ORAL ABSTRACTS

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S001

Comparison of Clinical Characteristics and Treatment Outcomes in Patients with Infected Endometrioma versus Pelvic Inflammatory Disease Patients without Endometrioma

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Purpose: Endometriosis is a chronic estrogen-dependent inflammatory disorder, and ovarian endometriomas may alter the clinical course of pelvic inflammatory disease (PID). PID is an acute upper genital tract infection that may progress to tubo-ovarian abscess (TOA) or require surgical intervention when medical therapy fails. The primary aim of this study was to elucidate the optimal clinical management strategy for patients in the presence of endometrioma and evaluate whether ultrasonographic (USG) detection of endometrioma affects disease severity, treatment failure, surgical requirement in hospitalized PID patients. Specifically, we sought to determine whether coexisting endometrioma influences disease severity, treatment response, and the need for surgical intervention.

Methods: We conducted a retrospective study of women aged 18-50 years hospitalized with PID between 2022 and 2025. Eligible patients presented with acute pelvic pain and uterine or cervical tenderness plus fever (>38 °C), elevated white blood cell count (>11 K/μL), or C-reactive protein (CRP >10 mg/L). All patients received intravenous antibiotics at admission. Treatment failure was defined as absence of clinical and laboratory improvement within 48 hours, requiring invasive intervention. Clinical, laboratory, and radiologic findings-including USG-detected endometrioma were compared. Independent predictors of surgical intervention were evaluated using logistic regression.

Results: A total of 194 patients were included; 46 (23.7%) had USG-detected endometrioma. Endometrioma was associated with higher rates of nulliparity, sepsis (6.5% vs. 0.7%), and a history of endometriosis. TOA was more frequent in patients without endometrioma (72.9% vs. 41.3%), and bilateral TOA was significantly higher in the non-endometrioma group. Surgical intervention was required in 31 patients (16%). Surgical cases had higher age, larger endometrioma and TOA size, longer hospitalization, prolonged antibiotic duration, and higher discharge CRP levels. Logistic regression demonstrated that each 1-year increase in age raised the likelihood of surgical requirement by 7% [adjusted odds ratio (OR)=1.066; 95% confidence interval (CI) 1.016-1.118; p=0.009]. Additionally, USG-detected endometrioma increased the odds of requiring surgery by approximately 2.5-fold (adjusted OR=2.537; 95% CI 1.063-6.052; p=0.036). So we can conclude that USG-detected endometrioma is associated with greater disease severity and is an independent predictor of treatment failure requiring surgical intervention in PID patients.

The mean age was significantly higher in patients who required surgical intervention compared with those managed conservatively (40.1±9.0 vs. 36.0±8.8; p=0.017). The size of the left ovarian endometrioma was also significantly larger in the surgical group (76.2±21.0 vs. 53.3±17.3; p=0.018). Similarly, the size of the TOA was significantly greater among patients who underwent surgery (69.2±31.7 vs. 50.7±18.5; p=0.013). Patients requiring surgical management had a significantly longer hospital stay (12.0±6.5 vs. 6.8±3.9; p<0.001) and a longer duration of antibiotic therapy (11.7±6.9 vs. 8.2±5.1; p=0.010). In addition, the time to transition to surgery was significantly longer in the surgical group (15.3±25.5 vs. 1.2±2.8; p<0.001). Finally, CRP levels at discharge were significantly higher in patients who required surgery compared with those treated conservatively (52.6±66.1 vs. 27.9±40.2; p=0.017).

Conclusion: Our findings indicate that the presence of ultrasonographically detected endometrioma modifies the clinical course of PID and is associated with a higher risk of treatment failure requiring surgical intervention. Despite lower rates of TOA, patients with endometrioma demonstrated a greater need for invasive management, suggesting reduced responsiveness to medical therapy. These results highlight the importance of early recognition of endometrioma in hospitalized PID patients and support a more individualized and vigilant management strategy in this subgroup.

Keywords: Pelvic inflammatory disease, infective endometrioma, tubo-ovarian abscess

Table 1. Response to medical treatment and surgical requirement

Variable		Response to medical treatment		Surgical requirement		*p*
		n	%	n	%	
Menopausal status	Reproductive	150	92.02%	26	83.87%	0.174
	Postmenopausal	13	7.98%	5	16.13%	
	Total	163	100%	31	100%	
IUD	No	132	80.98%	23	74.19%	0.387
	Yes	31	19.02%	8	25.81%	
	Total	163	100%	31	100%	
Immunosuppressive therapy	No	160	98.16%	31	100%	1.00
	Yes	3	1.84%	0	0%	
	Total	163	100%	31	100%	
HIV	No	161	98.77%	31	100%	1.00
	Yes	2	1.23%	0	0%	
	Total	163	100%	31	100%	
Comorbidity	No	113	69.33%	24	77.42%	0.364
	Yes	50	30.67%	7	22.58%	
	Total	163	100%	31	100%	

Table 1. Continued

Variable		Response to medical treatment		Surgical requirement		*p*
		n	%	n	%	
Smoking status	Non-smoker/ex-smoker	79	48.47%	20	64.52%	0.101
	Smoker	84	51.53%	11	35.48%	
	Total	163	100%	31	100%	
Infertility	No/fertile	147	90.18%	28	90.32%	1.00
	Yes	16	9.82%	3	9.68%	
	Total	163	100%	31	100%	
Parity	Nulliparous	79	49.69%	9	30.00%	0.057
	Multiparous	80	50.31%	21	70.00%	
	Total	159	100%	30	100%	
Gynecologic surgery in the last <3 months	No	160	98.16%	28	90.32%	0.053
	Yes	3	1.84%	3	9.68%	
	Total	163	100%	31	100%	
Previous gynecologic surgery	No	141	86.50%	25	80.65%	0.406
	Yes	22	13.50%	6	19.35%	
	Total	163	100%	31	100%	
Pelvic pain	No	8	4.91%	2	6.45%	0.663
	Yes	155	95.09%	29	93.55%	
	Total	163	100%	31	100%	
Dyschezia	No	150	92.02%	26	83.87%	0.174
	Yes	13	7.98%	5	16.13%	
	Total	163	100%	31	100%	
Dysuria	No	152	93.25%	27	87.10%	0.267
	Yes	11	6.75%	4	12.90%	
	Total	163	100%	31	100%	
Dyspareunia	No	150	92.02%	25	80.65%	0.090
	Yes	13	7.98%	6	19.35%	
	Total	163	100%	31	100%	
DIE finding	No	148	90.80%	26	83.87%	0.328
	Yes	15	9.20%	5	16.13%	
	Total	163	100%	31	100%	
Sepsis	No	161	98.77%	29	93.55%	0.121
	Sepsis developed	2	1.23%	2	6.45%	
	Total	163	100%	31	100%	
Chlamydia culture	Negative	163	100%	31	100%	-
	Positive	0	0%	0	0%	
	Total	163	100%	31	100%	
Endometrioma on ultrasound	No	128	78.53%	20	64.52%	0.093
	Yes	35	21.47%	11	35.48%	
	Total	163	100%	31	100%	
Endometrioma laterality	Unilateral	45	90.00%	11	84.62%	0.627
	Bilateral	5	10.00%	2	15.38%	
	Total	50	100%	13	100%	

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Table 1. Continued

Variable		Response to medical treatment		Surgical requirement		*p*
		n	%	n	%	
TOA appearance	No	58	35.58%	9	29.03%	0.482
	Yes	105	64.42%	22	70.97%	
	Total	163	100%	31	100%	
TOA laterality	Unilateral	98	85.96%	19	76.00%	0.232
	Bilateral	16	14.04%	6	24.00%	
	Total	114	100%	25	100%	
Endometriosis diagnosis	No	137	84.05%	24	80.00%	0.640
	Yes	26	15.95%	6	20.00%	
	Total	163	100%	30	100%	
History of endometriosis medication	No	155	95.09%	29	93.55%	0.663
	Yes	8	4.91%	2	6.45%	
	Total	163	100%	31	100%	
Antibiotherapy	Ceftriaxone + metronidazole + doxycycline	6	3.68%	1	3.23%	0.004
	Clindamycin + gentamicin	132	80.98%	17	54.84%	
	Piperacillin/tazobactam + minocycline	2	1.23%	0	0%	
	Metronidazole + levofloxacin	1	0.61%	0	0%	
	Multiple combined regimens	22	13.50%	12	38.71%	
	Total	163	100%	31	100%	
Switch to second-line antibiotics	No	137	84.05%	16	51.61%	<0.001
	Yes	26	15.95%	15	48.39%	
	Total	163	100%	31	100%	
ICU requirement	No	161	98.77%	31	100%	1.00
	Yes	2	1.23%	0	0%	
	Total	163	100%	31	100%	
Emergency surgery	No	155	95.09%	25	80.65%	0.012
	Surgery at admission	8	4.91%	6	19.35%	
	Total	163	100%	31	100%	
Surgical procedure	Abscess drainage	9	64.29%	13	43.33%	
	Unilateral salpingo-oophorectomy	1	7.14%	7	23.33%	
	Cystectomy	2	14.29%	6	20.00%	
	TLH + BSO	0	0%	1	3.33%	
	Radiologic percutaneous drainage	2	14.29%	3	10.00%	
	Total	14	100%	30	100%	
Fever	No	141	86.50%	22	70.97%	0.057
	Yes	22	13.50%	9	29.03%	
	Total	163	100%	31	100%	
Cervical tenderness	No	108	66.26%	17	54.84%	0.233
	Yes	55	33.74%	14	45.16%	
	Total	163	100%	31	100%	

Table 1. Continued

Variable		Response to medical treatment		Surgical requirement		*p*
		n	%	n	%	
Malodorous vaginal discharge	No	136	83.44%	23	74.19%	0.220
	Yes	27	16.56%	8	25.81%	
	Total	163	100%	31	100%	
History of sexually transmitted ınfection	No	159	97.55%	30	96.77%	0.585
	Yes	4	2.45%	1	3.23%	
	Total	163	100%	31	100%	
PID recurrence	No	154	94.48%	25	80.65%	0.018
	Yes	9	5.52%	6	19.35%	
	Total	163	100%	31	100%	
Previous hospitalization for PID	No	153	93.87%	25	80.65%	0.025
	Yes	10	6.13%	6	19.35%	
	Total	163	100%	31	100%	

IUD: Intrauterine device, DIE: Deep infiltrating endometriosis, HIV: Human immunodeficiency virus, ICU: Intensive care unit, TOA: Tubo-ovarian abscess, PID: Pelvic inflammatory disease, TLH: Total laparoscopic hysterectomy, BSO: Bilateral salpingo-oophorectomy

S002

The Impact of Chronic Pelvic Pain on the Life Experiences of Young Women: A Phenomenological Study

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Purpose: The aim of this study is to deeply examine the life experiences of young women regarding chronic pelvic pain and to identify the participants' proposed solutions.

Methods: The study was conducted using a phenomenological design, one of the qualitative research methods. The study included 17 young women aged 18-35 who had been experiencing chronic pelvic pain for at least six months. Data were collected through in-depth interviews using a semi-structured interview form. Thematic analysis method was used in the evaluation of the data.

Results: The study identified 4 main themes, 8 sub-themes, and 21 codes. It was determined that chronic pelvic pain has multidimensional effects on physical, psychological, and social life; the pain negatively affects daily living activities, school/work/home performance, and interpersonal relationships. Participants stated that they experienced difficulties in accessing health services, felt inadequately understood, and that their pain was sometimes normalized. Among the proposed solutions, the development of multidisciplinary approaches, increasing the awareness of health professionals, and strengthening psychosocial support mechanisms stood out.

Conclusion: Chronic pelvic pain experienced by women should be considered not only a physical problem but also a holistic health issue with psychosocial dimensions, and care recommendations should be developed accordingly.

Keywords: Chronic pelvic pain, nurse, women, women health, young

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S003

Hypo-Hypo Paradox: Ovarian Hyperstimulation Syndrome Despite Low Serum Estradiol and Limited Oocyte Yield - A Case Report

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Purpose: Ovarian hyperstimulation syndrome (OHSS) is a complication that may occur in cycles involving controlled ovarian stimulation (COS), ranging from mild abdominal discomfort to severe, potentially life-threatening clinical manifestations. The fundamental pathophysiological mechanism involves increased vascular endothelial growth factor (VEGF) secretion triggered by human chorionic gonadotropin (hCG), leading to enhanced capillary permeability and subsequent fluid shift into third spaces. Clinically, OHSS may present with abdominal distension, ascites, hemoconcentration, electrolyte imbalances, and, in rare cases, thromboembolic complications. The development of OHSS has classically been associated with high serum estradiol (E2) levels, excessive follicular development, and a high number of retrieved oocytes. In particular, E2 levels exceeding 3000 pg/mL and the retrieval of ≥15-20 oocytes are considered significant risk indicators. However, recent evidence suggests that OHSS cannot be explained solely by quantitative hormonal threshold values. Individual vascular sensitivity, luteal phase response, and ovarian responsiveness to hCG also appear to play critical roles in its pathogenesis. In patients with hypogonadotropic hypogonadism, endogenous gonadotropin production is absent, and ovarian stimulation is achieved entirely through exogenous gonadotropins. Although a controlled and generally predictable ovarian response is expected in this patient population, rare cases of OHSS have been reported despite low serum E2 levels and a limited number of retrieved oocytes. This observation suggests that the pathogenesis of OHSS cannot be reduced solely to serum E2 levels and oocyte yield. In this case report, we present a patient with hypogonadotropic hypogonadism who developed early-onset OHSS despite a serum E2 level of 1007 pg/mL and retrieval of a total of 10 oocytes, and we discuss the findings in light of the current literature.

Methods: A 32-year-old woman with a diagnosis of hypogonadotropic hypogonadism underwent assisted reproductive treatment due to infertility. Semen analysis of the male partner revealed a sperm concentration of 62 million/mL and 32% progressive motility. As endogenous follicle-stimulating hormone and luteinizing hormone production was insufficient, COS was achieved entirely with exogenous gonadotropins. On the day of oocyte pick-up, the serum E2 level was 1007 pg/mL. A total of 10 oocytes were retrieved; six were at the metaphase II stage and underwent intracytoplasmic sperm injection. On day 3, two embryos were vitrified using a freeze-all strategy.

Results: Despite a serum E2 level below 3000 pg/mL and retrieval of fewer than 15 oocytes, the patient developed early-onset OHSS. Clinically, abdominal distension, mild ascites, and hemoconcentration were observed (Figure 1).

Conclusion: The key mechanism in the pathogenesis of OHSS is the hCG-induced increase in VEGF, leading to enhanced vascular permeability. Serum E2 levels and the number of retrieved oocytes have long been used as risk indicators. However, cases of OHSS developing despite low E2 levels and a limited number of oocytes have been reported in the literature. Although patients with hypogonadotropic hypogonadism lack endogenous hormone production, follicular development induced by exogenous gonadotropins may still trigger a vascular response during the luteal phase. This observation underscores the importance of individual susceptibility in the pathophysiology of OHSS.

Keywords: Ovarian hyperstimulation syndrome, hypogonadotropic hypogonadism, estradiol, oocyte number, assisted reproductive technologies

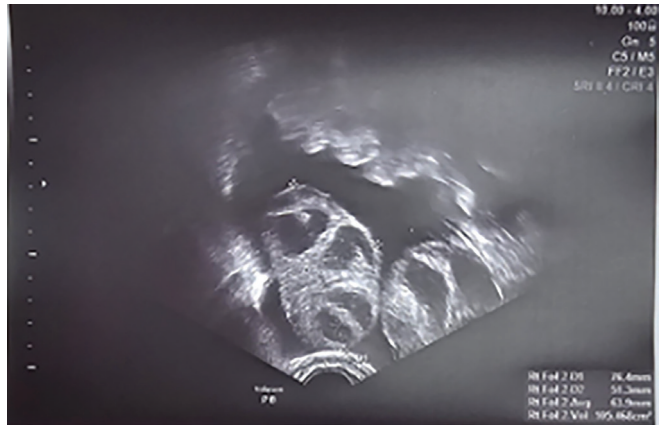

Figure 1. Transvaginal ultrasound image of a patient who developed OHSS. Bilateral ovarian enlargement with multiple cystic follicular structures and free fluid in the pelvis are observed

OHSS: Ovarian hyperstimulation syndrome

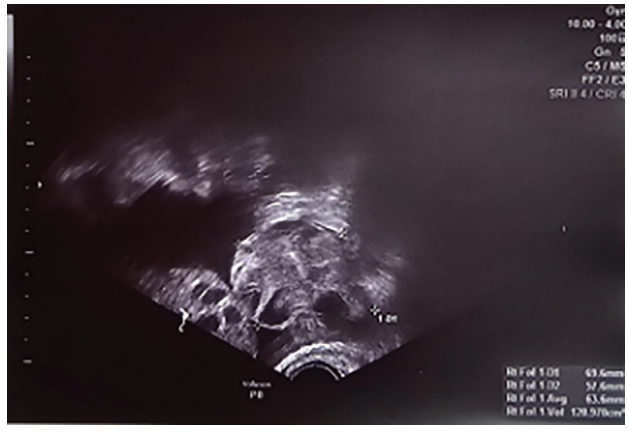

Figure 2. Transvaginal ultrasound image of a patient who developed OHSS. Bilateral ovarian enlargement with multiple cystic follicular structures and free fluid in the pelvis are observed

OHSS: Ovarian hyperstimulation syndrome

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S004

Intrauterine Device Embedded in A Cesarean Scar Niche: Hysteroscopic Management of Isthmocele

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Purpose: Cesarean scar defect (isthmocele) is a complication that may develop after cesarean delivery and is characterized by myometrial discontinuity and niche formation at the scar site, potentially leading to abnormal uterine bleeding, pelvic pain, and infertility. The niche formed at the scar site may cause accumulation of menstrual blood and predispose to malposition or embedment of intrauterine devices (IUDs). Although rare, displacement or embedment of IUDs into the uterine wall may lead to serious complications. The aim of this study was to present the hysteroscopic management of a case with an IUD embedded within a cesarean scar niche.

Methods: A 37-year-old woman with a history of two previous cesarean deliveries presented with prolonged vaginal bleeding and pelvic pain. No significant pathology was detected on gynecological examination. Transvaginal ultrasonography revealed a niche appearance consistent with a cesarean scar defect in the anterior lower uterine segment, and the IUD was found to be partially embedded within this niche. Based on the patient's clinical findings and imaging results, hysteroscopy was planned to confirm the diagnosis and provide treatment. During hysteroscopic evaluation, a cesarean scar niche and a partially embedded IUD in this region were visualized, and hysteroscopic intervention was performed for treatment.

Results: Hysteroscopic evaluation revealed an IUD partially embedded within the cesarean scar niche. The IUD was successfully removed hysteroscopically, and niche resection was performed during the same procedure. No intraoperative or postoperative complications were observed. Following the procedure, a significant improvement was noted in the patient's abnormal uterine bleeding and pelvic pain symptoms.

Conclusion: Cesarean scar defect (isthmocele) is one of the long-term complications of cesarean delivery, with a reported prevalence ranging from 24% to 70% depending on the imaging modality used. With increasing cesarean rates, isthmocele is being recognized more frequently and may be associated with symptoms such as abnormal uterine bleeding, pelvic pain, and infertility. Although many cases remain asymptomatic, some patients may experience prolonged or intermenstrual bleeding due to the accumulation of menstrual blood within the scar niche. In addition, the niche formed at the scar site may predispose IUDs to malposition or embedment within the scar tissue. Although IUDs are generally considered safe and effective contraceptive methods, complications such as uterine perforation, migration, or malposition may rarely occur. Transvaginal ultrasonography is the primary imaging modality for diagnosis, while additional imaging methods may be required in selected cases. Hysteroscopy plays an important role both in confirming the diagnosis and in providing minimally invasive treatment, including removal of embedded IUDs and resection of the scar niche. Therefore, in women with a history of cesarean delivery presenting with unexplained abnormal uterine bleeding, the possibility of isthmocele and IUD malposition should be considered in the differential diagnosis.

Keywords: Cesarean scar defect, isthmocele, intrauterine device, hysteroscopy, abnormal uterine bleeding

S005

How Vaginal Massage, Relaxation and Stomach Breathing Help Patients with Primary Vaginismus in A Week?

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Purpose: This first retrospective study evaluates the efficacy of vaginal massage combined with relaxation and diaphragmatic breathing for achieving rapid treatment outcomes in patients with primary vaginismus. This condition is characterized by involuntary pelvic floor muscle contraction, particularly at the vaginal introitus, upon penetration attempts, and is accompanied by significant stress and fear of intercourse/speculum/tampon insertion.

Methods: The study included 40 women diagnosed with primary vaginismus, presenting with symptoms such as lifelong absence of vaginal intercourse, intolerable pain during penetration attempts, fear of gynecological examination, persistent pelvic tension, and burning sensations. Symptom duration ranged from 6 months to 19 years. The applied massage technique targeted stretching and kneading of the bulbospongiosus muscles, coupled with patient education on proper relaxation methods (diaphragmatic breathing, adductor muscle release, gluteal and anal relaxation).

Results: The mean number of sessions required for complete recovery ranged from 2 to 7 (15-60 minutes each) over 1-2 weeks. Hypertonicity of the bulbospongiosus muscles was the primary cause in 85% of cases. The first session primarily involved digital insertion with continuous relaxation monitoring and conversation. Sessions 2-4 focused on gradual insertion of progressively larger vaginal dilators under relaxation control. By the final sessions, the largest dilator was inserted painlessly. Post-treatment, all patients successfully and painlessly attempted intercourse following relaxation guidelines. Four patients (10%) required physiotherapist assistance, and three (7.5%) received Amitriptyline (25 mg/day). In post-recovery questionnaires, 100% attributed success to vaginal massage and proper breathing, 90% emphasized the importance of the clinician's trust-building approach, and 10% highlighted the continuous, uninterrupted treatment process.

Conclusion: Primary vaginismus significantly impairs quality of life, necessitating early intervention by a sexual health specialist. Key treatment components are clinician-administered pelvic floor (primarily bulbospongiosus) vaginal massage and patient education in relaxation/breathing techniques for intercourse and examination. Correct execution of these steps by a qualified specialist is fundamental for achieving rapid, successful outcomes and improved patient quality of life.

Keywords: Vaginismus, dyspareunia, massage, breathing exercises, coitus

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S006

The Effect of Counseling and Training on Quality of Life and Sexual Health in Watson Human Care Model in Women with Interstitial Cystitis/Painful Bladder Syndrome

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Purpose: Interstitial cystitis/painful bladder syndrome (IC/PMS) significantly impacts women's health, particularly quality of life and sexual health. Guidelines recommend patient education as the first step in disease treatment. This study aimed to evaluate the impact of education and counseling given to women diagnosed with IC/PMS, using the Watson Human Care Model, on their quality of life and sexual health.

Methods: This study was conducted in the urogynecology department of a university hospital in İstanbul between October 2019 and May 2022. It was designed as a randomized controlled experimental study with a pre-test-post-test control group. 58 patients were included in the study. Data were collected during the initial interview using a Socio-demographic Information Form, the World Health Organization Quality of Life Scale-Short Form, the Female Sexual Function Scale, the International Incontinence Questionnaire-Short Form, the Beck Depression Scale, and the McGill Pain Questionnaire-Short Form. Thirty patients in the education group received patient education and counseling during the initial interview using the Watson Human Care Model and educational materials prepared by the researcher. Weekly interviews, monthly evaluations, and a post-test interview were conducted at the third month for three months. The 28 women in the control group completed the questionnaires and scales during the initial interview. A final evaluation was conducted at the end of the third month using the same scales used for the research. After all patients had completed their interviews, the results of both groups were compared.

Results: In the intergroup comparison of women in the education and control groups, socio-demographic, obstetric/gynecological, current disease/health history, urination, diagnosis and complaints, conditions affecting complaints, complaints and diseases associated with the disease, and family and childhood characteristics were found to be similar ($p>0.05$). In both groups, women had very low quality of life and sexual health scores, mild depression symptom scores; and incontinence and pain findings were consistent with the literature. The group that received education and counseling for three months showed improvement in the general health, physical health, environmental health, and environmental-TR dimensions of their quality of life; It was observed that depression symptoms decreased and pain scores decreased ($p\leq0.05$).

Conclusion: As a result of this study, it was determined that education given with Watson IBM contributed to improving the quality of life of women with IS/AMS and reducing pain and depression symptoms. It is noteworthy that there are few studies involving nursing care in studies conducted with IS/adenomyosis (AMS) patients. This is understandable when considering that the complexity in the diagnosis and treatment of the disease is reflected in patient follow-up and care. As a chronic disease, IS/AMS is an area that deserves attention not only in terms of diagnosis and treatment but also in terms of nursing approaches. Patients should actively participate in setting and planning the goals they want to achieve for their quality of life. It is important that care is provided with a model in which the patient and the nurse are in mutual sharing and the patient participates holistically in the process.

Keywords: Interstitial cystitis, nursing care, painful bladder syndrome, patient education, Watson Human Care Model

S007

Poor Ovarian Response in IVF: Biological Heterogeneity and the Emerging Role of Artificial Intelligence in Personalized Treatment Strategies

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Purpose: The aim of this narrative review is to critically examine the biological and clinical heterogeneity of poor ovarian response (POR) and to evaluate current and emerging artificial intelligence (AI)-based approaches in in vitro fertilization (IVF) within this context. Specifically, this review seeks to delineate the limitations of conventional classification systems and individualized treatment strategies, synthesize available evidence on AI-driven predictive and decision-support models relevant to POR, and discuss methodological, clinical, and ethical considerations that may influence the responsible integration of AI into personalized IVF management.

Methods: This study was conducted as a structured narrative review synthesizing the biological mechanisms underlying POR and evaluating the translational potential of AI in this context. A literature search was performed in PubMed, Scopus, and Web of Science, focusing on publications from the last 15 years and including key consensus and foundational studies when relevant. Search terms included "POR," "Bologna criteria," "POSEIDON classification," "ovarian stimulation," "AI," "machine learning," "deep learning," "IVF prediction," and "clinical decision support systems." Eligible studies comprised consensus reports, meta-analyses, randomized trials on POR management, and original research evaluating AI tools in IVF. Studies were assessed according to design, external validation status, dataset characteristics, and representation of low-prognosis or POR populations. Studies with limited methodological transparency or unclear relevance to POR were interpreted cautiously.

Results: Literature consistently identifies POR as a clinically significant subgroup within IVF populations, reported to account for approximately 9-24% of treatment cycles. Despite standardized definitions introduced by the Bologna criteria and the subsequent prognostic refinement offered by the POSEIDON classification, substantial biological and clinical heterogeneity persists within POR cohorts. Conventional individualized strategies-including high-dose gonadotropin stimulation, luteinizing hormone supplementation, androgen pretreatment, and double stimulation protocols-demonstrate variable and often inconsistent effects on cumulative live birth outcomes. Evidence suggests that increasing stimulation intensity does not uniformly translate into improved reproductive competence, underscoring the limitations of purely quantitative approaches. AI-based applications in IVF have expanded rapidly, primarily targeting outcome prediction, embryo assessment, oocyte yield estimation, and stimulation planning. While several models report moderate discriminatory performance, the majority of published studies remain retrospective and single-center in design. Importantly, POR-specific validation remains limited, and prospective interventional trials assessing clinical impact in poor responders are scarce.

Conclusion: The central challenge in POR management lies not solely in diminished ovarian reserve but in the complex and multidimensional biological heterogeneity that constrains predictive precision and therapeutic optimization. Traditional clinical markers capture only a fraction of the variability influencing ovarian response and embryo developmental competence. AI offers a theoretically advantageous framework for integrating nonlinear interactions among clinical, hormonal, and laboratory variables. However, current evidence suggests that its role in POR should be considered exploratory rather than transformative. Limited representation of poor

responders in training datasets, potential overfitting, and insufficient external validation restrict immediate clinical implementation. Future progress will require multicenter collaboration, POR-specific model development, prospective validation, and transparent reporting standards. Within such a framework, AI may meaningfully contribute to risk stratification, individualized counseling, and structured decision support. Nevertheless, it should remain an adjunct to-not a replacement for-clinical expertise in the management of POR.

Keywords: Poor ovarian response, in vitro fertilization, artificial intelligence, biological heterogeneity, clinical decision support

S008

Investigation of the Prevalence and Risk Factors of Endometrial Tubal Metaplasıa in Hysterectomy Specimens

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Purpose: Endometrial tubal metaplasia is a type of metaplasia defined by the endometrial glands acquiring histological features similar to fallopian tube epithelium. Histologically, it is characterized by the presence of ciliary cells and is generally considered a benign change. The aim of this study is to determine the prevalence of endometrial tubal metaplasia in hysterectomy specimens performed for benign reasons and to investigate clinical and pathological risk factors that may be associated with the development of tubal metaplasia.

Methods: Patients who underwent total hysterectomy for benign reasons at the Department of Obstetrics and Gynecology, Fırat University Faculty of Medicine between September 2014 and December 2024, and for whom clinical and demographic data were available, were included in the study. Clinical and demographic data were collected from hospital records and patient files. Age, hysterectomy indication, and additional endometrial and uterine pathologies were recorded. The results were analyzed.

Results: This study analyzed 2303 patients. The mean age of 2303 patients who underwent hysterectomy was 53.15±10.60 years, and the mean age of those with tubal metaplasia detected in uterine specimens was 50.83±8.26 years. Endometrial hyperplasia (ETM) was detected in 117 of the 2303 patients, and the prevalence of ETM in this population was found to be 5.08%. Pelvic organ prolapse, an indication for hysterectomy, was significantly more frequent in the group without ETM ($p<0.001$). Among clinical gynecological pathologies, ETM was detected in 23.1% (27/117) of the ETM group and 8.5% (10/117) of the group without ETM, and this difference was found to be statistically significant ($p=0.0021$).

Conclusion: ETM is often associated with unopposed estrogen levels and is notably associated with simple and complex ETM and well-differentiated endometrial carcinoma. In our study, pelvic organ prolapse was observed at a significantly higher rate in the group without ETM. This inverse relationship likely stems from the contrast between the hypoestrogenic and atrophic endometrial environment that predominates in prolapse patients and the proliferative and estrogen-dominant environment associated with ETM. The fundamental pathophysiological mechanism of ETM is long-term unopposed estrogen exposure. Similarly, in tubal metaplasia, the proliferative capacity of the endometrial glandular epithelium increases in an estrogen-dominant environment, during which ciliated cell differentiation can develop in the epithelium, and morphological changes similar to the tubal phenotype can occur. The fact that the underlying mechanism in ETM and ETM is long-term unopposed estrogen exposure suggests that this statistically significant association may be an indicator of a proliferative environment and that ETM may be an accompanying lesion of ETM, which is considered a premalignant lesion.

Keywords: Endometrial tubal metaplasia, hysterectomy, prevalence

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S009

A Rare Müllerian Anomaly Detected During Infertility Evaluation: A Case Report of Unicornuate Uterus

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Purpose: The aim of this case report is to present a rare Müllerian duct anomaly, a unicornuate uterus, detected during the evaluation of primary infertility along with accompanying atypical pelvic findings, and to emphasize the importance of imaging modalities and minimally invasive surgical approaches in the diagnostic process.

Methods: The clinical findings, imaging results, and minimally invasive diagnostic procedures of a 29-year-old nulligravid patient undergoing evaluation for primary infertility were retrospectively reviewed. As part of the infertility workup, pelvic magnetic resonance imaging and transvaginal ultrasonography were performed. Diagnostic laparoscopy combined with hysteroscopy was conducted to further evaluate the pelvic anatomy, and the intraoperative findings were assessed.

Results: This case highlights the importance of comprehensive imaging and minimally invasive surgical evaluation in infertility patients with suspected Müllerian anomalies. Recognition of a unicornuate uterus is essential for providing appropriate reproductive counseling and for individualized fertility planning.

Conclusion: The unicornuate uterus is a rare Müllerian duct anomaly that may be associated with infertility, recurrent pregnancy loss, and various obstetric complications. In this case, atypical pelvic findings detected during infertility evaluation were further assessed using advanced imaging modalities and minimally invasive surgical techniques. The combined use of laparoscopy and hysteroscopy allowed accurate visualization of pelvic anatomy and facilitated definitive diagnosis. Additionally, considering the patient's strong desire for future fertility, avoiding unnecessary surgical intervention was an important aspect of management. Therefore, a multidisciplinary approach and individualized treatment planning are essential in the diagnosis and management of Müllerian anomalies.

Keywords: Unicornuate uterus, Müllerian duct anomaly, primary infertility, laparoscopy, hysteroscopy

S010

The Never-Ending Vicious Cycle of Endometriosis

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Purpose: The aim of this case presentation is to draw attention to the complications of endometriosis and to emphasize the importance of performing endometriosis surgery meticulously.

Methods: A 46-year-old woman (G2P2, NVD) was referred for a right adnexal mass and hydronephrosis. Four years earlier, magnetic resonance imaging (MRI) showed a complex cystic lesion (65 x 60 mm) near the right ovary, leading to a preliminary diagnosis of endometriosis. On follow-up, a 35 mm thin-septate cyst was detected in the right adnexal area, with no significant enhancement. The right ovary was 30 x 15 mm. On December 20, 2021, MR urography for right hydronephrosis showed right ureteral dilation up to a cystic lesion in the right ovarian lodge, likely due to compression or adhesions; the distal ureter was normal. Surgery was planned. On February 22, 2022, she underwent right pelvic mass excision, TAH + BSO, and lysis of intra-abdominal adhesions. Two months post-op, she developed acute right lower extremity deep vein thrombosis (DVT) and underwent catheter insertion. Six months post-op, she had persistent drainage from the previous drain site (Figure 1). MRI revealed an enterocutaneous fistula from the rectosigmoid colon to the left lower abdominal skin. Gastroenterology consultation and endoscopy showed a 2 mm orifice in the distal sigmoid, possibly a fistula or diverticulum; the lumen was closed, and no secretions were seen. The drainage stopped with follow-up. On November 20, 2022, MRI showed a 2.5x2.5 cm fibrotic tissue mass in the right adnexal lodge, with a small fluid collection and an inactive fistula tract to the left lower anterior abdominal wall. A second operation was performed on December 20, 2022, with feeding tube insertion through the fistula tract, and no subcutaneous abscess or bowel contents were aspirated. The fistula tract to the fascia was removed, and recovery was uneventful (Figure 2).

Results: A patient diagnosed with endometriosis at an external center developed hydronephrosis as a complication during follow-up. In the acute phase following surgery, DVT developed, and later, an enterocutaneous fistula developed. Endometriosis, due to both its pathophysiology and the complexity of its surgery, is a highly susceptible surgical procedure, prone to intraoperative and postoperative complications, whether a follow-up protocol is followed or a surgical option is chosen. Careful consideration should be given to the decision for surgery, the follow-up process should be meticulously managed, and a well-planned operation should be developed with detailed pre-operative examinations and mapping.

Conclusion: Endometriosis is a chronic disease in which endometrial tissue is located outside the endometrium, in different foci, and its symptoms vary depending on the extent of the disease and the location of the lesions. The decision on when to perform surgery, if necessary, should be made by experienced surgeons and planned at top-tier centers.

Keywords: Endometriosis, fistula, hydronephrosis, surgical inoculation

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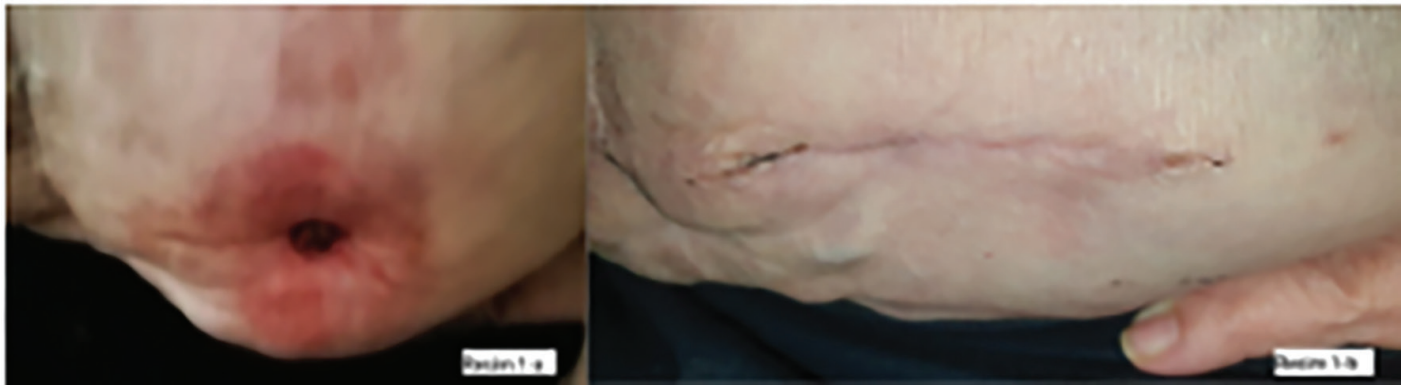

Figure 1. Fistula orifice & incision scar. a) Fistula orifice that has opened outwards from the old drain site b) Healed Pfannenstiel incision scar line

Figure 2: Improved appearance after fistula surgery

S011

A 2-D Digital Approach to Relieve Dysmenorrhea: the Fusion of Qigong Shaolin Dan Tian Breathing Technique and Self-Guided Abdominal Massage

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Purpose: The aim of this current study was to investigate the effects of the "Qigong Shaolin Dan Tian breathing exercise technique" based on the traditional Chinese medicine, enriched with digital environment (tablets, smartphones, laptop etc.) and abdominal massage on the menstrual pain levels of female undergraduate students.

Methods: There were forty-four female ages between 18 and 25 undergraduate students involved in this quasi-experimental study. While twenty-two of them were in the experimental group, the rest were in the control group. In the collection of the quantitative data, the researchers employed thequestionnaire named McGill Pain Scale-Short Form before and after the treatment process. The researchers also examined the habits and routines of the participants regarding the consumption of herbal tea, involvement of sportive activities, medicine use, and lesson performance during their dysmenorrhea period.

Results: The Qigong Shaolin Dan Tian breathing exercise technique, combined with digital environment and abdominal massage had superior results by reducing pain during their dysmenorrhea period ($p < 0.05$). The study also indicated that roughly 62% of the participants expressed that the pain of their dysmenorrhea negatively influenced their educational performance in the classrooms, almost 48% of the participants used medicine to decrease the pain level, about 57% of the participants did not involve any kind of sportive activities, and almost 66% of the participants consumed herbal tea during their dysmenorrhea period.

Conclusion: The study revealed that the Qigong Shaolin Dan Tian breathing exercise technique, enhanced with digital environment and abdominal massage had vital roles in reducing the pain level of the participants during their dysmenorrhea period.

Keywords: Digital technology, dysmenorrhea, Qigong breathing, quality of life, mental health

S012

The Effects of Pelvic Floor Muscle Exercise-Based Interventions on Urinary Incontinence Outcomes During Pregnancy: A Systematic Review and Meta-Analysis

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Purpose: This study aimed to systematically evaluate the effectiveness of pelvic floor muscle exercise (PFME)-based interventions on urinary incontinence outcomes among pregnant women.

Methods: A comprehensive literature search was conducted in the PubMed, Web of Science, EBSCOhost, Google Scholar, and YÖK Theses databases between February 2026 and March 2026, with no restrictions on publication year. Eligible studies were synthesized using both meta-analytic and narrative approaches to assess the impact of PFME-based interventions on urinary incontinence during pregnancy.

Results: Ten studies involving a total of 1,090 pregnant women were included in this systematic review and meta-analysis. The pooled results demonstrated that PFME-based interventions significantly improved urinary incontinence outcomes, yielding a moderate effect size (standardized mean difference: 0.534; 95% confidence interval: 0.108-0.960; Z=2.459; p=0.014; I^2=90.37%).

Conclusion: The findings of this review indicate that PFME-based interventions are effective in reducing urinary incontinence during pregnancy, supporting their incorporation into prenatal care programs.

Keywords: Pelvic floor muscle exercise, pregnancy, urinary incontinence, meta-analysis

S013

The Relationship Between Pelvic Tilt and Balance in Women With Premenstrual Syndrome

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Purpose: Premenstrual syndrome (PMS) and its severe form, premenstrual dysphoric disorder (PMDD), are associated with physical and psychological symptoms that may influence musculoskeletal alignment and postural control. Pelvic tilt alterations may contribute to lumbopelvic dysfunction, while hormonal fluctuations can affect balance. However, the relationship between pelvic alignment, balance performance, and PMS severity remains unclear. This study aimed to investigate the relationship between pelvic tilt, balance performance, and PMS symptom severity in young women, and to compare these parameters between women with and without PMDD.

Methods: This cross-sectional study included 30 female participants aged 20-30 years. Assessments were conducted during the luteal phase of the menstrual cycle based on self-reported calendar tracking, in a quiet home environment. Participants were classified as PMDD or non-PMDD using the premenstrual symptoms screening tool. PMS symptom severity was assessed using the PMS scale (PMSS) and the Menstrual Distress Questionnaire (MDQ). Pelvic tilt was measured in standing using a manual inclinometer placed between the anterior and posterior superior iliac spines. Balance performance was evaluated with the Flamingo Balance Test. Although the Berg Balance Test was administered, it was excluded from analysis due to a ceiling effect. Independent samples t-tests and Pearson correlation analyses were performed.

Results: Women with PMDD demonstrated significantly greater pelvic tilt compared to the non-PMDD group (p=0.01). Flamingo Balance Test errors were significantly lower in the PMDD group (p<0.001). Pelvic tilt showed a moderate positive correlation with both PMSS (r=0.55, p=0.001) and MDQ scores (r=0.55, p=0.002). Flamingo errors were moderately negatively correlated with PMS severity (PMSS: r=-0.55, p=0.002; MDQ: r=-0.52, p=0.003). All participants scored the maximum on the Berg Balance Test, indicating a ceiling effect.

Conclusion: Greater pelvic tilt is associated with increased PMS symptom severity, suggesting that pelvic alignment may play a role in the manifestation of premenstrual symptoms. Contrary to expectations, women with PMDD demonstrated better static balance performance, possibly due to test sensitivity limitations. These findings highlight the importance of considering lumbopelvic alignment in physiotherapy approaches for PMS management.

Keywords: Premenstrual syndrome, PMDD, pelvic tilt, balance, Flamingo Balance Test, physiotherapy

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S014

Primary Vaginismus as a Priority Target in the Comprehensive Management of a Young Patient with Deep Infiltrative Endometriosis of the Bowel: A Staged Multidisciplinary Approach

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Purpose: To demonstrate the efficacy of a staged approach, where successful preoperative resolution of primary vaginismus is a critical step to ensure adequate diagnosis, surgical access, and optimal postoperative recovery in a patient with deep infiltrative endometriosis (DIE) of the bowel. DIE of the bowel and primary vaginismus frequently coexist in young women, creating a "vicious cycle": chronic pelvic pain and pelvic floor dysfunction exacerbate vaginismus, while muscular hypertonia, in turn, distorts the clinical presentation and complicates diagnosis. The choice of primary therapy (surgery vs. correction of vaginismus) remains a dilemma, impacting quality of life and postoperative outcomes.

Methods: Case report of a 22-year-old patient. Inability to have sexual intercourse or undergo gynecological examination (vaginismus), chronic pelvic pain, dyschezia (painful defecation). Under the guidance of a gynecologist and psychotherapist, a comprehensive 2-week program was implemented: cognitive-behavioral therapy, breathing techniques for anxiety and pelvic floor control, stepwise neuromuscular rehabilitation using perineal massage and dilators. An selective serotonin reuptake inhibitor was prescribed to reduce central sensitization and anxiety. Outcome achieved: capability for painless gynecological examination. After vaginismus resolution, bimanual examination and transvaginal ultrasound (TVUS) became feasible, revealing signs of DIE with invasion of the rectosigmoid colon, confirmed by magnetic resonance imaging. Radical laparoscopy was performed: excision of endometriotic lesions, disc resection of the affected bowel segment with anastomosis.

Results: Preoperative treatment of vaginismus enabled: 1) comprehensive preoperative assessment; 2) avoidance of painful examinations under anesthesia; 3) minimization of the risk of iatrogenic injury during intraoperative vaginal manipulation. The postoperative course was uneventful. At 6-month follow-up, sustained remission of endometriosis symptoms and full restoration of sexual function were observed.

Conclusion: 1) Paradigm shift: primary vaginismus in the context of DIE requires treatment before, not after, surgical intervention. This is not merely a quality-of-life improvement but a prerequisite for accurate diagnosis and safe surgery. 2) Key to diagnosis: successful vaginismus therapy "opens" vaginal access for TVUS, which is the gold standard for diagnosing deep endometriosis. 3) Multidisciplinary Model as a standard: management of such patients requires coordinated work by a gynecological endometriosis surgeon, colorectal surgeon, psychotherapist/sexologist, and pelvic floor physiotherapist. 4) New perspective on "twin sisters": this case expands the concept of comorbidity in endometriosis to include not only polycystic ovary syndrome but also functional sexual-pelvic disorders, which require equal attention and integration into the treatment algorithm.

Keywords: Deep infiltrative endometriosis, bowel endometriosis, primary vaginismus, dyspareunia, pelvic floor neuromuscular rehabilitation

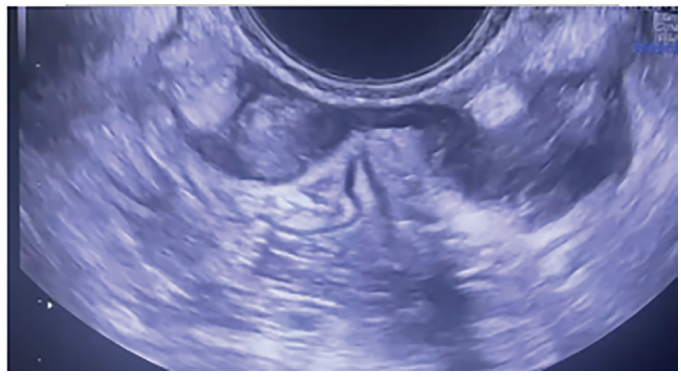

Figure 1. Endometriosis lesion on ultrasonography

Figure 2. Surgical medicine

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S015

A Rare Systemic Complication After Advanced Endometriosis Surgery: Liposomal Amphotericin B-Induced Nephrogenic Diabetes Insipidus and Acute Tubular Dysfunction

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Purpose: To highlight a rare renal complication developing after exposure to liposomal amphotericin B following advanced endometriosis surgery and to emphasize the importance of early recognition.

Methods: Case: We present a 44-year-old woman with a history of mastectomy and radiotherapy for breast cancer, who underwent laparoscopic hysterectomy with bilateral salpingo-oophorectomy for severe symptomatic endometriosis associated with chronic pelvic pain, progressive dysmenorrhea, deep dyspareunia, and imaging findings suspicious for a complex pelvic mass in which malignancy could not be excluded preoperatively.

Results: On postoperative day (POD) 9, she required reoperation for suspected bowel perforation, where rectal microperforations were identified and a protective colostomy was performed. Candida kefyr was isolated from intra-abdominal cultures on POD15, leading to the initiation of amphotericin B therapy. After three days of therapy (total dose 600 mg IV), the patient developed marked polyuria (up to 11 L/day) with severe hypomagnesemia, hypokalemia, and hypocalcemia, while renal function remained normal. Nephrogenic diabetes insipidus and acute tubulopathy were diagnosed, and amphotericin B was discontinued. She was treated with electrolyte replacement, spironolactone, and calcitriol, with gradual improvement over 14 days. The patient's total hospitalization lasted 42 days, after which she underwent a successful colostomy reversal.

Conclusion: This case demonstrates that liposomal amphotericin B may cause prolonged nephrogenic diabetes insipidus and significant tubular dysfunction even after short-term use, despite preserved glomerular renal function. Early recognition of polyuria and electrolyte disturbances, prompt discontinuation of the offending agent, and close electrolyte monitoring are critical for successful management. Although liposomal amphotericin B is considered safer than conventional formulations, it may still lead to severe tubular toxicity and nephrogenic diabetes insipidus. This rare but clinically important complication should be kept in mind, particularly in postoperative patients receiving antifungal therapy.

Keywords: Liposomal amphotericin B, nephrogenic diabetes insipidus, deep infiltrating endometriosis surgery, electrolyte imbalance, polyuria

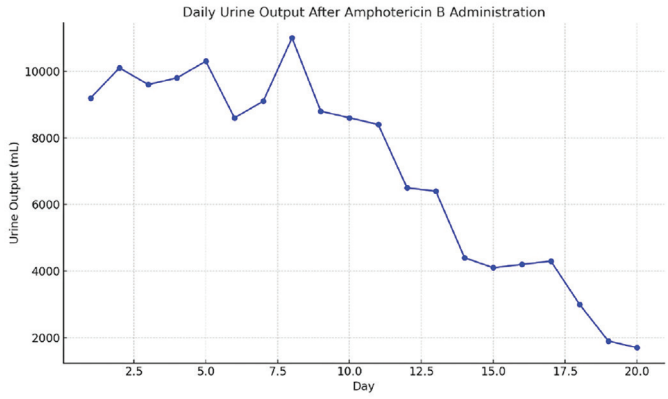

Figure 1. Daily urine output following initiation of liposomal amphotericin B therapy, demonstrating a prolonged polyuric phase consistent with nephrogenic diabetes insipidus

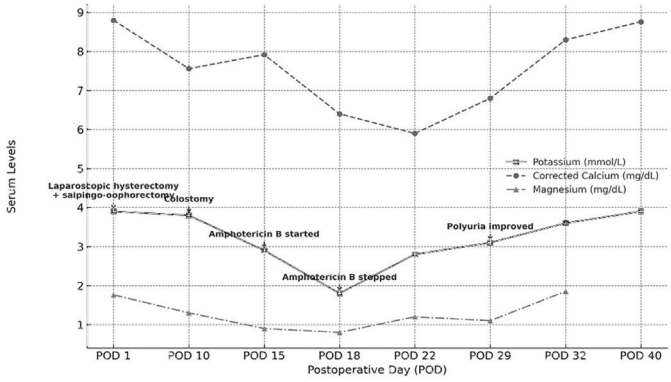

Figure 2. This figure shows serum potassium, corrected calcium, and magnesium values in the postoperative period. Key clinical events are described, including first laparoscopic hysterectomy with salpingo-oophorectomy (POD 1), colostomy (POD 10), initiation of amphotericin B therapy (POD 15), stopping amphotericin B (POD 18), and improvement in polyuria (POD 29). The graph highlights electrolyte disturbances associated with amphotericin B administration and their gradual improvement over time

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S016

Umbilical Endometriosis with Cyclic Bleeding and Associated with an Umbilical Hernia

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Purpose: Umbilical endometriosis is a rare form of extrapelvic endometriosis, accounting for approximately 0.5-1% of all extrapelvic cases. It is associated with cyclical pain, swelling, and bleeding from the umbilicus during menstruation. Umbilical endometriosis can be classified as either primary or secondary. Primary cases occur in the absence of prior surgical procedures and are believed to result from the metaplasia of embryonic remnants. Secondary endometriosis develops after surgery due to the iatrogenic implantation of endometrial tissue. We aimed to present the case of a 39-year-old woman with secondary umbilical endometriosis associated with an umbilical hernia, which was diagnosed and treated. The main aim of this report is to present a case of secondary umbilical endometriosis associated with an umbilical hernia and to highlight the importance of considering this rare condition in the differential diagnosis of women presenting with cyclical umbilical pain and bleeding, especially those with a history of abdominal surgery.

Methods: A 39-year-old G1P1CS1 woman presented with a painful, cyclically bleeding umbilical mass that had progressively enlarged. Her medical history includes a laparoscopic endometrioma cystectomy performed six years ago, followed by three years of hormonal therapy, as well as a laparoscopic cholecystectomy and a cesarean section. Examination revealed a 22 × 18 mm soft, slightly tender, bluish-black umbilical mass, non-mobile, with a healthy Pfannenstiel scar. Soft-tissue imaging revealed 10 mm herniation at the umbilicus, immobile with Valsalva. She reported dysmenorrhea with regular 28-day cycles. Transvaginal ultrasound showed a 28 × 22 mm right ovarian endometrioma, normal uterus, and left adnexa.

Results: The patient underwent complete surgical excision of the umbilical lesion, including the umbilicus, followed by primary repair of the abdominal wall. The histopathological analysis confirmed the diagnosis of endometriosis. The postoperative follow-up was uneventful. Umbilical endometriosis should be considered in women presenting with cyclical pain and bleeding, particularly those with a history of laparoscopic surgery. It may also present as an umbilical hernia. Diagnosis relies on clinical suspicion, imaging and histopathology. Surgical excision remains the treatment of choice to prevent recurrence.

Conclusion: Umbilical endometriosis is a rare form of extrapelvic endometriosis that presents with cyclical pain and bleeding. Secondary cases typically develop following surgery due to iatrogenic implantation, as supported by our patient's history of laparoscopic procedures. It may coexist with an umbilical hernia, which can complicate diagnosis. Imaging can be helpful, but definitive diagnosis is established through histopathology. Surgical excision is the mainstay of treatment and aims to prevent recurrence. This condition should be considered in women with cyclical umbilical symptoms, particularly those with a history of abdominal surgery.

Keywords: Umbilical endometriosis, umbilicus hernia

Figure 1. Umbilical endometriosis with cyclic bleeding and associated with an umbilical hernia. Preoperative ımaging of a case of umbilical endometriosis presenting with cyclical bleeding and total excision of the umbilicus to prevent recurrence of the endometriotic lesion

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S017

The Short-Term Effect of Education Supported by Self-Monitoring on Quality of Life in Women with Polycystic Ovary Syndrome: A Randomized Controlled Trial

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Purpose: Polycystic ovary syndrome (PCOS) has been associated with a diminished quality of life, and there is an increasing emphasis on non-pharmacological approaches in women's health care. The present study sought to evaluate the short-term effect of structured patient education supported by self-monitoring on quality of life among women diagnosed with PCOS.

Methods: A randomized controlled experimental design was used. 80 women were randomized (40 intervention, 40 control). Seventy completed follow-up and were analyzed (35 per group). The intervention group received PCOS and lifestyle management education and practiced self-monitoring with a motivational calendar for 14 days; the control group received routine follow-up. Data were collected using a demographic/obstetric form, a PCOS characteristics form, and the PCOSQ-50 (pre-test and post-test). Clinical trial registration: ClinicalTrials.gov. Researchers interviewed a total of 116 women diagnosed with PCOS to determine their eligibility for inclusion in the study. The study began with 80 women diagnosed with PCOS. Additionally, five women in the experimental group did not complete the motivational calendar, and five women in the control group did not wish to complete the second set of data; therefore, they were excluded from the study. As a result, the study was completed with 35 women in the experimental group and 35 women in the control group. This process is shown in the CONSORT diagram (Figure 1).

Results: At baseline, the groups were similar in age, age at menarche, marital status, income level, body mass index, lifestyle habits, PCOS characteristics, and psychosocial variables ($p>0.05$). After the intervention, significant increases were found in the PCOSQ-50 total score and in the psychosocial-emotional ($p=0.04$), obesity and menstrual disorders ($p=0.04$), and coping ($p=0.04$) subscale scores; while no significant changes were observed in the fertility, sexual function, and hirsutism subscales ($p>0.05$).

Conclusion: Education supported by self-monitoring improved short-term quality of life outcomes in women with PCOS and may be incorporated into routine clinical care.

Keywords: Lifestyle modification, self-monitoring, quality of life, patient education, polycystic ovary syndrome

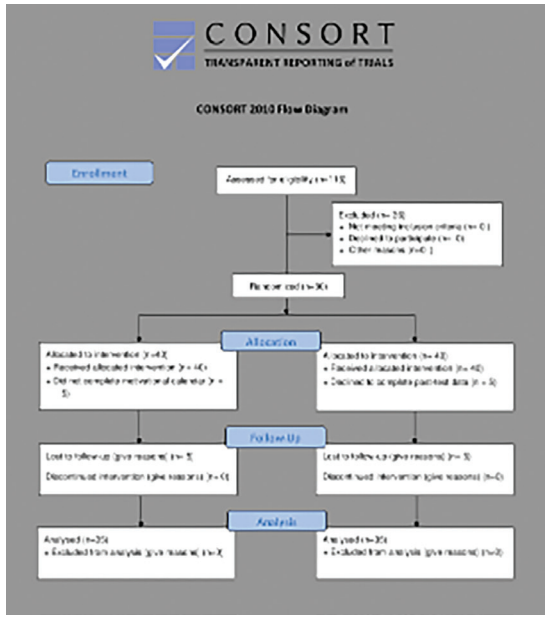

Figure 1. CONSORT flow diagram

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S018

Are there Differences in Glutathione Levels Between Blood and Follicular Fluid? Does This Affect IVF Success?

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Purpose: Infertility is defined as not being able to achieve pregnancy as a result of unprotected intercourse for one year. This situation is a medical concern but also a social problem. The problem of infertility is becoming more common day by day in developed and developing countries. The reproductive potential of a female individual is the number of oocytes and the quality of oocytes. Shown in relation to. One of the conditions that deteriorate oocyte quality has been shown to be increased reactive oxygen species (ROS) and decreased antioxidant defense mechanisms. It is accepted that excessive ROS in the follicular fluid deteriorates oocyte quality by inducing apoptosis in oocytes and granulosa cells. glutathione (GSH) has been identified to be critical in oocyte cytoplasmic maturation, which is necessary for preimplantation development. GSH is a good biochemical marker for viability in mature oocytes. High GSH levels aid in meiotic spindle formation. Oxidative stress is thought to be a condition associated with reproductive and developmental pathology. The importance of free radicals and antioxidants in the regulation of reproduction and fertilization should be taken into account. As the role of oxidative stress in fertility is revealed, fertility rates can be increased with antioxidant treatments.

Methods: The study included 89 patients aged 18-45 with any systemic disease who had a planned in vitro fertilization (IVF) cycle and were referred to the GEAH Gynecology and Obstetrics and Gynecology Department IVF Unit due to polycystic ovary syndrome (PCOS) and unexplained infertility. The follicular fluids remaining after OPU and the blood serum taken were also prepared and stored under appropriate conditions. Samples of the fragment contain GSH values by adjusting the appropriate conditions. In this study, we evaluated the relationship between antioxidant GSH levels in blood and follicular fluid and pregnancy success in patients undergoing IVF and examined the difference between blood antioxidant GSH levels and levels in follicular fluids in patients undergoing IVF.

Results: Of the 89 patients included in the study, 40 became pregnant after IVF and 49 could not become pregnant after IVF. The GSH level measured in the serum and waste follicular fluid of the pregnant patients was significantly higher. The study included 89 infertile women aged 18-45 years who presented to the GEAH Department of Obstetrics and Gynecology IVF Unit with PCOS or unexplained infertility and had planned IVF cycles, and who did not have any additional systemic diseases. 40 of these patients became pregnant after embryo transfer following OPU, while 49 did not. As shown in the table, the mean GSH level in the blood of patients who became pregnant after ET following OPU (n=40) was 62.94 ng/mL before OPU, while the mean GSH level in the blood of those who did not become pregnant (n=49) was 13.76 ng/mL. There is a statistically significant difference between pregnancy status and blood GSH levels ($p<0.001$), and the GSH level measured in blood before OPU is higher in those who became pregnant after IVF following OPU. The mean GSH level measured in the waste follicular fluid obtained after OPU in pregnant patients (n=40) was 66.77 ng/mL, while the mean glutathione level measured in the waste follicular fluid of those who did not become pregnant (n=49) after OPU was 25.53 ng/mL. There is a statistically significant difference between pregnancy status and GSH values measured in waste follicular fluid ($p<0.01$), and the GSH level measured in the waste follicular fluid obtained during OPU was higher in the 40 patients who became pregnant after ET.

Conclusion: If the effect of antioxidant (GSH) levels in the serum and follicular fluid of infertile patients on IVF success is determined, the place of these parameters in the etiology of infertility, their usability as predictive markers in determining the chance of success in IVF treatment, and their potential to lead antioxidant support therapy in the treatment of infertility will be discussed.

Keywords: Infertility, in vitro fertilization, oxidative stress, follicle fluid, glutathione

Table 1. The relationship between glutathione levels in patients' blood and follicular fluid and pregnancy

Parameters	Pregnant cases (n=40) mean±SD (min-max)	Nonpregnant cases (n=49) mean±SD (min-max)	*p* value
Glutathione (blood)	62.94±94.72 (7-453.73)	13.76±3.8 (7-21.11)	0.000
Glutathione (follicle)	66.77±84.24 (1-331.68)	25.53±40.46 (1-198.22)	0.004

Mann-Whitney U test used
SD: Standard deviation

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S019

Transcriptomic Profiling of a Pelvic Pain-Associated Gene Signature in Endometriosis and İdentification of Therapeutic Candidates Through Pharmacogenomic Screnning

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Purpose: Endometriosis is a complex and dynamic disease. The genetic, endocrine, immunological, and environmental factors collectively contribute to the pathogenesis and progression of endometriosis. In the presence of active endometriosis lesions, a chronic inflammatory response is observed in the surrounding tissue, leading to fibrosis and the formation of local scarring and adhesions. Endometriosis has been associated with a number of symptoms, including pelvic pain and infertility. Endometriosis is identified in approximately 30% of patients presenting with chronic pelvic pain, with reported prevalence rates between 15% to 70%. Despite its prevalence, the molecular mechanisms underlying endometriosis-associated pain remain poorly understood. The objective of this study is to systematically analyse the transcriptomic landscape of pelvic pain in endometriosis to define a robust gene signature and identify novel therapeutic candidates through integrated pharmacogenomic screening.

Methods: The endometriosis transcriptomic dataset was obtained from the Gene Expression Omnibus, GSE51981. The samples included controls (n=34) and patients with endometriosis (n=77). The candidate genes associated with “pelvic pain” and “chronic pelvic pain” were searched in the GeneCards and Gene Set Enrichment Analysis databases; a total of 185 overlapping genes were listed. To identify gene signatures with high diagnostic value, Least Absolute Shrinkage and Selection Operator (LASSO) regression was performed using the glmnet R package. Nineteen genes were identified as a signature possessing the highest diagnostic potential for endometriosis. Gene ontology (GO) enrichment analysis was conducted using the cluster profiler R package. The interaction between the LASSO-selected hub genes and immune checkpoint genes was evaluated using Spearman’s rank correlation. Bioinformatics and statistical analysis were performed with R software (v4.3.0).

Results: Increased expression was observed in *IL13, MALAT1, MMP2,* and *SERPINE1*, whereas decreased expression was detected in *CUX1, HK2, LACTB, TLR1*, and *UCHL1*. The GO analysis revealed differentially expressed genes associated with hypoxia/oxygen response, epithelial cell proliferation, regulation of apoptosis, and immune cell proliferation. *IL13, CBS, ANK1, MFAP4, MMP2,* and *SERPINE*1 have been shown to positively correlate with multiple immune checkpoint markers. This suggests that pelvic pain–associated gene expression in endometriosis is associated with immune activation/regulatory programs. Conversely, *HK2, RICTOR, LACTB,* and *TLR1* exhibited negative correlations with this checkpoint set while demonstrating a clear positive association with immunosuppressive/regulatory molecules. In the drug analysis, a significant correlation was observed between gene expression in the pelvic pain signature and CTRP drug response metrics. Consequently, *SERPINE1, RRBP1, CCND1,* and *LACTB* showed positive correlations with multiple compounds.

Conclusion: These findings indicate that the expression of signature genes associated with pelvic pain in endometriosis is linked to immune activation and regulation. Furthermore, it has been observed that these signature genes are associated with drug resistance in drug screening.

Keywords: Endometriosis, pelvic pain, signature gene, immune system, drug resistance

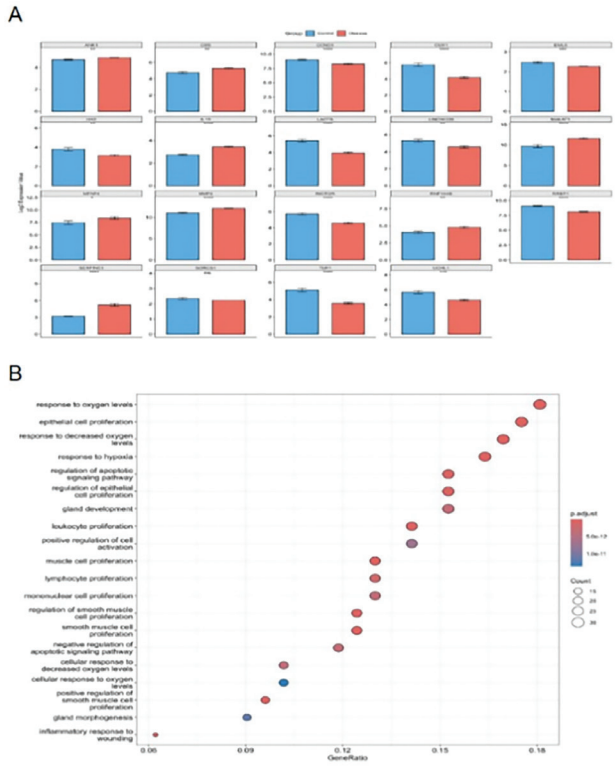

Figure 1. Expression of Pelvic Pain-Associated Signature Genes and Functional Gene Ontology (GO) Analysis. A) Comparison of gene expression between normal and endometriosis patient samples using the Wilcoxon rank-sum test. B) Representation of biological processes involving genes associated with endometriosis and pelvic pain.

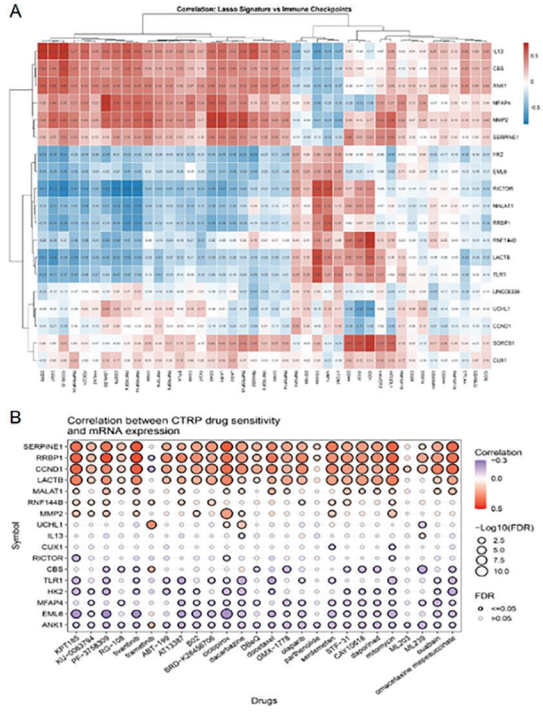

Figure 2. Correlation Analysis of Pelvic Pain-Associated Signature Genes with Immune Checkpoints and CTRP Drug Response Metrics. A) Heatmap analysis of immune checkpoint genes and signature genes. B) Drug sensitivity analysis of signature genes.

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S020

Pelvic Floor Rehabilitation in Children with Lower Urinary Tract Dysfunction: A Systematic Review of Current Literature

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Purpose: The purpose of this literature review is to evaluate the effectiveness of physical therapy and rehabilitation approaches used in the management of lower urinary tract dysfunction (LUTD) in children in light of current evidence and to provide clinicians with a comprehensive treatment perspective.

Methods: PubMed, Google Scholar, and Cochrane Library databases were systematically searched to identify studies that answered PICO questions regarding participants, interventions, comparison groups, and outcomes. The search was limited to studies conducted between 2019 and 2025, published in english, with full texts available, covering a pediatric population aged 5-18 years, and conducted with children diagnosed with LUTD according to ICCS criteria. The search process used the keywords “pediatric lower urinary tract dysfunction,” “pelvic floor physical therapy,” “biofeedback,” “urotherapy,” and “pelvic floor muscle training” and combinations thereof. A total of 16 studies meeting the specified criteria were analyzed using thematic synthesis under five main categories-urotherapy, electrotherapy, manual therapy, biofeedback, and holistic exercise approaches-to integrate clinical evidence.

Results: The studies reviewed were grouped under the headings of standard urotherapy, electrotherapy/neuromodulation, biofeedback, holistic exercises, and manual therapy. The addition of pelvic floor muscle training and biofeedback to standard urotherapy was found to provide significantly greater improvement in symptom scores and uroflowmetry parameters compared to urotherapy alone. In particular, the application of parasacral TENS was found to significantly increase the success rate in cases resistant to urotherapy. Additionally, proximal-focused functional exercises and connective tissue massage have been reported to have positive effects on voiding patterns.

Conclusion: This literature review demonstrates the effectiveness of evidence-based physical therapy approaches in the management of LUTD in children. Consequently, pediatric LUTD rehabilitation should be a comprehensive process that aims not only to address symptoms but also to increase the child’s biomechanical and physiological capacity. Pelvic floor-focused training and holistic approaches implemented under the guidance of a physical therapist in pediatric LUTD rehabilitation not only provide symptomatic improvement but also enhance quality of life. For the sustainability of treatment success, it is recommended that biomechanical factors such as posture control and respiratory capacity be included in the process within a multidisciplinary approach. Future studies are recommended to examine the long-term outcomes of holistic approaches and their specific effects on different groups with larger samples.

Keywords: Lower urinary tract symptoms, pelvic floor, pediatric urology

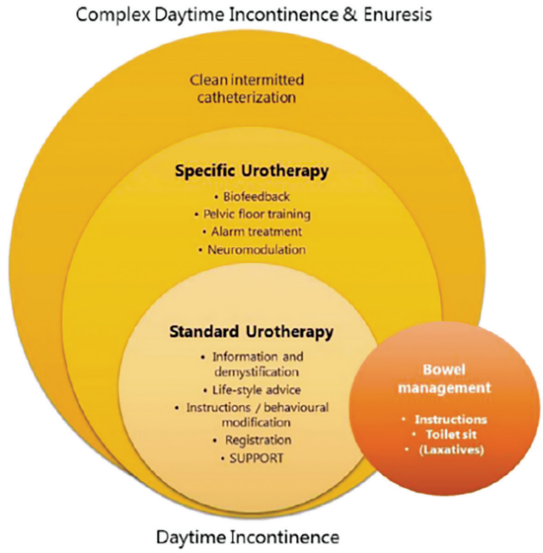

Figure 1. Daytime urinary incontinence and enuresis

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S021

Adenomyosis Mimicking Isthmocele: A Case Report

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Purpose: Adenomyosis is a benign uterine disorder characterized by the presence of ectopic endometrial glands and stroma within the myometrium. Isthmocele is defined as a defect at the site of a previous cesarean section scar, extending into the uterine cavity with a depth of at least 2 mm. In women with a history of cesarean section, lesions detected in the lower uterine segment are frequently interpreted as isthmocele; however, focal adenomyosis in this region may lead to diagnostic confusion. We present a 41-year-old patient who was admitted with irregular menstruation and postmenstrual spotting. Initial evaluation suggested isthmocele, but further assessment based on the revised morphological uterus sonographic assessment (MUSA) criteria demonstrated findings consistent with adenomyosis. This case highlights the importance of structured sonographic evaluation in the differential diagnosis of lower uterine segment lesions. Adenomyosis and cesarean scar defect (isthmocele) are two distinct uterine pathologies that may present with similar clinical findings but differ in pathophysiology. Isthmocele is a structural defect of the cesarean scar and is typically associated with postmenstrual spotting. In contrast, adenomyosis is characterized by ectopic endometrial tissue within the myometrium and is commonly associated with dysmenorrhea and abnormal uterine bleeding. Lesions in the lower uterine segment are often interpreted as isthmocele, particularly in patients with a history of cesarean delivery. However, adenomyosis may occasionally mimic this appearance. The revised MUSA criteria provide standardized terminology and improve diagnostic accuracy in the sonographic evaluation of adenomyosis.

Methods: A 41-year-old patient presenting with abnormal uterine bleeding, particularly postmenstrual spotting, was evaluated.Clinical assessment was performed according to the FIGO PALM-COEIN classification, and the etiology of abnormal uterine bleeding was systematically investigated. Transvaginal ultrasonography was used for imaging evaluation, and the findings were analyzed in accordance with the revised MUSA criteria. The lesion detected in the lower uterine segment was evaluated for morphological features of cesarean scar defect (isthmocele), including its relationship with the uterine cavity, the presence of a defect, and the characteristics of the surrounding myometrium.

Results: A 41-year-old gravida 3, para 3 patient (one vaginal delivery, two cesarean sections) presented with abnormal uterine bleeding. Her medical history was unremarkable except for limb-girdle muscular dystrophy type 2A. HPV testing and cervical cytology were negative. Transvaginal ultrasonography revealed a niche-like appearance in the anterior lower uterine segment adjacent to the cesarean scar, initially suggestive of isthmocele. However, no true cavity-communicating defect was identified. The myometrium in the affected region showed marked heterogeneity with small anechoic cystic areas and subendometrial irregularity. According to the revised MUSA criteria, the presence of myometrial cysts (direct sign) and heterogeneous myometrial structure (indirect sign) supported the diagnosis of adenomyosis. Endometrial sampling demonstrated secretory endometrium, with no evidence of hyperplasia or malignancy.

Conclusion: This case demonstrates that relying solely on clinical findings and lesion localization may be misleading in the evaluation of lower uterine segment abnormalities. Although postmenstrual spotting is strongly associated with isthmocele, the absence of a true scar defect and the presence of characteristic myometrial changes should prompt reconsideration of the diagnosis. A structured assessment using MUSA criteria is essential to avoid misdiagnosis and should be routinely applied in the evaluation of such cases.

Keywords: Adenomyosis, isthmocele, MUSA criteria, abnormal uterine bleeding, transvaginal ultrasonography

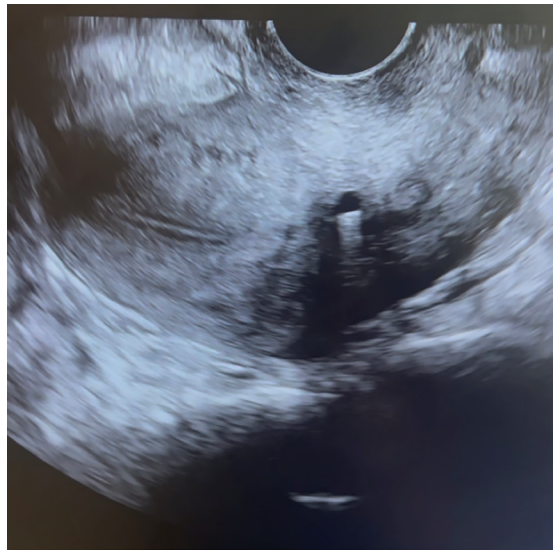

Figure 1. Isthmosel

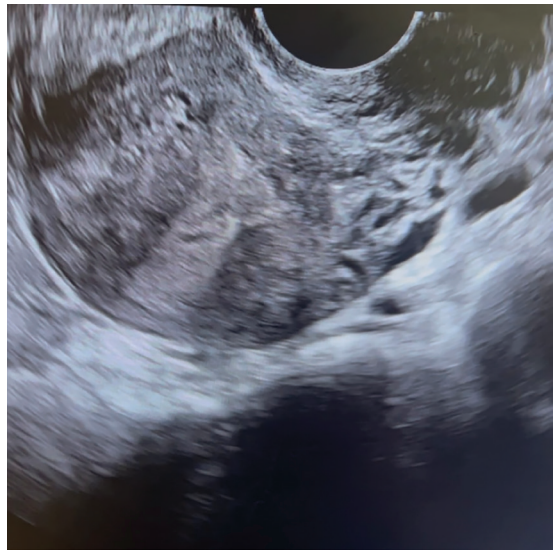

Figure 2. Adenomyozis mimicking isthmosel

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S022

How Does Lifestyle Modification Affect the Success of Conception in Women with PCOS?

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Purpose: To enter into an independent pregnancy for a patient with Polycystic ovary syndrome (PCOS) and infertility with the help of lifestyle modification.

Methods: Patient N. 25 years old came to the appointment. Complaints: no pregnancy for 2 years. Menstrual function: Menarche at the age of 12, the cycle is not regular for 4-5 days after 30-90 days. Menstruation is moderate, painful. Sexual activity since the age of 20, married. Pregnancies: 0. Gynecological diseases: PCOS, FMD 1. Somatic anamnesis without features. Performed diseases: Chickenpox, rubella. Performed operations- denies. Height 163 cm, weight 85 kg. Body mass index -32 kg/m^2. Data of the examination on the fifth day of the menstrual cycle: Ultrasound of the pelvic organs: Uterus 42 x 35 x 40 mm, M-echo 5 mm, the right ovary is enlarged, 42 x 23 x 40 mm, its volume is 20 cm^3 structure of 13 follicles in the field of vision with a diameter of 2 to 9 mm; the left ovary is enlarged 41 x 21 x 40 mm, volume is 18 cm^3, structure 12 follicles with a diameter of 2 to 9 mm in the field of vision. In the blood test: Sv. testosterone-5.9 nmol/L. HSPG - 137 nmol/L Glucose - 5.9 mol/ DHEA-C-13.9 mmol/L. Lifestyle modification, including a balanced diet and physical activity of 200-250 minutes per week of moderate intensity. After 3 months, the patient managed to lose weight from 85 kg to 76 kg. Attempts at conception continued in parallel.

Results: At the 4th month of lifestyle modification, an independent pregnancy occurred.

Conclusion: Excess weight is a factor affecting the birth rate and the response to the restoration of reproductive function. Reducing weight by 5-10% of the initial weight significantly increases the likelihood of an independent pregnancy.

Keywords: Adiposity, infertility, PCOS, pregnancy

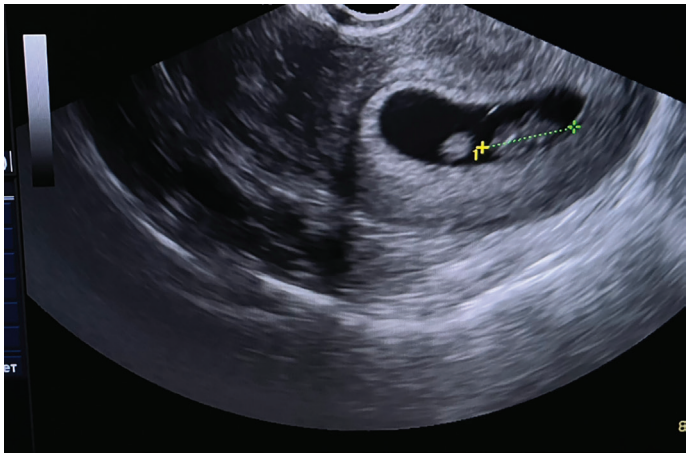

Figure 1. Ultrasound scan

S023

Investigation of Clinicopathologic Characteristics and Risk Factors for Endometriosis-Related Ovarian Neoplasms

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Purpose: Endometriosis is associated with an increased risk of developing ovarian cancer. Therefore, distinguishing between endometriosis-related ovarian neoplasms (ERON) and benign endometriomas is a crucial aspect of managing patients with endometriosis. We aimed to assess the demographic and clinicopathological characteristics of ERON in women with endometriosis.

Methods: This retrospective study included a total of 214 women between February 2018 and November 2025. Patients diagnosed with confirmed pathology with ERON (n=37) and those surgically and pathologically diagnosed with ovarian endometriomas (n=177) were included. The endometrioma group was selected by matching the year of diagnosis with the cases at a ratio of 2 controls per 1 case. Ovarian neoplasms reported by pathologists as having endometriosis in the same ovary or in the contralateral ovarian tissue, as well as malignancies arising directly from endometriotic foci, were defined as ERON. The clinical characteristics were compared between the two groups and independent predictors of ERON were evaluated using logistic regression.

Results: Endometrioid (32.4%) and clear cell (27%) carcinoma were the most common histological subtypes in the ERON group. The cyst size was larger in the ERON group compared to the endometrioma group [median 9 cm (range 0.8-32) vs. 6 cm (range 0-20); $p<0.001$]. Solid or mixed components were significantly more frequent in the ERON group than in the endometrioma group (respectively,51.4% vs 6.8%, $p<0.001$) CA-125, CA19-9, CEA, and LDH levels were significantly higher in the ERON group compared to the endometrioma group ($p<0.05$). Asymptomatic, incidentally detected pelvic masses were more frequent in the ERON group than in the endometrioma group ($p>0.05$). The presence of a solid component (OR 14.51), larger tumor size (OR 1.23), and older age (OR 1.08) were independent predictors of neoplastic transformation ($p<0.001$).

Conclusion: Larger cyst size, solid-containing endometriomas, older age, absence of pain, and elevated levels of CA-125, CA19-9, and CEA are risk factors for ERON.

Keywords: Endometriosis, endometriosis-related ovarian neoplasms, ovarian cancer, ovarian endometrioma

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S024

Comprehensive Rehabilitation of a Young Patient with Premature Ovarian Insufficiency, Vaginismus, and Congenital Vulvar Anomaly: the Role of Diagnostic Imaging and Surgical Correction within a Staged Multidisciplinary Approach

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Centre of Woman Health

Purpose: Premature Ovarian Insufficiency (POI) combined with congenital genital anomalies and vaginismus presents unique diagnostic and therapeutic challenges. A key objective is the safe performance of basic examinations and surgical correction in patients with severe anxiety regarding any gynecological manipulation.

Methods: A 24-year-old patient, married for 5 years. Main complaints: amenorrhea since age 22, complete inability to engage in sexual intercourse due to severe protest reaction and pain (vaginismus), sensation of a "barrier" in the vulvar area. Visual inspection revealed complete fusion of the labia majora along the midline, with no visualization of the labia minora (agenesis). Uterus of reduced size, clear contours, linear M-echo, thickness 3 mm. Ovaries markedly hypoplastic, volume less than 1.0 cm^3 each, no follicular apparatus visualized. These findings fully correspond to the picture of POI. Transvaginal scanning was impossible due to anatomical fusion and vaginismus. Follicle-stimulating hormone: 68.5 IU/L, luteinizing hormone: 32.1 IU/L, estradiol <20 pg/mL, anti-Müllerian hormone: 0.02 ng/mL. Karyotype 46,XX. Diagnosis: POI. Congenital vulvar development anomaly: complete fusion of the labia majora, agenesis of the labia minora. Primary vaginismus, severe. Treatment plan and methods. A strategy of sequential, psychologically gentle stages was adopted. 1) Diagnostic and initial surgical stage: Due to the complete impossibility of performing manipulations while conscious, the following were performed under controlled intravenous sedation (propofol): Detailed examination, confirming the diagnosis: Division of the labia majora fusion. The procedure was performed atraumatically, restoring the anatomy of the vaginal introitus. 2) Hormonal therapy: To correct severe hypoestrogenism and prepare tissues, transdermal estradiol therapy (patch 100 mcg/day) was initiated immediately post-operatively, with subsequent addition of progestogen. 3) Therapy for POI/infertility: an in vitro fertilization program with donor oocytes was discussed. Endometrial preparation was initiated on the basis of hormone replacement therapy (HRT). 4) Active vaginismus treatment (started 7 days after healing): an intensive one-week program under the guidance of a gynecologist and physiotherapist: Psychoeducation and cognitive therapy: Explanation of the nature of vaginismus, addressing fears. Breathing techniques: training in diaphragmatic breathing for relaxation. Manual therapy: careful perineal massage, training in self-control of muscle tone.· Dilator Therapy: Step-by-step work with a set of dilators.

Results: Just one week after starting active vaginismus treatment, the patient was able, for the first time in her life, to independently, without pain or fear, insert the largest dilator. Disappearance of vulvar discomfort was noted on the background of HRT. The patient has moved to the stage of pregnancy planning using assisted reproductive technology and is psychologically prepared for gynecological monitoring.

Conclusion: 2) A multidisciplinary, staged approach (surgery under sedation → immediate HRT → active vaginismus rehabilitation) can break the "vicious cycle" of pain and fear in the shortest possible time, creating the conditions for subsequent reproductive treatment. 3) Transabdominal ultrasound remains a key and often the only feasible imaging method for confirming POI in such patients, and its findings are of decisive diagnostic importance. 4) This case illustrates the need for individualized protocols where the technical aspects of diagnosis and treatment are adapted to the patient's psycho-emotional state, which is crucial for the successful rehabilitation of sexual and reproductive health.

Keywords: Premature ovarian insufficiency, vaginismus, congenital vulvar anomaly, labial fusion, hypoestrogenism

Figure 1. Photo after labia minora dissection