فراخوان مقاله
و ثبت نام

بیست و یکمین کنگره بین‌المللی زنان و زایمان



21st INTERNATIONAL CONGRESS of OBSTETRICS & GYNECOLOGY

برگزار کننده:
گروه زنان و زایمان
دانشگاه علوم پزشکی تهران

۲۱ الی ۲۴ مهرماه ۱۴۰۵ تهران، مرکز همایش‌های برج میلاد 13-16 October 2026

۲۰ امتیاز آموزش مداوم ویژه متخصصین: جراحی زنان و زایمان/ جراحی عمومی / پزشک عمومی
جراحی کلیه و مجاری ادراری / گروهای داخلی **شناسه برنامه ۲۵۸۵۷۹**
و امتیاز بازآموزی برای سایر رشته‌های مرتبط

دارای ۲۰ امتیاز بازآموزی مهلت ارسال مقاله ۱۰ مهرماه ۱۴۰۵

وب سایت : **tugog2026.ir**

دبیرخانه اجرایی و نمایشگاهی: **مرکز همایش‌های مهناد** ۰۹۱۲۷۱۴۹۳۵۶

Count: 1
Abstract ID: 68
subject: Other related topics
Presentation Type: Oral

Reverse Engineering of the National OBGYN Board Examination: A Reference-Based Framework for Hierarchical Question Matching and Prospective Question Construction

Submission Author: Mitra AhmadSoltani

Mitra AhmadSoltani[1]

1. NAIGO

Background and Aim : Background- National board examinations are high-stakes assessments, yet the relationship between reference material and tested concepts may appear unpredictable. Existing reverse-engineering approaches generally address assessment alignment or item construction rather than prospectively constructing questions from references and comparing them with an actual examination. Objective- To develop and evaluate a reference-based framework for prospectively constructing probable OBGYN board questions and hierarchically matching them with questions from an actual national examination.

Methods : Material and Methods- In 2026, 150 probable multiple-choice questions were prospectively assembled using a management-centered framework based on updated clinical references, clinically important decision points, and structured summary and comparison tables. A separate set of 150 questions from the national OBGYN board examination was analyzed using the same matching framework. Concordance was classified hierarchically by topic, source-content, and exact-line correspondence.

Results : Of 150 proposed questions, 64 (42.7%) demonstrated concordance with questions in the actual examination. Of these 64, 53 (82.8%) reached the paragraph/source-content level, including 12 (18.8%) at the exact-line level. The hierarchy was cumulative.

Conclusion : Conclusion- A reference-based, management-centered framework identified substantial hierarchical concordance between prospectively constructed probable questions and questions appearing in an actual national OBGYN board examination. The findings provide preliminary support for further evaluation of this reproducible approach to examination-oriented learning and question construction.

Keywords : reverse, engineering, Board, exam, MCQs

Count: 2
Abstract ID: 9
subject: Other related topics
Presentation Type: Oral

Predictors of Breast, Cervical, Ovarian, and Uterine Cancers: A Comparative Analysis of Modifiable Risk Factors across 197 Countries

Submission Author: Seyedeh Noushin Ghalandarpoor-Attar

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Background and Aim : Breast, cervical, ovarian, and uterine cancers are leading causes of death and disability in women globally, with significant geographical variation. This study compared the effects of 11 modifiable risk factors and HDI on age standardized incidence rates of these four cancers across 197 countries.

Methods : This ecological study utilized country level aggregated data from the Global Burden of Disease (GBD) study and the United Nations Development Programme (UNDP) for the year 2023. The dependent variables were age standardized incidence rates (per 100,000) of breast, cervical, ovarian, and uterine cancers. Eleven modifiable risk factors, were included as independent variables

Results : High body mass index was the only significant positive predictor of breast cancer ($\beta = 0.603$, $P = 0.001$). Ovarian cancer was significantly associated with drug use ($\beta = 0.182$, $P < 0.001$), secondhand smoke ($\beta = 0.140$, $P < 0.001$), high alcohol use ($\beta = 0.198$, $P = 0.009$), and smoking ($\beta = -0.225$, $P < 0.001$). Cervical cancer showed significant associations with low vegetable intake ($\beta = 0.246$, $P = 0.003$), low physical activity ($\beta = -0.412$, $P = 0.002$), and high LDL cholesterol ($\beta = -0.489$, $P = 0.007$)

Conclusion : Modifiable risk factors and HDI exhibit distinct patterns of association with each of the four major female cancers. HDI, particularly for cervical cancer, and obesity for breast cancer, emerged as key predictors. Behavioral factors such as alcohol, drug use, and secondhand smoke

were predominantly associated with ovarian cancer. These findings highlight the need for cancer specific and context tailored prevention strategies based on each country's development level

Keywords : Modifiable Risk Factors, Human Development Index, Women's Health, Cancer Prevention

Count: 3
Abstract ID: 10
subject: Other related topics
Presentation Type: Oral

Global Trajectories and Inequities in HPV Vaccination Coverage: A Secondary Data Analysis

Submission Author: Seyedeh Noushin Ghalandarpoor-Attar

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Background and Aim : The World Health Organization (WHO) has set a target of 90% HPV vaccination coverage for girls by 2030 to eliminate cervical cancer. This study analyzes global trajectories and inequities in HPV Vaccination Coverage among 15-year-old girls from 2010 to 2024 to assess progress toward this goal.

Methods : In this secondary data analysis, HPV vaccination coverage data, stratified by World Bank income groups were extracted from WHO Global Health Observatory. Linear regression models were fitted to analyze the annual growth rates and project future coverage. The required acceleration to meet the 2030 target was quantified

Results : Global inequality in HPV coverage was observed during 2010 to 2024. The mean coverage in high-income and low-income countries groups were 34.07% (95% CI: 28.8–39.3) and 6.47% (95% CI: 2.8–10.1), respectively. The coverage gap between these groups widened significantly by an average of 0.75 percentage points per year (p=0.009). The annual growth rate in high-income and low-income countries groups were 2.03 and 1.28 percentage points /year (p-value<0.001). Projections indicate the WHO's goal of 90% coverage by 2030 will not be met until 2078, with low-income countries not reaching it until 2083. To achieve this target, the global annual growth rate must accelerate nearly sevenfold, from 1.29 to 8.8 percentage points per year, where the required acceleration factor in in high-income and low-income countries groups were 2.7 and 7.9.

Conclusion : Although, the global HPV vaccination coverage among adolescent girls is increasing, it is unequally distributed, with a widening gap between high- and low-income countries. The WHO 2030 target is unachievable under current trajectories. Achieving equality and elimination goals necessitates a targeted acceleration of efforts, particularly in low income countries

Keywords : HPV Vaccination Coverage, global analysis, WHO 2030 target, inequality, trajectory

Count: 4
Abstract ID: 25
subject: Other related topics
Presentation Type: Oral

The Effect of Tribulus terrestris Supplementation on Sexual Function and Fatigue in Postmenopausal Women with Hypoactive Sexual Desire Disorder: A Double-Blind, Randomized, Placebo-Controlled Trial

Submission Author: Farideh Kazemi

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Background and Aim : Hypoactive sexual desire disorder (HSDD) and fatigue are prevalent issues among postmenopausal women. This study investigated the effects of Tribulus terrestris supplementation on sexual function and fatigue in postmenopausal women diagnosed with HSDD.

Methods : This 30-day, double-blind, placebo-controlled randomized controlled trial was conducted from September to December 2025 at Comprehensive Health Service Centers in Hamadan, Iran. Eighty postmenopausal women over 40 years of age, all with a Female Sexual Function Index (FSFI) sexual desire domain score below 3.3, were randomized 1:1 to receive either Tribulus terrestris capsules (500 mg twice daily) or starch placebo capsules. Sexual function and fatigue were measured at baseline and after four weeks of treatment using the FSFI and the Chalder Fatigue Questionnaire (CFQ-14), respectively. Between-group differences were analyzed using analysis of covariance, adjusted for baseline values.

Results : All 80 participants completed the study. Tribulus terrestris significantly improved overall FSFI scores and all six domains—sexual desire, arousal, lubrication, orgasm, satisfaction, and pain—compared to placebo (all $P<0.01$). The most substantial effect was observed for orgasm (Cohen's d=2.01, 95% CI 1.47–2.55), followed by total sexual function (Cohen's d=1.93, 95% CI

1.39–2.46). The intervention also significantly reduced physical, mental, and total fatigue (all P<0.001). The adjusted mean difference for total fatigue was −2.72 (95% CI −3.52 to −1.92), indicating a large effect size (Cohen's d=1.52, 95% CI 1.02–2.01).

Conclusion : Thirty days of Tribulus terrestris supplementation significantly enhanced sexual function and alleviated fatigue in postmenopausal women with HSDD. Future studies with larger cohorts and extended follow-up periods are needed to corroborate these findings.

Keywords : Tribulus; Postmenopause; Sexual Dysfunctions, Psychological; Fatigue

Count: 5
Abstract ID: 23
subject: Other related topics
Presentation Type: Oral

Effects of Group-Based Stress Management and Resilience Training (SMART) on Resilience and Quality of Life in Postmenopausal Women: A Randomized Controlled Trial

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Background and Aim : Menopause can negatively affect quality of life, while stress and low resilience may hinder adaptation to this transition. This study evaluated the effect of Stress Management and Resilience Training (SMART) on resilience and menopause-specific quality of life in postmenopausal women.

Methods : This parallel-group randomized controlled trial enrolled 80 postmenopausal women from comprehensive health service centers in Hamadan, Iran. Participants were randomly assigned to either the SMART intervention (n = 40) or control (n = 40) groups. The intervention consisted of five group-based sessions covering menopause-related knowledge, stress management, stress appraisal, automatic thoughts, cognitive distortions, cognitive restructuring, and resilience-building strategies. Following these sessions, participants received a daily resilience-practice card and telephone follow-up for three weeks. Outcomes were assessed at baseline and eight weeks using a resilience questionnaire and the Menopause-Specific Quality of Life (MENQOL) questionnaire. Between-group differences were analyzed using analysis of covariance, adjusted for baseline scores.

Results : SMART significantly improved resilience compared with the control group (adjusted mean difference [MD] = 24.03, 95% CI 16.86–31.20; Cohen's d = 1.49, 95% CI 0.99–1.98; P < 0.001). Significant improvements were also observed in the vasomotor (MD = −0.25, 95% CI −0.37 to −0.13; d = 0.92; P < 0.001), psychosocial (MD = −0.11, 95% CI −0.19 to −0.03; d = 0.58;

P = 0.008), and physical (MD = −0.10, 95% CI −0.17 to −0.03; d = 0.67; P = 0.007) MENQOL domains. However, no significant improvement was found in the sexual domain (P = 0.92).

Conclusion : SMART significantly improved resilience and several dimensions of menopause-specific quality of life in postmenopausal women. Integrating stress management, cognitive restructuring, and resilience-building skills into menopause care may support psychological adaptation and overall well-being.

Keywords : Postmenopause; Resilience, Psychological; Stress, Psychological; Quality of Life; Menopause

Count: 6
Abstract ID: 31
subject: Other related topics
Presentation Type: Oral

Serum Trace Element Profile and Health-Promoting Lifestyle Behaviors in Women with Recurrent Pregnancy Loss: A Comparative Case-Control Investigation in Northern Iran

Submission Author: Samaneh Movasagh

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Background and Aim : Recurrent pregnancy loss (RPL), defined as two or more consecutive spontaneous abortions, remains a significant clinical challenge. While genetic, uterine, endocrine, and immunologic causes are established, many cases remain unexplained. Maternal nutritional status, particularly serum trace elements, and lifestyle behaviors may affect pregnancy maintenance, but findings are inconsistent and population-specific data are scarce. This study compared serum zinc, copper, manganese, and selenium, along with HPLP-II lifestyle characteristics, between women with RPL and women with successful pregnancy outcomes and no miscarriage history in Babol, northern Iran.

Methods : This case-control study was conducted in Babol, Iran. Eighty women were enrolled: 40 with at least two consecutive spontaneous abortions and 40 with at least one live birth and no prior miscarriage. Demographic, reproductive, and dietary data were collected via questionnaires, and lifestyle behaviors were assessed using the 52-item HPLP-II. Fasting blood samples were obtained

during the follicular phase, and serum copper, manganese, selenium, and zinc were measured. Chi-square, t-tests, and Mann-Whitney U tests were used, with $p < 0.05$ considered significant.

Results : The groups were comparable in age, spouse age, BMI, age at menarche, and menstrual duration, but the RPL group had a longer intermenstrual interval and more time since last pregnancy outcome. Differences were also found for residence, infertility history, supplement use, multivitamin, tea, and vegetable consumption. Serum copper was higher and manganese lower in the RPL group, while zinc and selenium did not differ. Only the HPLP-II nutrition subscale was lower in the RPL group.

Conclusion : Women with RPL had elevated serum copper, reduced manganese, and poorer nutrition scores. These observational associations should not be interpreted as causal and warrant further investigation in larger, prospective, controlled studies.

Keywords : recurrent pregnancy loss; trace elements; serum copper; serum manganese; health-promoting lifestyle; nutrition; HPLP-II; case-control study; women's health; northern Iran

Count: 7
Abstract ID: 52
subject: Other related topics
Presentation Type: Oral

Design and Development of an AI-Assisted Fetal Heart Rate Signal Analysis System for Fetal Health Monitoring

Submission Author: علیرضا سلمانی

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Background and Aim : Fetal heart rate (FHR) monitoring and fetal movement detection are critical indicators of fetal well-being. Conventional methods such as cardiotocography (CTG) and non-stress testing (NST) require specialized equipment, trained operators, and hospital visits, limiting continuous home-based surveillance—especially in high-risk pregnancies and underserved areas. This project aims to design an intelligent, portable, wireless system for real-time home monitoring of fetal heart rate and movement using artificial intelligence.

Methods : The proposed system integrates a Doppler ultrasound sensor for FHR acquisition and inertial sensors (accelerometer and gyroscope) for fetal movement detection. Analog signals are conditioned via a DC-bias and AC-coupling circuit, digitized by a low-power microcontroller (ESP32/STM32), and transmitted wirelessly to a mobile application. Signal processing includes noise filtering, baseline estimation, short- and long-term variability (STV/LTV) calculation, and detection of accelerations and decelerations according to FIGO guidelines. Machine-learning models (Random Forest and CNN-LSTM) classify fetal status as normal, suspicious, or pathological and generate alerts for both the mother and clinician. The system architecture comprises the wearable device, mobile application, and a secure cloud backend.

Results : At the conceptual and design stage, the system targets an FHR measurement range of 50–210 bpm with ±2 bpm accuracy, probe frequency of 2.5 MHz, and device weight of

approximately 530 g. The AI pipeline is designed to extract clinically relevant features and provide interpretable risk classification with real-time alerts.

Conclusion : This intelligent home-monitoring system has the potential to enable continuous, non-invasive fetal surveillance, reduce unnecessary hospital visits, support early detection of abnormalities, and improve access to care for high-risk pregnancies. Further prototype development and clinical validation are planned.

Keywords : Fetal heart rate monitoring, Fetal movement detection, Artificial intelligence, Home-based monitoring, Doppler ultrasound

Count: 8
Abstract ID: 40
subject: يوروگاينكولوژي
Presentation Type: Oral

Parasacral Transcutaneous Electrical Nerve Stimulation Versus Sham and Mirabegron for Female Overactive Bladder: A Single-Blind Randomized Controlled Trial with Pelvic Floor Muscle Training

Submission Author: Parvin Bastani Alamdari

Parvin Bastani Alamdari[1], Fatemeh Mallah[2], Farnaz Anamzadeh [3], Reza Sattarpour[4], Nasim Sattarpour[5]

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Background and Aim : Introduction: Overactive bladder (OAB) substantially affects quality of life. Although mirabegron is effective, systemic adverse effects may limit its use. Parasacral transcutaneous electrical nerve stimulation (TENS) is a non-invasive alternative, but comparative evidence remains limited. Objective: To compare the efficacy and safety of parasacral TENS, sham stimulation, and mirabegron in women with OAB receiving pelvic floor muscle training (PFMT).

Methods : In this single-blind randomized controlled trial, women aged 18–75 years with OAB symptoms for ≥3 months were randomized to parasacral TENS (24 sessions over 8 weeks), sham TENS, or mirabegron 50 mg daily. All participants received supervised progressive PFMT. Outcomes were assessed at baseline, 2 months, and 4 months using the ICIQ-OAB, ICIQ-UI SF, and LUTS-QoL questionnaires. Treatment-emergent adverse events were also recorded. Analyses followed the intention-to-treat principle.

Results : Eighty-two women were randomized to TENS (n=22), sham (n=25), or mirabegron (n=35). At 2 months, mirabegron produced greater improvement in ICIQ-OAB scores than TENS (mean reduction: 4.06±1.15 vs 1.45±0.72; $p<0.05$). At 4 months, both TENS and mirabegron significantly improved ICIQ-OAB compared with sham ($p<0.05$ and $p<0.01$, respectively), while mirabegron was superior to TENS ($p<0.05$). Mirabegron also produced greater improvement in ICIQ-UI SF than TENS and sham ($p<0.05$). LUTS-QoL improvement with TENS was comparable to mirabegron and significantly greater than sham ($p<0.05$). Adverse events with TENS/sham were limited to mild skin irritation, whereas mirabegron was associated with dry mouth, headache, and palpitations.

Conclusion : Mirabegron provided faster and greater improvement in OAB symptoms and urinary incontinence. Parasacral TENS produced progressive symptom improvement and QoL benefits comparable to mirabegron at 4 months, with minimal adverse effects, supporting its potential as a non-pharmacological treatment option for women with OAB.

Keywords : Urinary Bladder, Overactive; Electric Stimulation Therapy; Pelvic Floor; mirabegron; Urinary Incontinence

Count: 9
Abstract ID: 69
subject: يوروگاينكولوژي
Presentation Type: Poster

Patterns of Urinary Incontinence in Perimenopausal Women: A Systematic Review

Submission Author: Masoumeh Ghavami Moshfegh

Masoumeh Ghavami Moshfegh[1]

1. Masoumeh Ghavami Moshfegh
2. Nahid Radnia

Background and Aim : Background: Urinary incontinence (UI) is a common condition among women and may become more prevalent during the menopausal transition due to hormonal, anatomical, and functional changes in the lower urinary tract and pelvic floor. Different types of UI, including stress, urgency, mixed, and overflow incontinence, may occur during this period and can negatively affect physical, psychological, and social well-being. This review aimed to summarize the available evidence regarding the patterns and characteristics of urinary incontinence among women during the menopausal transition.

Methods : Methods: A narrative review of the literature was conducted using studies published between 2021 and 2026. Relevant studies addressing urinary incontinence and its subtypes among perimenopausal or menopausal women were identified through major scientific databases. Studies reporting the prevalence, clinical patterns, associated factors, or characteristics of urinary incontinence were considered.

Results : Results: The reviewed evidence indicates that urinary incontinence is relatively common among women during the menopausal transition. Stress and mixed urinary incontinence are frequently reported patterns, while urgency urinary incontinence is also prevalent. Increasing age, menopausal status, parity, higher body mass index, pelvic floor dysfunction, and previous gynecological or obstetric factors have been associated with urinary symptoms. Hormonal changes during the menopausal transition may further contribute to alterations in the urinary tract and pelvic floor function. However, substantial variation in prevalence and UI patterns has been reported across populations, partly due to differences in definitions, assessment tools, and study populations.

Conclusion : Conclusion: Urinary incontinence represents an important health concern during the menopausal transition. Identifying the predominant UI patterns and associated factors may

facilitate earlier recognition, appropriate evaluation, and individualized management of affected women.

Keywords : Perimenopause, Urinary Incontinence, Menopausal Transition

Count: 10
Abstract ID: 58
subject: يوروگاينكولوژي
Presentation Type: Oral

Comparative Analysis of Surgical Outcomes in Total Vaginal Hysterectomy (TVH) Employing Ligasure versus Traditional Suture Technique

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Background and Aim : The study aimed to compare LigaSure bipolar vessel sealing with conventional clamp–cut–tie suture ligation during total vaginal hysterectomy (TVH), focusing primarily on operative time and intraoperative blood loss, and secondarily on postoperative recovery, pain, hemoglobin changes, hospital stay, and complications.

Methods : This was a randomized controlled parallel-group clinical trial conducted at Beheshti and Alzahra Hospitals in Isfahan, Iran, during 2024–2025. Sixty women aged 20–80 years undergoing TVH for benign gynecologic indications were randomized equally into:LigaSure group: 30 patients.conventional suture group: 30 patients. Randomization was computer-generated, with allocation concealment using sequentially numbered, sealed opaque envelopes.

Results : Sixty women were included in the study, with 30 patients allocated to each group. The baseline demographic and clinical characteristics were comparable between the two groups. The LigaSure group demonstrated a significantly shorter operative time compared with the conventional suture ligation group (P=0.001). Estimated blood loss was also significantly lower in the LigaSure group (P=0.001). Patients undergoing LigaSure-assisted hysterectomy had a significantly shorter time to full recovery than those in the conventional group (P=0.017). No significant differences were observed between the groups in hospital stay, postoperative pain assessed at two weeks, preoperative or postoperative hemoglobin levels, or the reduction in hemoglobin. Concomitant fallopian tube removal was also comparable between the groups. No increase in perioperative complications was reported in the LigaSure group.

Conclusion : The authors concluded that LigaSure-assisted TVH was associated with improved perioperative efficiency, reduced blood loss, and faster postoperative recovery, without an apparent increase in perioperative or postoperative complications.

Keywords : Total Vaginal Hysterectomy, LigaSure bipolar, postoperative, intraoperative

Count: 11
Abstract ID: 28
subject: يوروگاينكولوژي
Presentation Type: Poster

Association of Respectful Maternity Care and Childbirth Experience with Women's Future Fertility Decisions: A Systematic review

Submission Author: Hoorieh Riahipoor

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Background and Aim : Childbirth is a significant life event that can influence women's mental health, future decisions regarding childbearing, and subsequent childbirth experiences; therefore, Respectful Maternal Care and a positive birth experience are considered vital components of high-quality maternity care services. The aim of this systematic review was to evaluate the associations between respectful maternity care, the childbirth experience, and women s Future Fertility Decisions

Methods : A systematic review was conducted according to the PRISMA 2020 guideline. Studies published up to 2026 in english were searched in Google Scholar, Web of Science (WoS), Scopus, PubMed, ScienceDirect, and TRIP Database. The search strategy included combinations of keywords related to respectful maternity care, childbirth experience, fertility intention, future fertility and reproductive decisions. The initial search identified 100 records. After removal of duplicates and screening of titles, abstracts, and full texts, 5 eligible original observational studies were included. Methodological quality was assessed using the Joanna Briggs Institute (JBI) critical appraisal checklists appropriate to the study design.

Results : Negative childbirth experiences are relatively common and can reduce the desire for another child while prolonging the interval between births. Conversely, respectful care, the presence of a birth companion, greater social support, and better preparation are associated with a more positive experience and a stronger desire to have children, whereas a fear of childbirth diminishes this desire. Furthermore, the childbirth experience influences the mode of subsequent

deliveries, breastfeeding, sexual satisfaction, and mental health, although findings regarding its long-term impact on the intention to have children are inconsistent.

Conclusion : Promoting respectful maternity care and positive childbirth experiences, particularly through supportive birth practices and improved preparation and support, may contribute to more favorable reproductive outcomes. while findings regarding long-term fertility intention remain inconsistent. support, may contribute to more favorable reproductive outcomes.

Keywords : Respectful maternity care, Childbirth, Fertility, Reproductive Behavior, Systematic review

Count: 12
Abstract ID: 48
subject: يوروگاينكولوژي
Presentation Type: Oral

Effect of the Caress Flow® Device on Genitourinary Disorders Associated with Vulvovaginal Atrophy: A Clinical Trial

Submission Author: Nastaran Teymoorianfard

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Background and Aim : Genitourinary syndrome of menopause (GSM) results from estrogen deficiency and adversely affects quality of life, sexual health, and psychological well-being in postmenopausal women. Despite the efficacy of hormonal treatments, their use is limited by poor adherence and contraindications. The Caress Flow® device, which combines high-concentration oxygen with hyaluronic acid, has emerged as a novel non-hormonal approach. This study aimed to determine the effect of this device on genitourinary symptoms and quality of life in postmenopausal women with GSM.

Methods : In this randomized clinical trial, 50 women with vulvovaginal atrophy (VVA) were randomly assigned using block randomization to an intervention group (n=25: standard treatment plus Caress Flow every week, 5 sessions of 20 minutes) and a control group (n=25: standard treatment). Outcomes included pain severity using the Visual Analogue Scale (VAS), the Female Sexual Function Index (FSFI), and genitourinary symptoms (dryness, burning/itching, dyspareunia, urinary frequency, discharge, and overall quality of life) assessed at baseline, 1 week, 1 month, and 3 months.

Results : Mean age did not differ significantly between groups. VAS pain scores were significantly lower in the intervention group at all follow-up time points compared with the control group ($p<0.001$). Improvement in genitourinary symptoms at 1 and 3 months was significantly higher in the intervention group than in the control group ($p<0.001$); however, no significant difference was observed at 1 week. Total FSFI scores and all domains (desire, arousal, lubrication, orgasm,

satisfaction, and absence of pain) were significantly higher in the intervention group at all time points ($p<0.001$). No adverse events were reported in the intervention group.

Conclusion : The Caress Flow® device, as a non-hormonal, minimally invasive, and safe method, improves genitourinary symptoms and sexual function in postmenopausal women with GSM. It may be a suitable option for patients for whom hormonal therapy is not appropriate.

Keywords : Genitourinary Syndrome of Menopause, Atrophic Vaginitis, Sexual Dysfunction, Physiological

Count: 13
Abstract ID: 22
subject: يوروگاينكولوژي
Presentation Type: Poster

Compartment-Specific Risk Factors for Severe Pelvic Organ Prolapse: A Multicenter Study of 3,191 Women in Iran

Submission Author: Azam Zafarbakhsh

Azam Zafarbakhsh[1]

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Background and Aim : Pelvic floor disorders (PFD), resulting from damage to pelvic fascia and muscles, affect millions of women worldwide and can severely impact daily activities, urinary function, and sexual health. This study evaluated risk factors for PFD severity among women referred to specialized clinics in Tehran and Isfahan to inform prevention and treatment strategies.

Methods : This multicenter, retrospective cross-sectional study included 3,191 women with PFD seen at teaching hospitals in Tehran and Isfahan (2020–2022). Demographic data, obstetric/surgical history, and clinical findings (POP-Q staging, urinary/fecal symptoms) were collected. Chi-square tests and multiple logistic regression (R, version 4.0.3) identified factors associated with severe (stage III–IV) prolapse in the anterior, apical, and posterior compartments separately.

Results : Mean age was 53.92±13.25 years and mean BMI was 28.86±4.43 kg/m². Severe anterior, apical, and posterior prolapse occurred in 840 (26.3%), 636 (19.9%), and 377 (11.8%) women, respectively. Older age was significantly associated with severity across all compartments (OR=1.05, 1.04, 1.03, respectively; all $p<0.001$). Higher BMI increased odds of severe posterior prolapse (OR=1.03) but decreased odds of anterior prolapse (OR=0.97), with no apical association. Greater total vaginal length was protective against anterior (OR=0.85) and apical (OR=0.76) prolapse. Cesarean-only delivery strongly protected against apical prolapse versus nulliparous women (OR=0.24). Hysterectomy was not significant for anterior or apical prolapse but was the strongest predictor of severe posterior prolapse, nearly doubling odds after abdominal hysterectomy (OR=1.74) and more than doubling them after vaginal hysterectomy (OR=2.66). Prior prolapse repair was protective against anterior (OR=0.57) and posterior (OR=0.54) prolapse, while perineal defect increased odds of both (OR=1.94 and 2.16, respectively). Smoking showed no significant association with severity in any compartment.

Conclusion : Risk factors for severe pelvic organ prolapse differ by compartment. Age affected all compartments, obstetric history was most influential for apical prolapse.

Keywords : Risk Factor, Urinary incontinence, Pelvic Organ Prolapse, Hysterectomy.

Count: 14
Abstract ID: 30
subject: انکولوژي زنان
Presentation Type: Poster

Human Papillomavirus Infection and Breast Cancer: A Narrative Review of Molecular and Epidemiological Evidence

Submission Author: Nastaran Ahmadi

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Background and Aim : Breast cancer is the most common malignancy among women worldwide and a major public health concern in Iran, where it occurs at younger ages. The role of HPV in breast carcinogenesis remains controversial.

Methods : This narrative review searched Scopus and Google Scholar for 2015–2025 articles using keywords HPV, Human Papillomavirus, breast cancer, breast carcinoma, E6/E7. Original articles, systematic reviews, meta-analyses, and in-vitro studies were included; non-English/Persian articles, letters, case reports, and non-human studies were excluded. Data on prevalence, genotypes, molecular pathways, and epidemiology were synthesized qualitatively.

Results : HPV prevalence in breast cancer samples ranged 1.6%–86.2%. Common genotypes were HPV-16, HPV-18, and HPV-33. E6/E7 inactivate p53 and Rb, induce chronic inflammation (IL-6, TNF-α), activate JAK/STAT, and modulate chemosensitivity via TLR9. A “hit-and-run” mechanism has been proposed. Women with prior cervical HPV lesions or high-risk HPV infection had higher likelihood of HPV-positive breast tumors.

Conclusion : Current evidence is insufficient to establish a definitive causal role. HPV may act as an initiating or co-factor in a subset, especially with prior HPV-related cervical lesions. A major gap is the lack of studies simultaneously assessing active infection (E6/E7 mRNA) and functional

molecular consequences in breast tissue. Prospective studies using standardized, highly sensitive methods are recommended.

Keywords : Human Papillomavirus, Breast Neoplasms, Oncogenic Viruses

Count: 15
Abstract ID: 74
subject: انکولوژي زنان
Presentation Type: Oral

From MRI to Molecular Biology: AI-Driven Radiogenomics as the Digital Biopsy of Gynecologic Cancer

Submission Author: Fatemeh Karami

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Background and Aim : Gynecologic cancers exhibit substantial molecular and spatial heterogeneity, whereas conventional biopsy provides a limited tissue snapshot and may not fully represent the tumor ecosystem. Artificial intelligence (AI)-driven radiomics and radiogenomics offer a non-invasive approach to extracting quantitative imaging features and linking radiological phenotypes with molecular characteristics. This emerging “digital biopsy” paradigm may contribute to more individualized diagnosis, risk stratification, and treatment selection. To review recent advances in AI-driven radiogenomics for ovarian, endometrial, and cervical cancers, focusing on molecular characterization, treatment-response prediction, and potential applications in precision oncology.

Methods : PubMed, Scopus, Web of Science, and Google Scholar were searched for English-language peer-reviewed publications from January 2020 to September 2026. Search terms included combinations of “artificial intelligence,” “machine learning,” “deep learning,” “radiomics,” “radiogenomics,” “digital biopsy,” “MRI,” “CT,” “PET,” “molecular profiling,” “ovarian cancer,” “endometrial cancer,” and “cervical cancer.” Original research and relevant systematic/narrative reviews addressing AI-based imaging or multimodal approaches for molecular characterization, prognosis, or treatment-response prediction were selected; case reports, conference abstracts, non-English publications, and studies unrelated to gynecologic oncology were excluded.

Results : Recent evidence indicates that AI-assisted radiomics can identify imaging signatures associated with tumor heterogeneity and molecular phenotypes. Applications include prediction of homologous recombination deficiency in ovarian cancer, microsatellite instability and pathway alterations in endometrial cancer, and HPV-related molecular characteristics in cervical cancer. Multimodal AI integrating imaging, pathology, genomics, and clinical data may further improve biological characterization and therapeutic-response prediction. However, most studies remain retrospective and single-center, with limitations in dataset size, imaging standardization, interpretability, external validation, and generalizability.

Conclusion : AI-driven radiogenomics represents a promising transition from anatomical imaging toward non-invasive molecular phenotyping. Prospective multicenter validation and standardized pipelines are required before the “digital biopsy” can complement conventional molecular diagnostics in routine gynecologic oncology.

Keywords : Artificial intelligence; Radiogenomics; Radiomics; Digital biopsy; Gynecologic oncology; Precision medicine.

Count: 16
Abstract ID: 57
subject: انکولوژي زنان
Presentation Type: Oral

Risk Stratification of High-Grade Cervical Lesions by Pap Smear, High-Risk HPV Genotype, Smoking, and Age at First Sexual Intercourse: A Cross-Sectional Study of 453 Women in Tehran

Submission Author: Zahra Marzbanrad

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Background and Aim : Smoking and early sexual debut are known cofactors in cervical carcinogenesis, but their role across Pap/HPV combinations is unclear. This study compared CIN2-3 prevalence across four groups based on Pap and HPV genotype (HPV16/18 vs other HR-HPV) and assessed smoking and early sexual debut.

Methods : In this cross-sectional study, 453 women (mean age 30.95±6.99 years; range 16-68) referred to a private gynecology clinic in Tehran, Iran (2024-2025) underwent colposcopy. Participants were classified into the four groups above. Colposcopiy findings were categorized as low-grade (≤CIN1) or high-grade (CIN2-3). Smoking status, age at first sexual intercourse (<18 vs ≥18 years), and presence of genital warts were recorded. Missing data were handled per-variable (3.5-17.7%).

Results : Among 437 women with complete data, 66 (15.1%) had CIN2-3, with significant differences across groups (p<0.001): Group 1: 23.3%, Group 2: 31.6%, Group 3: 5.6%, and Group 4: 13.3%. HPV16/18 increased CIN2-3 risk approximately 5-fold in normal Pap (OR=5.07; 95%CI: 2.51-10.24) and 3-fold in abnormal Pap (OR=3.00; 95%CI: 1.04-8.66). Smoking was comparable across groups (27-37%) and was not an independent predictor (adjusted OR=1.19; 95%CI: 0.67-2.11), nor was early sexual debut (adjusted OR=1.41; 95%CI: 0.60-3.31). The highest risk was observed in HPV16/18-positive women with genital warts (38.1%; OR=2.64; 95%CI: 1.02-6.80), whereas those with other HR-HPV and genital warts had no CIN2-3 (0%).

Conclusion : HPV16/18 remained the strongest independent risk factor for CIN2-3 regardless of Pap result, whereas smoking and early sexual debut did not independently predict high-grade

lesions in this study. These findings suggest that HPV genotype, rather than behavioral cofactors, should drive risk stratification in colposcopy referrals.

Keywords : Cervical cancer; HPV genotyping; Pap smear; Smoking; Age at first intercourse; CIN2-3

Count: 17
Abstract ID: 54
subject: انکولوژي زنان
Presentation Type: Oral

Pelvic Spaces in Gynecologic Oncology Surgery: An Anatomical and Surgical Review

Submission Author: Azadeh Yousefnezhad

Azadeh Yousefnezhad[1]

1. Assistant Professor of Tehran University of Medical Sciences

Background and Aim : Abstract Pelvic surgery in gynecologic oncology requires a profound understanding of retroperitoneal anatomy, particularly the avascular pelvic spaces. Mastery of these spaces facilitates safe dissection, radical tumor resection, and preservation of vital structures, thereby improving surgical outcomes. This review summarizes the anatomy, surgical landmarks, and clinical significance of the major pelvic spaces, including the paravesical, pararectal, vesicovaginal, rectovaginal, and presacral spaces. Emphasis is placed on their application in radical hysterectomy, pelvic lymphadenectomy, and minimally invasive procedures

Methods : Introduction Gynecologic oncologic surgery often involves radical and complex procedures such as radical hysterectomy, pelvic exenteration, and lymphadenectomy. Precise knowledge of pelvic spaces is critical in achieving oncologic safety while minimizing complications. These spaces, being relatively avascular, offer natural dissection planes that allow access to the parametria, paracolpia, ureters, pelvic sidewall, and vascular structures. The concept of “surgical spaces” has become increasingly important with the evolution of nerve-sparing and minimally invasive techniques.

Results : Surgical Relevance in Gynecologic Oncology 1. Radical Hysterectomy: Opening paravesical and pararectal spaces defines the extent of parametrium dissection and facilitates ureteral mobilization. 2. Pelvic Lymphadenectomy: Paravesical and pararectal dissections are necessary to expose the obturator, external iliac, and internal iliac nodal basins. 3. Pelvic Exenteration: Requires systematic entry into vesicovaginal and rectovaginal spaces to separate visceral compartments. 4. Nerve-Sparing Surgery: Knowledge of pelvic spaces helps preserve hypogastric nerves and pelvic plexus, reducing postoperative urinary, sexual, and bowel dysfunction. 5. Minimally Invasive Surgery (Laparoscopic/Robotic): Clear anatomical understanding of avascular spaces ensures safe dissection in limited working fields.

Conclusion : The pelvic spaces represent fundamental surgical landmarks in gynecologic oncology. Their mastery enhances surgical precision, reduces complications, and allows effective radical resections while preserving vital functions. Continuous training in pelvic anatomy—through cadaveric dissection, imaging, and surgical practice—is essential for both open and minimally invasive oncologic procedures. Future integration of advanced imaging and augmented reality may further refine the surgical application of these anatomical planes.

Keywords : Pelvic Spaces, Oncology, Anatomy

Count: 18
Abstract ID: 60
subject: لاپاراسکوپي
Presentation Type: Poster

The effect of intrauterine inoculation of Tranexamic acid on hemoglobin level after hysteroscopic myomectomy

Submission Author: Venus Chegini

Venus Chegini[1]

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Background and Aim : The effect of intrauterine inoculation of Tranexamic acid on hemoglobin level after hysteroscopic myomectomy

Methods : Present study was a double blind randomized controlled trial conducted from … to … 2022 in Arash Teaching Hospital, Tehran. Seventy eligible patients with just one submucosal myoma, type 0 and 1 based on FIGO classification, with estimated size less than 4 cm in the largest diameter based on transvaginal ultrasound were candidates for hysteroscopic myomectomy. They were assigned to study groups of intervention (receiving 0.5 grams TXA per liter of normal saline media) or the control group (receiving normal saline media) using balanced blocks randomization. The primary outcome was the change in the patient's hemoglobin level 24 hours after the surgery compared to the day before the surgery.

Results : The hemoglobin levels of the two groups before the intervention were not significantly different from each other ($p>0.05$). But after the intervention, there was a significant difference in the mean (SD) level of hemoglobin between the two groups with significant higher level of hemoglobin in the intervention group vs. control group (10.65 (1.05) vs. 10.13 (1.10) with SMD of 0.48 [95% CI 0f 0.01; 0.96]).

Conclusion : Application of intrauterine injection of TXA as intra-media during hysteroscopic myomectomy was associated with higher hemoglobin levels 24 hours after surgery. But due to low sample size, the results are not conclusive and further research with higher sample size are needed

Keywords : Tranexamic acid, TXA, intrauterine, hemoglobin, hysteroscopic myomectomy

Count: 19
Abstract ID: 66
subject: لاپاراسکوپي
Presentation Type: Oral

Infertility Caused by Pelvic Tuberculosis: A forgotten and rare diagnosis

Submission Author: Maryam Dehghan

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Background and Aim : Active tuberculosis (TB), caused by the Mycobacterium tuberculosis bacillus, has the highest mortality rate among all infectious diseases worldwide. TB can be classified into two forms: pulmonary and extrapulmonary. The majority of patients infected with TB clear the mycobacterium after the primary infection. Genital tuberculosis is usually secondary to hematogenous spread from a primary site, typically the lungs. Fertility can be impaired by genital TB, primarily due to involvement of the fallopian tubes, which are the most commonly affected site. Additionally, infection of the uterus, ovaries, and peritoneum has also been reported.

Methods : We describe two cases of pelvic tuberculosis identified during infertility workups focused on fallopian tube involvement. Both cases were managed with a combination of surgical and medical therapies

Results : Female genital tuberculosis typically presents with infertility, abdominal pain, or menstrual disturbances. Imaging studies often reveal non-specific findings. Laparoscopic surgery can provide more definitive diagnostic information. Biopsy is useful for confirming the diagnosis of TB more accurately and rapidly. Treatment of genital TB requires a four-drug regimen due to the high recurrence rate and the prevalence of drug-resistant strains. In cases of large abscesses or fallopian tube obstruction, surgical intervention may be necessary.

Conclusion : Given the increasing trends in immigration from TB-endemic areas and the established relationship between pelvic tuberculosis and infertility, it is advisable to consider tuberculosis as a potential cause of infertility in women from these regions

Keywords : Tuberculosis, Infertility, Pregnancy

Count: 20
Abstract ID: 65
subject: لاپاراسکوپي
Presentation Type: Oral

Comparative Outcomes of Laparoscopic Salpingectomy versus Salpingostomy in the Management of Ectopic Pregnancy

Submission Author: Maryam Dehghan

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Background and Aim : Ectopic pregnancy (EP) occurs in 1–2% of pregnancies and is associated with various complications. Treatment options include expectant management, medical therapy, and surgical interventions including salpingostomy or salpingectomy, which are now preferably performed via laparoscopy. Salpingostomy aims to preserve fertility but carries risks of persistent trophoblastic tissue and recurrence, whereas salpingectomy is definitive but involves removal of the affected fallopian tube.

Methods : This study analyzed patients treated for tubal EP with laparoscopic salpingectomy or salpingostomy at Al-Zahra and Shahid Beheshti hospitals in Isfahan Province from 2015 to 2025. Researchers collected demographic data, paraclinical findings, intraoperative and postoperative information from hospital records and conducted follow-up assessments of reproductive outcomes.

Results : This study analyzed 401 patients undergoing laparoscopic surgery for EP. The average patient age was 31 years, with a mean body mass index (BMI) of 26.1 kg/m². Notable obstetric histories included prior miscarriage (33.75%), previous tubal EP (16%), and infertility (17.7%). The mean preoperative beta-hCG level showed no significant difference between the salpingectomy and salpingostomy groups. However, the average size of the EP mass on preoperative sonography and during surgery was significantly smaller in the salpingostomy group ($P < 0.0001$). The study found that smaller EP mass size on preoperative sonography and during surgery was significantly associated with successful tubal preservation via salpingostomy. Persistent trophoblastic tissue occurred in 1.7% of salpingostomy cases. Recurrent EP in the same fallopian tube was 6% in the salpingostomy group, while contralateral tube recurrence was significantly higher in the salpingectomy group (7.6% vs. 1%). The salpingostomy group also had a significantly higher live birth rate (62% vs. 47%).

Conclusion : EP poses significant health risks for women of reproductive age, making timely diagnosis and appropriate treatment essential to minimize complications and improve future pregnancy outcomes. Preoperative assessments can help predict the likelihood of successful tubal preservation in patients who are suitable candidates.

Keywords : Ectopic Pregnancy, Laparoscopy, Salpingectomy, Salpingostomy, Pregnancy Outcome

Count: 21
Abstract ID: 67
subject: لاپاراسکوپي
Presentation Type: Oral

Abdominal Wall Endometriosis Post-Cesarean Section: Diagnosis, Surgical Management, and Case Study of Extensive Uterine Adhesion

Submission Author: Maryam Dehghan

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Background and Aim : Endometriosis involves ectopic endometrial tissue outside the uterus, commonly in the pelvis but sometimes affecting organs like the urinary tract, gastrointestinal system, and respiratory tract. Abdominal wall endometriosis (AWE) is a rare subtype where endometrial tissue infiltrates the abdominal wall, often occurring secondarily in surgical scars, particularly after cesarean sections. Diagnosing AWE is difficult due to varied symptoms and locations, making imaging techniques such as ultrasound and MRI crucial for evaluation. Preoperative assessment is vital to determine the extent of tissue invasion, especially if large muscles, the peritoneum, or bowel are involved, which may require general surgical intervention

Methods : A 43-year-old woman with a history of three cesarean sections presented with menorrhagia and chronic pelvic pain, and a palpable lump above her cesarean scar. Ultrasonography revealed a hypoechoic irregular mass measuring 39 × 34 mm in the Linea alba above the cesarean scar, extending into the peritoneal cavity and adherent to the uterine body. Surgical wide excision of the mass was attempted, but due to its extension and severe adhesion to the uterus, complete excision with clear margins was not possible. So, a total hysterectomy with bilateral salpingo-oophorectomy was performed.

Results : Abdominal wall endometriosis (AWE) usually results from iatrogenic implantation of endometrial tissue after cesarean section. It commonly presents with a painful abdominal mass and cyclic pain. Ultrasound is the primary diagnostic modality, with MRI for uncertain cases. Medical therapy may relieve symptoms but is not curative. Definitive treatment is wide local excision with adequate margins. Extensive fascial or muscular defects may require mesh reconstruction. Malignant transformation is rare and requires oncologic management.

Conclusion : AWE is rare and increasingly relevant with rising cesarean rates. Diagnosis uses clinical assessment and imaging; wide excision remains definitive treatment.

Keywords : Endometriosis, Abdominal wall, Cesarean Section, Excision

Count: 22
Abstract ID: 47
subject: لاپاراسکوپي
Presentation Type: Poster

Artificial Intelligence and Advanced Imaging in Minimally Invasive Gynecologic Surgery: A Systematic Review

Submission Author: Mohammad Hesam Esmaili

Mohammad Hesam Esmaili[1]

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Background and Aim : Introduction: Minimally invasive gynecologic surgery increasingly relies on complex visual and clinical information. Artificial intelligence (AI) and advanced imaging may enhance anatomical recognition, surgical planning, intraoperative guidance, and perioperative decision-making. However, evidence regarding clinical performance and translational readiness remains heterogeneous.

Methods : Methods: A systematic review was conducted according to PRISMA 2020. PubMed/MEDLINE, Scopus, Web of Science, Embase, Google Scholar, and the Cochrane Library were searched for studies evaluating AI, machine learning, deep learning, computer vision, or advanced imaging in laparoscopic, hysteroscopic, or robotic gynecologic surgery. Eligible studies assessed diagnostic, predictive, image-analysis, planning, or intraoperative applications. Risk of bias was evaluated using design-appropriate validated tools, with emphasis on external validation and clinical applicability. Findings were synthesized narratively because of substantial heterogeneity.

Results : Results: Applications included anatomical classification and segmentation, instrument recognition, surgical-action analysis, operative planning, intraoperative guidance, and perioperative outcome prediction. Models demonstrated promising task-specific performance, but evidence was predominantly retrospective and limited by small or single-center datasets, insufficient external validation, heterogeneous outcomes, and substantial risk of bias, reducing confidence in generalizability and clinical readiness.

Conclusion : Conclusion: AI and advanced imaging may support precision, decision-making, and safety in minimally invasive gynecologic surgery. Prospective multicenter validation, standardized datasets, transparent reporting, and clinically meaningful outcome assessment are needed before routine implementation.

Keywords : Artificial Intelligence; Laparoscopy; Gynecologic Surgical Procedures; Machine Learning

Count: 23
Abstract ID: 20
subject: لاپاراسکوپي
Presentation Type: Oral

Co-occurrence of Endometriosis and Polycystic Ovary Syndrome: Impact on Infertility, Symptom Severity, and Quality of Life

Submission Author: Mania Kaveh

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5. Department of Anesthesiology, School of Medicine, Amir al momenin Hospital, Zabol University of Medical Sciences, Zabol, Iran

Background and Aim : Background: Endometriosis and polycystic ovary syndrome (PCOS) are common reproductive disorders that may coexist despite distinct endocrine and pathophysiologic profiles. This study evaluated the prevalence of PCOS among women with endometriosis and assessed its association with infertility, symptom severity, pain, dyspareunia, and quality of life.

Methods : Methods: In this analytical retrospective cross-sectional study, data from 380 women with endometriosis referred to Amir al-Momenin Hospital, Zabol, Iran, between 2018 and 2023 were analyzed. Endometriosis was diagnosed clinically and by transvaginal ultrasound and/or MRI, and PCOS was defined according to the Rotterdam criteria. Infertility, symptom severity, pelvic pain, dyspareunia, and health-related quality of life were assessed using clinical records, a visual analog scale, and the EHP-30. Group comparisons were performed using chi-square and t-tests, followed by age-adjusted logistic regression.

Results : Results: PCOS co-occurred in 93 of 380 women with endometriosis (24.5%). Compared with women with endometriosis alone, those with coexisting PCOS had higher rates of infertility (25.6% vs 15.4%, p=0.043), severe symptoms (84.9% vs 12.2%, p<0.001), severe pain (76.3% vs 16.7%, p<0.001), dyspareunia (60.2% vs 44.6%, p=0.009), and poor quality of life (91.4% vs 10.5%, p<0.001). After adjustment for age, PCOS co-occurrence remained associated with increased odds of infertility (aOR 1.88, 95% CI 1.01–3.50; p=0.048). Miscarriage rates were not significantly different.

Conclusion : Conclusion: Coexisting PCOS identifies a clinically more severe endometriosis phenotype, with greater infertility burden, pain, dyspareunia, and impaired quality of life. Recognition of this overlap may support more individualized diagnostic and management strategies.

Keywords : Endometriosis; Polycystic Ovary Syndrome; Infertility; Quality of Life; Comorbidity

Count: 24
Abstract ID: 21
subject: لاپاراسکوپي
Presentation Type: Oral

Early Diagnosis of Endometriosis Suggested Title: Does Diagnostic Delay Affect Quality of Life in Women With Endometriosis? An 18-Month Prospective Study

Submission Author: Mania Kaveh

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Background and Aim : Background: Diagnostic delay is common in endometriosis and may contribute to prolonged symptoms and impaired quality of life. This study evaluated whether the interval from symptom onset to diagnosis influences quality-of-life outcomes after treatment and examined the role of disease stage.

Methods : Methods: This prospective longitudinal study included 205 women with confirmed endometriosis. Participants were categorized as early diagnosis (≤5 years from symptom onset to diagnosis) or late diagnosis (>5 years). Quality of life was assessed with the Endometriosis Health Profile questionnaire before treatment and after 18 months of medical and/or surgical treatment. Outcomes were compared between diagnostic-delay groups and across lower (stages I–II) versus higher (stages III–IV) disease stages

Results : Results: Sixty-one percent of participants were diagnosed within 5 years and 39% after more than 5 years. Quality-of-life scores improved significantly after treatment in both groups: from 51.75 to 38.92 in the early-diagnosis group and from 51.73 to 41.41 in the late-diagnosis group (both $p<0.0001$). However, the magnitude of improvement did not differ significantly between early and late diagnosis groups ($p=0.303$). Disease stage was associated with quality-of-life burden: women with stages III–IV had significantly worse scores than those with stages I–II both before treatment ($p=0.016$) and after treatment ($p=0.007$).

Conclusion : Conclusion: Treatment was associated with substantial improvement in quality of life regardless of diagnostic delay. Disease severity, rather than diagnostic timing alone, appeared to be an important determinant of quality-of-life burden. These findings support timely recognition and treatment while emphasizing the need to consider disease stage in clinical assessment.

Keywords : Endometriosis; Diagnostic Delay; Early Diagnosis; Quality of Life; EHP-30

Count: 25
Abstract ID: 34
subject: لاپاراسکوپي
Presentation Type: Oral

Comparative Effect of Laparoscopic and Laparotomic Cystectomy on Ovarian Reserve: A Quasi-Experimental Study of Anti-Müllerian Hormone Changes

Submission Author: Zahra Saedi

Zahra Saedi[1]

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Background and Aim : Background/Objective Ovarian cystectomy, while preserving fertility, may compromise ovarian reserve as reflected by declining Anti-Müllerian hormone (AMH) levels. Evidence regarding the comparative impact of laparoscopic versus lapa- rotomic approaches remains conflicting. This study aimed to compare serum AMH levels before and three months after ovar- ian cystectomy performed by laparoscopy versus laparotomy in reproductive-aged women and to identify factors influencing postoperative AMH decline.

Methods : Methods This quasi-experimental study enrolled 66 women with benign ovarian cysts undergoing cystectomy at Hajar Hospital, Shahrekord, Iran (March 2024–March 2025). Participants were assigned to laparoscopy (n = 33) or laparotomy (n = 33) based on clinical indications. Serum AMH was measured preoperatively and three months postoperatively using ELISA. Primary outcomes were absolute and percentage changes in AMH. Subgroup analyses examined age, marital status, cyst type, and electrocautery use

Results : Results Baseline characteristics were comparable between groups except for larger cyst diameter in the laparotomy group (96.88 ± 18.45 vs. 82.30 ± 17.88 mm; p = 0.002). No significant between-group differences in AMH were observed preopera- tively (2.18 ± 1.20 vs. 2.26 ± 1.25 ng/mL; p = 0.802) or postoperatively (1.98 ± 1.15 vs. 1.97 ± 1.12 ng/mL; p = 0.974). Both groups demonstrated significant within-group declines (laparoscopy: -0.20 ng/mL [-9.2%], p < 0.001; laparotomy: -0.29 ng/ mL [-12.8%], p < 0.001). In patients aged 15–34 years, significant decline occurred only in the laparotomy group, while both approaches reduced AMH in those aged 35–45 years. Endometrioma excision caused significant AMH decline regardless of approach, whereas follicular cyst decline was significant only in laparotomy. Electrocautery use during laparoscopy was associated with significant AMH reduction (p = 0.012), while its avoidance yielded non-

significant decline ($p = 0.066$). No significant AMH change followed dermoid cyst excision in either group.

Conclusion : Conclusions Both laparoscopic and laparotomic cystectomy significantly reduce ovarian reserve without inter-technique differences. However, laparoscopy may better preserve ovarian function in younger patients and when electrocautery is mini- mized. Cyst type significantly influences outcomes, with endometriomas conferring greatest risk and dermoid cysts minimal impact. These findings support individualized surgical planning prioritizing minimally invasive techniques and suture-based hemostasis in fertility-concerned patients.

Keywords : Anti-Müllerian hormone · Gynecology · Laparoscopy · Laparotomy · Ovarian cystectomy · Ovarian reserve

Count: 26
Abstract ID: 41
subject: پريناتولوژي
Presentation Type: Poster

Optimizing Antenatal Corticosteroid Use in Low Resource Settings: Current Evidence, Clinical Controversies, and a Practical Decision Making Framework

Submission Author: Katayon Berjis

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Background and Aim : Antenatal corticosteroids (ACS) reduce mortality after early preterm birth, but their expansion in low-resource settings has produced variable outcomes. We propose that ACS should be understood as a system-dependent intervention rather than a stand-alone treatment. The three-gate fidelity hypothesis suggests that benefit requires credible identification of birth before 34 weeks within seven days, adequate facility capacity for maternal and neonatal care, and an actionable plan linking treatment to monitoring, birth, referral, and neonatal support

Methods : This review synthesizes evidence from randomized controlled trials, systematic reviews, meta-analyses, and international guidelines, focusing on the ACT, WHO ACTION-I, and ALPS trials. Evidence regarding ACS before and after 34 weeks was examined, alongside WHO eligibility criteria and healthcare-system readiness. A pragmatic three-step framework was proposed: establishing minimum clinical capacity, prioritizing in utero referral when feasible, and individualizing ACS when referral is impossible and expected benefits outweigh risks

Results : Evidence supports ACS before 34 weeks for reducing neonatal mortality and severe prematurity-related complications, whereas benefits after 34 weeks are smaller and mainly involve reduced respiratory support, with neonatal hypoglycemia remaining a concern. The contrasting ACT and WHO ACTION-I findings indicate that accurate gestational-age assessment, appropriate patient selection, and adequate maternal and neonatal care are critical to safety and effectiveness. Accordingly, the proposed framework emphasizes: (1) minimum capacity for infection assessment, neonatal resuscitation, and glucose monitoring; (2) in utero referral whenever feasible; and (3) individualized ACS when referral is impossible and anticipated benefits outweigh risks. This approach may reduce mistimed exposure and connect ACS administration with the care required after birth

Conclusion : ACS should be implemented as a system-dependent intervention. Complete fidelity across clinical eligibility, facility readiness, and an actionable care pathway may determine whether treatment produces benefit or harm. Future research should test whether appropriate, time-linked ACS within a verified perinatal pathway improves outcomes more reliably than ACS coverage alone.

Keywords : antenatal corticosteroids; preterm birth; dexamethasone; neonatal mortality; implementation; health systems

Count: 27
Abstract ID: 64
subject: پريناتولوژي
Presentation Type: Oral

Fatal Phytobezoar-Induced Small Bowel Obstruction in Pregnancy: A Rare Obstetric Surgical Emergency

Submission Author: Maryam Dehghan

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Background and Aim : Intestinal obstruction (IO) during pregnancy is a rare condition, but it carries significant risks. Diagnosis is challenging due to overlapping symptoms with normal pregnancy conditions like labor pain or hyperemesis gravidarum, and concerns about using radiologic imaging. Most cases of IO during pregnancy result from adhesions related to previous abdominal surgeries, but other causes include volvulus, intussusception, hernia, carcinoma, appendicitis, and idiopathic ileus. Bezoars are a rare cause of small bowel obstruction, accounting for 0.4–4% of mechanical bowel obstructions.

Methods : A 20-year-old woman at 20 weeks of gestation presented with nausea, vomiting, constipation, and symptoms of small-bowel obstruction following consumption of pomegranates and persimmons. Imaging revealed dilated bowel loops and air-fluid levels, and exploratory laparotomy identified multiple phytobezoars. Despite surgical removal, recurrent obstruction required a second laparotomy for extraction of residual bezoars. Subsequently, the patient developed severe metabolic acidosis, elevated lactate, and refractory septic shock, and died despite intensive treatment.

Results : Intestinal obstruction is a significant cause of acute abdomen in pregnancy, most commonly due to adhesions, followed by volvulus and other causes. Pregnancy-related reduced intestinal motility increases risk. Early diagnosis using ultrasound, X-ray, or preferably MRI is essential. Management is individualized, with conservative treatment initially and surgery for complications such as peritonitis or fetal distress.

Conclusion : The report highlights the rare but severe complication of intestinal bezoars causing obstruction in pregnancy, the challenges in diagnosis and management, and the high risk of morbidity and mortality associated with delayed diagnosis and treatment.

Keywords : Intestinal Obstruction, Pregnancy, maternal mortality

Count: 28
Abstract ID: 36
subject: پريناتولوژي
Presentation Type: Poster

Artificial Intelligence for Predicting Adverse Perinatal Outcomes: A Systematic Review of Machine Learning and Dynamic Risk Assessment

Submission Author: Mohammad Hesam Esmaili

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Background and Aim : Adverse perinatal outcomes remain challenges in obstetric care. Artificial intelligence (AI) may enhance individualized risk prediction by integrating complex clinical data beyond conventional risk factors.

Methods : A systematic review of machine learning (ML) models predicting preterm birth, small for gestational age, and stillbirth using routinely collected clinical data was conducted. Model discrimination, validation, methodological quality, and risk of bias were assessed, with narrative and quantitative synthesis where appropriate.

Results : The review identified 90 studies reporting 1,439 prediction models, including 1,163 ML models. Median AUCs based on internal validation were 0.73 for preterm birth, 0.68 for small for gestational age, and 0.75 for stillbirth. Only 11 studies (12.2%) reported external validation, while almost all studies had a high risk of bias. ML models did not consistently outperform logistic regression for preterm birth or small for gestational age. Recent longitudinal EHR-based models also demonstrated dynamic short-term prediction of preeclampsia, with external-validation AUCs of 0.808–0.834.

Conclusion : AI-based prediction shows potential for individualized perinatal risk assessment, but limited external validation, methodological heterogeneity, and high risk of bias constrain clinical translation. Prospective multicenter validation, calibration, and standardized reporting are needed.

Keywords : Artificial intelligence; Machine learning; Perinatology

Count: 29
Abstract ID: 14
subject: پريناتولوژي
Presentation Type: Poster

A systematic review and meta-analysis on maternal exposure to second-hand smoke and intrauterine growth retardation

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Background and Aim : This meta-analysis is the first to examine the association between prenatal secondhand smoke (SHS) exposure and the risk of intrauterine growth retardation (IUGR) based on observational studies.

Methods : A comprehensive search was performed across PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar without restrictions on time or language. Data from the included studies were meta-analyzed using a random-effects model. Effect sizes were extracted and converted to a common measure when possible. We assessed between-study heterogeneity using I^2, where thresholds of 25%, 50%, and 75% correspond to low, moderate, and high levels, respectively.

Results : Seven studies, including six cohort studies and one case-control study, with a total of 23,308 participants, were included in this systematic review and meta-analysis. The crude estimates for the association between SHS exposure during pregnancy and IUGR yielded an odds ratio (OR) of 1.29 (95% CI: 1.09–1.49), with no evidence of heterogeneity ($I^2 = 0.0\%$; $p = 0.942$). In contrast, the adjusted estimates produced an OR of 1.06 (95% CI: 0.91–1.21; $I^2 = 0.0\%$; $p = 0.394$), which was not statistically significant.

Conclusion : This meta-analysis demonstrated that exposure of non-smoking mothers to SHS during pregnancy is associated with an increased risk of IUGR, although after adjustment for confounding factors, this association did not remain statistically significant. Nevertheless, there is a considerable protective effect in reducing SHS exposure, and even a small increase in risk is

clinically important. Our findings emphasize the necessity of implementing effective policies to reduce exposure of pregnant women to SHS, particularly in indoor environments and at home.

Keywords : Second-hand smoke; Intrauterine growth retardation; Meta-analysis

Count: 30
Abstract ID: 75
subject: پريناتولوژي
Presentation Type: Oral

The Digital Twin of Pregnancy: Integrating Placental Multi-Omics, Ultrasound, Wearables, and AI for Precision Perinatology

Submission Author: Fatemeh Karami

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Background and Aim : Pregnancy is a dynamic maternal–placental–fetal system in which complications may evolve before clinical manifestation. Conventional assessment relies on isolated measurements and static risk factors. Advances in artificial intelligence (AI), multi-omics, ultrasound, and wearable technologies have introduced the concept of a pregnancy “digital twin”: a continuously updated computational representation of an individual pregnancy. It was aimed to review evidences on digital-twin approaches in perinatology and assess how integrating maternal, placental, fetal, imaging, molecular, and longitudinal physiological data enable personalized prediction of pregnancy complications.

Methods : PubMed, Scopus, Web of Science, and Google Scholar were searched for English-language peer-reviewed publications from January 2020 to September 2026. Search terms included “digital twin,” “artificial intelligence,” “machine learning,” “multi-omics,” “placental omics,” “wearables,” “ultrasound,” “fetal growth restriction,” “preeclampsia,” “preterm birth,” and “precision perinatology.”

Results : Emerging evidence supports integrating maternal characteristics, blood pressure, biomarkers, ultrasound/Doppler, placental imaging, multi-omics, and wearable-derived data into dynamic predictive models. Potential applications include individualized prediction of preeclampsia, fetal growth restriction, preterm birth, gestational diabetes, and placental insufficiency. Early studies demonstrate AI-based placental assessment and proof-of-concept digital-twin frameworks for personalized perinatal risk prediction. However, most systems remain exploratory, with limited prospective validation and challenges involving data heterogeneity, interoperability, interpretability, privacy, algorithmic bias, and clinical implementation.

Conclusion : The pregnancy digital twin could shift perinatal care from episodic risk assessment toward continuously updated, individualized prediction and surveillance. Integrating AI with placental multi-omics, imaging, and wearable monitoring may enable earlier recognition of adverse trajectories. Multicenter validation, standardized data pipelines, and ethically governed, clinically interpretable systems are essential before routine clinical implementation.

Keywords : Digital twin; Artificial intelligence; Precision perinatology; Placenta; Multi-omics; Fetal growth restriction

Count: 31
Abstract ID: 24
subject: پريناتولوژي
Presentation Type: Oral

Psychological Resilience Among Pregnant Women in Western Iran: Associations with Perceived Social Support and Insomnia Severity – A Cross-Sectional Study

Submission Author: Farideh Kazemi

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Background and Aim : Psychological resilience, defined as the capacity to adapt to adversity, is influenced by protective factors such as perceived social support and risk factors such as the severity of insomnia. This study investigates these associations among pregnant women in Western Iran, a region facing cultural and economic challenges and limited prior research.

Methods : This cross-sectional study, conducted from April to September 2025, recruited 352 pregnant Iranian women from health centers using two-stage cluster random sampling. Participants were literate, primigravid, at least 18 years of age, and had a healthy intrauterine pregnancy with no history of psychiatric illness. Data were collected using the CD-RISC-10, MSPSS, ISI, and a demographic questionnaire. Multiple linear regression, adjusted for age, housing, and marital satisfaction, was used for data analysis. All participants provided informed consent, and incomplete data were excluded.

Results : The mean resilience score was 24.28 (SD = 6.65), with 56.3% of participants falling below the clinical cutoff. Perceived social support was high, with a mean score of 62.37 (SD = 8.42), and was positively correlated with resilience ($r = 0.452$, $p<0.001$; adjusted $\beta = 5.33$, $p<0.001$). Insomnia affected 73.8% of participants, predominantly at subthreshold to moderate

levels, and was negatively correlated with resilience ($r = -0.408$, $p<0.001$), with moderate insomnia exhibiting the strongest inverse association (adjusted $\beta = -6.91$, $p<0.001$). Factors such as marital and sexual satisfaction, as well as participation in childbirth classes, were found to positively influence resilience, whereas living in rental housing and cohabitation with in-laws had a negative impact.

Conclusion : Insomnia severity is negatively associated with resilience, whereas social support is positively associated with it among pregnant Iranian women. Interventions focused on improving sleep, strengthening support networks, and fostering relationships may be related to better perinatal mental health. Longitudinal studies are recommended to establish causal relationships.

Keywords : Psychological Resilience, Perceived Social Support, Insomnia, Pregnancy, Iran

Count: 32
Abstract ID: 11
subject: پريناتولوژي
Presentation Type: Oral

Spontaneous oblique posterior lower segment-to-cornual uterine rupture in an unscarred primigravida at term: a case report

Submission Author: Hoda Mohammadkhani

Hoda Mohammadkhani[1]

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Background and Aim : Spontaneous rupture of an unscarred uterus during labor is an exceptionally rare and life-threatening obstetric emergency, particularly in primigravid patients. It presents significant diagnostic challenges due to its atypical manifestations and the absence of classical uterine

Methods : Case report

Results : A 34-year-old primigravida (G1P0) at 39 weeks and 2 days of gestation presented in active, spontaneous labor. Following a secondary arrest of labor descent, she developed sudden, severe abdominal pain disproportionate to uterine contractions, maternal exhaustion, and recurrent fetal heart rate decelerations. An emergent cesarean delivery was performed.

Conclusion : Inspection of the uterus revealed an extensive 7–8 cm oblique linear rupture originating from the right posterior lower uterine segment and extending up to the left cornual region.

Keywords : Uterin rupture, pregnancy trimester, third

Count: 33
Abstract ID: 16
subject: پريناتولوژي
Presentation Type: Poster

Digital Perinatal Mental Health Equity: A Mixed-Methods Systematic Review and Meta-Analysis of Midwife-Led and Mindfulness Interventions on Anxiety and Depression in Nulliparous Women in Low-Resource Settings

Submission Author: Mina Safi Jahanshahi

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Background and Aim : Background: Perinatal mental health in nulliparous women is vulnerable. Although mindfulness and digital midwifery interventions are low-cost, access to technology infrastructure in low-resource settings (low- and middle-income countries per World Bank) is a major challenge to health equity.

Methods : Methods: Following PRISMA, PubMed, Scopus, Web of Science, and Cochrane were searched until December 2025 (English-language only). Quality was assessed using RoB 2 and CASP. Homogeneous messaging interventions (SMS, WhatsApp, Telegram text/image-based) were grouped. Synthesis used a Convergent Integrated Design framework and random-effects model. Publication bias was assessed via Egger's test and funnel plot.

Results : Results: Of 15 included studies, meta-analysis was performed on 12 exclusively nulliparous studies (3,200 participants); 3 studies were excluded from meta-analysis due to clinical heterogeneity and used in thematic synthesis. Meta-analysis (I^2=45%) showed messaging apps led to significantly greater reduction in anxiety (GAD-7; effect size -0.45; 95% CI: -0.60 to -0.30) and depression (EPDS) versus comprehensive apps. Sensitivity analysis attributed heterogeneity to intervention duration. Thematic synthesis identified simple user interface as the reason for effectiveness. Evidence for tokophobia and PTSD was insufficient. Egger's test showed no significant bias.

Conclusion : Conclusion: Preliminary evidence suggests combined digital and mindfulness midwife-led interventions can improve maternal mental health in low-resource settings, though clinical significance requires longitudinal studies. Designing interventions based on SMS and

Interactive Voice Response (IVR) instead of internet-dependent apps is recommended. Generalization to multiparous women requires caution.

Keywords : Telemedicine , Postpartum Depression , Healthcare Equity , Mindfulness.

Count: 34
Abstract ID: 15
subject: پريناتولوژي
Presentation Type: Oral

The association between second-hand Smoke exposure during pregnancy and placenta abruption: A systematic review and meta-Analysis

Submission Author: Sahar Tahmasebi

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Background and Aim : To date, no systematic review or meta-analysis has specifically quantified the association between second-hand smoke (SHS) exposure during pregnancy and placental abruption.

Methods : We systematically searched PubMed, Scopus, Web of Science, and Google Scholar up to July 2026 examining the association between SHS exposure during pregnancy and placental abruption. Quality assessment was performed using the Newcastle-Ottawa Scale and the Joanna Briggs Institute checklist. Pooled estimates were calculated using a random-effects model.

Results : Seven studies comprising 11 effect estimates and a total of 166,817 participants were included. The pooled adjusted estimate showed that SHS exposure during pregnancy was associated with a nearly twofold increase in the risk of placental abruption (OR: 1.95; 95% CI: 1.02–3.71). Substantial heterogeneity was observed across studies (I^2 = 79.5%). Case-control studies showed the strongest association (OR: 4.28), while cohort studies yielded more modest estimates (OR: 1.52).

Conclusion : Our findings suggest that second-hand smoke exposure during pregnancy is associated with roughly a twofold increase in the risk of placental abruption (adjusted OR = 1.95), a clinically significant effect. However, given the substantial heterogeneity and the predominance of self-reported exposure measures across studies, we should interpret this estimate with due caution. Nevertheless, the practical implication for clinicians and policymakers seems clear: reducing environmental tobacco smoke during pregnancy could help lower the incidence of this serious complication.

Keywords : Second-hand smoke; Placental abruption; Pregnancy complications; Prenatal exposure; Meta-analysis

Count: 35
Abstract ID: 12
subject: جنرال
Presentation Type: Poster

The investigation of short-term and long-term clinical consequences of colpoclice in women over 60 years old referred to Imam Reza Hospital in 2018 year

Submission Author: Nasim Amraee

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Background and Aim : Pelvic organ prolapse (POP) in women is defined as the protrusion or descent of the pelvic organs through the urogenital hiatus. Colpocleisis, particularly the Le Fort procedure, is an effective surgical option for the treatment of advanced pelvic organ prolapse in elderly women and in patients who no longer desire sexual activity.

Methods : Women over 60 years of age with advanced genital prolapse, confirmed by clinical examination and the Pelvic Organ Prolapse Quantification (POP-Q) system, were enrolled in the study. Following completion of the treatment process and colpocleisis surgery, the patients were followed up six months after surgery. At the follow-up visit, three questionnaires were administered: the Patient Global Impression of Improvement (PGI-I), to assess the overall degree of improvement and treatment success; the Pelvic Organ Prolapse Distress Inventory-6 (POPDI-6), to evaluate the success of prolapse reduction; and the Urogenital Distress Inventory-6 (UDI-6), to assess improvement in urinary symptoms. The completed questionnaires were entered into SPSS version 20.0 and statistically analyzed.

Results : Twenty women over 60 years of age who were candidates for colpocleisis were evaluated, with a mean age of 71.05 ± 8.70 years. The mean operative time for colpocleisis was 135.00 ± 23.57 minutes, and the mean length of hospital stay was 4.00 ± 0.31 days.None of the patients required blood transfusion during or after surgery. No intraoperative urological injuries, postoperative febrile complications, or postoperative vaginal cuff hematomas were observed.Six months after surgery, the Patient Global Impression of Improvement (PGI-I) questionnaire demonstrated a 95% rate of perceived improvement and treatment success. The Urogenital Distress Inventory-6 (UDI-6) demonstrated improvement in urinary symptoms, while the Pelvic Organ

Prolapse Distress Inventory-6 (POPDI-6) demonstrated successful reduction of prolapse-related symptoms

Conclusion : Colpocleisis is an appropriate surgical option for the treatment of advanced pelvic organ prolapse in elderly women

Keywords : Colpocleisis,Pelvic Organ Prolapse,Clinical Outcomes

Count: 36
Abstract ID: 61
subject: جنرال
Presentation Type: Poster

N-Acetylcysteine-Loaded Mesenchymal Stem Cell-Derived Nanovesicles Suppress Stemness and Chemoresistance in Ovarian Cancer Cells

Submission Author: Parvin Bastani Alamdari

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Background and Aim : Ovarian cancer remains a major therapeutic challenge, largely because of its biological heterogeneity, frequent recurrence, and development of resistance to chemotherapy. Cancer stem cells (CSCs) are considered important contributors to these processes because of their capacity for self-renewal, survival under adverse conditions, and resistance to conventional anticancer treatments. Targeting CSC-associated mechanisms may therefore provide a complementary strategy for improving the response of ovarian cancer cells to therapy. In this study, we investigated the potential of mesenchymal stem cell (MSC)-derived nanovesicles as a delivery platform for N-acetylcysteine (NAC), an antioxidant compound with potential modulatory effects on tumor-associated cellular pathways.

Methods : Nanovesicles were isolated from MSCs and subsequently loaded with NAC. Human ovarian cancer cell lines SKOV3 and A2780, together with the cisplatin-resistant A2780cis cell line, were exposed to NAC-loaded nanovesicles. Cellular viability was determined using the MTT assay, while migratory and invasive behaviors were evaluated using wound-healing and transwell assays, respectively. Stem-like characteristics were examined by sphere-formation analysis. Apoptosis and cell-cycle progression were assessed by flow cytometry, and intracellular reactive oxygen species (ROS) were quantified using DCFH-DA staining. The expression of CSC-associated markers, including CD44, ALDH1, Nanog, SOX2, and OCT4, together with components of the PI3K/AKT and NF-κB signaling pathways, was evaluated by quantitative real-time PCR and western blot analysis.

Results : Women's reproductive health research center, Tabriz University of Medical Sciences, Tabriz, Iran.

Conclusion : These findings indicate that NAC-loaded MSC-derived nanovesicles can modulate multiple cellular and molecular features associated with ovarian cancer stemness, tumor

aggressiveness, and cisplatin resistance in vitro. The observed effects on apoptosis, oxidative stress, CSC-associated markers, and survival signaling suggest that this nanovesicle-based delivery strategy warrants further investigation as a potential approach for targeting therapy-resistant ovarian cancer cells.

Keywords : Ovarian cancer; Cancer stem cells; Mesenchymal stem cells; Nanovesicles; N-acetylcysteine; Cisplatin resistance; Oxidative stress; Tumor stemness

Count: 37
Abstract ID: 63
subject: جنرال
Presentation Type: Oral

Severe sepsis after vaginal delivery: a case report

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Background and Aim : Complications of pregnancy and childbearing are one of the most important public health concerns worldwide. Postpartum sepsis remains a leading cause of maternal morbidity and mortality. Early recognition and timely intervention, including surgical source control, when necessary, are critical for improving outcomes.

Methods : We report a 29-year-old gravida 2 woman with a history of opioid use, malnutrition, and very low socioeconomic status, who presented 10 days after a preterm vaginal delivery at 24 weeks' gestation with severe sepsis. She developed refractory septic shock, with evidence of endometritis, salpingitis, empyema, and renal micro abscesses. Blood cultures grew methicillin-resistant Staphylococcus aureus (MRSA). Despite aggressive fluid resuscitation and broad-spectrum antibiotics, her condition deteriorated, necessitating total abdominal hysterectomy with bilateral salpingectomy and chest tube insertion on postpartum day 14. The patient improved postoperatively and was discharged 14 days after surgery.

Results : This case highlights the importance of early recognition of postpartum sepsis, rapid initiation of empiric broad-spectrum antibiotics, and multidisciplinary management. Risk factors such as comorbidities, malnutrition, and low socioeconomic status may increase disease severity and complicate management. In cases unresponsive to medical therapy, surgical source control can be lifesaving, even following vaginal delivery.

Conclusion : Clinicians should maintain a low threshold for aggressive intervention in high-risk postpartum patients. Early diagnosis, multidisciplinary care, and timely surgical intervention are key to reducing maternal morbidity and mortality.

Keywords : postpartum sepsis, septic shock, hysterectomy, maternal morbidity, source control

Count: 38
Abstract ID: 33
subject: جنرال
Presentation Type: Oral

AI-Driven Digital Twins for Precision Pregnancy Care and Nursing: A Systematic Review

Submission Author: Mohammad Hesam Esmaili

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Background and Aim : Pregnancy complications, including preeclampsia, gestational diabetes, preterm birth, fetal growth restriction, and placental dysfunction, arise from dynamic maternal–placental–fetal interactions. Conventional prediction models may inadequately capture evolving risk trajectories. AI-driven digital twins offer a framework for integrating multimodal data into continuously updated, pregnancy representations, with potential implications for nursing care.

Methods : A systematic review of recent evidence on pregnancy digital twins, virtual pregnancy models, and AI-enabled multimodal prediction was conducted. Evidence was synthesized by application, data modality, modeling strategy, validation stage, interpretability, and translational readiness. Electronic health records, obstetric imaging, radiomics, biomarkers, multi-omics, and wearable-derived physiological data were considered, emphasizing predictive performance, external validation, utility, privacy, and ethical governance.

Results : Evidence remains emerging. A 2026 systematic review identified 8 original studies and 9 mechanistic or conceptual works, with only 2 original studies meeting strict digital-twin criteria. A separate 2026 review of 120 AI studies predicting gestational diabetes and preeclampsia reported AUCs of 0.70–0.95. Heterogeneous data and models, limited external validation, insufficient interpretability, privacy concerns, and limited prospective utility hinder translation into obstetric and nursing practice.

Conclusion : AI-driven pregnancy digital twins show promise for precision maternal–fetal medicine and personalized nursing care, but evidence remains insufficient for deployment.

Prospective multicenter validation, standardized multimodal infrastructures, explainable AI, privacy-preserving architectures, and clinical-utility studies are needed to establish effectiveness, safety, and value.

Keywords : Digital twin; Artificial intelligence; Pregnancy

Count: 39
Abstract ID: 32
subject: جنرال
Presentation Type: Oral

Online Mindfulness-Based Counseling for Cognitive Preoccupation and Future Anxiety in Women with Breast Cancer: A Randomized Controlled Trial

Submission Author: Mohammad Hesam Esmaili

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Background and Aim : Breast cancer and its treatment with chemotherapy can cause substantial psychological distress, including cognitive preoccupation and future anxiety/fear of recurrence. This study evaluated the association of online mindfulness-based counseling with these outcomes among women with breast cancer receiving chemotherapy, using the eight-item Breast Cancer Psychological Care Questionnaire (BC-PPCS-8).

Methods : In this two-arm, parallel-group randomized controlled trial conducted in Kerman, Iran, 70 women with stage I–III breast cancer receiving chemotherapy were randomly assigned to an eight-week online mindfulness-based counseling program or usual care. Cancer-related psychological distress was assessed using the eight-item Breast Cancer Psychological Care Questionnaire (BC-PPCS-8) at baseline, post-intervention, and one-month follow-up. Baseline characteristics were compared using t-tests, chi-square tests, or Fisher's exact tests, as appropriate. Post-intervention outcomes were compared using the Mann–Whitney U test.

Results : Of 84 patients assessed for eligibility, 70 were randomized in equal numbers to mindfulness-based counseling or usual care. Post-intervention outcome data were obtained from 34 participants in the counseling group and 35 in the control group. Groups were comparable at baseline regarding demographic and clinical characteristics, including age, marital status, education, income, cancer type, time since diagnosis, and number of chemotherapy sessions (all $p > 0.05$). At post-intervention, participants receiving mindfulness-based counseling reported significantly lower cognitive preoccupation (mean vs. mean), future anxiety/fear of recurrence

(mean vs. mean), and total BC-PPCS-8 scores (mean vs. mean) than control participants (all $p < 0.05$).

Conclusion : Online mindfulness-based counseling was associated with lower post-intervention cognitive preoccupation, future anxiety/fear of recurrence, and psychological distress than usual care among women receiving chemotherapy for breast cancer. This accessible intervention may complement psychosocial care; larger longitudinal trials should confirm the magnitude and durability of effects.

Keywords : Anxiety, Breast cancer, Mindfulness

Count: 40
Abstract ID: 37
subject: جنرال
Presentation Type: Oral

Agentic and Multimodal Artificial Intelligence for Longitudinal Prediction of Maternal and Infant Outcomes Using Electronic Health Records : A Systematic Review

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Background and Aim : Pregnancy is dynamic, with maternal and neonatal risks evolving throughout gestation. Conventional models often rely on isolated variables or single time-point assessments, limiting their ability to capture changing risk trajectories. Agentic and multimodal artificial intelligence (AI) may enable longitudinal integration of electronic health record (EHR) data and risk assessment.

Methods : A systematic search of PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar identified studies through 2026 evaluating longitudinal, multimodal, or agentic AI for maternal, fetal, or infant outcome prediction using EHR or linked clinical data. Studies were assessed for modeling strategies, validation, discrimination, and applicability. Findings were narratively synthesized.

Results : Evidence indicates increasing use of longitudinal AI models that dynamically update risk estimates. A 2026 Nature Medicine study developed an LLM-based Mother-Child AI Agent using 4,401,599 clinical visits and independent maternal and infant cohorts for validation, reporting maternal AUROCs of 0.89–0.91 for complications. Another multicenter study of 58,839 pregnancies reported validation AUROCs of 0.808–0.834 for dynamic short-term preeclampsia prediction. However, limited external validation and limited evidence of clinical utility remain.

Conclusion : Agentic and multimodal AI may transform longitudinal obstetric records into continuously updated maternal–infant risk trajectories. Prospective multicenter validation, rigorous calibration, and clinical-utility studies are needed to establish safety and generalizability.

Keywords : Artificial intelligence; Agentic AI; Multimodal AI

Count: 41
Abstract ID: 8
subject: جنرال
Presentation Type: Oral

Intimate Partner and Non-Partner Violence against Women of Reproductive Age (15–49 Years): A Comparative Analysis by Human Development Index and WHO Region

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Background and Aim : Violence against women is a major public health and human rights issue. This study compared the prevalence of intimate partner violence (IPV, past 12 months) and non partner sexual violence (NPSV, lifetime) among women aged 15–49 years across different levels of human development and WHO regions.

Methods : We analyzed WHO data from 156 country level observations. Countries were categorized into four Human Development Index (HDI) groups (Low, Medium, High, Very High) and six WHO regions. One way ANOVA with Scheffe post hoc tests and Pearson correlations were used.

Results : IPV prevalence showed a clear inverse gradient with development: highest in Low HDI countries (19.95%, SD=10.21) and lowest in Very High HDI countries (4.44%, SD=2.34, $p<0.001$). In contrast, NPSV peaked in High HDI countries (3.39%, SD=3.87) and was significantly higher there than in Low (1.36%), Medium (1.56%), and Very High (1.35%) HDI groups ($p=0.001$). Regionally, Africa had the highest IPV (18.61%), while the Eastern Mediterranean had the highest NPSV (5.96%). IPV correlated moderately to strongly with all HDI components ($r = -0.31$ to -0.52, $p<0.001$), most strongly with life expectancy ($r=-0.52$). NPSV showed only weak correlations with HDI components, the strongest being with expected years of schooling ($r=-0.28$, $p<0.001$).

Conclusion : IPV decreases with higher human development, whereas NPSV is most common in high HDI countries. These contrasting patterns suggest different underlying mechanisms for the two types of violence. Prevention strategies must be tailored accordingly: addressing structural factors for IPV in low HDI settings, and considering reporting, awareness, or social context for NPSV in high HDI settings.

Keywords : Violence against women, intimate partner violence, non-partner sexual violence, Human Development Index, WHO regions, reproductive age

Count: 42
Abstract ID: 26
subject: جنرال
Presentation Type: Poster

Effect of Active Folate Compared With Folic Acid on Homocysteine Levels in Postmenopausal Women With Metabolic Syndrome: A Triple-Blind Randomized Clinical Trial

Submission Author: Zahra Ghalenoee

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Background and Aim : Hyperhomocysteinemia is associated with cardiovascular risk and may be particularly relevant in postmenopausal women with metabolic syndrome. Folic acid lowers homocysteine, whereas 5-methyltetrahydrofolate (5-MTHF) is the biologically active folate form. This trial compared the effects of folic acid and 5-MTHF on plasma homocysteine and cardiometabolic outcomes in postmenopausal women with metabolic syndrome.

Methods : This randomized, triple-blind clinical trial included postmenopausal women aged 50–70 years with metabolic syndrome who were referred to Baharloo Hospital, Tehran, Iran, during 2024–2025. Participants were randomly assigned 1:1 to receive folic acid 1 mg/day or 5-MTHF 0.6 mg/day for 3 months. The primary outcomes were changes in plasma homocysteine and serum folate. Secondary outcomes included body mass index, waist circumference, blood pressure, fasting blood glucose, lipid profile, and liver enzymes.

Results : Fifty women were randomized, with 25 participants in each group. The mean age was 58.06 ± 3.64 years. Serum folate increased significantly in both groups, with a greater increase in the 5-MTHF group. Plasma homocysteine decreased significantly within both groups; however, the between-group difference was not statistically significant. After adjustment for baseline homocysteine, the adjusted mean difference was −0.36 µmol/L (95% CI, −0.90 to 0.18; p=0.190). A ≥20% reduction in homocysteine occurred in 58.3% of participants receiving folic acid and 66.7% receiving 5-MTHF, with no significant between-group difference (p=0.766). No meaningful differences were observed in secondary cardiometabolic outcomes.

Conclusion : In postmenopausal women with metabolic syndrome, both folic acid and 5-MTHF reduced plasma homocysteine over 3 months. Although 5-MTHF produced a greater increase in serum folate, it did not demonstrate superior homocysteine reduction or short-term cardiometabolic benefits compared with folic acid.

Keywords : Folic acid; 5-methyltetrahydrofolate; homocysteine; metabolic syndrome; menopause.

Count: 43
Abstract ID: 53
subject: جنرال
Presentation Type: Oral

Comparing Cesarean Incisional Complications in Women With and Without Enoxaparin: A Quasi-Experimental Study

Submission Author: Leili Hafizi

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Background and Aim : Although some women who undergo cesarean section need to receive prophylactic Enoxaparin due to the increased risk of thromboembolism during their puerperium period, the question is always raised of whether this drug with the mechanism of increased bleeding may increase surgical wound complications. Hence, the present study was conducted with the aim of a comparative study on complications of abdominalincisionincesareansectionpatients with and without receiving Enoxaparin.

Methods : Aquasi-experimental study was conducted on 789 cesarean section participants (317 receiving Enoxaparin and 472 control subjects), 20–40 years pregnant women in Imam Reza and Ummal-Banin hospitals in Mashhad, Iran. All participants who scored three or more for thromboembolism risk based on the National Protocol received Enoxaparin after surgery. Those with underlying wound complication risk factors were excluded from the study. Then, both groups were evaluated for abdominal incision complications up to 2 weeks after their delivery and were compared with each other. A p value< 0.05 was considered significant.

Results : In total, 5% of patients in the Enoxaparin group and 5.5% in the control group had ulcer complications (p=0.7). The frequency of the type of complication between the two groups was as follows: hematoma (p=0.8), ecchymosis (p=0.5), wound infection (p = 0.9), wound partial dehiscence (p=0.09), wound total dehiscence (p=0.3), secondary closure of the incision (p =0.7) which had no meaningful statistical difference.

Conclusion : Based on the outcomes obtained in the present study, prescribing Enoxaparin after a cesarean in cases receiving this drug for thromboembolic prophylaxis did not significantly increase the complications of abdominal incision, and there was no need for more incision care.

Keywords : cesarean | enoxaparin | hematoma | incision | wound infection

Count: 44
Abstract ID: 19
subject: جنرال
Presentation Type: Oral

The effect of Gerdoheal on the endometrial histology in patients with endometrial proliferative disorder and hyperplasia: Double-blinded randomized clinical trial

Submission Author: Aniseh Javadi

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Background and Aim : Non-atypical endometrial hyperplasia and disordered proliferative endometrium are estrogen-dependent precancerous conditions that can progress to endometrial carcinoma. Standard progestin therapy is effective but may be limited by systemic adverse effects and incomplete response. Gerdoheal, a herbal formulation containing α-pinene-rich mastic oil, has demonstrated antiproliferative and pro-apoptotic effects in preclinical models. This study evaluated the efficacy and safety of Gerdoheal as an adjunct to megestrol acetate in women with endometrial proliferative disorders.

Methods : In this double-blind, randomized controlled trial, 57 women aged 18–55 years with histologically confirmed disordered proliferative endometrium or non-atypical endometrial hyperplasia were randomized to receive megestrol acetate 80 mg/day alone (control, n = 28) or in combination with Gerdoheal 1000 mg/day (intervention, n = 29) for three months. The primary outcome was histological regression, defined as conversion to normal, inactive, atrophic, or decidualized endometrium. Secondary outcomes included treatment-related adverse effects and adherence.

Results : Overall histological regression was significantly higher in the intervention group (87%) compared with the control group (54%; $p < 0.05$). Among patients with non-atypical hyperplasia, regression occurred in 100% of the intervention group versus 43% of controls ($p < 0.01$). Patients with disordered proliferative endometrium also demonstrated higher regression rates with combination therapy, though the difference was less pronounced. No cases of progression to

atypical hyperplasia or carcinoma were observed. Both regimens were well tolerated, with mild gastrointestinal symptoms and transient abnormal bleeding being the most common adverse events. No serious adverse effects or treatment discontinuations occurred.

Conclusion : Gerdoheal, when added to standard megestrol acetate therapy, significantly enhances histological regression in women with non-atypical endometrial hyperplasia and disordered proliferative endometrium without increasing adverse effects. These findings support Gerdoheal as a safe and effective adjunctive therapy for hormone-dependent endometrial proliferative disorders, with potential benefits for fertility preservation.

Keywords : Endometrial hyperplasia, disordered proliferative endometrium, gerdoheal, megestrol acetate, herbal therapy, randomized clinical trial

Count: 45
Abstract ID: 72
subject: جنرال
Presentation Type: Poster

Synbiotics and Polyphenols as Modulators of the Gut Estrobolome: A Narrative Review of a Promising Adjunct to Non-Surgical Management of Endometriosis and Uterine Fibroids

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Background and Aim : Background and Objective: Endometriosis and uterine fibroids are estrogen-dependent, chronic inflammatory gynecological disorders. In endometriosis, implants depend on estradiol, express ESRβ, resist progesterone, and synthesize estradiol via aromatase, creating a pro-implantation inflammatory environment. The estrobolome, comprising enteric bacterial genes that metabolize estrogens, modulates systemic estrogen levels and immune responses. While polyphenols exhibit anti-endometriotic potential via estrogen modulation, proliferation, apoptosis, inflammation, oxidative stress, and angiogenesis, the role of synbiotics remains under investigation. To synthesize links among gut dysbiosis, estrogen biology, polyphenols, and endometriosis, and to critically evaluate underexplored potential of synbiotics and polyphenols as an emerging non-surgical adjunct for both conditions.

Methods : Methods: This structured narrative review searched PubMed, Scopus, and Web of Science (2016–2025), applying strict inclusion and exclusion criteria to preclinical and clinical studies.

Results : Results: In an ovariectomized mouse model (OVX+END), Alghetaa et al. demonstrated significant gut dysbiosis: increased Tenericutes, decreased Clostridiales, elevated TCA-cycle metabolites, reduced short-chain fatty acids (e.g., butyric acid), and increased peritoneal T, NK, and NKT cells. This immune-metabolic dysregulation highlights the impact of endometriosis on gut microbiota, corroborating broader evidence linking altered microbiome profiles to estrogen-driven disease pathophysiology. Polyphenols modulate estrogen activity and inflammation, representing promising candidates for endometriosis management. However, evidence relies heavily on preclinical models and a narrative synthesis of microbiota components. Notably, evidence for the combined effect of synbiotics and polyphenols remains virtually nonexistent,

representing critical translational research gap, with specific data on uterine fibroids entirely absent from current literature.

Conclusion : Conclusion: Synbiotics and polyphenols represent a biologically plausible, emerging adjunct to non-surgical management by targeting shared estrogen and inflammatory pathways. However, significant translational gaps, including preclinical overreliance and a lack of human randomized controlled trials (RCTs), must be addressed before clinical recommendation. This review highlights an underexplored clinical niche. Future trials must establish safety, efficacy, and microbiome effects in both endometriosis and fibroids.

Keywords : Endometriosis; Uterine Fibroids; Gut Estrobolome; Synbiotics; Polyphenols

Count: 46
Abstract ID: 27
subject: جنرال
Presentation Type: Poster

Carbetocin versus Oxytocin after Elective Cesarean Delivery: A Double-Blind Randomized Controlled Trial

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Background and Aim : Uterotonic agents are routinely administered after cesarean delivery to prevent postpartum hemorrhage. Carbetocin, a long-acting oxytocin analogue, provides sustained uterine contraction after a single dose. This study compared carbetocin with oxytocin following elective cesarean delivery, evaluating hemoglobin changes, hemodynamic parameters, adverse effects, additional uterotonic use, and intravenous fluid volume.

Methods : In this double-blind, parallel-group randomized controlled trial, 106 women undergoing elective cesarean delivery were randomized equally, and 105 were included in the final analysis. The carbetocin group received 100 µg intravenously over 3 minutes after placental delivery, whereas the oxytocin group received 5 IU intravenously as a bolus, followed by 20 IU diluted in 500 mL saline and infused over 6 hours. The primary outcomes were hemoglobin levels at 6 and 24 hours postoperatively. Secondary outcomes included blood pressure, adverse effects, additional uterotonic use, and intravenous fluid volume.

Results : At 6 hours, mean hemoglobin was significantly higher in the carbetocin group than in the oxytocin group (11.1 ± 1.19 vs. 10.7 ± 0.88 g/dL; P=0.044). Postoperative systolic and diastolic blood pressures were also significantly higher with carbetocin (110.2 ± 13.88 vs. 101.0 ± 16.84 mmHg, P=0.004; and 69.5 ± 12.32 vs. 62.7 ± 12.20 mmHg, P=0.008). Headache and fever were significantly less frequent with carbetocin (13.5% vs. 58.5%, P=0.001; and 15.4% vs. 37.7%, P=0.01). Chest pain and total intravenous fluid volume did not differ significantly.

Conclusion : A single 100 µg intravenous dose of carbetocin was associated with a smaller hemoglobin decline, higher postoperative blood pressure, and fewer headache and fever events

than oxytocin infusion after elective cesarean delivery. Further multicenter studies using direct blood-loss measurement are warranted.

Keywords : Carbetocin; Oxytocin; Cesarean Delivery; Postpartum Hemorrhage; Hemoglobin; Uterotonics; Hemodynamic Parameters; Adverse Effects.

Count: 47
Abstract ID: 50
subject: جنرال
Presentation Type: Oral

Prevalence, clinical characteristics, and predictive modeling of Polyendocrine Metabolic Ovarian Syndrome among women with cervical insufficiency undergoing abdominal cerclage: A cross-sectional study

Submission Author: Yekta Parsa

Yekta Parsa[1]

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Background and Aim : Polyendocrine metabolic ovarian syndrome (PMOS) is a common endocrine disorder that may coexist with cervical insufficiency (CI), particularly in women requiring abdominal cerclage. Objective: This study aimed to determine the prevalence and clinical profile of PMOS among women with CI undergoing abdominal cerclage and to evaluate clinical models for identifying PMOS in this population.

Methods : In this cross-sectional study, data of 172 women with a history of CI who underwent abdominal cerclage at Arash Women's Hospital and the Avicenna Infertility Treatment Center, in Tehran, Iran from March 2017 to March 2025 were extracted from their medical records. Factors associated with PMOS were assessed using logistic regression, and model discrimination was evaluated using the area under the receiver operating characteristic curve.

Results : PMOS was identified in 73 women (42.4%). Compared with women without PMOS, affected women were generally younger, had higher body mass index, lower gravidity, fewer previous abortions, and more frequent infertility, abnormal pelvic ultrasound findings, and previous laparoscopy. In multivariable analysis, maternal age, body mass index, number of abortions, and previous laparoscopy remained independently associated with PMOS. Predictive models based on routinely available clinical and imaging variables showed good discrimination, with area under the receiver operating characteristic curve values above 0.88 across models.

Conclusion : PMOS was common among women with CI undergoing abdominal cerclage. Routine clinical and ultrasound information may help identify PMOS in this high-risk group, although prospective studies are needed to confirm these findings and clarify underlying mechanisms.

Keywords : Polyendocrine metabolic ovarian syndrome, Uterine Cervical Incompetence, Cerclage, Prediction Algorithms, Machine Learning

Count: 48
Abstract ID: 51
subject: جنرال
Presentation Type: Poster

Navigating the Rare Intersection of Endometrial Ablation and Cesarean Scar Pregnancy: A Case Report

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Background and Aim : Menorrhagia significantly impairs the quality of life of reproductive-aged women, often necessitating endometrial ablation (EA) as a treatment for heavy menstrual bleeding. However, EA may lead to rare but serious complications, including unexpected pregnancies in atypical locations, such as cesarean scar pregnancies (CSPs). Although CSP is uncommon, it poses significant risks to maternal and fetal health.

Methods : -

Results : Case presentation: We report the diagnostic and therapeutic management of CSP in a 40-year-old woman with a history of menorrhagia and prior EA. She presented to the emergency department with delayed menstruation and was gravida 2, para 2, with two previous cesarean deliveries. Laboratory evaluation revealed a positive pregnancy test (Beta-HCG 12,764 mIU/mL), and transvaginal ultrasound identified an ectopic gestational sac on the cesarean scar niche, causing niche widening. The residual myometrial thickness (RMT) was 3.5 mm. Given her lack of desire for future pregnancies, the on-niche location of the gestational sac, and RMT >3 mm, hysteroscopic removal of the ectopic tissue was performed. While her initial postoperative recovery was uneventful, she subsequently developed heavy vaginal bleeding due to an expanding cesarean scar defect, necessitating laparoscopic hysterectomy. Three-month follow-up demonstrated complete recovery without further complications.

Conclusion : This case highlights the importance of early and accurate diagnosis and timely, individualized management of CSP. Improved imaging techniques and a multidisciplinary approach are essential for optimizing outcomes. Further research is warranted to establish best practices for managing this complex reproductive health condition.

Keywords : Cesarean section; Ectopic pregnancy; Endometrial ablation; Scar pregnancy; Menorrhagia

Count: 49
Abstract ID: 17
subject: جنرال
Presentation Type: Poster

Comparative analysis of hysteroscopic uterine pathologies in postmenopausal women exhibiting thick endometrium, in instances both with and without bleeding

Submission Author: Nona Sabeti

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Background and Aim : The objective of this study was to investigate uterine pathologies in postmenopausal women who either had symptoms of bleeding or were asymptomatic but were found to have thickened endometrium on ultrasound and subsequently underwent hysteroscopy.

Methods : A total of 168 postmenopausal women who visited Qaem and Imam Reza Hospitals between 2018 and 2020 and had thickened endometrium on ultrasound (≥3 mm in cases of bleeding and ≥11 mm in asymptomatic cases) were included in this study. The patients underwent diagnostic or therapeutic hysteroscopy. Ultrasound findings, macroscopic hysteroscopic findings, and histopathological biopsy results were compared between the two groups.

Results : Comparative analysis showed no significant statistical differences between the two groups regarding mean age (p=0.46) or endometrial thickness (p=0.55). Furthermore, there were no significant differences in the macroscopic hysteroscopic findings of the uterine cavity, endometrium, or histopathological results of the endometrium or removed tissues between the two groups (p=0.96, p=0.49, and p=0.14, respectively).

Conclusion : In this study, there were no statistically significant differences in hysteroscopic and histopathological findings of the uterus in postmenopausal women with thickened endometrium, whether or not they presented with bleeding. Therefore, increased endometrial thickness in all postmenopausal women, even in asymptomatic cases, should be considered an important finding and be as significant as the complaint of bleeding when diagnosing malignancy or hyperplasia of the uterus.

Keywords : Abnormal uterine bleeding, menopause, hysteroscopy, pathology

Count: 50
Abstract ID: 55
subject: جنرال
Presentation Type: Oral

Artificial Intelligence-Assisted Cardiotocography Interpretation During Labor: A Systematic Review of Human Performance, Reliability, Efficiency, and Perinatal Outcomes

Submission Author: Samane Shojaei

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Background and Aim : Cardiotocography (CTG) is central to intrapartum fetal surveillance, but interpretation is limited by interobserver variability. Although artificial intelligence (AI) shows promise in CTG classification and fetal acidemia prediction, most studies focus on algorithmic accuracy rather than its effect on clinicians' interpretation. Evidence on human–AI collaboration, particularly pre–post assessment and perinatal outcomes, remains limited. This review evaluated AI-assisted CTG interpretation regarding human performance, reliability, efficiency, and perinatal outcomes.

Methods : This systematic review followed PRISMA 2020. PubMed, Embase, Scopus, Web of Science, Cochrane Library, and Google Scholar were searched for studies published from January 2022 to September 2026 using terms related to CTG, fetal heart rate, artificial intelligence, machine learning, deep learning, and intrapartum assessment. Of 320 records screened, 34 studies met eligibility criteria. Eligible studies compared AI-based CTG interpretation with human assessment, expert standards, or objective outcomes. Two reviewers independently screened and extracted data and assessed risk of bias using QUADAS-2 and PROBAST. Due to substantial heterogeneity, findings were synthesized narratively, with human–AI and pre–post studies examined as prespecified subgroups.

Results : AI showed promising but variable performance in detecting abnormal CTG patterns and predicting fetal acidemia. Human–AI studies generally improved interobserver agreement and interpretation efficiency, whereas evidence for improved neonatal outcomes remained insufficient.

Pre–post studies suggested greater agreement and shorter interpretation time after AI support. However, variable AI performance, limited external validation, retrospective designs, and reliance on expert consensus limited generalizability.

Conclusion : AI-assisted CTG interpretation may improve consistency and efficiency, but its clinical effectiveness and impact on neonatal outcomes remain uncertain. Current evidence supports AI primarily as an augmentation tool rather than a replacement for clinical judgment. Future multicenter prospective studies should evaluate standardized human–AI workflows, clinical decisions, external validation, and objective neonatal outcomes.

Keywords : Artificial intelligence; Cardiotocography; Intrapartum fetal monitoring; Human–AI collaboration; Machine learning

Count: 51
Abstract ID: 56
subject: جنرال
Presentation Type: Oral

AI-Driven Pregnancy Digital Twins: Multimodal Data Integration for Personalized Prediction of Maternal–Fetal Complications

Submission Author: Samane Shojaei

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3. 3. Bachelor of Nursing Student, Student Research and Technology Committee, School of Nursing and Midwifery, Bam University of Medical Sciences, Bam, Iran.

Background and Aim : Pregnancy complications such as preeclampsia, gestational diabetes mellitus (GDM), preterm birth, fetal growth restriction, and placental dysfunction arise from dynamic maternal–placental–fetal interactions. Conventional prediction models based on static measurements may inadequately capture evolving individual risk. This critical review aimed to synthesize evidence on AI-driven pregnancy digital twins and identify barriers to clinical translation.

Methods : Recent literature on digital twins, virtual pregnancy models, and AI-enabled multimodal prediction in reproductive and obstetric medicine was critically synthesized according to clinical application, data modality, modeling strategy, validation stage, interpretability, and translational readiness. Electronic health records, obstetric imaging, radiomics, biomarkers, multi-omics, wearable data, and machine-learning approaches were considered, with critical appraisal of predictive performance, external validation, and ethical governance.

Results : Evidence through 2026 suggests that digital-twin obstetrics remains an emerging field. A 2026 systematic review identified 8 original studies and 9 mechanistic or conceptual works, but only 2 original studies met strict digital-twin criteria. Most applications remained predictive or descriptive and were at early validation stages. Other recent reviews highlighted multimodal integration of clinical, imaging, biological, and physiological data for individualized prediction. A 2026 systematic review of AI-based prediction of GDM and preeclampsia included 120 studies, with reported AUROC values of 0.70–0.95. Major barriers included heterogeneous data, limited external validation, interpretability, privacy, ethical governance, and clinical integration.

Conclusion : AI-driven pregnancy digital twins offer a promising framework for precision maternal–fetal medicine, but evidence remains insufficient for routine clinical deployment. Prospective multicenter validation, standardized multimodal infrastructures, explainable and privacy-preserving AI, and prospective clinical-utility studies are required for translation into obstetric practice.

Keywords : Digital twin; Artificial intelligence; Pregnancy; Multimodal data; Precision obstetrics; Maternal–fetal medicine.

Count: 52
Abstract ID: 62
subject: نازايي
Presentation Type: Poster

Pregnancy Outcome following Administration of Intravenous Immunoglobulin in Women with Unexplained Recurrent Implantation Failure: A Retrospective Cohort Study

Submission Author: Sahereh Arabian

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Background and Aim : Recurrent implantation failure (RIF) is a challenging condition affecting approximately 10% of in vitro fertilization (IVF) patients. Despite extensive investigations, up to half of cases remain unexplained. Immune dysregulation has been implicated in RIF, and intravenous immunoglobulin (IVIg) therapy has emerged as a potential treatment. However, the efficacy of IVIg for unexplained RIF remains controversial due to inconsistent study designs and outcomes. The aim of this study was to evaluate the impact of IVIg on pregnancy and live birth rates in women with unexplained RIF.

Methods : A retrospective cohort study was conducted on 136 women with unexplained RIF under going frozen embryo transfer (FET) at Yazd Reproductive Sciences Research Institute and Reproductive Medicine Department of Madar Hospital, Yazd, Iran between April 2019 and March 2024. The study included women with unexplained RIF who underwent FET following endometrial preparation using hormonal therapy and received at least three doses of IVIg therapy. Baseline characteristics and pregnancy outcomes were compared.

Results : A total of 68 patients were included in each group. The IVIg group had a significantly higher biochemical pregnan cy rate compared to the control group [26(38.2%) vs. 13(19.1%), P=0.014]. Although clinical pregnancy, ongoing preg nancy, and live birth rates were numerically higher in the IVIg group, these differences did not reach statistical significance.

Conclusion : : Our findings suggest that IVIg treatment may be associated with higher biochemical pregnancy women with unexplained RIF. However, larger prospective studies are needed to confirm these results and to assess the long term effects of IVIg on pregnancy outcomes.

Keywords : Embryo Transfer, Intravenous Immunoglobulin, In Vitro Fertilization, Live Birth Rate

Count: 53
Abstract ID: 35
subject: نازايي
Presentation Type: Poster

Artificial Intelligence for Predicting ART Outcomes: A Systematic Review and Meta-analysis

Submission Author: Mohammad Hesam Esmaili

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Background and Aim : Assisted reproductive technology (ART) involves complex clinical and reproductive factors that influence treatment outcomes. Artificial intelligence (AI) and machine learning (ML) may integrate these variables to improve individualized prediction of pregnancy and live birth.

Methods : A systematic review evaluated studies developing or validating ML models for predicting clinical pregnancy or live birth after ART. PubMed, Embase, Cochrane Library, IEEE Xplore, MEDLINE, ClinicalTrials.gov, CNKI, Wanfang, and VIP were searched from inception to July 2026. Model performance, validation, and risk of bias were assessed using diagnostic accuracy measures and PROBAST. Random-effects meta-analysis was performed when 2×2 data were available.

Results : Twenty studies were included, with 14 contributing to meta-analysis. Pooled sensitivity and specificity were 0.737 and 0.789, respectively, with substantial heterogeneity (I^2=97.7% and 99.0%). The pooled diagnostic odds ratio was 10.49 (95% CI, 6.28–17.53). Only one study had low risk of bias, while 8 had high and 11 had unclear risk.

Conclusion : ML models show moderate accuracy for predicting ART outcomes, but substantial heterogeneity and methodological limitations restrict clinical implementation. Prospective multicenter external validation, calibration, standardized reporting, and clinical-utility assessment are needed.

Keywords : Artificial intelligence; Machine learning; Infertility

Count: 54
Abstract ID: 43
subject: نازايي
Presentation Type: Oral

Specialists' Experiences and Perceptions of Ethical and Legal Issues in the Surrogacy Process: A Qualitative Content Analysis

Submission Author: Hatav GhasemiTehrani

Hatav GhasemiTehrani[1]

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Background and Aim : Surrogacy, as one of the methods of assisted reproduction, in addition to medical aspects, is associated with numerous ethical and legal challenges. This study aimed to explain the experiences and perceptions of health and legal professionals regarding the ethical and legal issues of the surrogacy process.

Methods : This research employed a qualitative approach and conventional content analysis. Participants included 15 obstetricians, gynecologists, nurses, counselors/ psychologists, and lawyers with professional experience in surrogacy. Data was collected through semi-structured interviews and a focus group discussion, and analyzed simultaneously.

Results : Data analysis indicated four main categories: "vulnerability and economic justice", "challenges of informed consent and autonomy in decision-making", "weakness of support and monitoring structures", and "role conflict and social consequences". Participants considered the financial pressure of women applying for surrogacy and inequality of bargaining power as the most important ethical concerns. They also did not consider formal consent to be necessarily equivalent to informed consent, and pointed to the role of family pressures and incomplete awareness of psychological consequences. Lack of ongoing psychological support, the dominance of legal approaches over ethical considerations, and regulatory gaps were other challenges raised. Conflicts between the interests of the applicant parents and the health of the surrogate mother also caused professional tension for service providers.

Conclusion : The experience of experts shows that the moral defensibility of surrogacy goes beyond its legal legitimacy and requires strengthening support mechanisms, clarifying responsibilities, and paying attention to justice and human dignity at all stages of the process.

Keywords : Surrogate mother, Surrogate pregnancy, Ethical issues, Professional role, Legal issues, Qualitative research

Count: 55
Abstract ID: 44
subject: نازايي
Presentation Type: Oral

Clinical and Embryological Outcomes of In-Vitro Fertilization in Different PCOS Phenotypes

Submission Author: Hatav GhasemiTehrani

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Background and Aim : Polycystic ovary syndrome (PCOS)-related infertility frequently requires in vitro fertilization (IVF). This study compared IVF outcomes among different PCOS phenotypes to evaluate potential differences in reproductive responses.

Methods : In this prospective observational study, 171 women with PCOS undergoing IVF were classified into four phenotypic groups based on the Rotterdam criteria. IVF outcomes, including ovarian response, embryological parameters, and clinical results, were compared across the groups.

Results : Although phenotype D had the highest number of oocytes retrieved and high-quality embryos (88.5% ± 14.85), the difference in embryo quality between groups was the only statistically significant embryological outcome ($p = 0.011$). No significant differences were found in implantation rates ($p = 0.562$) or clinical pregnancy rates ($p = 0.781$), which ranged from 12.3% to 23.8% and 16.7% to 27.3%, respectively.

Conclusion : While ovarian response and embryo quality varied by PCOS phenotype, implantation and clinical pregnancy rates were comparable across groups. These findings suggest that PCOS phenotype alone may not be sufficient to predict clinical IVF success and should be interpreted alongside other established clinical and reproductive factors.

Keywords : PCOS, phenotype, in vitro fertilization, clinical pregnancy, embryo quality

Count: 56
Abstract ID: 46
subject: نازايي
Presentation Type: Poster

The Impact of Intrauterine PRP Injection Timing on Endometrial Thickness and Frozen Embryo Transfer Outcomes: A Retrospective Cohort Study

Submission Author: Manizheh Habibpour

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Background and Aim : Intrauterine platelet-rich plasma (PRP) has been proposed as a strategy to enhance endometrial receptivity in women undergoing assisted reproductive technology. However, the prognostic value of endometrial thickness (EMT) thresholds remains a matter of debate, and recent appraisals have cautioned against the use of rigid cut-offs. This study aimed to compare the effects of different IUPRP administration timings on EMT and frozen embryo transfer (FET) outcomes in a hormone replacement therapy (HRT)–FET program.

Methods : This retrospective cohort study included 88 HRT-FET cycles performed at the Kosar Infertility Center, Imam Khomeini Hospital, Sari, Mazandaran, Iran. IUPRP was administered either 7–10 days before embryo transfer or 48 hours before transfer (n = 44 per group). The primary outcomes were changes in EMT and pregnancy outcomes.

Results : Baseline EMT differed modestly between the two groups (6.36 ± 0.72 mm vs. 6.72 ± 0.69 mm; $p = 0.020$). EMT increased significantly after IUPRP in both groups (7–10 days: 7.81 ± 0.86 mm; 48 hours: 7.71 ± 0.71 mm; both $p < 0.001$), with no significant difference in post-PRP EMT between the groups ($p = 0.536$). ANCOVA identified baseline EMT as the strongest predictor of post-PRP EMT ($\beta = 0.70$, 95% CI 0.52–0.89; $p < 0.001$), whereas administration timing had no independent effect. Clinical pregnancy rates (29.5% vs. 22.7%; $p = 0.467$) and live birth rates (20.5% vs. 9.1%; $p = 0.133$) were comparable between the groups.

Conclusion : PRP increased EMT irrespective of administration timing, with no detectable difference in pregnancy outcomes. Baseline EMT largely determined the response to PRP,

supporting flexible PRP scheduling and highlighting the need for prospective, live-birth–focused trials.

Keywords : Endometrial receptivity; Hormone replacement therapy cycle; Assisted reproductive technology; Thin endometrium; Live birth outcome

Count: 57
Abstract ID: 18
subject: نازايي
Presentation Type: Poster

Predictors of Quality of Life in Women with Infertility: A Cross-Sectional Study in the western Iran

Submission Author: Ensiyeh Jenabi

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Background and Aim : There is a significant research gap in understanding the simultaneous relationship between perceived stress and social support in relation to quality of life (QoL) among infertile women, particularly in specific cultural contexts.Therefore, the present study was conducted to investigate the relationship between perceived stress and social support with QoL in infertile women.

Methods : A cross-sectional study was conducted on 150 infertile women in 2025 at the infertility clinic of Fatemiyeh Hospital in Hamadan City, western Iran. Measurement tools were Demographic questionnaire; Perceived stress scale (PSS)-14 items, Multidimensional scale of perceived social support (MSPSS) and the World Health Organization Quality of Life 26-item. Statistical analysis was performed with Stata-17 and significance level was 0.05.

Results : The final model explained a significant portion of the variance in QoL scores. Four key variables emerged as significant independent predictors. Social support was the strongest positive predictor ($\beta = 0.91$, $p < 0.001$), indicating that for each one-point increase in social support score, the total QoL score increased by 0.91 points, holding other factors constant. Woman's occupation was also a significant predictor, with employed women having QoL scores that were, on average, 7.47 points higher than housewives ($p = 0.002$).Regarding demographic factors, woman's age was a significant negative predictor ($\beta = -0.69$, $p < 0.001$), meaning QoL scores decreased with increasing age. Conversely, husband's age was a significant positive predictor ($\beta = 0.31$, $p = 0.006$).

Conclusion : The results of the present study indicate that social support appears to be associated with improved QoL among infertile women and may be effective in mitigating the psychological consequences of infertility.

Keywords : Quality of life; Stress; Social support; infertile; Iran

Count: 58
Abstract ID: 39
subject: نازايي
Presentation Type: Poster

Effects of Date Palm Pollen and Nigella sativa on Female Fertility Parameters: A Systematic Review and Meta-Analysis

Submission Author: Mohsen Koolivand

Fatemeh Naghizadeh[1], Mohsen Koolivand[2]

1. Department of biology, yadegare-emam khomaini shahre-rey, Tehran, Iran

Background and Aim : Infertility affects approximately 10-15% of couples. Due to side effects of hormonal treatments, attention to medicinal plants has increased. This systematic review aimed to evaluate the effects of date palm pollen and Nigella sativa on female fertility parameters.

Methods : A systematic search of PubMed, Scopus, Web of Science, Cochrane Library, and Persian databases (SID, Magiran) was conducted for 2010–2025. Keywords included "date palm pollen," "Phoenix dactylifera," "Nigella sativa," "female fertility," and "clinical trial." Randomized controlled trials and quasi-experimental studies examining the effects of these plants on sex hormones, follicle size, endometrial thickness, or pregnancy rate were included. Study quality was assessed using the Cochrane Risk of Bias tool and Jadad scale. Analysis was performed using RevMan 5.4 with a random-effects model.

Results : Eight studies with 480 women were included in the meta-analysis. Date palm pollen significantly increased estradiol (MD = 12.3 pg/mL, 95% CI: 8.5-16.1, $p < 0.001$) and improved endometrial thickness (MD = 2.1 mm, 95% CI: 1.4-2.8, $p < 0.001$). Nigella sativa increased progesterone (MD = 3.5 ng/mL, 95% CI: 2.1-4.9, $p < 0.001$). The combination showed a synergistic effect on pregnancy rate (RR = 2.45, 95% CI: 1.32-4.55, $p = 0.004$). Considerable heterogeneity was observed ($I^2 = 65\%$).

Conclusion : Date palm pollen and Nigella sativa have positive effects on female fertility parameters. However, study quality was moderate, and larger trials are essential. Comprehensive data validation assessment showed that the results of this systematic review have sufficient statistical robustness.

Keywords : Date palm pollen; Nigella sativa; Female fertility; Systematic review; Meta-analysis

Count: 59
Abstract ID: 49
subject: نازايي
Presentation Type: Oral

The Association between Ovarian Response Prediction Index and Mature Oocyte Number and Quality

Submission Author: Nahid Masoumi

Nahid Masoumi[1], Firoozeh Akbari Asbagh[2], Ghazal Sahrayian[3], Arash Jafarieh[4], Elham Feizabad[5], Mahbod Ebrahimi[6], Sahar Rostami [7]

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Background and Aim : The success of IVF largely depends on the number and quality of mature oocytes obtained after controlled ovarian stimulation. Although age, anti-Müllerian hormone (AMH), and antral follicle count (AFC) are commonly used to assess ovarian reserve, each alone has limited predictive value. The Ovarian Response Prediction Index (ORPI) has been proposed as a more comprehensive marker. Hence, we evaluated the association between ORPI and number and quality of mature oocytes in this study.

Methods : This cross-sectional study included 131 women undergoing IVF/ICSI cycles at Yas Hospital Complex, Tehran, between 2024 and 2026. Eligible patients were selected by convenience sampling. All participants underwent a GnRH antagonist protocol with individualized gonadotropin dosing. Follicular monitoring was performed during stimulation, and oocyte retrieval was carried out 35–36 hours after hCG administration. ORPI was calculated using the following formula: ORPI = AMH × AFC / Age. All analyzes were performed using SPSS version 23 software.

Results : The mean age of participants was 34.17 ± 5.23 years. The mean ORPI was 0.457 with a range of 0.005 to 2.620. Pearson correlation analysis showed that ORPI had a significant positive

correlation with the number of retrieved oocytes ($r = 0.466$, $p < 0.001$) and MII oocyte quality ($r = 0.517$, $p < 0.001$).

Conclusion : ORPI appears to be a useful and more accurate predictor than AMH or AFC alone for estimating ovarian response in IVF/ICSI cycles. It may help personalize stimulation protocols, improve prognostic counseling, and optimize infertility treatment outcomes. Larger multicenter studies are needed to confirm these findings.

Keywords : In Vitro Fertilization, Ovarian Reserve, Anti-Müllerian Hormone, Antral Follicle Count

Count: 60
Abstract ID: 70
subject: نازايي
Presentation Type: Poster

Berberine as an Adjunct to Metformin in Clomiphene-Resistant Polycystic Ovary Syndrome: A Narrative Review of Ovarian Steroidogenesis, Insulin Sensitivity, and Ovulatory Outcomes

Submission Author: Kosar Modanlou

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Background and Aim : Background and Objective: Insulin resistance is a major driver of hyperandrogenism and anovulation in clomiphene-resistant polycystic ovary syndrome (PCOS). While adding metformin to clomiphene citrate rescues ovulatory function in select cohorts, particularly obese women with a BMI > 28, anovulation often persists. Berberine has emerged as an insulin-sensitizing alkaloid possessing multi-target endocrine-metabolic actions. To synthesize preclinical and clinical evidence evaluating berberine as an adjunct to metformin on ovarian steroidogenesis, insulin sensitivity, and ovulatory restoration in clomiphene-resistant PCOS.

Methods : Methods: A narrative review of literature was performed across PubMed, Cochrane, and Embase (2001-2026). We focused on randomized controlled trials, meta-analyses, and mechanistic models of berberine and metformin interventions for PCOS-related reproductive and metabolic indices.

Results : Results: Preclinically, in DHEA-induced PCOS rat models, co-administration of berberine and metformin restores estrous cyclicity, increases primordial and primary follicles, diminishes atretic follicles, and suppresses aberrant granulosa cell autophagy via the AMPK/AKT/mTOR pathway. Crystal-engineered berberine improves bioavailability (1.8-fold higher Cmax) and alleviate hyperandrogenism and anovulation via the AMPK-IRS1/PI3K/Akt axis and luteinizing hormone receptor regulation. Clinically, berberine lowers fasting insulin, HOMA-IR, total testosterone, and LH, while elevating sex hormone-binding globulin (SHBG). Adjunctive berberine significantly enhances endometrial thickness (WMD 1.62 mm), ovulation rate (RR 1.41), and clinical pregnancy rate (RR 1.96) over Western therapy alone. In IVF settings, berberine achieves higher live birth rates with fewer gastrointestinal adverse events compared to metformin. A meta-analysis revealed that metformin combined with berberine was not statistically

superior to metformin monotherapy for ameliorating insulin resistance, despite systemic endocrine improvements.

Conclusion : Conclusion: Berberine represents a biologically plausible and promising adjunct to metformin, improving follicular dynamics and ovulatory outcomes. Due to conflicting evidence and a scarcity of dedicated trials in clomiphene-resistant cohorts, rigorous phenotypic randomized trials are warranted. Acknowledging preliminary ovulatory evidence, this review bridges mechanistic and clinical data to chart the definitive roadmap for RCTs in clomiphene-resistant PCOS.

Keywords : Polycystic Ovary Syndrome (PCOS); Berberine; Metformin; Clomiphene Resistance; Ovulation Induction; Insulin Resistance

Count: 61
Abstract ID: 73
subject: نازايي
Presentation Type: Poster

Dietary Advanced Glycation End-Products (dAGEs) and Female Fertility: A Narrative Review of Their Effects on Follicular Microenvironment and Endometrial Receptivity

Submission Author: Kosar Modanlou

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Background and Aim : Background and Objective: Dietary advanced glycation end-products (dAGEs) form during metabolism and cooking and are linked to metabolic and reproductive dysfunction. This review explores how dAGEs disrupt the follicular microenvironment and endometrial receptivity, compromising female fertility.

Methods : Methods: We conducted a structured narrative review of 2007-2025 literature using keywords like dAGEs, RAGE, follicular microenvironment, implantation, receptivity, and decidualization. We included peer-reviewed human, animal, and in-vitro studies on AGE exposure, RAGE signaling, reproductive outcomes, and fertility. Reviews supplied context. We excluded nonreproductive studies, inaccessible non-English abstracts, duplicates, and reports lacking fertility outcomes.

Results : Results: Evidence links AGE burden to ovarian dysfunction, ROS, inflammation, and cellular stress. In animal models, high-AGE diets reduce ovarian GLO-I activity ($p=0.006$), while perinatal high-AGE exposure impairs murine folliculogenesis. In follicular fluid and ovarian tissue, AGE accumulation correlates with impaired oocyte competence. ATF4-mediated IL-6/IL-8 upregulation connects AGE stress to poor oocyte competence. In vitro, AGEs alter granulosa steroidogenic genes; vitamin D partially reverses this, reducing RAGE mRNA by 33% and protein by 44%. Glycotoxins inhibit granulosa proliferation and progesterone secretion. RAGE activation may amplify inflammation and oxidative injury via NF-κB pathways. For endometrial receptivity, AGE accumulation may worsen implantation failure and impair decidualization, yet human evidence is sparse and largely extrapolated from ovarian findings. Dose-response and clinical efficacy data remain lacking.

Conclusion : Conclusion: Excessive dAGE accumulation may compromise fertility through interconnected ovarian and uterine mechanisms. Low-AGE dietary patterns, improved cooking practices, and antioxidant-rich foods deserve exploration as adjuncts to fertility treatment, but prospective trials must establish safety and benefit.

Keywords : Dietary advanced glycation end-products (dAGEs); Follicular microenvironment; Endometrial receptivity; Receptor for advanced glycation end products (RAGE); Female fertility

Count: 62
Abstract ID: 42
subject: نازايي
Presentation Type: Poster

Comparison of Serum Anti-Müllerian Hormone Levels in Infertile Women with Unilateral and Bilateral Ovarian Endometrioma

Submission Author: Atiyeh Najafi

Atiyeh Najafi[1], Firoozeh Ahmadi[2], Fatemeh Sedaghat[3], Ashraf Moini[4], Maryam Shahhoseini[5], Maede Goodarzian[6], Marziyeh Shiva[7]

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Background and Aim : Ovarian endometrioma is a common manifestation of endometriosis and may be associated with impaired ovarian reserve. Anti-Müllerian hormone (AMH) is widely used as a biomarker of ovarian reserve. This study aimed to compare serum AMH levels among infertile women with unilateral or bilateral ovarian endometrioma and women without endometrioma.

Methods : In this analytical study, 82 infertile women aged 20–40 years with regular menstrual cycles and a body mass index (BMI) <30 kg/m² were evaluated. Based on ultrasonographic findings, participants were categorized into three groups: unilateral endometrioma (n=27), bilateral endometrioma (n=27), and a control group without endometrioma (n=28). Serum AMH levels were measured using a standard laboratory method. One-way analysis of variance (ANOVA) followed by Tukey's HSD post hoc test was used to compare AMH levels among the three groups.

Results : Mean serum AMH levels were 4.11±1.68, 2.61±1.30, and 3.23±1.95 ng/mL in the control, unilateral endometrioma, and bilateral endometrioma groups, respectively. AMH levels were significantly lower in women with unilateral endometrioma than in the control group

(P=0.04).Serum AMH levels did not differ significantly between the bilateral endometrioma and control groups (P=0.26) or between the unilateral and bilateral endometrioma groups (P=0.47).

Conclusion : Infertile women with unilateral ovarian endometrioma had significantly lower serum AMH levels than women without endometrioma. However, bilateral endometrioma was not associated with a significantly greater reduction in AMH levels compared with unilateral endometrioma in this study. These findings suggest that the laterality of endometrioma alone may not adequately reflect the extent of ovarian reserve impairment, highlighting the need for individualized assessment of ovarian reserve beyond the unilateral or bilateral presentation of the lesion.

Keywords : Endometrioma; Endometriosis; Anti-Mullerian Hormone; Ovarian Reserve; Infertility

Count: 63
Abstract ID: 7
subject: نازايي
Presentation Type: Oral

Complications of ART, OHSS

Submission Author: Aida Najafian

Aida Najafian[1]

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Background and Aim : OHSS is the most serious complication of controlled ovarian hyperstimulation for ART.It occurs when the ovaries are hyperstimulated and enlarged due to fertility treatments (or rarely, mutations in the FSH receptor), resulting in the shift of serum from the intravascular space to the third space, mainly to the abdominal cavity. In its severe form, OHSS is a life-threatening condition because it can cause venous or arterial thromboembolic events, including stroke and loss of perfusion of an extremity. In the setting of ovarian stimulation for IVF, high-dose gonadotropin administration overrides the normal feedback mechanisms seen in the normal menstrual cycle, resulting in multiple folliculogenesis. For many years, hCG was administered for final oocyte maturation. In high responders (recruitment of >20 follicles), hCG leads to the potential risk of OHSS. When hCG is not administered, moderate and severe forms of OHSS are rarely seen.

Methods : There are a number of risk factors for OHSS, including: Previous episode of OHSS, Polycystic ovary syndrome, High serum AMH (>3.3 ng/mL) and AFC (>8). Secondary risk factors related to ovarian response: number of follicles (risk rises with increasing number of follicles >20 over 10 mm in diameter), high serum estradiol concentration, number of oocytes retrieved in IVF cycle, administration of hCG rather than progesterone for luteal phase support, Pregnancy, which increases not only the risk of late OHSS, but also the duration and severity of OHSS.

Results : Exogenous hCG induces massive luteinization of granulosa cells, which leads to the production of vasoactive substances such as VEGF that increase vascular permeability.

Conclusion : Exogenous hCG plays a key role in the pathogenesis of OHSS. Regardless of the degree of ovarian response to gonadotropin stimulation, OHSS rarely occurs unless an ovulatory dose of hCG is administered.

Keywords : OHSS, IVF,COH

Count: 64
Abstract ID: 59
subject: نازايي
Presentation Type: Poster

Serum β-hCG Level in Predicting the Outcome of Early Pregnancy 14 Days after Embryo Transfer: A Prospective Cohort Study

Submission Author: Hamideh Pakniat

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Background and Aim : Pregnancy outcomes in assisted reproductive technology (ART) are influenced by the ability of the embryos to create a pregnancy and maternal factors such as hormone levels to maintain and develop the pregnancy. This study investigated the role of β-human chorionic gonadotropin (β-hCG) in predicting pregnancy outcomes and determined cutoff values in women undergoing ARTs.

Methods : This prospective study included 140 women who underwent infertility treatment in the Department of Reproductive Medicine of the Yas Hospital, Tehran University of Medical Sciences (Tehran, Iran). Serum β-hCG level on day 14 after embryo transfer was measured. Patients with β-hCG levels >25 mIU/ml were included in the study. Finally, any statistically significant relationships between these serum values and clinical pregnancy and live birth rate were investigated. To predict pregnancy outcomes with β-hCG levels, a receiver operating characteristic curve was used to estimate the β-hCG cutoff values.

Results : Serum β-hCG levels were significantly higher in live-birth patients than in other patients. The β-hCG cutoff value for live births was 860 mIU/ml, with an AUC of 0.5920, sensitivity of 59.04%, and specificity of 53.58%.

Conclusion : Serum β-hCG levels on day 14 after embryo transfer can be used to predict the probability of live birth in patients undergoing infertility treatment.

Keywords : Embryo transfer; human chorionic-gonadotropin; pregnancy outcomes

Count: 65
Abstract ID: 3
subject: نازايي
Presentation Type: Poster

Endometrial Cellular Senescence in Recurrent Implantation Failure: From SASP-Mediated Inflammation to Emerging Therapeutic Targets

Submission Author: Saba Safdarpour

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Background and Aim : Background: Endometrial receptivity is a dynamic process that requires coordinated cellular proliferation, differentiation, immune regulation, and tissue remodeling. Cellular senescence, traditionally considered a consequence of irreversible cellular damage and aging, is increasingly recognized as a physiological component of endometrial remodeling and decidualization. However, excessive or persistent accumulation of senescent cells may disrupt endometrial homeostasis through the release of inflammatory mediators collectively known as the senescence-associated secretory phenotype (SASP).

Methods : Objective: This review aimed to investigate the emerging role of cellular senescence in endometrial receptivity and implantation failure, with particular emphasis on SASP-mediated inflammation and potential therapeutic strategies. Methods: A literature search was conducted in PubMed, Scopus, and Web of Science using combinations of the terms “cellular senescence,” “endometrium,” “implantation failure,” “recurrent implantation failure,” “decidualization,” and “SASP.” Relevant human, animal, and experimental studies addressing molecular mechanisms and therapeutic implications were critically evaluated.

Results : Results: Available evidence suggests that transient senescence may contribute to physiological endometrial remodeling and decidualization, whereas prolonged senescence can promote a pro-inflammatory microenvironment, altered stromal-cell function, extracellular matrix remodeling, and impaired endometrial receptivity. Increased secretion of cytokines and other SASP components may interfere with the complex interaction between the embryo and maternal endometrium. Emerging preclinical evidence indicates that selective elimination of senescent cells using senolytic strategies or modulation of SASP-associated pathways may represent potential therapeutic approaches.

Conclusion : Conclusion: Cellular senescence appears to have a context-dependent role in endometrial physiology, with a critical balance between beneficial transient senescence and

pathological persistence. Further investigation of senescence-associated biomarkers may improve the identification of patients with impaired endometrial receptivity and facilitate the development of targeted interventions for recurrent implantation failure.

Keywords : Cellular senescence; Endometrium; Implantation failure; SASP; Decidualization; Endometrial receptivity

Count: 66
Abstract ID: 4
subject: نازايي
Presentation Type: Poster

The cGAS–STING Pathway in Endometrial Inflammation and Implantation Dysfunction: An Emerging Molecular Mechanism in Female Infertility

Submission Author: Saba Safdarpour

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Background and Aim : Background: Successful embryo implantation depends on precisely regulated interactions between the embryo, endometrial cells, and the maternal immune system. Dysregulated innate immune activation may disturb endometrial homeostasis and contribute to implantation-related disorders. The cyclic GMP-AMP synthase–stimulator of interferon genes (cGAS–STING) pathway is a major component of innate immunity that detects aberrant cytosolic DNA and initiates inflammatory and type I interferon responses. Its potential involvement in reproductive disorders has recently attracted increasing attention. Objective: This review aimed to summarize current evidence regarding the role of cGAS–STING signaling in endometrial inflammation, receptivity, and implantation-associated disorders, while evaluating its potential as a novel therapeutic target.

Methods : Methods: PubMed, Scopus, and Web of Science were searched using combinations of "cGAS," "STING," "endometrium," "implantation," "infertility," "recurrent implantation failure," "recurrent pregnancy loss," and "intrauterine adhesion." Human, animal, and in vitro studies investigating molecular mechanisms and reproductive outcomes were critically reviewed.

Results : Results: Emerging evidence suggests that aberrant activation of cGAS–STING may promote inflammatory signaling through type I interferons and pro-inflammatory cytokines, potentially altering endometrial immune homeostasis. Recent experimental studies have linked this pathway to tissue injury, inflammation, epithelial–mesenchymal transition, and fibrosis in intrauterine adhesion. Preliminary evidence also suggests a possible association between dysregulated innate immune signaling and implantation failure or recurrent pregnancy loss. However, direct clinical evidence in infertile populations remains limited.

Conclusion : Conclusion: The cGAS–STING pathway represents a promising emerging link between cellular damage, innate immune activation, inflammation, and endometrial dysfunction.

Further translational studies are required to clarify its physiological role during the implantation window and determine whether selective modulation of this pathway could provide a novel therapeutic strategy for implantation-related reproductive disorders.

Keywords : cGAS–STING; Endometrium; Innate immunity; Implantation; Infertility; Inflammation

Count: 67
Abstract ID: 5
subject: نازايي
Presentation Type: Poster

Biomolecular Condensates and Liquid–Liquid Phase Separation in Oocyte Maturation and Preimplantation Embryo Development: An Emerging Concept in Reproductive Biology

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Background and Aim : Background: Oocyte competence and early embryonic development depend on highly coordinated regulation of RNA, proteins, and intracellular signaling pathways. Liquid–liquid phase separation (LLPS), which drives the formation of dynamic membrane-less biomolecular condensates, has recently emerged as an important mechanism of intracellular organization. These condensates can concentrate specific proteins and RNA molecules, thereby regulating their localization, stability, and activity. Objective: This review aimed to explore the emerging role of LLPS and biomolecular condensates in oocyte maturation, maternal RNA regulation, and preimplantation embryo development, with particular emphasis on their potential relationship with reproductive competence.

Methods : Methods: PubMed, Scopus, and Web of Science were searched using combinations of “liquid–liquid phase separation,” “biomolecular condensates,” “oocyte,” “maternal RNA,” “preimplantation embryo,” “embryonic development,” and “reproductive competence.” Experimental and molecular studies investigating phase-separated structures in germ cells and early embryos were evaluated.

Results : Results: Current evidence indicates that biomolecular condensates participate in the spatial organization of RNA and regulatory proteins within oocytes and early embryos. These structures may influence maternal RNA storage and translation, protein–RNA interactions, and the transition from maternal to embryonic genome control. Alterations in the formation, composition, or dynamics of condensates may interfere with RNA metabolism, gene regulation, and early embryonic development. Emerging studies further suggest that proteins with phase-separation properties may be involved in developmental arrest and impaired cellular competence.

Conclusion : Conclusion: LLPS provides a novel framework for understanding how molecular organization within oocytes and early embryos contributes to developmental competence.

Although evidence remains predominantly experimental, investigation of biomolecular condensates may reveal previously unrecognized mechanisms underlying poor oocyte quality and early embryonic developmental arrest. Integration of LLPS-related biomarkers with conventional embryo assessment may represent a promising direction for future reproductive medicine.

Keywords : Liquid–liquid phase separation; Biomolecular condensates; Oocyte; Preimplantation embryo; Maternal RNA; Embryonic development

Count: 68
Abstract ID: 6
subject: نازايي
Presentation Type: Poster

From Morphology to Metabolomics: The Potential of Spent Embryo Culture Media for Non-Invasive Prediction of Embryo Implantation Potential in IVF

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Background and Aim : Background: Selection of the embryo with the highest implantation potential remains a major challenge in assisted reproductive technology. Morphological and morphokinetic assessment are widely used for embryo selection; however, these approaches may not fully reflect the biological competence of an embryo. Metabolic profiling of spent embryo culture media has emerged as a promising non-invasive strategy for assessing embryo viability and developmental potential. Objective: This review aimed to evaluate the potential of metabolic biomarkers in spent embryo culture media for predicting embryo developmental competence, implantation potential, and pregnancy outcomes following in vitro fertilization.

Methods : Methods: PubMed, Scopus, and Web of Science were searched using combinations of “spent embryo culture media,” “embryo metabolism,” “metabolomics,” “glucose,” “pyruvate,” “lactate,” “amino acids,” “embryo selection,” “implantation,” and “pregnancy outcome.” Human studies evaluating metabolic profiles in relation to embryo development and reproductive outcomes were critically reviewed.

Results : Results: Several studies have reported associations between embryo metabolism and developmental competence, including differences in the consumption or production of glucose, pyruvate, lactate, amino acids, and other metabolites. Metabolomic approaches have further identified distinct metabolic signatures associated with blastocyst development and reproductive outcomes. Nevertheless, heterogeneity in culture media composition, embryo culture conditions, sampling time, analytical platforms, and data interpretation remains a major barrier to clinical translation. Integration of metabolic signatures with morphological, morphokinetic, and genetic information may improve the predictive performance of embryo-selection models.

Conclusion : Conclusion: Metabolic profiling of spent embryo culture media represents a promising non-invasive approach for complementing conventional embryo assessment. Future

standardization of sampling and analytical methods, together with artificial intelligence-based integration of multimodal embryo data, may facilitate development of personalized embryo-selection strategies and improve prediction of implantation potential in IVF.

Keywords : Embryo metabolism; Metabolomics; Spent embryo culture media; Embryo selection; Implantation; IVF

Count: 69
Abstract ID: 38
subject: نازايي
Presentation Type: Poster

Systematic Review and Meta-Analysis of mRNA-LNP Platforms for Simultaneous Follicular and Endometrial Regeneration: Efficacy and Safety in Preclinical Studies

Submission Author: Mina Safi Jahanshahi

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Background and Aim : Background: Concurrent follicular and endometrial dysfunction causes infertility with no definitive treatment. Lipid nanoparticles carrying mRNA (mRNA-LNP) enable spatiotemporal regulation of gene expression in the fertility microenvironment. This review evaluates its efficacy and safety for simultaneous regeneration of both tissues.

Methods : Methods: This review followed PRISMA 2020 and was registered in PROSPERO. PubMed, Scopus, Web of Science, Embase, and Cochrane were searched until March 2026 without language restriction. Preclinical studies targeting follicle or endometrium were included. Two reviewers independently screened and extracted data (kappa=0.89). Risk of bias was assessed using SYRCLE (animal) and ToxR (cell). Meta-analysis included only animal studies with common outcome (follicle count) using random-effects model. Certainty was assessed with modified GRADE.

Results : Results: Of 1,247 records, 19 studies were included. In animal meta-analysis (8 studies), follicle count increased significantly (SMD=1.23; 95% CI: 0.81–1.65; I^2=68%). Sensitivity analysis excluding high-risk studies was stable. Simultaneous targeting (one nanoparticle or two nanoparticles in one protocol) in 5 studies improved dual outcomes. Off-target effects in 4 studies (mainly hepatic accumulation) and immune response in 7 studies (increased IL-6) were reported. Risk of bias was moderate in 11 and high in 8 studies. Egger's test did not reject publication bias (p=0.12). Certainty of evidence was low to moderate.

Conclusion : Conclusion: Preclinical evidence is promising but insufficient. LNP standardization, long-term safety, and clinical trials are essential. Limitations: model heterogeneity, potential publication bias, poor quality, and lack of human data.

Keywords : mRNA-LNP, follicle, endometrium, infertility.

Count: 70
Abstract ID: 29
subject: نازايي
Presentation Type: Poster

The Effect of Systemic (Oral) Isotretinoin on Male and Female Fertility: A Systematic Review

Submission Author: Arvin Salehi

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Background and Aim : Oral isotretinoin is the gold-standard treatment for severe acne vulgaris, yet its effects on fertility remain uncertain despite widespread use among individuals of reproductive age. This systematic review aimed to evaluate the impact of systemic isotretinoin on fertility-related parameters.

Methods : A comprehensive database search was conducted from inception to February 18, 2026. We included studies reporting semen parameters, ovarian reserve markers, or menstrual cycle regularity in humans receiving oral isotretinoin. Qualitative synthesis and direction-of-effect analysis were performed.

Results : Thirty-two studies were included, comprising 13 studies in men (n=350) and 19 studies in women (n=1,909). In men, isotretinoin was generally associated with improvements in total sperm count, sperm concentration, motility, and vitality, whereas reproductive hormone levels remained largely unchanged. Evidence from men with nonobstructive infertility suggested a potential role in enhancing spermatogenesis and facilitating conception. Findings regarding sperm morphology were inconsistent. In women, isotretinoin was associated with reductions in anti-Müllerian hormone levels, antral follicle count, and ovarian volume, suggesting a transient adverse effect on ovarian reserve. Menstrual irregularities occurred in 10.4%–37.1% of patients. Hormonal findings were heterogeneous and inconclusive. Most menstrual disturbances resolved after treatment discontinuation, and limited evidence suggested recovery of ovarian reserve markers over time.

Conclusion : Systemic isotretinoin is unlikely to cause persistent infertility in men and may improve reproductive potential in selected infertile populations. In women, it may affect ovarian reserve markers and disrupt menstrual function, although available evidence suggests that these

effects are reversible. Further prospective studies are needed to clarify mechanisms and long-term reproductive outcomes.

Keywords : Isotretinoin, Fertility, Infertility, Semen analysis, Ovarian reserve, Menstrual cycle, Systematic review

Count: 71
Abstract ID: 2
subject: نازايي
Presentation Type: Poster

Lead and Endometriosis: A Review of Evidence from Blood and Follicular Fluid

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Background and Aim : Endometriosis is a chronic, estrogen-dependent inflammatory disorder affecting women of reproductive age and associated with pelvic pain and infertility, with substantial effects on reproductive health. Although its pathogenesis involves genetic, hormonal, immune, and environmental factors, Lead (Pb) is a persistent environmental toxicant that has been associated with oxidative stress, inflammation, endocrine disruption, and adverse reproductive effects, suggesting a potential role in the pathophysiology of endometriosis. This review summarizes evidence on the association between Pb and endometriosis, focusing on Pb concentrations in blood and follicular fluid

Methods : Relevant observational studies evaluating Pb concentrations in women with and without endometriosis were reviewed. Studies reporting Pb levels in blood or follicular fluid were included. Data on study characteristics, biological matrices, analytical methods, and Pb concentrations were extracted and narratively synthesized.

Results : Available evidence suggests a possible association between Pb exposure and endometriosis, although findings are heterogeneous. Several studies reported higher blood or follicular-fluid Pb concentrations and increased odds of endometriosis, whereas the ENDO Study found no significant association between blood Pb and endometriosis. Overall, evidence for follicular-fluid Pb is limited but suggests a potential association with endometriosis

Conclusion : Current evidence suggests that Pb exposure may be associated with endometriosis, and follicular-fluid Pb may have potential as a biomarker. However, differences in study methods and the limited number of prospective studies make it difficult to draw firm conclusions about causality. Further studies using standardized methods to measure Pb are needed to better understand its potential role in endometriosis

Keywords : Endometriosis, Lead, Blood, Follicular fluid

Count: 72
Abstract ID: 45
subject: نازايي
Presentation Type: Oral

Effect of Intracytoplasmic Sperm Injection Alone versus ICSI and Preimplantation Genetic Screening on Pregnancy Outcomes of Patients with A History of Gestational Trophoblastic Disease: A Retrospective Study

Submission Author: Farzaneh Shamlou

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Background and Aim : Gestational trophoblastic disease (GTD) is characterized genetically by an excess paternal genome and maternal chromosome loss. Intracytoplasmic sperm injection (ICSI) and ICSI with preimplantation genetic screening (PGS) enhance the selection of viable embryos by ensuring that only those with the appropriate genetic makeup are implanted. We aimed to evaluate the pregnancy outcome following ICSI and ICSI/PGS in infertile women with a history of GTDs.

Methods : In this retrospective study, we recruited couples who were referred to the Royan Institute with infertility complaints with GTD history from 2010 to 2022. GTD had been confirmed by serial β-human chorionic gonadotrophin (β-hCG) titer, ultrasonography, and histopathology assessment of the evacuated uterine contents. The fluorescent in situ hybridization (FISH) probes were specific for the chromosomes 13, 18, 21, X, and Y.

Results : A total of 69 cycles of ICSI (n=41) and ICSI/PGS (n=28) were analyzed. The two treatment groups were comparable in terms of patients' demographic characteristics. The mean number of total retrieved oocytes, MII oocytes, and obtained embryos in the ICSI/PGS cycle was higher compared to the ICSI cycle ($P<0.001$ for all). Also, a statistically significant difference between groups in the mean number of poor embryos ($P=0.004$) was found. No statistically significant difference was observed in clinical pregnancy, miscarriage, and live birth rates per embryo transfer (ET) between groups. The findings indicate that 27.2% of embryos exhibited genetic normalcy in the ICSI/PGS group.

Conclusion : Despite achieving more embryos in ICSI/PGS cycles, the success rates of pregnancy in both groups are approximately the same. Both of these methods can be effective in the management of women with the previous GTD. Considering the high costs and the necessity to eliminate 46XX embryos during PGS procedures, it is advisable to restrict this method to cases with a significant risk of recurrent GTD.

Keywords : Embryonic Development Gestational Trophoblastic Disease Intracytoplasmic Sperm Injection-Preimplantation Genetic Diagnosis

Count: 73
Abstract ID: 13
subject: نازايي
Presentation Type: Poster

Studying the effect of anise consumption on weight loss and anthropometric indices of women with polycystic ovary syndrome referring to the infertility clinic of Sabzevar University of Medical Sciences

Submission Author: Behnaz Souizi

Behnaz Souizi[1]

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Background and Aim : One of the important risk factors in women with pcos is obesity and increased body mass index. There are various studies on the effects of anise on improving metabolism in hormonal disorders of women's diseases

Methods : patients with a diagnosis of PCOS were included in the study. The study samples were divided into two intervention and control groups. Before the intervention, anthropometric indicators of all samples including weight, height, waist, hip and abdominal circumference and wrist circumference were measured . Also, appetite assessment as well as the quality of life questionnaire were completed. The intervention group received 5 grams of anise powder every day, and the control group received placebo (corn starch) 8 weeks.. The study outcomes were re-evaluated after the end of 8 weeks

Results : 40 participants in the intervention group and 37 in the control group were studied. In comparing the outcomes after the intervention, there was a statistically significant difference in the appetite variable between the two groups . There was no statistically significant difference in the weight, waist-to-hip ratio, abdominal circumference, and body mass index variables between the two groups . The mean quality of life score in the intervention group increased compared to the control group, and there was a statistically significant difference between the two groups. When examining the two groups separately, a statistically significant difference was observed in terms of the mean quality of life score

Conclusion : The results showed that although anise consumption did not have a significant effect on anthropometric indicators during the study period, it was effective in improving the quality of life and appetite of women with PCOS.

Keywords : Anthropometric indices, , Anison, PCOS