosis

The aim of the study was to study the participation of GWAS-significant polymorphic loci of sex hormone genes in the development of mixed proliferative diseases of the uterus in patients with endometriosis.

Materials and methods: The sample for the study included 395 women, including 103 patients with isolated endometriosis and 292 patients with endometriosis in combination with uterine fibroids and/or endometrial hyperplasia. The women were examined at the Perinatal Center of the St. Joseph Regional Clinical Hospital in Belgorod. Molecular genetic testing of seven GWAS-significant variants of single-nucleotide polymorphism of sex hormone genes (rs11031002, rs112295236, rs34670419, rs1641549, rs117585797, rs11031005, and rs148982377) was performed for all women. The associations of polymorphic variants with the risk of concomitant proliferative diseases of the uterus in patients with endometriosis were analyzed. The online programs HaploReg and Gtex Portal were used to evaluate the functional effects of SNP associated with the formation of combined proliferative uterine diseases in women with endometriosis.

Results: Genetic variant A rs117585797 of the ANO2 gene is a risk factor for combined proliferative diseases of the uterus in women with endometriosis ($p=0.05$, $p_{perm}=0.05$, OR=4.29). According to the data obtained *in silico*, the rs117585797 locus localized in the intron of the ANO2 gene affects the affinity of the regulatory DNA motif to the transcription factors Crx and GSC.

Conclusion: SNP rs117585797 of the ANO2 gene is related to a high risk of the formation of combined proliferative diseases of the uterus in women with endometriosis.

Biography

Doctor, Professor Irina Ponomarenko qualified as a doctor at Belgorod State University. She received the degree of Doctor of Medical Sciences in genetics in 2019. She has been working at the Department of Biomedical Disciplines of the Medical Institute of the Belgorod State National Research University since 2011. She has more than 75 scientific papers in the field of studying genetic factors of common diseases in the population of Central Russia (hypertension, hyperplastic uterine diseases, etc.).



Nadezhda Pavlova*, Sergey Demin, Irina Ponomarenko, Mikhail Churnosov

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Associations of polymorphic loci of matrix metalloproteinase genes with the breast cancer in women of Russia

The aim of the study was to detect the interlocus interactions of the MMPs genes associated with Breast Cancer (BC).

Material and methods: The study included 358 patients with breast cancer (68 patients had a burdened family history) and 746 women of the control group. The examination of women was carried out in the Regional Oncological Dispensary in Belgorod. Genotyping of 10 polymorphic loci of MMP genes (rs1799750 MMP1; rs243865 MMP2; rs679620 MMP3; rs1940475 MMP8; rs17576, rs17577, rs3918242, rs2250889, rs3787268, rs3918249 MMP9) was performed. To study the associations of polymorphic variants of MMP genes with BC in two subgroups, taking into account the presence/absence of a burdened family history (the control group for these two subgroups was the same) and were evaluated in the PLINK program using the logistic regression method.

Results: It was revealed that a low BC risk among women with a burdened family history was associated with polymorphisms rs243865 MMP2 (OR=0.53–0.54, $p_{\text{perm}} \leq 0.03$) and rs2250889 MMP9 (OR=0.36–0.37, $p_{\text{perm}} \leq 0.04$). In women without burdened heredity, an increased BC risk was associated with rs3787268 MMP9 (OR=2.16, $p_{\text{perm}}=0.03$) and haplotypes of polymorphic loci of the MMP9 gene ($p_{\text{perm}} \leq 0.05$): CA rs3918249–rs17576 (OR=2.15), CCA rs3918242–rs3918249–rs17576 (OR=1.69), CCAG rs3918242–rs3918249–rs17576–rs3787268 (OR=1.69), CAGCG rs3918249–rs17576–rs3787268–rs2250889–rs17577 (OR=3.06). Three haplotypes were associated with a low BC risk in women without burdened heredity: GG rs17576–rs3787268 (OR = 0.60), GGC rs17576–rs3787268–rs2250889 (OR=0.63), and CGG rs3918249–rs17576–rs3787268 (OR=0.62).

Biography

Dr. Nadezhda Pavlova qualified as a doctor at Belgorod State University in 2005. Since 2006, she has been working as oncologist in Belgorod Regional Oncological Dispensary. Since 2018 she is a deputy chief physician in outpatient service of Belgorod Regional Oncological Dispensary. She is a candidate for the degree of Candidate of Medical Sciences (Ph.D). She has more than 30 scientific papers in the field of studying breast cancer development, treatment and prognosis.



Ola Alali*

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***In silico* analysis of the functional effects of BET1L rs2280543 associated with uterine leiomyoma in genome-wide studies**

The aim of this study: To identify important functional effects of BET1L rs2280543 associated with ULs based on previously published GWAS studies. **Materials and Methods:** The search for publications was carried out in the electronic databases PubMed in the GWAS catalog for the period from 2011 to the present about its relationship with UL. *In silico* approaches and bioinformatics tools (HaploReg, GTEEx-portal, Gene Ontology Resource and GeneMANIA) were used to analyze its epigenetic impacts, expression and splicing patterns.

Results: The results confirmed the role of the BET1L rs2280543 in UL pathogenesis, which was found to be substantially related to the number of fibroid nodes. Allele T (ref) of SNP is associated with the lower expression of the gene in Cells - Cultured fibroblasts ($\beta = -0.14$, $\delta = 0.7 \times 10^{-4}$, $pFDR \leq 0.05$) and the higher expression of the gene in Breast - Mammary Tissue ($\beta = 0.55$, $\delta = 4.9 \times 10^{-11}$, $pFDR \leq 0.05$), while alternative allele C has a risky effect for UL (OR = 1.34/1.39), and that was in two GWAS studies. Based on HaploReg, rs2280543 was discovered in the 3'-UTR. Several epigenetic effects regulating it were found as follows: 7 motifs changed, 9 enhancers and 5 DNAs histone markers. Depending on GTEEx, inferred that rs2280543 is associated with the expression of 5 genes (BET1L, RP11-326C3.16, AP006621.6, PSMD13 and IFITM2) in 19 tissues, but originally reported as associated with UL, where affected the expression of 2 genes (BET1L in Adipose - Subcutaneous, Breast - Mammary Tissue and Whole Blood, and PSMD13 in Cells - Cultured fibroblasts). The GTEEx dataset highlighted the regulatory function of mRNA precursor splicing patterns. According to GTEEx, rs2280543 was associated with the alternative splicing traits (sQTL) of PSMD13 gene. By Gene Ontology Resource, indicated that no statistically significant biological pathways for genes associated with the studied polymorphism have been identified. The functional consequence results for these candidate SNPs suggest that this SNP may be more than surrogate, but rather has actual biological functions that contribute to UL vulnerability. It's worth noting that the protective allele T of SNP was strongly linked to increased BET1L expression in numerous human tissues. This link between UL disease risk and BET1L gene expression may suggest some underlying pathogenesis processes of UL, and more research is required in the future to elucidate this biological mechanism. **Conclusion:** The *in-silico* analysis of GWAS BET1L rs2280543 significant for fibroids have pronounced epigenetic effects and affect the expression of seven genes (BET1L, RP11-326C3.16, AP006621.6, PSMD13, IFITM2, DEAF1 and LINC01001), which may be the basis of their involvement in the pathophysiology of fibroids.

Biography

Ola Alali is a 2th year PHD student in genetics from Belgorod State University, Russia. She obtained a master's degree in laboratory diagnosis in 2019 from Al-Baath University, Syria. She has published several articles at the master's stage. Likewise, a review was published in the PHD stage entitled: "The etiopathogenesis of uterine leiomyomas" and there are two articles currently under publication. Since 2011, she has been working as a member of the technical staff at Al-Baath University and several private Syrian universities, where she taught many subjects in the faculties of medicine, pharmacy and health sciences in various academic years.



Sadaf Alipour

Breast Disease Research Center, Cancer Institute, Tehran University of Medical Sciences, Tehran, Iran

Department of Surgery, Arash Women's Hospital, Tehran University of Medical Sciences, Tehran, Iran

Management of milk fistula and maintenance of breastfeeding: A systematic review

Milk fistula is an uncommon occurrence, and presents as dripping of milk from a tract that links a lactiferous duct to the breast skin in a lactating woman. Milk fistulae are either a spontaneous event, or a manifestation after a breach in the breast parenchyma, or on its skin. Discontinuation of lactation has been mentioned as a must for the management of this disorder.

In this study, in view of the many advantages of breastfeeding, an all- inclusive review of the literature was carried out to evaluate the underlying factors of milk fistulae, and the inevitability or not of cessation of breastfeeding. We also state our recommendations for prevention and for treatment of milk fistulae given our present practice.

Scopus, Pubmed, Ovid Medline, and Google scholar were searched by using pertinent keywords. The first screen was done by studying titles and abstracts of returned manuscripts, and the second round was performed by reviewing the full-texts of selected papers; then all relevant papers were included. A specific form was designed and used for recording extracted data.

Overall, 17 studies were included, all consisted of case reports or case series. Altogether, these included 27 cases of milk fistulae. Spontaneous milk fistulae during breastfeeding were located in the axillary breast (N=5), on normal skin of the breast (N=1), and through the scar of a previous breast abscess (N=1). Non-spontaneous fistulae had presented after lumpectomy (N=2), following core needle biopsy (N=3), and after treatment of a breast abscess including open drainage (N=7), aspiration (N=5), drainage via a catheter (N=2), or spontaneous drainage (N=1). In all cases, fistula treatment was not based on specific guidelines.

Various treatments consisted of appropriate wound care, pressing on the orifice at the time of lactation, administration of antibiotics, or operation; one or more of these modalities had been used for each case. Some cases had been ordered to discontinue lactation, and medicines had been administered for this in instances. However, some others had continued lactation throughout treatment. Overall, breastfeeding had been discontinued in 16 women during the treatment phases, but commonly without waiting for the results of conservative management. Considering the present literature and our experience, the management of milk fistula should be conservative with maintenance of lactation; except for breast cancer cases where nursing is generally ceased due to the adjuvant treatments which interfere with breastfeeding.

Prevention is the best method; following recommendations are given to prevent milk fistulas if a nursing woman has to undergo breast biopsy or surgery: milking the breast before any breast biopsy or surgery, using thinner needles during sampling, inserting the needle site or the incision far from the nipple, using small radial incisions, frequent evacuation of milk in the postoperative period, and holding pressure on surgery site while nursing or pumping milk. Our overall recommendation is preventing milk fistula as far as possible, managing the fistula by conservative measures, and persistence of breastfeeding until healing occurs.

Audience Take Away Notes

- The probability of milk fistula when performing procedures on a lactating breast
- How to prevent a milk fistula
- How to maintain breast feeding despite of a milk fistula

Biography

Sadaf Alipour is Professor of Breast Surgical Oncology at Tehran University of Medical Sciences, Tehran, Iran and is a founder of the Breast Disease Research Center of the University. She specializes in breast surgery and is an academic member of the Breast Surgery Fellowship program. She has a specific concentration in breast cancer management in young women and during pregnancy. Dr. Alipour holds the European Board of Breast Surgery, has published more than 100 academic papers and is the author of several books and chapters.

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*We wish to meet you again
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