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POSTER PRESENTATION

[Abstract: 0092] [P-01] [Accepted: Poster Presentation]

Doğum Şeklinin (Sezeryan veya Vajinal Yolla) Erken ve Geç Postpartum Dönemdeki Kemik Mineral Yoğunluğuna Etkisi var mıdır?

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Osteoporoz düşük kemik kütlesi ve mineral kaybıyla karakterize karakterize sistemik bir iskelet hastalığıdır. Normal bir gebelikte kemik mineral kaybı gebelik sürecinde ve laktasyon döneminde artar. Bu çalışmanın amacı doğum şeklinin (elektif tekrarlayan sezeryan doğum veya vajinal doğum) kemik mineral dansite üzerine etkisini değerlendirmektir.

Araştırma kapsamında 1 yıl boyunca kliniğimizde termde ikinci elektif tekrarlayan sezeryan doğum yada vajinal doğum yapmış osteroporoz açısından ek risk faktörü bulunmayan 200 olgu çalışmaya dahil edildi. Dahil edilen olgulardan sadece 123 kadın (sezeryan doğum 63, vajinal doğum 63) çalışmanın tüm aşamalarını tamamlayabildi ve çalışmanın sonuçlanmasında 123 kadının değerleri kullanıldı. Tüm kadınların femur boyun ve lumbal 1-4 bölge mineral dansite (KMD, T-skor) ölçümleri yapıldı. Postpartum 5. ve 45. günlerde olmak üzere DXA (dual enerji x - ray absorpsiyometri) ölçüm cihazı kullanılarak iki bölgenin ölçümü yapıldı. Çalışamaya dahil edilen sezeryan doğum ve vajinal doğum yapan kadınların ortalama yaş, vücut kitle indeksi, gravida ve parite değerleri benzerdi. Normal doğum yapan grup ile karşılaştırma yapıldığında bu gruptaki olguların postpartum erken ve geç dönemde her iki bölge (femur boyun ve lumbal 1-4 bölge) T skorları anlamlı olarak azaldı.

Bu çalışma bulguları kemik mineral kaybının elektif tekrarlayan sezeryan olan kadınlarda vajinal doğumlu kadınlara göre daha fazla olabileceğini düşündürmektedir. Bunun nedeni sezeryan doğum yapan kadınların immobilizasyonundan ve laktasyon döneminden kaynaklanıyor olabilir.

Anahtar Kelimeler: Kemik mineral dansite, sezeryan doğum, vajinal doğum

[Abstract: 0093] [P-02] [Accepted:Poster Presentation]

Comparison of ICSI Outcomes According to Two Drugs Used for Controlled Ovarian Stimulation: HP-hMG Versus rFSH

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Objective: To investigate the difference in the outcome of ICSI cycles among respondents patients, taking into account the molecule inducer of controlled ovarian stimulation: highly purified -human menopausal gonadotropin (HP-hMG; MENOPUR) versus recombinant follicle stimulating hormone (rFSH; Gonal-F).

Methods: A comparative retrospective study over 62 months including a total of 1005 infertile couples, divided into two groups: HP-HMG (n=125) and rFSH (n=880).

Results: The average numbers of retrieved oocytes and matures oocytes were significantly higher in rFSH group (7,94 ± 2,49, HP-HMG vs 9,05 ± 3,40, rFSH, p=0.0001and 3±2,68, HP-HMG vs 6,65±3,05, rFSH, p=0,02 respectively). There was no statistically significant difference in the endometrial thickness and estradiol level on hCG injection day, the total amount of administrated gonadotropin and the duration of stimulation. In addition, we did not find a significant difference between the two groups regarding the fertilization, the maturation, the cleavage, top quality embryo, implantation, clinical pregnancy, multiple pregnancies, live birth and miscarriage rates. There was no case of severe ovarian hyperstimulation syndrome.

Conclusion: Inspite of a higher number of retrieved and mature oocytes obtained with rFSH, the latter showed no superiority over HP-hMG which seem to be equally efficient and safe for ICSI treatment cycles.

Keywords: Infertility, IVF, HP-hMG, rFSH, monitoring

[Abstract: 0094] [P-03] [Accepted: Poster Presentation]

Benefits of Gonal-F Treatment in Patients with Gonadal Dysfunction

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The clinical course of patients with hypogonadotropic hypogonadism is often very difficult to identify. The semen analysis and hormone balance can in most of the time to suspect the anomaly. Our work covers 20 patients monitored in consultation Andrology between 2005 and 2010. Biologically, the testosterone, follicle stimulating hormone (FSH), luteinizing hormone (LH) was collapsed. The test GnRH was negative with persistent low levels of gonadotropins. Pituitary MRI was requested to remove a pituitary tumour. Furthermore, the karyotype was normal. The semen analysis showed: the average volume of semen was 1 ml; the majority of patients (70%) were akinétozoospermia and severe oligozoospermia. The test migration and survival was not favour for assisted fertilization. Patients were treated with 150 IU of FSH (Gonal-F, Merck Serono) + 250mg of choriogonadotropine alfa (Ovitrelle) / week for four months. From the 3rd month the semen analysis showed: improving mobility and sperm density in the majority of cases. From the fourth month all couples have performed a cycle of intracytoplasmic sperm injection (ICSI). The average rate of fertilization and cleavage were respectively 70% and 90%. The clinical pregnancy was 27%.

Keywords: Hypogonadotropic hypogonadism, Pituitary, gonadal dysfunction, karyotype

[Abstract: 0102] [P-04] [Accepted: Poster Presentation]

The Association Between Serum Markers of Cealiac Disease and Idiopathic Recurrent Pregnancy Loss

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Aim: Recurrent pregnancy loss (RPL) refers to the consecutive loss of two or more clinically recognized pregnancies prior to the 20th week of gestation. Antiphospholipid syndrome, uterine anomalies, and chromosomal aberrations are identifiable causes of RPL. In any case, early pregnancy loss is frequent in many other autoimmune diseases (i.e., systemic lupus erythematosus, primary biliary cirrhosis, and thyroiditis. In this study, our aim is to investigate the relationship between cealiac disease (CD) specific anti-transglutaminase antibodies (ATA) and unexplained RPL.

Materials-Methods: This was a cross sectional case-control study conducted between January and December 2015 in a tertiary level reference hospital for female health in Ankara, Turkey. Total of 86 women were included into the study. 45 patients with RPL constituted the study group whereas 41 healthy fertile females without history of RPL constituted the control group. Enzyme-linked immunosorbent assay (ELISA) kit was used to determine ATA IgA and IgG levels. Data reviewed for analysis were demographic, clinical, and laboratory features.

Results: The two groups were similar in terms of age and body mass index. It was found that gravidity, number of abortion, and infertility duration was higher in the study group whereas parity, number of smokers, and marriage duration was significantly higher in the control group ($p<0.05$). There were no patients with anemia and ATA IgG positivity in the control group. Otherwise, 4 (8.9%) patients with anemia and 1 (2.2%) patient with ATA IgG positivity were present in the RPL group. No statistically significant differences were observed between the groups in terms of ATA IgA and IgG.

Conclusion: We think that there is no association between CD and unexplained RPL. For the present, screening for ATA IgG and IgA in patients with RPL should not be recommended during the initial evaluation. More studies are needed to explain a possible link between CD and RPL.

Keywords: Cealiac disease, recurrent miscarriage, anti-transglutaminase antibody

TABLE 1: Demographics and obstetrical features of the groups.

	Study group (n=45)	Control group (n=41)	Test statistic (Z)	P
Age[1]	28.0 (20.0-45.0)	31.0 (21.0-41.0)	1.368	0.171
BMI[2]	24.62±2.75	25.70±3.96	t=1.456	0.150
Gravida[2]	3.0 (2.0-12.0)	2.0 (2.0-6.0)	3.869	<0.001
Parity[2]	0.0 (0.0-2.0)	2.0 (2.0-5.0)	8.363	<0.001
Number of miscarriages[2]				
<12 weeks	3.0 (0.0-12.0)	0.0 (0.0-1.0)	7.557	<0.001
>=12 weeks	0.0 (0.0-2.0)	0.0 (0.0-0.0)	2.186	0.029
Marriage duration[2]	7.0 (1.0-20.0)	11.0 (3.0-20.0)	3.497	<0.001
Infertility duration[2]	2.0 (1.0-7.0)	0.0 (0.0-0.0)	8.480	<0.001
Number of smokers[3]	3 (6.7)	8 (19.5)	1.544	0.105

BMI: body mass index. Data were presented as [1]median (min-max), [2]mean±standard deviation, and [3]n(%). $p<0.05$ was considered statistically significant.

TABLE 2: Comparison of the groups with regard to celiac disease markers.

	Study group (n:45)	Control group (n:41)	0.118
Celiac disease symptoms			
None	41 (91.1)	41 (100.0)	0.118
Anemia	4 (8.9)	0 (0.0)	
ATA-A			
Negative	44 (97.8)	38 (92.7)	0.344
Positive	1 (2.2)	3 (7.3)	
ATA-G			
Negative	44 (97.8)	41 (100.)	1.000
Positive	1 (2.2)	0 (0.0)	

ATA-A: anti-tissue transglutaminase immunoglobulin A, ATA-G: anti-tissue transglutaminase immunoglobulin G. Data were expressed as number(%). $p<0.05$ was considered statistically significant.

[Abstract: 0109] [P-05] [Accepted: Poster Presentation]

Correlation Between Semen Parameters and Sperm DNA Fragmentation in Male Partners of Women Diagnosed with recUrrent Implantation Failure

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Objective: Conventional semen analysis does not exactly predict sperm functions and might be normal even in the presence of high levels of sperm DNA damage. In infertile couples,men with normal semen parameters have variable DNA fragmentation levels. Sperm DNA integrity is important for fertilization and embryo development. Although there are various sperm DNA fragmentation detection methods,but it lacks standardization and clinical threshold has not been determined. A few studies reported some correlations between semen parameters and sperm DNA fragmentation in recurrent implantation failure (RIF). We aimed to find any correlation between semen parameters, sperm DNA damage in male partners of women diagnosed with RIF.

Design: Cross sectional study of 47 men from infertile couples who has RIF history undergoing ICSI at Zekai Tahir Burak Women' Hospital,Ankara,Turkey between January 2016-June 2016.

Materials-Methods: Sperm from male partners of women who has RIF history were tested for DNA damage by TUNEL assay. RIF was defined as the failure to achieve a clinical pregnancy following the transfer of good quality embryos in a minimum of three fresh embryo cycles in women aged <40 years. Semen parameters and sperm DNA damage correlation was calculated.

Results: Sperm DNA fragmentation measured by TUNEL assay was negatively correlated with sperm concentration (r= -0,393,p=0,009), total sperm count(r=-0,319, p=0,045),normal morphology (r= -0,355,p=0,017). There was no statistically significant correlation between sperm DNA fragmentation and progressive sperm motility, the men's age.

Conclusions: Sperm DNA fragmentation measured by TUNEL assay was negatively correlated with sperm concentration and morphology in recurrent implantation failure in ART cycles.

Keywords: RIF, semen parameters, sperm DNA fragmentation, TUNEL

[Abstract: 0112] [P-06] [Accepted: Poster Presentation]

Effect of Gonadotropin Releasing Hormon Agonist Addition to Routine Luteal Phase Support in Intracytoplasmic Sperm Injection-Embryo Transfer Cycles on Pregnancy Rates and Outcomes

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Objective: To investigate the effect of gonadotrophin releasing hormone agonist (GnRH-a) addition to routine luteal phase support in intracytoplasmic sperm injection (ICSI)-embryo transfer (ET) cycles of GnRH-a long protocol and GnRH antagonist protocol, on pregnancy rates and outcomes.

Material: A total of 108 infertile couples treated by ICSI-ET due to unexplained infertility were enrolled in this prospective randomized study.

Method: The patients were randomly assigned to two groups in order to undergo two different ovarian stimulation protocols. Specifically, group I (54 women) underwent the GnRH-a long protocol and group II (54 women) underwent the GnRH antagonist protocol. Women to be treated by each of the two protocols were also randomly assigned to one of the two subgroups. Women randomized to subgroups Ib and IIb received leuprolide acetate (0.5 mg s.c.) injections on the 5th and 10th days after ET in addition to the routine luteal phase support [90 mg/day of vaginal progesterone plus 4 mg of 17β Estradiol (E2)] starting on the oocyte retrieval day. The other two subgroups (groups Ia and IIa) received only the routine luteal phase support.

Results: Eleven patients (3 in Group Ia, 5 in Group IIa and 3 in Group IIb) were excluded because of failed fertilizations; this left 24 patients in group Ia, 27 patients in group Ib, 22 patients in group IIa and 24 patients in group IIb eligible for the final analysis. When we analysed the demographics and basal characteristics in groups I and II, both groups had statistically similar subgroups in terms of age, body mass index, infertility duration, and basal FSH and LH levels. Basal E2 levels were significantly greater in group Ib than in group Ia ($p = 0.035$), but this significant difference was not present for group II. The number of total retrieved oocytes and MII oocytes were significantly higher in group Ia than in group Ib ($p = 0.001$ and $p = 0.004$, respectively). However, the clinical outcomes of the groups revealed no significant differences between the subgroups with respect to clinical pregnancy, ovarian hyperstimulation syndrome (OHSS), multiple pregnancy, abortion, ongoing pregnancy and live birth rates in groups I and II (Table 1). All ongoing pregnancies resulted in a live birth. Multivariable-adjusted ANCOVA test including the total number of retrieved oocytes, MII oocytes and basal E2 levels, which were significant variables between the groups and also excluding the effect of these parameters on pregnancy to investigate the effect of luteal phase support with the GnRH-a on clinical pregnancy, ongoing pregnancy and live birth, was performed. The results of this analysis suggested that there was no difference between subgroups with respect to clinical pregnancy, ongoing pregnancy rates or live birth rates.

Conclusion: Addition of GnRH-a to routine luteal phase support in ICSI-ET cycles of GnRH-a long protocol and GnRH antagonist protocol seems to have no effect on ongoing pregnancy, abortion, multiple pregnancy, OHSS, clinical pregnancy and live birth rates.

Keywords: GnRH agonist long protocol; GnRH antagonist protocol; luteal, phase support

TABLE 1: Clinical outcomes of the groups.

	Group I (n=51)			Group II (n=46)		
	Group Ia (n=24)	Group Ib (n=27)	p	Group IIa (n=22)	Group IIb (n=24)	p
Clinical pregnancy rate	8 (33,3)	6 (22,2)	0,375	5 (22,7)	9 (37,5)	0,235
OHSS rate	1 (4,2)	0 (0,0)	0,658	2 (9,1)	1(4,2)	0,608
Multiple prenancy rate	1 (4,2)	0 (0,0)	0,471	1 (4,5)	0 (0,0)	0,489
Abortion rate	3 (12,5)	1 (3,7)	0,902	1 (4,5)	3 (12,5)	0,608
Ongoing pregnancy rate	5 (20,8)	5 (18,5)	0,989	4 (18,2)	6 (25)	0,722

Data presented as n (%).

OHSS: Ovarian hyperstimulation syndrome

$p<0.05$ was considered as statistically significant.

[Abstract: 0113] [P-07] [Accepted: Poster Presentation]

A Strange Process: Pregnancy and Tumor Which Mimicking Malignancy

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Abstract and Purpose: The incidence of endometriosis is increasing. Particularly during pregnancy and labour, clinicians should be alert to possible endometriosis-associated complications or complications of previous endometriosis treatment, despite a low relative risk. In addition to an increased rate of early miscarriage, complications such as spontaneous bowel perforation, rupture of ovarian cysts, uterine rupture and intraabdominal bleeding from decidualised endometriosis lesions or previous surgery are described in the literature. Unfavourable neonatal outcomes have also been discussed. We report on a case with had endometrioma during her pregnancy.

Method: A 34-year-old pregnant woman with no particular past medical history was admitted for routine check-up. She was gravida 3, para 2, with a 24 weeks developing pregnancy. Her personal female history includes menarche at 12 years old, regular menstrual periods, with several episodes of menstrual pain and occasional constipation. Ultrasonography disclosed a right adnexal heterogeneous mass measuring 9 cm in diameter with intramural vegetations. The left ovary was unremarkable. the imaging findings were suspicious for mucinous cystadenom, dermiod cyst, and most probably malign mass. CA-125 was 133. vegetations. On MRI, the heterogeneous nature of the tumour was clearly identified,with solid and cystic components. The tumour was characterized by dermiod cyst. During the current pregnancy, she had made regular visits to her doctor and had made usual investigations: blood and urine tests, vaginal and abdominal ultrasound, fetal monitoring, all according to gestational stages of development. Elective cesarean was planned at the 39 week of pregnancy. Due to the possibility of malignancy, the oncology team included at the operation. At the opening of the peritoneal cavity there was a 9 cm mass like endometrioma. Hysterotomy incision was carefully performed among the tumoral formations. The baby was extracted in cephalic presentation with no difficulty. It weighted 3250 grams and received APGAR 9. The mass was adherent to colon,rectum and vesica. Adhesions were dissociated by sharp and blunt dissection. Cyst excision was performed. atient was discharged from hospital 5 days after surgery in good health conditions. Tumor's pathology was endometrioma.

Findings and Result: Endometriosis is primarily found in the pelvis: on the ovaries, uterus, fallopian tubes, uterosacral ligaments, broad ligaments, round ligaments, cul-de-sac or ovarian fossa, as well as on the appendix, large bowel, ureters, bladder, or rectovaginal septum. In the case reported, we were concerned of possible endometriosis expansion into the base of the broad ligaments that can affect the normal trajectory of ureters or even intrinsic invasion cited by some authors. Deep endometriosis is defined as a solid mass situated deeper than 5 mm under the peritoneum and is typically characterized by multifocal locations. The main manifestations are primary or secondary dysmenorrhea, bleeding disturbances, infertility, dysuria, pain on defecation (dyschezia), cycledependent or cycle-independent pelvic pain, nonspecific cycle-associated gastrointestinal or urogenital symptoms, constipation, diarrhea, or hematochezia, fibromyalgia and migraines. Often, no abnormalities are found and none of these symptoms is pathognomonic.

Keywords: Endometriosis, pregnancy, endometrioma, mimicking malignancy

FIGURE 1: Adnexial tumor.

[Abstract: 0114] [P-08] [Accepted: Poster Presentation]

A Case Report Use of BioGlue Surgical Adhesive for Repair of Ovary Ruptured and Torsioned in Case of Ovarian Hyperstimulation Syndrome

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Objective: Ovarian hyperstimulation syndrome is an iatrogenic complication of infertility treatment. The syndrome is characterized by cystic enlargement of the ovaries and a fluid shift from the intravascular to the third space due to increased capillary permeability and ovarian neoangiogenesis. Hipovolemia and haemoconcentration (Hct> 45%) are occurred.

Adnexial torsion is a complication often associated with OHSS. Symptoms of the ovarian enlargement, worsening and particularly unilateral pain, nausea, leukositosis and anemia are suspicious for torsion. Ovarian ischemia, necrosis and hemorrhage, rupture may develop. Emergency surgical intervention is indicated. Edema and fragile ovaries make the operation difficult and should be avoid damage to the ovary for prevent fertility. Detorsion is the preferred conservative method but if there are rupture and hemorrhage, it is difficult to suture fragile ovaries. BioGlue Surgical Adhesive can be a rescuer solution

Design:

Case report: Patient and interventions A26 year's old woman a case of anovulatory primary infertility underwent ovulation induction with gonadotropins. Two days after inj 250 mgr choriogonadotropin alfa, patient presented nausea, common pain and distension of abdomen. Ultrasonographic examination revealed bilateral ovarian enlargement (left ovary 122x 104 mm, right ovary 100x50 mm) and excessive peritoneal fluid in abdomen. Blood flow in left ovary not observed with Doppler USG. HB:9.4 mgr/dl and Hct: 28.3% WBC 18.490. Ultrasononographic guided paracentesis performed and diagnosed intraabdominal bleeding. Emergency laparotomy performed. 1000cc blood and coagulum aspirated. Left adnexa semi twisted the around the pedicule and ruptured. Adnexia detortioned and Ovary was very fragile so suturing impossible. BioGlue Surgical Adhesive (Bovine serum albumin and glutaraldehyde) used for repair of ovary and stop bleeding. Postoperative period was not complicated.

Conclusion: BioGlue Surgical Adhesive use in neurosurgery, urology, lung surgery, cardio vascular surgery. In emergency gynecology, as case of complicated hypersitimulated ovary that is fragile and sutured some impossible, BioGlue Surgical Adhesive will be an alternative application.

Keywords: BioGlue Surgical Adhesive, ovarian hypersitimulation syndrome, ovarian torsion, ovarian rupture, intraabdominal bleeding

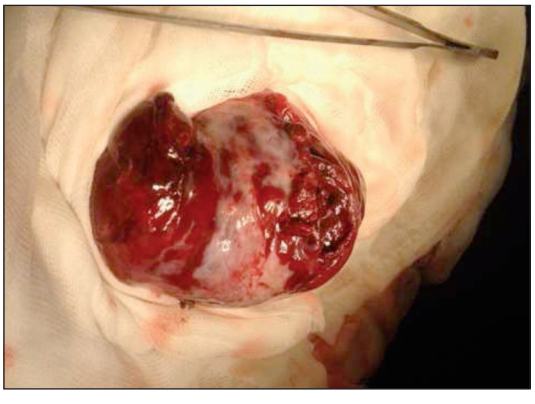

FIGURE 1: Left ovary status at the end of operation.

[Abstract: 0120] [P-09] [Accepted: Poster Presentation]

Threshold Anti-Mullerian Hormone (AMH) Level for Predicting the Success of Ovulation Induction with Clomiphene Citrate in Patients with Polycystic Ovary Syndrome

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Objective: This study aimed to determine a cut-off value for anti-mullerian hormone (AMH) as a prognosticator of successful follicular growth in patients with polycystic ovary syndrome (PCOS) treated with clomiphene citrate.

Method: 76 infertile patients with PCOS who admitted to Gynecology and Obstetrics deparment of Konya Aksehir State Hospital from January 2016 to December 2016 were recruited for the study. The inclusion criteria were women aged <40 years, who had been diagnosed with PCOS based on Rotterdam criteria and had been infertile due to anovulatory reasons. The patients included had not consumed any medications within 3 months. Other causes of infertility such as male factor, endometriosis and tubal factor were excluded. The patients were divided into two according to successful follicular growth. Successful follicular growth was defined as the presence of one (three at most) dominant follicle with a diameter of at least 17mm on transvaginal ultrasonography at day 12 of the menstrual period. Age, infertility duration, cigarette smoking, alcohol consumption, body mass index, AMH and growth of dominant follicles were conducted and analyzed.

Results: Fifty one patients (67.1%) had successful follicular growth (Group 1) and twenty five patients (32.9%) had unsuccessful follicular growth (Group 2). Age, infertility duration, body mass index and alcohol consumption were statistically similar for both groups. Cigarette smoking was significantly higher in patients with unsuccessful follicular development (%21.6 vs %72; $p<0.001$) The AMH levels of subjects with wealthy follicular growth were significantly lower (5.8±2.1 vs. 9.3± 3.3 ng/mL; $p<0.001$) Using the ROC curve, we found that the threshold AMH for predicting the failure of follicule growth was 7.66 ng/mL with a sensitivity of 74% and specificity of 61%.

Conclusion: We found that the threshold AMH for predicting the failure of follicule growth was 7.66 ng/mL with a sensitivity of 74% and specificity of 61%. This finding indicates that PCOS patients with lower AMH levels have increased probability of having a successful follicular growth compared to patients with higher AMH levels.

Keywords: AMH, Polycystic ovary syndrome, clomphine citrate

[Abstract: 0121] [P-10] [Accepted: Poster Presentation]

Tip D Kişilik Yapısının Kadın Fertilitesi Üzerine Etkisi

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Amaç: İnfertilite etyopatogenezinde klasik risk faktörlerinin yanında psikolojik faktörler, kişilik özellikleri de potansiyel risk faktörleri gibi görünmektedir. Depresyonun infertil kadınlarda fertil kadınlardan daha yaygın ve ciddi görüldüğü ve infertilite etyopatogenezinde rolu olduğu gösterilmiştir. Negatif duygulanım (ND) ve sosyal inhibisyon (SI) olarak adlandırılan iki kişilik karakterinin varlığı ile tanımlanan TipD kişiliğin kronik hastalıkların varlığı, kardiyovaskular hastalık, ankilozan spondilit gibi bazı hastalıkların klinik sonuçları ve depresyon ve anksiyete gibi psikolojik etkilerle ilişkisi gösterilmiştir. Yedişer soruluk iki subskaladan (ND, SI) oluşan 14-sorulu TipD Skalası (DS-14), TipD kişileri tespit etmede kullanılan uygulaması kolay bir skaladır ve kronik emosyonel stresin hızlıca taranmasına izin vererek hastaların psikiyatriste refere edilmesine ve tedavisine olanak sağlar. Çalışmamızın amacı Tip D kişilik, depresyon ve infertilite arasındaki ilişkiyi araştırmaktır.

Yöntem Gereç: Çalışmamıza 168 primer infertil ve yaş-vücut kitle indeksi (VKI) eşleştirilmiş 156 fertil kadın olmak üzere 324 katılımcı alındı. Katılımcılar psikiyatrik hastalıkların dışlanması için bir psikiyatrist tarafından muayene edildi. Fertil grup regular mensleri ve en az 1 çocuğu olan, bazal hormon seviyesi normal olan ve rutin kontrol için polikliniğimize başvuran hastalardan oluşmaktaydı. Psikiyatrik hastalık ve kronik hastalık öyküsü, sekonder infertilite, kronik ilaç kullanımı, korunmasız cinsel ilişki süresi <1 yıl olanlar çalışma dışı bırakıldı. Katılımcılara DS-14 ve 21-sorulu-Beck Depresyon Inventory (BDI-21) Türkçe versiyonu uygulandı ve skorlar kaydedildi. BDI-21 skalasından >17 puan alan hastalarda depresyon olduğu kabul edildi. 17-20 puan alanlar hafif, 21-30 puan alanlar orta, >30 puan alanlar ise ciddi depresyon olarak değerlendirildi. ND ve SI subskalalarının her ikisinden>=10 puan alan kişiler TipD olarak tanımlandı.

Bulgular: Yaş, eş yaş, VKI, hormon profili, sigara-alkol kullanımı ve eş eğitim seviyesi açısından fertil ve infertil grup arasında fark yoktu. Eş VKI, infertil grupta anlamlı olarak yüksekti (p=0.02). Evlilik/infertilite süresi infertil grupta fertillere göre daha kısaydı (p<0.0001). İnfertil grubun eğitim seviyesi anlamlı olarak daha düşüktü. BDI, NA ve SI, DS-14 skorları infertil grupta fertil gruba göre anlamlı olarak daha yüksekti. Depresyon, infertil grupta fertil gruba göre daha sık görülmekteydi (p=0.037). Depresyon ciddiyeti ise iki grup arasında benzer şekilde dağılmıştı. Tip D kişilik, ND ve SI kişilik özelliklerine sahip olmak infertil grupta anlamlı olarak daha sıktı (Tablo 1). Yaşa göre bakıldığında, Tip D kişilik ve infertilite arasındaki ilişki sadece genç yaş populasyonunda (<35 yaş) persiste etmekteydi [p<0.001, OR(95%CI)=0.42-0.81)]. Univariate regresyon analizi TipD kişiliğin infertilite ile pozitif ilişkili olduğunu gösterdi [OR=1.52; 95% CI=1.24-1.87; p<0.0001). Multivariate regresyon analizinde ise TipD kişiliğin infertilite üzerine pozitif prediktif etkisinin arttığı görüldü. Yaş ve düşük eğitim düzeyi de infertilite üzerine pozitif prediktif iken evlilik/infertilite süresi ve partnerin obez olması infertilite üzerine negatif prediktif etkiliydi (Tablo 2). İnfertil grubun BDI, NA, SI ve DS-14 skorları hormon seviyeleri, VKI, infertilite süresi ve siklus sayısı ile korele değildi. Tüm skorlar birbiriyle güçlü koreleydi. BDI-21, NA ve DS-14 skorları yaş ile negatif korele, BDI ve NA skorları aynı zamanda eş yaşıyla da negatif koreleydi (Tablo 3).

Sonuç: TipD kişilik yapısı özellikle <35 yaş kişilerde fertilite durumunu etkileyebilir. Hastanın kişilik yapısını bilmek klinisyene psikolojik tedavi için hastaların belirlenmesinde yardımcı olur. Psikolojik tedaviler infertilite tedavisinde özellikle hedef populasyonda faydalı olabilir. TipD'lerde infertilitenin sık görülmesinin nedeni büyük ölçekli çalışmalarla araştırılmalıdır.

Anahtar kelimeler: Depresyon, infertilite, Tip D kişilik

TABLO 1: Fertil ve infertil grubun demografik özellikleri ve depresyon, ND, SI ve TipD skorları ve oranlarının karşılaştırılması.

	Fertil grup (n=156) Mean±SD. %*	İnfertil grup (n=168) Mean±SD. %*	p değeri
Yaş	31.76 ± 5.41	31.55 ± 5.24	0.7
Eş yaşı	35.44 ± 5.63	34.37 ± 5.82	0.051
VKI (kg/m^2)	25.51 ± 4.7	25.92 ± 4.55	0.3
Eş VKI (kg/m^2)	26.63 ± 3.57	27.5 ± 3.49	0.02
Evlilik/infertilite süresi (yıl)	9.06 ± 5.16	6.16 ± 4.42	<0.0001
TSH	1.78 ± 1.16	2 ± 0.89	0.059
E2 (pg/ml)	39.93 ± 23.06	43.63 ± 17.89	0.1
FSH (mIU/ml)	7.49 ± 3.1	8.2 ± 5.03	0.1
LH (mIU/ml)	4.79 ± 1.99	4.6 ± 2.15	0.4
PRL	9.92 ± 5.31	10.61 ± 5.02	0.2
Eğitim seviyesi			
İlköğretim	50/156 (32.1%)	78/168 (46.4%)	
Lise	49/156 (31.4%)	38/168 (22.5%)	0.026
Üniversite	57/156 (36.5%)	52/168 (31%)	
Eş eğitimseviyesi			
İlköğretim	44/156 (28.2%)	50/168 (29.8%)	
Lise	46/156 (29.5%)	57/168 (33.9%)	0.51
Üniversite	66/156 (42.3%)	61/168 (36.3%)	
Sigara	30/156 (19.4%)	22/168 (13.1%)	0.126
Eş sigara	66/156 (41.9%)	70/168 (41.6%)	0.94
Alkol	1/156 (0.6%)	1/168 (0.6%)	0.95
Eş alkol kullanımı	8/156 (4.5%)	7/168 (4.2%)	0.86
BDI skoru (puan)	9.28 ± 8.55	11.26 ± 8.02	0.005
ND skoru (puan)	11.57 ± 7.38	13.75 ± 7.96	0.01
SI skoru (puan)	9.91 ± 5.26	12.35 ± 5.52	<0.0001
DS-14 skoru	21.48 ± 10.8	26.1 ± 11.4	<0.0001
Depresyon (%)	26/156 (16.7%)	44/168 (26.2%)	0.037
Depresyon ciddiyeti			
Hafif	10/26 40%)	22/44 (50%)	
Orta	11/26 /44%)	19/44 (43.2%)	0.43
Ciddi	4/26 (16%)	3/44 (6.8%)	
ND (%)	88/156 (56.4%)	117/168(%69.6)	0.011
SI (%)	64/156 (41%)	114/168(%67.9)	<0.0001
TipD kişilik (%)	46/156 (29.5%)	86/168 (%70.5)	<0.0001

*Chi-square test: Kategorik karşılaştırmalar için. VKI: Vücut kitle indeksi; TSH: Troid stimulan hormon; E2: Estradiol; FSH: Folikul stimulan hormon; LH: Luteinizan hormon; PRL: Prolaktin; BDI: Beck Depresyon Inventory; ND: Negatif duygulanım; SI: Sosyal inhibisyon; DS-14: 14-sorulu TipD skalası.

TABLO 2: TipD kişiliğin ve depresyonun infertilite üzerine prediktif etkisi.

	B	p	OR	95% CI for OR
Depresyon	0.54	0.09	1.72	0.91-3.26
TipD kişilik	0.83	0.003	2.31	1.34-3.97
Yaş	0.08	0.003	1.09	1.03-1.15
Eş obezitesi	-0.64	0.01	0.52	0.3-0.9
İnfertilite/evlilik süresi	-0.2	<0.0001	0.81	0.76-0.87
İlköğretim	0.8	0.01	2.22	1.2-4.1
Lise	-0.005	0.98	0.99	0.52-1.88
Üniversite		0.016		

Kovariatlar: Depresyon, TipD kişilik, yaş, obezite, eş yaş, eş obezite, sigara, alkol, eş sigara kullanımı, eş alkol kullanımı, infertilite süresi, eğitim seviyesi, eş eğitim seviyesi.

TABLO 3: İnfertil grupta depresyon, ND, SI ve DS-14 skorlarının demografik ve klinik özelliklerle korelasyonu.

		BDI skor	NA skor	SI skor	DS-14 skor	Yaş	Eş yaş	VKI	İnfertilite süresi	Siklus sayısı	TSH	E2	FSH	LH	PRL
BDI skor	r	1	0.59	0.27	0.55	-0.22	-0.19	-0.08	-0.02	0.026	0.01	0.06	0.07	0.06	-0.007
	p		0.000a	0.000a	0.000a	0.003	0.013	0.29	0.74	0.73	0.81	0.43	0.35	0.4	0.92
ND skor	r	0.59	1	0.4	0.89	-0.24	-0.17	-0.0	-0.08	0.02	-0.01	0.12	-0.01	0.09	-0.04
	p	0.000a		0.000a	0.000a	0.001	0.02	0.47	0.27	0.76	0.89	0.1	0.86	0.23	0.56
SI skor	r	0.27	0.4	1	0.77	-0.03	-0.02	0.07	0.03	0.01	-0.14	0.12	0.01	0.02	-0.04
	p	0.000a	0.000a		0.000a	0.7	0.77	0.37	0.67	0.82	0.06	0.11	0.88	0.72	0.54
DS-14 skor	r	0.055	0.89	0.77	1	-0.18	-0.13	-0.01	-0.04	0.02	-0.07	0.14	-0.004	0.077	-0.05
	p	0.000a	0.000a	0.000a		0.016	0.08	0.89	0.57	0.75	0.32	0.05	0.95	0.31	0.48

a: p<0.0001 BDI: Beck Depression Inventory; ND:Negatif duygulanım; SI: Sosyal inhibisyon; DS-14: 14-sorulu Tip D skalası; VKI: Vücut kitle indeksi.

[Abstract: 0122] [P-11] [Accepted: Poster Presentation]

Expression of TRPV6 and PMCA1 in the Mid-Secretory Endometrium of Infertile Patients with Endometriosis and Unexplained Infertility

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Objective: Calcium ions (Ca2+) in the uterine endometrium are essential for the establishment and maintenance of pregnancy, but the cellular and molecular mechanisms of Ca2+ regulation in the endometrium are not fully understood. Transient Receptor Potential Vanilloid 6 (TRPV6) and Plasma Membrane Ca2+ ATPase 1 (PMCA1) are involved in the active Ca2+ transport mechanism in many tissues. It remains unclear whether expression of these molecules might be altered in the endometrium of infertile patients with endometriosis or with unexplained infertility. The aim of this study was to investigate TRPV6 and PMCA1 expression in the endometrium from infertile patients with endometriosis or with unexplained infertility and from normal fertile women.

Design: Endometrial samples were obtained from 14 fertile and 27 infertile (12 endometriosis and 15 unexplained infertility).

Materials-Methods: Expression levels of TRPV6 and PMCA1 mRNA and protein in the endometrium of infertile patients with endometriosis or with unexplained infertility, as well as healthy fertile controls were measured. This study utilized, real-time RT–PCR, immunohistochemistry and inductively coupled plasma–mass spectrometry (ICP-MS). Luminal epithelium, glandular epithelium and stromal cells were evaluated for five different areas by light microscopy at 400×magnification in all tissue sections of each immunohistochemically stained group. The staining intensities were compared parametrically between groups. Statistical analysis were performed with Shapiro Wilk test, Kruskal Wallis H test, Levene test, Mann-Whitney U test, ANOVA and Post-Hoc: Dunnett test, Least Significant Difference and Bonferroni test. Significance was set as $p<0.05$.

Results: TRPV6 and PMCA1 protein expression levels were significantly higher in both luminal epithelial cells (TRPV6 expression; endometriosis ($p=0.005$), unexplained infertility ($p=0.001$); PMCA1 expression; endometriosis ($p=0.001$), unexplained infertility ($p=0.003$)) and in glandular epithelial cells; (TRPV6 expression; endometriosis ($p=0.003$), unexplained infertility ($p=0.009$); PMCA1 expression; endometriosis ($p=0.002$), unexplained infertility ($p=0.028$)) in infertile patients compared with healty fertile controls during the mid-secretory phase. No significant differences in TRPV6 and PMCA1 protein expressions in stromal cells were observed. When the calcium concentrations were compared between the groups, the difference between the unexplained infertility and the control was found to be significant ($p=0.007$), and the difference between the unexplained infertility and the endometriosis was also significant ($p<0.001$). TRPV6 mRNA expression levels were significantly lower in the unexplained infertility group ($p=0.035$) as compared with healthy fertile controls. There was no significant difference in PMCA1 mRNA expression levels between the groups ($p>0.710$).

Conclusion: Our results highlight that altered expression of TRPV6 and PMCA1 protein and Ca2+ concentration differences in the endometrium of infertile patients with unexplained infertility, might be one of the potential cellular and molecular mechanisms of infertility in patients with unexplained infertility. Abnormal expression or function of these channels in the endometrium may lead to impaired endometrial receptivity and/or implantation failure. Further studies to investigate the mechanisms through which TRPV6 and PMCA1 are altered at the level of posttranslational protein modification and/or posttranscriptional regulation of protein production during the window of implantation in infertile patients with unexplained infertility could provide further insight into the underlying mechanisms of unexplained infertility-associated infertility.

Keywords: Calcium metabolism, Endometriosis, Implantation failure, Infertility, Unexplained infertility

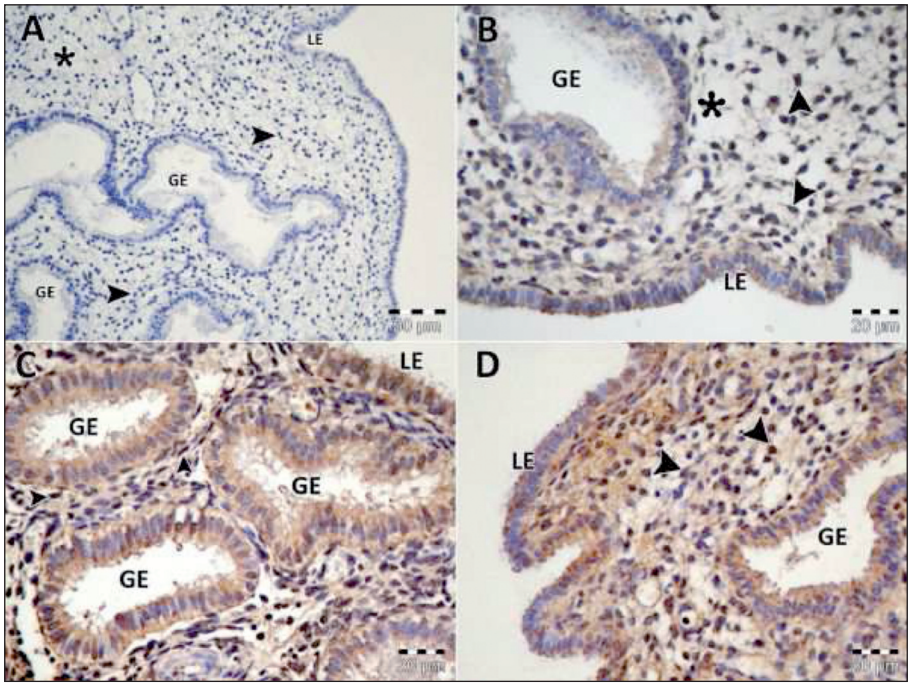

FIGURE 1: Immunohistochemical staining of TRPV6 protein in endometrium from a healthy fertile (B), from (C) a patient with unexplained infertility and from (D) a patient with endometriosis during the mid-secretory phase of the menstrual cycle. Figure 1A shows a negative control, without anti-TRPV6 treatment. LE, luminal epithelium; GE, glandular epithelium, immuno-positive stromal cells (black arrowheads) and stroma (asterisk). Original magnification: X600, A; X1200, B, C, and D.

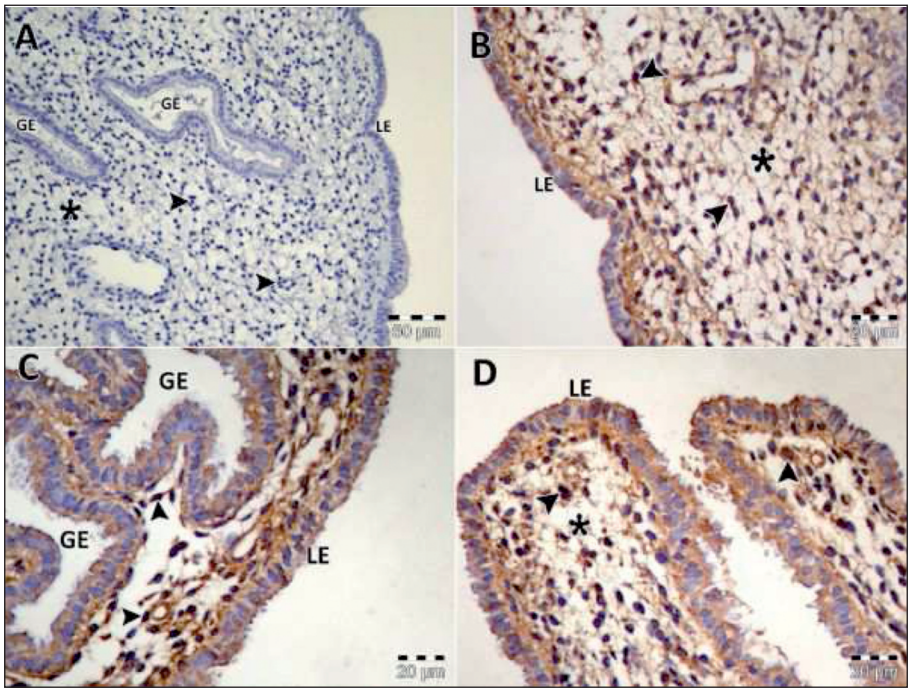

FIGURE 2: Immunohistochemical staining of PMCA1 protein in endometrium from a healthy fertile (B), from (C) a patient with unexplained infertility and from (D) a patient with endometriosis during the mid-secretory phase of the menstrual cycle. Figure 2A shows a negative control, without anti-PMCA1 treatment. LE, luminal epithelium; GE, glandular epithelium, immuno-positive stromal cells (black arrowheads) and stroma (asterisk). Original magnification: X600, A; 1200, B, C, and D.

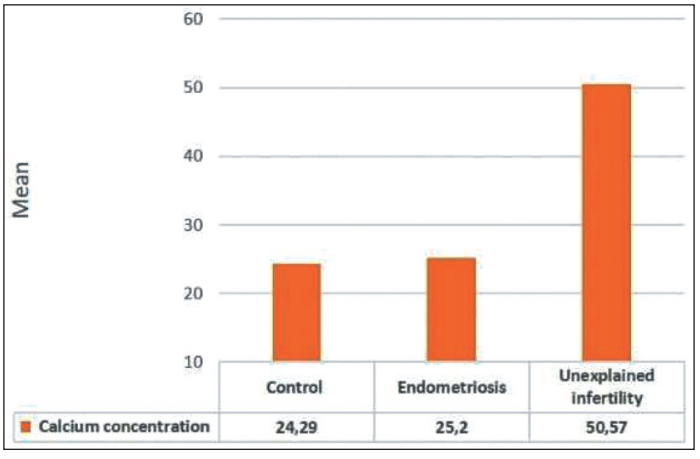

FIGURE 3: Concentration distribution of calcium in endometrial tissues. There was a significantly higher level of calcium in tissues of the unexplained infertility group as compared to the control (p=0.007), the difference between the unexplained infertility and the endometriosis was also significant (p<0.001).

TABLE 1: Endometrial TRPV6 and PMCA1 mRNA expression pattern.

	Control (n=14)	Endometriosis (n=12)	Unexplained Infertility (n=15)	P-value
Relative Expression	**Mean±SEM**	**Mean±SEM**	**Mean±SEM**	
TRPV6	0,809±0,073a	0,756±0,078	0,525±0,087	0,035*
PMCA1	0,221±0,072	0,293±0,144	0,376±0,175	0,710

Data were analysed using a parametric one-way analysis of variance (ANOVA) with Least Significant Difference (LSD) multiple comparison Post-hoc test, followed by Dunnetts comparison Post-hoc test. P<0.05 was considered statistically significant. Data are presented as mean ± SEM.*Difference is statistically significant, a:difference between control and unexplained infertility groups is statistically significant.

TABLE 2: Immunostained score for TRPV6 in luminal epithelial, glandular epithelial cells and stroma from patients with endometriosis, with unexplained infertility patients and healthy fertile controls during the mid-secretory phase.

	Luminal Epithelium	Glandular Epithelium	Stroma
Groups	**Mean±SEM**	**Mean±SEM**	**Mean±SEM**
Control =I	126.450,0±1.042,14	127.244,4±1.304,22	127.204,7±490,60
Endometriosis =II	128.034,8±1.437,35	129.117,2±1.503,13	126.855,6±358,19
Unexplained infertility =III	128.674,5±1.840,17	129.298,0±2.052,76	127.216,3±754,07
P values for cross-group comparisons	I—>II; 0,005*	I—>II; 0,003*	I—>II; 0,067
	I—>III; 0,001*	I—>III; 0,009*	I—>III; 0,951
	II—>III; 0,298	II—>III; 0,767	II—>III; 0,133

*Difference is statistically significant..

TABLE 3: Immunostained score for PMCA1 in luminal epithelial, glandular epithelial cells and stroma from patients with endometriosis, with unexplained infertility patients and healthy fertile controls during the mid-secretory phase.

	Luminal Epithelium	Glandular Epithelium	Stroma
Groups	**Mean±SEM**	**Mean±SEM**	**Mean±SEM**
Control =I	138.524,1±685,46	139.385,1±820,13	139.334,3±309,33
Endometriosis =II	139.703,0±829,18	140.461,3±875,48	139.410,9±391,99
Unexplained infertility =III	139.680,9±898,07	140.238,4±1.152,21	139.405,1±734,96
P values for cross-group comparisons	I—>II; 0,001*	I—>II; 0,002*	I—>II; 0,606
	I—>III; 0,003*	I—>III; 0,028*	I—>III; 0,721
	II—>III; 0,950	II—>III; 0,584	II—>III; 0,984

*Difference is statistically significant..

[Abstract: 0123] [P-12] [Accepted: Poster Presentation]

Evaluation of Sperm DNA Fragmentation by Halosperm Technique Before and After Cryopreservation

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Objective: Sperm cryopreservation both increase success rates in assisted reproductive techniques and contribute to preservation of fertility before testis surgery, chemotherapy and radiotherapy. Human sperm DNA fragmentation is one of the factors suggested recently for male fertility. The aim of the current study is to determine if there is any increase in sperm DNA damage as DNA fragmentation during and after cryopreservation in ART cycles.

Material-Methods: Study group consisted of normospermic men according to WHO laboratory guideline without any systemic disease, any history of febrile disease during childhood, without any history like testis trauma effectig reproductivce function. Fresh semen samples were studied in liquid form and sperm DNA fragmentation was evaluated with Halosperm Technique, while the remaining of samples were cryopreserved. Rest of the samples cryopreserved were thawed after one month for analysis of sperm DNA damage by application of halosperm technique. Sperm DNA fragmentation rates before and after cryopreservation were compared.

Results: One hundred (n=100) men (age between 20-40 years) with normospermic sperm parameters were involved in the current study. Sperm DNA damage was evaluated with Halosperm Technique. Fresh samples were studied in liquid form, while the remaining samples were kept frozen and were thawed after one month, re-evaluated with Halo sperm technique and the results were compared. Sperm DNA fragmentation ratio before and after cryopreservation were %25 and %40, respectively with %15 (± 3,39) increase determined as statistically significant ($p<0.001$).

Conclusion: Sperm cryopreservation is used in IVF laboratory for indications related to male factor infertility. Current study determined increased sperm DNA fragmentation rate after cryopreservation. Further studies are necessary to clarify and eliminate adverse molecular mechanisms during cryopreservation. Development of cryoprotectants and modified techniques by molecular studies may reduce sperm DNA damage during cryopreservation.

Keywords: Halosperm technique, cryopreservation, sperm DNA fragmentation

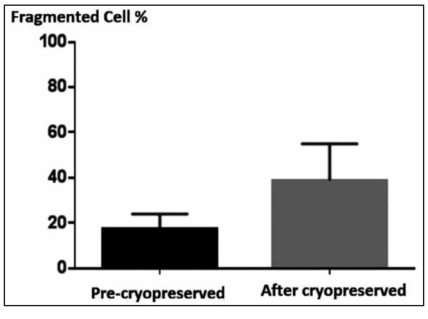

FIGURE 1: Increase in fragmentation rate before and after cryopreservation in the study group (n=100 patients; increase rate %15: $p<0.001$).

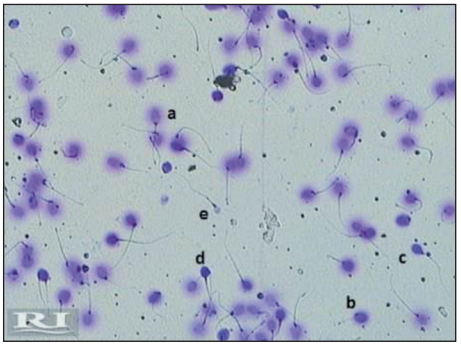

FIGURE 2: Semen sample stained with halosperm technique before cryopreservation. a; large halo, b; medium-sized halo, c; small-size halo, d; without halo, e; degraded.

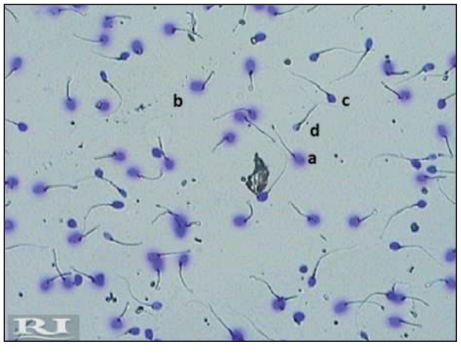

FIGURE 3: Semen sample 14, stained with halosperm technique after cryopreservation. a; large halo, b; medium-sized halo, c; small-size halo, d; without halo, e; degraded.

[Abstract: 0124] [P-13] [Accepted: Poster Presentation]

Does Sequential Embryo Transfer Increase Success in IVF Cycles?

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Objective: Aim of the study is to investigate whether sequential embryo transfer increase success rate in IVF cycles compared to conventional embryo transfers in day 3 or day 5.

Material-Methods: The study was a randomized trial with selected patients undergoing IVF-embryo transfer at Acibadem Hospital IVF Center. The inclusion criteria were normoresponder patients with >= 4 good quality embryos on day 2 and day 3. Patients were randomized as Group 1 undergoing 2 embryo transfers on day 3, Group 2 undergoing 2 embryo transfers on day 5 and Group 3 undergoing sequential embryo transfers on day 3 and day 5. The primary outcome measures were clinical pregnancy and live birth rates per IVF cycle.

Results: 80 patients with similar demographic data were included in the study. Clinical pregnancy rates were 75 % (20 in 27 patients), 73,1 % (19 in 26 patients) and 74 % (20 in 27 patients) in Group 1, Group 2 and Group 3, respectively. There was no statistically significant difference among the groups (p=0,996). Live birth rates were 63 % (17 in 27 patients), 57,7 % (15 in 26 patients) and 44,4 % (12 in 27 patients) in Group 1, Group 2 and Group 3, respectively. Live birth rates were not statistically different among the study groups (p=0,371).

Conclusion: Sequential embryo transfer does not increase clinical pregnancy and live birth rates in patients with good prognosis. Further studies are required to determine whether sequential embryo transfer is beneficial for patients with recurrent IVF failure.

Keywords: Sequential embryo transfer, clinical pregnancy rate, live birth rate, IVF

[Abstract: 0125] [P-14] [Accepted: Poster Presentation]

Comparison of DNA Fragmentation Rates in Sperm Samples Prepared by Microfluidic Chip, Swim-Up and Gradient Methods

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Objective: Sperm washing, preparation of ejaculate in assisted reproductive techniques, consists of seperation and removal of cells potentially harmful to fertilization from ejaculate and obtaining more motile and morphologically better sperm. Conventional sperm washing techniques, include centrifugal, non-centrifugal swim-up and centrifugal gradient methods. The aim of the current study is to compare sperm DNA fragmentation rates between conventional sperm washing methods and relatively new microfluidic chip method.

Material-Methods: Study group consisted of 14 volunteer men (age between 25-45 years). Every sperm sample was alloted and washed seperately in 3 categories as; using gradient, non-centrifugal swim-up and finally microfluidic chip methods. Sperm DNA fragmentation rates in each category were compared by TUNEL (Terminal deoxynucleotidyl transferase dUTP nick end labeling) test.

Results: Ratio of TUNEL positive sperm with DNA fragmantation were 12%, 4% and 4,5% by gradient, non-centrifugal swim-up and microfluidic chip methods, respectively. Sperm DNA fragmentation ratio by gradient method statistically significantly increased compared to those with non-centrifugal swim-up and microfluidic chip methods ($p<0.002$). There was no statistical difference between non-centrifugal swim-up and microfluidic chip methods ($p=0.583$).

Conclusion: The preparation of ejaculate is one of the crucial factor for the success of assisted reproductive techniques. Current study determined increased sperm DNA fragmentation rate by gradient method compared to non-centrifugal swim-up and microfluidic chip methods. Centrifugation may increase oxidative stress, and thus lead to free radical production.

Keywords: Sperm DNA fragmentation, TUNEL, microfluid sperm sorting chip

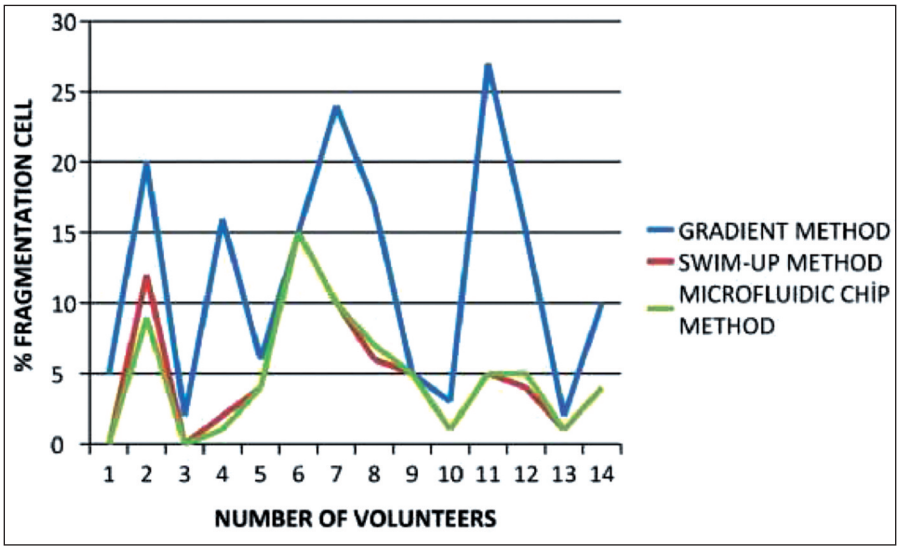

FIGURE 1

[Abstract: 0126] [P-15] [Accepted: Poster Presentation]

Investigation of DNA Damage After Cryopreservation by TUNEL Method

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Objective: Sperm DNA damage in semen may adversely effect both fertilization rate and embryo deveopment of in vitro fertilization/ intracytoplasmic sperm injection (IVF/ICSI) cycles. Sperm cryopreservation is used in IVF laboratory for indications related to male factor infertility. There is no consensus whether cryopreservation causes any DNA damage of the sperm. The aim of the current study is to investigate sperm DNA damage as DNA fragmentation by TUNEL (TdT-mediated dUTP-X nick end labeling) technique following cryopreservation in ART cycles.

Material-Methods: Study group consisted of normospermic men according to WHO laboratory guideline without any systemic disease, any history of febrile disease during childhood, without any history like testis trauma effectig reproductivce function. Fresh semen samples were studied in liquid form and sperm DNA fragmentation was evaluated with TUNEL Technique, while the remaining of samples were cryopreserved. Rest of the samples cryopreserved were thawed after one month for analysis of sperm DNA damage by application of TUNEL Technique. Sperm DNA fragmentation rates before and after cryopreservation were compared.

Results: One hundred (n=100) men (age between 20-40 years) with normospermic sperm parameters were involved in the current study. Sperm DNA damage was evaluated with TUNEL Technique. Fresh samples were studied in liquid form, while the remaining samples were kept frozen and were thawed after one month, re-evaluated with TUNEL Technique and the results were compared. Sperm fragmentation ratio before and after cryopreservation were %17 and %36, respectively with a statistically significant increase (p<0,001).

Conclusion: Current study determined significant increase in sperm fragmentation ratio after cryopreservation. Further studies are necessary to eliminate adverse physical and chemical stress by cryoprotectants and discovery of novel chemicals to reduce sperm DNA damage during cryopreservation.

Keywords: DNA fragmentation, sperm cryopreservation, TUNEL

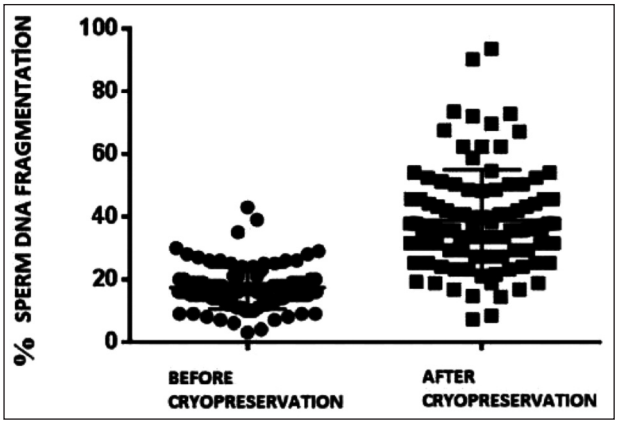

FIGURE 1: Sperm DNA fragmentation before and after cryopreservation.

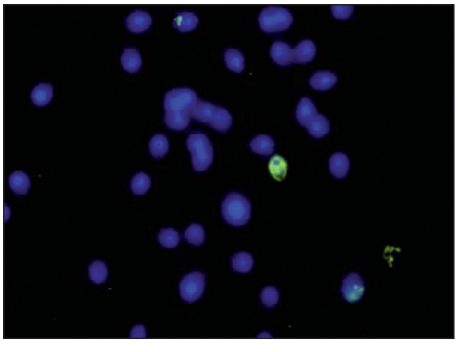

FIGURE 2: Sperm DNA fragmentation before cryopreservation TUNEL positive cells are green and TUNEL negative cells are green in color.

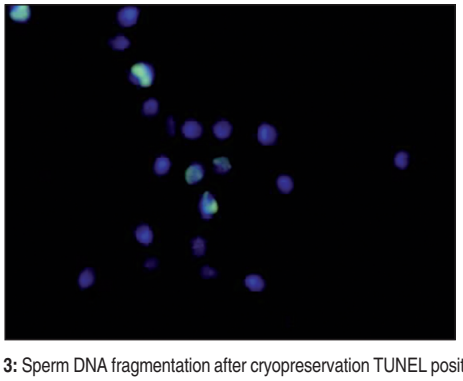

FIGURE 3: Sperm DNA fragmentation after cryopreservation TUNEL positive cells are green and TUNEL negative cells are green in color

TABLE 1: Sperm DNA fragmentation before and after cryopreservation

Groups	n	Median	Median %25-75
Age	100		
Sperm DNA Fragmentation rate before cryopreservation	100	17(3-43)	14-19,5
Sperm DNA Fragmentation rate after cryopreservation	100	36 (7-94)*	29-47

-*p<0,001.

[Abstract: 0129] [P-16] [Accepted: Poster Presentation]

Culture and Characterization of Mouse Spermatogonial Stem Cells for Cryopreservation

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Objective: Many studies have been carried out for cryopreservation of the spermatozoa in order to protect the fertilization after cancer treatment in adults and positive results were achieved in the clinical setting. However, mature sperm extraction is not possible in childhood cancer patients because of their prepubertal stage. For this reason, the numerical and functional preservation of undifferentiated spermatogonial stem cells (SSC) to maintain fertilization is the only way for patients to have their biological children after cancer treatment. Our objective is to isolate, characterize, and expand the SSCs in order to prepare for long-term cryopreservation procedures for potential transplantation.

Material & Method: Testes form 6-day-old C57BL/6 mouse were isolated under a stereomicroscope; Left testes were fixed in %10 neutral formalin and embedded in paraffin. Five micron-thick sections were stained with Haematoxylin and eosin and evaluated with light-microscope for the overall morphology. The right testes, were embedded in plastic after double aldehyde fixation, the semi thin and of thin sections were analysed for the ultrastructure of the SSC niche under the transmission electron microscope. In order to isolate the SSCs, both testes were harvested and digested by two-step enzyme digestion method. Digested cells were suspended and filtered through a nylon mesh. Following Percoll separation, SSCs were enriched using Thy-1 antibody –conjugated magnetic microbeads. The SSC-enriched germ cell population was maintained on mitotically inactivated SIM mouse embryo-derived thioguanine-oubain resistant (STO) cell feeders in in medium containing several growth factors. The proliferation potential of mouse Thy-1 (+) SSCs were calculated using the cytometer. To check whether the cultured SSCs maintained phenotypic characteristic of mouse SSCs, we carried out indirect immunofluorescence labelling.

Results: Spermatogonial stem cells have been identified by their morphologically in seminiferous tubules, regarding their clear cytoplasm, high nucleus-to-cytoplasm ratio, and basal localization under light microscope. The ultrastructure has been evaluated for the organel content and the metabolic activity. The Thy-1-positive SScs were successfully isolated with high purity and viability utilizing a two-step enzymatic digestion and, magnetic-activated cell sorting. The SSCs were cultured using an optimized cytokine stimulated culture protocol. In the first day of culture, SSCs were single and adhered to the feeder layer. They made typical colonies from day 2 and, the immunofluorescence study revealed the presence of Thy1.2 –positive SSCs colonies from passage 2. Cell proliferation assay presented a significant increase in SSC in further passages.

Conclusion: In this study, we successfully established an in vitro protocol for the isolation, characterization and, culture of the 6-day-old new born mouse SSCs in order to provide an optimum proliferation rate for those cells. Our spermatogonial stem cells present an ideal source for cryopreservation protocols in fertility preservation of prepubertal boys. The development of these techniques may be a hope for the future of fertility preservation in cases that no other options exist, like paediatric cancer patients. This project is supported by Hacettepe Research Fund (#THD-2017-13430).

Keywords: Spermatogonial stem cell, culture, characterization, cryopreservation

[Abstract: 0130] [P-17] [Accepted: Poster Presentation]

The Prevalence of Polycystic Ovary Syndrome in Obese Adolescents

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Purpose: The diagnosis of polycycstic ovary syndrome (PCOS) is difficult in obese adolescents and the pathophiosology is tough to distinguish. The aim of this study is to determine the prevalence of PCOS in the population of obese adolescent.

Method: The study was conducted in Gynecology Clinic of Konya Aksehir State Hospital between April 2015 to April 2017. Patients aged between 10-18 years old were included in the study. All of the patients were overweight or obese, defined by BMI score. 93 patients recruited and from this total number 67 of the patients completed the study. The remaining 26 were exluded due to the following reasons: pregnancy during the evaluation (n=6), had a massive weight loss (n= 4), did not give informed consent (n= 10) or had menarche within less than two years from the beginning of the study (n=6). Anthropometric assessment was done. Hyperandrogenism were defined as a value 8 from the index of Ferriman Gallwey (F-G) score. Ovarian morphology was assessed with suprapubic ultrasonography. An ovarian volume over than 10ml was chosen to diagnose PCOS. Chronic anovulation or menstrual irregularity was considered when the patient reported her menstrual cycle was irregular in the last 6 months.

Results: According to Withcel et al. %22.4 (n= 15) of the adolescents were diagnosed with PCOS in our study. When we assessed the patients according to Rotterdam, Androgen Excess and PCOS Society, and American National Institute of Health's criteria, % 32.8 (n=22), %26.9 (n= 18) and %25.4 (n= 17) had PCOS respectively. Irregular menstrual cycles were conducted in %67.2 (n=45) of the patients. Ultrasonography showed enlarged ovaries in %25.4 (n=17). Hyperandrogenism was determined clinically in %22.4 (n=15). The elevated serum levels of androgens were found in %25.4 (n=17) of the patients.

Conclusion: Our study showed that PCOS in obese adoslescents is more frequent compared to adult women in reproductive age. The prevalence of PCOS ranges when assessed with different criterias. In addition, the features of PCOS overlap with normal pubertal development, therefore clinicians should be careful before diagnosing PCOS.

Keywords: Polycystic ovary syndrome, adolescent, obesity

TABLE 1: Prevalence of PCOS.

Criteria	N (total: 67) (%)
Witchel et al.	15 (%22.4)
NIH	17 (%25.4)
AES	18 (%26.9)
Rotterdam	22 (%32.8)

NIH: National Institute of Health Criteria; AES: Androgen Excess and PCOS Society Criteria; Rotterdam: Rotterdam criteria; n: number of patients.

[Abstract: 0133] [P-18] [Accepted: Poster Presentation]

Fertilite İstemi Olan 46,XY Gonadal Disgenezi (Swyer Sendromu) Geç Tanı Almış Bir Olgu Sunumu

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Ege Üniveristesi Tıp Fakültesi, Kadın Hastalıkları ve Doğum AD, İzmir

Giriş: Swyer Sendromu, (46 XY Gonodal disgenezi) gonadal disgenezin çok nadir görülen bir şeklidir. Bu sendrom embriyogenez sırasında cinsiyet belirlenmesindeki defektten kaynaklanır. Olgular fenotipik olarak dişi görünümde olup, uterus hipoplazisi, bilateral streak gonadlar, hipergonadotropik hipogonadizm görülmektedir. Sıklıkla pubertede, puberte bulgularının başlamaması ve primer amenore nedeniyle başvururlar. Ortalama 16-17 yaşlarında tanı alırlar. Bant şeklindeki gonadların malignite riski yüksek olup tanı aldığında mutlaka çıkarılmalıdır.

Bildirinin amacı; geç tanı almış swyer sendromlu olgunun yönetiminin sunumu ve fertilite isteminin değerlendirilmesidir.

Olgu: 31 yaşında, 3 yıllık evli, G0P0, ek hastalığı olmayan kadın hasta hipoglisemik atak geçirmesi üzerine hastanemiz endokrinoloji polikliniğine başvurdu. Fizik muayenede patoloji saptanmadı. Boyu 170cm vücut ağırlığı 60 kg idi. Yapılan tetkikler sonucunda hastaya hipofizer yetmezlik tanısı kondu ve kortizol tedavisi başlandı. Hipofizer yetmezlik tanısına ek olarak renal ultrasonografide atnalı böbrek tespit edildi. Batın ultrasonografide uterus rudimenter görünümde izlenip, overler net izlenemeyince hastanın jinekolojik öyküsü ayrıntılı incelendi. Hasta anamnezinde 13 yaşında adet görememe şikayeti nedeniyle dışmerkezde jinekoloji polikliniğine başvurduğunu ve hala kullanmakta olduğu hormon replasman tedavisine başlandığını ifade etti. Hastadan alınan bilgiler doğrultusunda primer amenoreye yönelik ek tahlil yapılmadığı ve bu tedaviyle menstrual siklusları düzene girdiği için tekrar jinekoloji polikliniğine başvurmadığı öğrenildi. Burada hasta ihmalkarlığı olabileceği tarafımızca düşünüldü. Yapılan jinekolojik muayenede perine, vulva, vagina normal görünümde izlendi. Korpus uteri normalden küçük cesamette ve adneksler non-palpable tespit edildi. Fizik muayenede meme gelişimi normal, aksiller ve pubik kıllanma normalden az idi. Laboratuar tetkiklerinde FSH:113 mlU/mL, E2:43 pg/mL, anti-müllerian hormon: <0,1 olarak görüldü. Radyolojik görüntülemede; uterus hastanın yaşına göre belirgin küçük görünümde izlendi, bilateral overiyan lokalizasyonda yaklaşık 2x1cm boyutlarında ovoid görünümlü oluşumlar (overlere ait olabilir) izlendi, bilateral ovaryan lokalizasyonda solid yada kitle lezyonu izlenmedi. Periferik kandan HRT bantlama yöntemi kullanılarak yapılan kromozom analizinde 46,XY sonucu alındı. Hastaya swyer sendromu tanısı kondu ve gonadektomi planlandı. Hastaya yapılan preoperatif hazırlıkta ek patoloji saptanmadı, tümör markerları normal değerlerde izlendi. hastaya laparoskopi ile bilateral salpenjektomi ve bilateral gonadektomi uygulandı. Laparoskopik batın gözleminde her iki tuba uterina normal, overlerin lokalizasyonunda yaklaşık 6-7mm lik streak gonadlar izlendi. Patoloji sonucunda; sağ adneks olarak gönderilen materyal atrofik ovaryal kortikal doku + tuba uterina + paratubal kist + ektopik sürrenal dokusu + leydig hücreleri + duktus deferens olarak raporlandı. Sol adneks olarak gönderilen yapı tuba uterina + multipl paratubal kist olarak raporlandı. Hastanın hormon replasman tedavisine devamı önerildi. Gebelik istemi olan hastaya literatürde oosit donasyonu ile sağlıklı doğum ile sonuçlanmış örnekler olduğu anlatıldı. Ancak ülkemizde oosit donasyonu yasal olmadığı için tedavisinin bu doğrultuda düzenlenemeyeceği açıklandı.

Sonuç: Swyer Sendromu, (46 XY Gonodal disgenez) gonadal disgenezin çok nadir görülen bir şeklidir. Swyer sendromlu hastalar genellikle pubertede primer amenore ve seksüel gelişmede gerilik şikâyeti ile gelirler. Tanı konulunca gonadektomi yapılmalıdır çünkü gonadoblastoma ihtimali yüksektir. Swyer sendromlu hastaların entellektüel ve fiziksel gelişimi normaldir, özel bir medikal problemde artış yoktur. Hastalara hormon replasmanı başlanmalıdır. Gebelik istemi olan hastalarda oosit donasyonu önerilebilir, bu hastaların gebeliklerinde normal gebeliklerden farklı problemler olmaz.

Anahtar kelimeler: Geç tanı, swyer sendromu, xy gonadal disgenezi

[Abstract: 0135] [P-19] [Accepted: Poster Presentation]

Unilateral Seminal Vesicle Agenesis with V470M Heterozygous Variant and F508del Heterozygous Mutation: An Uncommon Cause of Azoospermia

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Seminal vesicle (SV) birth defects are part of male genitalia anomalies occurring in internal genital organs derived from the Wolff mesonephric duct. SV unilateral agenesis is observed in 0.6% to 1% of males. Transrectal ultrasound is the gold standard for SV and pelvic MRI is required when ultrasound is insufficient. We reported a male with azoospermia due to unilateral seminal vesicle agenesis with V470M heterozygous variant and F508del heterozygous mutation.

A 43 year old man presenting with azoospermia referred to our clinic. The woman was 45 years old. The couple had primary infertility for 10 years. They had an failed IVF cycle 6 years ago. The right SV was not detected during sonographic examination but the left SV was seen. Also he was was diagnosed with congenital bilateral absence of the vas deferens (CBAVD). No urinary or other visseral abnormality was detected by sonography. The genetic analysis was performed for Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene. This analysis revealed V470M heterozygous variant and F508del heterozygous mutation. The woman underwent oocyte freezing and pooling. Microsurgical Epididymal Sperm Aspiration (MESA) was performed and motile sperm was identified.

Unilateral SV agenesis is a rare condition. SV agenesis is usually associated with vas deferens agenesis and may also be complicated with reno-ureteral malformations. Similar to our case; SV agenesis is usually detected at right side. MESA and intracytoplasmic sperm injection (ICSI) is a treatment option for these patients but genetic analysis for CFTR gene should be performed for all of the patients with unilateral SV agenesis.

Keywords: Azoospermia; infertility; unilateral seminal vesicle agenesis

[Abstract: 0138] [P-20] [Accepted: Poster Presentation]

DHEA (Dehidroepiandrosteron)'nın Zayıf Over Cevaplı Hastalarda Uygulamasının Over Rezervi ve İnfertilite Üzerinde Etkinliği

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Amaç: Bu çalışmanın amacı, DHEA'nın Transvaginal-USG, bazal hormonal değerlendirme ve gebelik sorgulaması yoluyla, over rezervi ve infertilite üzerindeki etkinliğini araştırmaktır.

Materyal-Metod: 2008-2017 yılları arasında retrospektif olarak yapılan bu çalışmada infertilite nedeniyle başvuran 34 zayıf over cevaplı hasta ve primer amenore nedeniyle başvuran 3 hasta incelendi. Hastaların yaşı ve primer, sekonder infertilite durumu sorgulandı. Bazal hormonal incemeleri ve trans-vajinal USG ile over rezervi değerlendirildi. Primer amenore nedeniyle başvuran hastaların abdominal USG ile over rezervi değerlendirildi. Hastalarda herhangi bir müllerian anomali araştırılması açısından HSG incelemesi yapıldı. İnfertil çiftlerde erkek faktörü araştırıldı. Olgular Primer ovarial yetersizlik (POY), prematüre ovarial yetersizlik (PrOY), azalmış over rezervli (AOR) hastalar şeklinde 3 kategoriye ayrıldı. Hastalara DHEA (Biosteron) 25 mg. tablet 2x1 şeklinde verildi. Her ay siklusun 2./3.gününde trans-vajinal USG incelemesi, bazal hormonal profil incelemesi yapıldı. Gebe olup olmadığı araştırıldı ve gebe olduğunda DHEA kesildi, 5 ay süreyle bu işleme devam edildi, bulgular kaydedildi.

Bulgular: Toplam siklus sayısı (n 1) 153, Primer infertil hasta sayısı 24, sekonder infertil hasta sayısı 10 olarak kaydedildi. Primer infertil hastaların yaş ortalaması 35,08 iken sekonder infertillerin yaş ortalaması 37,8 bulundu.Tablo 1, 2 ve 3'te ayrıntılı olarak bulgular gösterilmiştir. Primer amenore nedeniyle başvuran 3 hastaya DHEA uygulaması sonrası birinde FSH'da 20.7'den 4. ayda 3.06; 5 ayda 9.06 değerlere geriledi. Diğer iki ikiz kardeş olan FSH 133; 117 olan hastada olumlu bir yanıt alınamadı. Bir hastamızda hipertansiyon, glukoz regülasyon bozukluğu,hafif hirsutismus, akne görülmesi nedeniyle ilaç kesildi bu hastamız grup dışına alındı, diğer hastalarımızda hafif hirsutismus dışında yan etki görülmedi. Gebe kalan 9 hastanın 8'i spontan gebe kaldı, birine erkek faktörü nedeniyle IVF uygulandı, gebe kaldı, miadında canlı doğum yaptı. Vaka başı gebelik oranı: 9/34 (%26.4), Siklus başı gebelik oranı 9/153 (%5.8), vaka başı canlı doğum oranı 7/34 (%20.5), siklus başı miadında canlı doğum oranı 7/153(%4.57), primer infertil hastalarda gebelik oranı 3/24(%12.5), miadında canlı doğum oranı 3/24(%12.5), siklus başı gebelik oranı 3/112(%2.7), siklus başı miadında canlı doğum oranı 3/112(%2.7), sekonder infertil hastalarda gebelik oranı 6/10(%60), miadında canlı doğum oranı 4/10(%40),), siklus başı gebelik oranı 6/41(%14.6), siklus başı miadında canlı doğum oranı 4/41(%9.75) bulundu. Primer over yetmezlikli hastalarda gebe kalan olmadı. Prematüre over yetmezlikli 14 hastanın 5'i(%35) gebe kaldı,siklus başı gebelik oranı 5/64(%7.8), miadında canlı doğum oranı 5/64(%7.8), azalmış over rezevli 14 hastanın 4'ü gebe kaldı, 2'si(%3.9) miadında canlı doğum yaptı, birisinin sağlıklı gebeliği devam etmektedir, biriside abortla sonuçlandı, siklus başı gebelik oranı 4/28(%14.2), siklus başı canlı doğum oranı 2/28(%7.1) bulundu.

Sonuç: Zayıf over cevaplı hastalardan prematüre over yetmezlikli, azalmış over rezervli hastaların bir bölümünde over fonksiyonlarında düzelme, over rezervinde artış, gebelik ve bunun sonucu canlı doğum elde edilmiştir. Prematür over yetmezlikli 14 hastanın 5'i gebe kaldı ve de 5'de miadında canlı doğum yaptı. Azalmış over rezervli 14 hastanın 4'ü gebe kaldı 2'si miadında canlı doğum yaptı, birisi abortla sonuçlandı, birinde de halen sağlıklı gebelik devam etmektedir. Primer over yetmezlikli hastalarda gebelik elde edilemedi.

Anahtar kelimeler: DHEA, azalmış over rezervi, gebelik

TABLO 1: Zayıf over cevaplı hastalarda DHEA uygulamasının over rezervleri üzerine etkileri (n:34).

				TV-USG			Kümülatif
	FSH (mIU/ml)	LH (mIU/ml)	E2 (pg/ml)	0-5 BAF-Olgu Sayısı Yüzdesi	6-10 BAFOlgu sayısı Yüzdesi	Gebelik Sayısı	Gebelik Sayısı
TÖ	32,4±24,7	13,6±11,1	34,6±13,4	34(100)	-	-	-
TS 1. ay	14,1±10,2	6,7±6,9	58,9±45	25(73,5)	9(26,5)	3	3
TS 2. ay	21,9±14,6	9,9±7,2	46,8±30,2	25(83,3)	5(16,7)	1	4
TS 3. ay	12,1±7,4	5,9±4,5	48,3±41,6	23(82,1)	5(17,9)	-	4
TS 4. ay	19,8±16,2	9,7±5,7	54,7±51,4	19(76)	6(24)	2	6
TS 5. ay	14,7±6,6	7,7±7,6	42,9±23,4	18(69,2)	8(30,8)	3	9

FSH Folikül Stimulan Hormon, LH Luteinizan Hormon, E2 Estradiol, BAF basal antral folikül sayısı, TV-USG Transvajinal Ultrasonografi, TÖ Tedavi Öncesi, TS Tedavi Sonrası.

TABLO 2: Zayıf over cevaplı hastalarda DHEA uygulamasının gebelik oranları üzerine etkileri

Toplam Gebelik Sayısı	9
NSG/IVF Gebeliği	8/1
Doğum yapanlar	7
Abortus	1
Devam Eden Gebelik	1
Komplikasyon	1
Siklus Sayısı	153
Olgu Başı Gebelik Oranı	9/34(%26,4)
Siklus Başı Gebelik Oranı	9/153(%5,8)
Olgu Başı Canlı Doğum Oranı	7/34 (%20,5)
Siklus Başı Canlı Doğum Oranı	7/153(%4,57)

NSG Normal Spontan Gebelik, IVF Invitro fertilizasyon, Olgu Sayısı (n):34 Siklus Sayısı (n1):153

TABLO 3: Zayıf Over cevaplı hastaların subgruplarına göre gebelik ve miadında canlı doğum durumu.

	Olgu Sayısı	Gebelik Sayısı	Canlı Doğum Sayısı	Abortus	Devam Eden Gebelik Sayısı	Siklus Başı Gebelik sayısı,(%)	Kümülatif Gebelik Sayısı, (%)	Olgu Başı Gebelik Sayısı, (%)	Olgu Başı Kümülatif Canlı Doğum Sayısı, (%)
POY	6	0	0	0	0	0	0	0	0
PrOY	14	5	5	0	0	5/64(7,8)	5/14(35)	5/14(35)	5/14(35)
AOR	14	4	2	1	1	4/59(6,7)	4/14(28)	4/11(36)	2/11(18)

POY Primer Ovarian Yetmezlik; PrOY: Prematur Ovarial Yetmezlik; AOR: Azalmış Over Rezervi.

[Abstract: 0263] [P-21] [Accepted: Poster Presentation]

Comparisons Between Two Antioxidant Butylated Hydroxytoluene and Glutathione Supplemented Cryopreservation Medium on Human Sperm DNA Integrity Introduction: Cryopreservation of Semen is Routinely Used in a Variety of Circumstances

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Introduction: Cryopreservation of semen is routinely used in a variety of circumstancesincluding before assisted reproduction treatments, pre- radiation or chemotherapy treatment and etc. The aim of this study was to compare the effect of Butylated hydroxytoluene (BHT) and Glutathione supplemented cryopreservation medium on sperm parameters and amount of DNA fragmentation during the freeze-thaw process.

Methods: Semen samples were obtained from 60 donors. After the determination of basic parameters, groups of three sample with similar parameters were pooled and processed by Pure Sperm gradient centrifugation. The semen samples were then diluted with normal freezing medium (control) or a medium containing 5mM glutathione (test) and 0.5 mM BHT (test) stored in liquid nitrogen. Frozen cryovials were thawed individually for 20 seconds in a water bath (37 ˚C) for evaluation.

Results: Significant differences were observed in motility, viability and DNA fragmentation. Motility and viability were significantly higher in treated groups with 0.5 Mm in 5 min BHT than the control group and Glutathione 5mM ($P<0.001$).

Conclusion: Significant differences were observed in motility, viability and DNA fragmentation. Motility and viability were significantly higher in treated groups with 0.5 Mm in 5 min BHT than the control group and Glutathione 5mM ($P<0.001$).

Keywords: Human Sperm DNA Integrity, Cryopreservation

[Abstract: 0142] [P-22] [Accepted: Poster Presentation]

The Effect of Increased Number of Cesarean on Maternal and Fetal Outcomes

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Objective: Cesarean section is a surgical procedure which is commonly performed worldwide with an increasing trend. However, this trend has led to maternal and fetal morbidities and mortalities, and has become an important health issue. The aim of this study was to evaluate the relationship between recurrent cesarean section surgeries and maternal and fetal morbidity and mortality rates.

Materials-Methods: This retrospective study included a total of 1,506 patients who underwent cesarean section three or more times between January 2006 and May 2014. The study group (n=444) consisted of those who underwent cesarean section >=4 times and the control group (n=1,062) consisted of those who underwent cesarean section 3 times. Both groups were compared in terms of the demographic, pre-, intra-, and postoperative and perinatal outcomes.

Results: The mean age of the patients in the study group was higher than the control group ($p < 0.001$). Dense adhesion ($p<0.001$), demand for tubal ligation ($p<0.001$), the requirement of pelvic drainage ($p<0.001$), duration of hospitalization ($p<0.001$), the requirement of blood transfusion ($p=0.03$) were also significantly higher in the study group. Hemoglobin level ($p=0.002$) was significantly higher in the control group on the second postoperative day. For the perinatal morbidity results, the umbilical artery pH results ($p=0.003$) were significantly lower in the study group. There was no significant difference in the maternal and fetal mortality rates between the groups.

Conclusion: According to our study results, the increase in the number of cesarean sections increases the maternal and fetal morbidity rate. Therefore, we recommend decreased primary cesarean rates, encouraging vaginal birth after cesarean section, and persistent contraceptive methods with high cesarean section. However, further large-scale, prospective results are required to establish a definite conclusion.

Keywords: Cesarean section; recurrent cesarean; intraoperative complications; morbidity; postoperative complications; mortality; fetal

[Abstract: 0147] [P-23] [Accepted: Poster Presentation]

Kemik İliği Transplantasyonu Yapılacak Ağır Anemisi Olan Lösemi Hastasında Antagonist Yerine Progestron Kullanarak Yapılan Ovulasyon İndüksiyonu

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Amaç: Ovulasyon indüksiyonun da günümüzde hemen hemen her hastada antagonist tedavi protokolü kullanılmaktadır. Bu protokol; fix ve fleksible olarak iki farklı protokole ayrılmaktadır. Ovulasyon indüksiyonun da antagonist ve ya agonist kullanmadan sadece progestron kullanarak,folükülerin luteinize olmasını engelleyebiliriz.

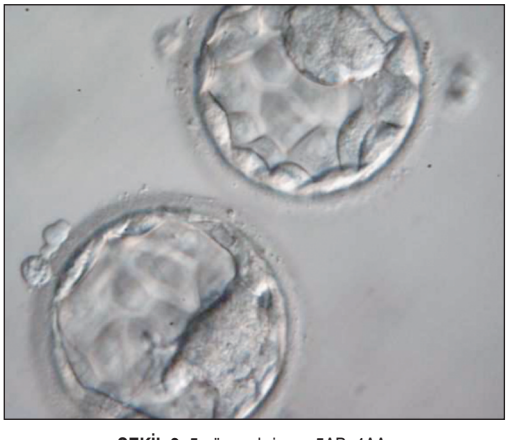
Bulgular:

Olgu: Hasta F.Y 33 yaşında, 7 yıllık evli, 1 çocuğu var, 6 yıl önce normal spontan doğum yapmış. 3 ay önce hematoloji kliniğine halsizlik şikayeti ile başvurmuş ve lösemi tanısı almış. Kemoterapi ve sonrasında kemik iliği transplantasyonu düşünülen hasta da çocuk istemi olduğundan dolayı hasta tarafımıza yönlendirilmiştir. Tüp bebek ünitemizde değerlendirilen hastanın hemoglobini: 3,89 olduğu, adet gördüğü zaman aşırı kanaması olduğu bu yüzden, 2 aydır sürekli primalut N kullandığı anamnezini aldık. Transvaginal ultrasonografi ile değerlendirdiğimiz hastada endometrium kalınlığı: düzensiz 8,2 mm, sağ over de 4-5 antral folükül, sol over de 4-5 antral folükül mevcut idi. Hasta ile bulunduğu durumu konuşup ayrıntılı onamlarını aldıktan sonra Primolut N tablet günde 2 defa kullanmasına karar verdik ve bununla birlikte 225 ünite hMG ile ovulasyon indüksiyonuna başladık. Hastamızı sırasıyla tedavinin 1. günün den sonra 4. gün, 6. gün, 8. gün, 11.gün kontrole çağırıp folükülometri yaptık. 10 gün boyunca Primolut N 2*1 ve hMG 225 ünite ile tedavisine devam edip, uzun süre progestron kullanımına bağlı LH baskılanması olacağını düşünerek antagonist ilaç tedavisini, tedavinin hiçbir aşamasında kullanmadık. Tedavinin 12. günü 5000 ünite hCG (35.saat), Primolut N tablet 2*1 ve GnRHa 0,1*2 (33.saat) dozunda kullanarak hastamızı ovule edip, 35.saate oosit toplanması için randevu verdik. Tedavinin 11. günü folükülometri kontrolünde end: düzensiz 9,1 mm, sağ over de17mm(3), 16mm, 15mm, 12.5mm(2) folükül, sol over de 17.5mm, 17mm(3), 16,5 mm (3) folükül şeklinde ölçümleri yaptık. Oosit toplama günü hastamızdan, 15 oosit topladık. Bunlardan 12'si M2, 3' ü M1 aşamasında oositler idi. 6 oosit döllendi. 5.güne 4 embriyo geldi ve dondurularak, hasta kemoterapi ve kemik iliği nakline yönlendirildi (Şekil 1, Şekil 2).

Sonuç: Gonodotropinlerle ovulasyon indüksiyonun da antagonist kullanmadan sürekli progestron kullanılması durumunda LH baskılanacak ve folükülün ovule olması engellencektir. Özellikle kemoterapi alacak ve hemoglobini çok düşük olan, bir şekilde vaginal kanama olmasını istemediğimiz hastalarda sürekli progestron kullanarak hem hastanın adet görmesini, hemde LH pikini engelleyerek istem dışı folüküllerin lutenize olmasını engellemiş oluruz.

Anahtar kelimeler: Antagonist protokolü, progestron, kemik iliği transplantasyonu

ŞEKİL 1: 5. gün embriyosu 5AA, 2AA.



ŞEKİL 2: 5.gün embriyosu 5AB, 4AA.

[Abstract: 0148] [P-24] [Accepted: Poster Presentation]

The Comparison of Anxiety and Depression Scores Between Couples with Primary and Secondary Infertility

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Objective: Early diagnosis and evaluation of depression and anxiety that may occur in the period of infertility and its treatment is significant for the success of the treatment and woman's health. With this study, it was aimed to compare anxiety and depression scales in primary and secondary infertile couples, to investigate the effects of sociodemographic features.

Material-Method: 250 infertile couples who applied to Marmara University Medical Faculty Gynecology and Obstetrics Clinic Infertility Polyclinic and were diagnosed with unexplained infertility between the ages of 18-35 and 64 female patients and their husbands who applied to Gynecology Clinic and were not diagnosed with infertility between the ages of 18-35 were applied patient follow-up form, Beck Depression Inventory, Hamilton Anxiety Evaluation Scale.

Results: Depression prevalence was found to be 46% in infertile women. Depression and anxiety scores between both primary and secondary infertile women, and fertile and infertile women were found to be similar. Correlation was not detected between age, BMI, antral follicule number, infertility and duration of marriage, educational status, working status, family type, fertility hormone levels and depression and anxiety. Positive significant correlation was detected between the numbers of former infertility treatments and depression, but not with anxiety. Higher depression and anxiety scores were obtained in primary infertile, secondary infertile women and fertile women than the men in the same group.

Conclusion: Giving routine psychiatric assessment and counseling may be considered during the infertility treatment to infertile couples, especially those who have infertility treatment history. Such an approach may reduce the numbers of couples who give up the following treatments because of the psychological burden based on the failure of former treatments.

Keywords: Infertility, depression, anxiety, primary infertility, secondary infertility

[Abstract: 0149] [P-25] [Accepted: Poster Presentation]

Impact of Time Interval Between Embryos Loading Time and Transfer on the Pregnancy and Implantation Rate: Frozen-thawed Cycle

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Objective: In the past years interest has increased in the methodology of embryo transfer. A number of prognostic factor have been described for embryo transfer such as absence of blood or mucus in the transfer catheter, type of catheter or use of ultrasound guidance. But the impact of time interval between embryos loading and transfer is unclear. The aim of this study is evaluate the impact of time interval between embryos loading time and transfer on the pregnancy and implantation rate.

Material & Method: This study was a retrospective analysis of frozen thawed blastocyst transfer cycle with 24 chromosome aneuploidy screening at Superior A.R.T. from November 2012 to April 2017. The inclusion criteria were: 1) blastocyst biopsy and 24 chromosome aneuploidy screening before cryopreserved by vitrification 2) NAD (normal as detected) embryo was transfer in frozen cycle under abdominal ultrasound guidance 3) absence of blood or mucus in the transfer catheter. Total 383 cycles were divided by patient's age and time interval between embryos loading and transfer (<40sec vs 41-80 sec vs >80 sec). Clinical pregnancy and implantation rate was compared between each group. The p-values <0.05 were consider to statistical significance.

Results: 238 cycles from patient's age <35 years divided to 3 groups according to the time interval between embryos loading and transfer. The results showed no significant difference of pregnancy (66.3% vs 71.6% vs 66.7%) and implantation rate (53.4% vs 59.8% vs 36.4%). 145 cycles from patient's age >35 years have showed no statistically significant difference in term of pregnancy (59.4% vs 56.5% vs 0%) and implantation rate (51.3% vs 49.1% vs 0%).

Conclusion: According to the results, speed of embryo transfer does not impact to the success of pregnancy and implantation rate. Further studies are required to determine the true impact.

Keywords: Embryo transfer, Embryo loading time, Pregnancy rate, Implantation rate

[Abstract: 0261] [P-26] [Accepted: Poster Presentation]

The Effect of Granulocyte Colony Stimulating Factor Infusion into the Endometrial Cavity on IVF Outcome in Women with Recurrent Implantation Failure

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Objective: Is to investigate the effectiveness of endometrial infusion of G-CSF in RIF patients in the preceding cycle.

Material-Methods: This is a cross-sectional study investigating 157 RIF patients. The recurrent implantation failure group was formed on the basis of RIF criteria, as defined by Coughlan et al. in 2014: the "failure to achieve a clinical pregnancy after transfer of at least four good-quality embryos in a minimum of three fresh or frozen cycles in a woman under the age of 40 years. 82 patients who consented were administrated G-CSF infusion in their uterus cavity in preceding luteal phase of the cycle. 75 patients who did not wish to receive G-CSF were considered as a control group. The G-CSF was applied in the uterine cavity using an IUI catheter by injecting 30 mIU Leucostim®. All the patients in this study received the same IVF steps and all transfers performed were fresh embryo transfers.

Results: There were no statistically significant differences in the patient characteristics and pregnancy rates between the control and study groups.

Discussion: There was no statistically significant change in the pregnancy rates between the G-CSF group and the control group. However, although the differences were not significant there was an increase in the pregnancy rates and reduction in the abortus rates. This finding encourages to continue investigate the effects of G-CSF in RIF patients in hope to contribute to the literature.

Keywords: Endometrium, recurrent implantation failure, IVF, implantation rate, clinical pregnancy rate

[Abstract: 0152] [P-27] [Accepted: Poster Presentation]

Efficacy Comparison of Oral Rosuvastatin Versus Oral Progesterone and Bevacizumab on Regression of Surgically Endometriotic Implants in Rats

Ayşe Gül Kebapçılar, Tolgay Tuyan İlhan, Duygu Dursunoğlu, Levent Kebapçılar, Süleyman Hilmi İpekci, Süleyman Baldane, Mustafa Gazi Uçar, Cem Onur Kıraç, Kübra Kurt, Çetin Çelik

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This study hypothesizes that oral rosuvastatin, oral dienogest and intraperitoneal bevacizumab might improve endometriosis in randomly selected female Wistar albino rats with surgically endometriotic implants. Thirty female Wistar albino rats with surgically endometriotic implants were randomized into three treatment groups: oral rosuvastatin (20 mg kg/day; oral rosuvastatin group 1; n=10), oral progesterone (dienogest group 2; n=10) and intraperitoneal bevacizumab (2.5 mg/kg of single intraperitoneal injection of bevacizumab; bevacizumab group 3; n=10), for 10 days. Post-treatment variables were compared. The oral rosuvastatin group showed higher reduction for the glandular epithelium and uterine vessels of histopathological scores values than the oral progesterone group (both, $p<0.017$, respectively). The median glandular epithelium and uterine vessels and histopathological scores values did not show a statistically significant difference between group 1 and group 3 ($p>0.017$). Endometrial thickness values and uterine volume values were more significantly reduced in the oral rosuvastatin group than the oral progesterone group (both, $p<0.017$, respectively). Moreover, endometrial thickness and uterine volume values were not different in groups wecompared with group 3 ($p>0.017$). In conclusion, oral rosuvastatin and intraperitoneal injection of bevacizumab may cause more significant regression of surgically endometriotic implants in rats than oral progesterone medications.

Keywords: Bevacizumab; endometriotic implants; oral progesterone; oral rosuvastatin

FIGURE 1: Macroscopic appearance of subcutaneous endometriotic cysts prior to treatment.

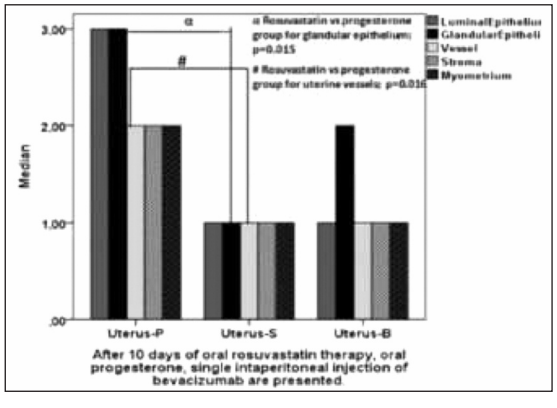

FIGURE 2: Myometrium, endometrial stroma, luminal epithelium, glandular epithelium and uterine vessels were investigated in all treatment groups. Oral rosuvastatin therapy significantly higher reduction for the glandular epithelium and uterine vessel.

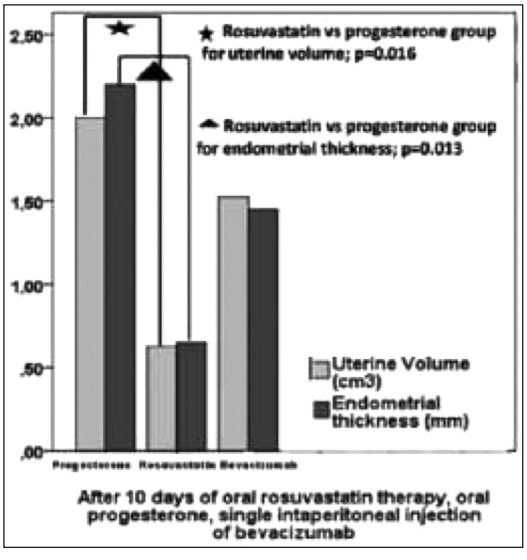

FIGURE 3: Endometrial thickness and uterine volume values analyzed in all treatment groups. Endometrial thickness values was significantly reduced in the oral rosuvastatin medication than oral progesterone group (p¼0.013). Rosuvastatin group showed h.

[Abstract: 0154] [P-28] [Accepted: Poster Presentation]

Cornea in PCOS Patients as a Possible Target of IGF-1 Action and Insulin Resistance

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Objectives: Previous studies suggest that serum IGF-1 is higher in women with polycystic ovary syndrome (PCOS). The ophthalmologic effects of IGF-1 excess have not yet been investigated in women with PCOS. The aim of the current study is to compare the corneal thickness of patients with PCOS and those of healthy subjects.

Methods: Forty three patients with PCOS and 30 agematched and gender-matched healthy individuals were enrolled in this cross-sectional study. Central corneal thickness (CCT) was measured in patients with PCOS and in healthy individuals with an ultrasound pachymeter. IGF- 1 values were also determined in the study group.

Results: Women with PCOS had significantly higher levels of IGF-1 and homeostasis model assessment (HOMA-IR) levels than the control group. Right and left CCT measurements were higher in the PCOS group than in the control group. A positive correlation between IGF-1 and right and left CCT was identified in both groups. In multiple linear stepwise regression analyses, IGF-1 independently and positively associated with HOMA-IR in women with PCOS. A correlation between total testosterone and CCT was identified in the whole group. In multiple stepwise regression analyses, total testosterone independently and positively associated with left central corneal thickness in the whole group.

Conclusions: These findings indicate that PCOS has target organ effects on the eye. Consequently, it can change central corneal thickness. Higher IGF-1 levels seem to be the main causes of increased corneal thickness. Insulin resistance in PCOS is one of the underlying causes and promotes increase in IGF-1. We suggest a careful and detailed corneal evaluation in PCOS patients to prevent the potential risk of increased CCT, in addition to the alreadyknown complications.

Keywords: Polycystic ovary syndrome Central corneal, thickness Insulin-like growth factor-1 HOMA-IR

[Abstract: 0155] [P-29] [Accepted: Poster Presentation]

Is There a Link Between Premature Ovarian Failure and Serum Concentrations of Vitamin D, Zinc, and Copper?

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Objective: The risk of primary ovarian insufficiency (POI) increases in association with autoimmune conditions. Adequate intake of vitamin D (vit D) and trace elements is required for the immune system to function efficiently. The aim of this study was to evaluate vit D, zinc, and copper blood levels in women with POI who had given birth to at least one child and in women with normal menstrual cycles.

Methods: This was a cross-sectional, case-control study involving 63 participants divided into two groups: the study group, which is composed of 35 women with POI, and the control group, which is composed of 28 women with normal menstrual cycles. Serum concentrations of zinc, vit D, and copper were determined for each participant.

Results: Women with POI had significantly higher serum copper levels and copper-to-zinc ratio but significantly lower serum vit D and zinc levels when compared with the healthy control group. Serum follicle-stimulating hormone levels were inversely correlated with zinc and vit D levels and positively correlated with the copper-to-zinc ratio and copper levels. Vit D levels were inversely correlated with follicle-stimulating hormone levels, copper-to-zinc ratio, and copper levels and positively correlated with zinc levels.

Conclusions: Most women with POI are deficient in vit D. Zinc, copper, and vit D seem to correlate with hormonal status in the participants. The present study may generate hypotheses for future studies that will investigate the possible mechanisms behind alterations in trace elements and vit D deficiency in women with POI and whether these changes could be used to screen for the risk of developing POI.

Keywords: Zinc Y Copper Y Vitamin D Y Primary ovarian insufficiency

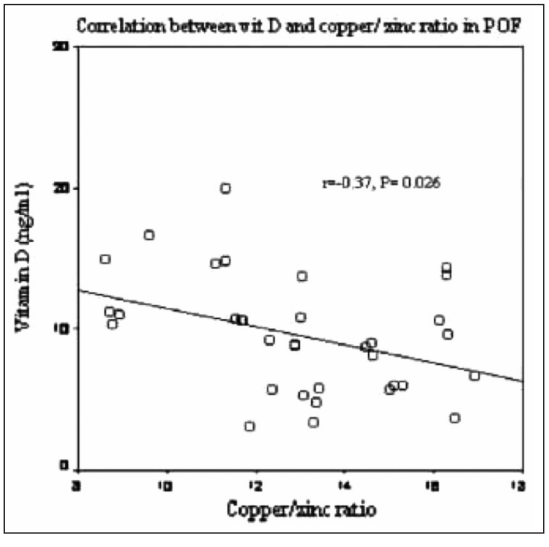

FIGURE 1: Correlation between serum vitamin D (vit D) levels and copperto- zinc ratios in women with primary ovarian insufficiency (POI; Pearson's bivariate test). POF, premature ovarian failure.

[Abstract: 0156] [P-30] [Accepted: Poster Presentation]

Relationship Between Mean Platelet Volume and Low-grade Systemic Coagulation with Vitamin D Deficiency in Primary Ovarian Insufficiency

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Objective: Premature menopause in young women is associated with an increased incidence of cardiovascular disease. The present study was designed to determine vitamin D (vit D) and the coagulation parameters such as activated partial thromboplastin time (APTT), PT, D-dimer, white blood cell (WBC), and mean platelet volume (MPV) levels, in primary ovarian insufficiency (POI) patients and control women with a normal menstrual cycle.

Materials and methods: A total of 43 patients with nondiabetic POI were studied in order to evaluate and compare with the control group comprising 33 women with a normal menstrual cycle.

Results: There was no significant difference between the groups for age and body mass index (BMI). D-dimer, WBC, MPV, PT, total cholesterol, and LDL cholesterol were higher in women with POI. APTT levels were also increased but missed the significance in POI group. Women with POI had significantly lower serum vit D levels compared with healthy control group. FSH level was positively correlated with D-dimer, WBC, MPV, and negatively correlated to vit D and serum D vit level was inversely correlated with MPV, APTT, D-dimer, FSH levels in individual women.

Conclusions: The obtained results seem to indicate that POI patients had low-grade systemic coagulation and fibrinolytic activation as evidenced by elevated D-dimer, WBC, MPV, PT values potentially be used as indicators of risk factor for thrombosis and atherosclerosis in POI women. All of our patients with POI were deficient in vit D. These results also suggest that vit D deficiency plays important roles of POI women and associated with coagulation, independently from age and BMI.

Keywords: Vitamin D, MPV, WBC, D-dimer, APTT PT

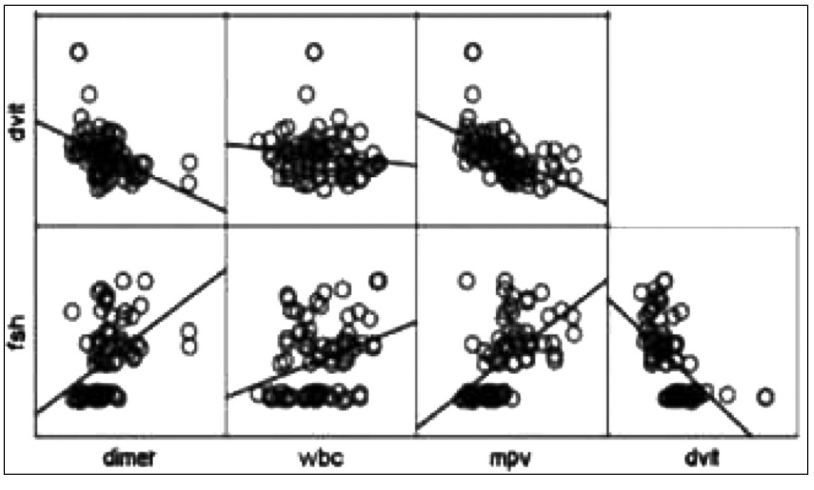

FIGURE 1: Serum FSH level was positively correlated with dimer, WBC, MPV, and negatively correlated with D vitamin levels. Serum D vitamin level was negatively correlated with dimer and MPV levels.

[Abstract: 0157] [P-31] [Accepted: Poster Presentation]

Elevated Serum HE4 Due to the Spontaneous Rupture of Ovarian Endometrioma

Ayse Gül Kebapçılar, Arzu Setenay Yılmaz, Özlem Seçilmiş Kerimoğlu, Ersin Cintesun, Gülşah Alkan Demir, Çetin Çelik

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Endometriosis is a common chronic disease, present in 5-10% of women in reproductive age. Endometriosis is a benign disease but it shares several characteristics with invasive cancer. Cancer antigen 125 (CA125) measurement is an important component in the work-up of a woman with an adnexal mass. Recently, the human epididymis protein 4 (HE4) has proved to be a promising marker for epithelial ovarian cancer with higher specificity and sensitivity than CA125 in distinguishing malignant from benign pelvic masses. The present case demonstrates that rupture of ovarian endometrioma may lead to an exceptionally high serum CA125 and specially HE4 concentration.

A 32-year-old woman was suffered from ruptured ovarian endometrioma with an elevated CA125 and HE 4 concentration; 1639 IU/ml and 84 pmol/L, respectively. Rapid decrease in serum CA125 and HE4 was recognized during the monitoring period. Such high levels of both antigens have not been reported in a patient with endometriosis in acut period of rupture.

In conclusion, some of the CA125 and HE4 molecules from the ruptured ovarian tumor may be transferred systemic circulation, thereby increasing serum CA125 and HE4 concentration. It is important to note that ruptured ovarian tumor in a woman with elevated CA125 and HE4 levels might be benign and that this condition can rapidly be resolved after acute period with time.

Keywords: Ca125, HE4, Endometroma

[Abstract: 0159] [P-32] [Accepted: Poster Presentation]

Endoservikal Küretaja Sekonder Histeroskopik Adezyolizis Sonrası Servikal Ektopik Gebelik: Olgu Sunumu

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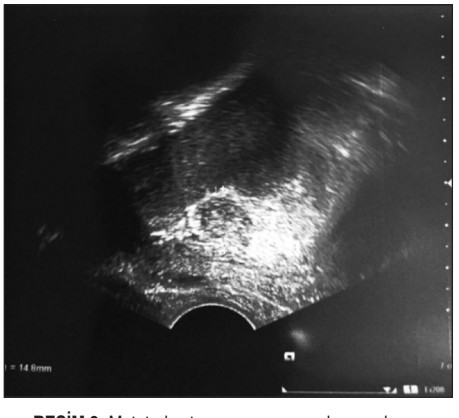
Giriş: Servikal gebelik, gestasyonel kesenin endoservikal kanalda yerleştiği nadir görülen bir ektopik gebelik türüdür. İnsidansı 1/1000 ile 1/18000 arasında değişmektedir(Rubin, 1991). Artan yardımcı üreme yöntemleri ile insidansında artış görülmektedir(Mitra, 2000). Etyolojide kaviteye yapılan terapötik müdahaleler kliniğimizde tanı koyup tedavi ettiğimiz bir olgu üzerinden tartışılacaktır. Ultrasonografinin yaygın kullanımı ile birlikte servikal gebeliğin erken tanısı mümkün olmuş(Vela G, 2007), tedavide cerrahi öncesinde konservatif yöntemler gündeme gelmiştir(Yazici G, 2004)(Matteo M, 2006)(Kim JS, 2008). Olgumuzda bu yöntemlerden sistemik metotreksata alternatif olarak geliştirilen ultrason eşliğinde kese içine metotreksat uygulamasının ardından vakum aspirasyon ile başarı elde edilmiştir.

Olgu: 32 yaşında, bir yıllık evli hasta kliniğimize infertilite şikayeti ilebaşvurdu. Hastanın anamnezinde bir ay önce endometrial kalınlık nedeni ile dış merkezde endometrial ve endoservikal küretaj yapıldığı, patolojinin endometrial polip olarak raporlandığı öğrenildi. Histerosalpingografide kavitede 8x15 mm boyutunda dolum defekti, ultrasonda endometrial kalınlık ve düzensizlik izlendi. Hastaya yapılan histeroskopide internal servikal os seviyesinde gözlenen dens adezyon histeroskopik forseps ile açılarak kaviteye girildi. Posterior duvarda izlenen yaklaşık 1 cm çapında polip rezeke edilerek işleme son verildi. Histeroskopinin 1. ayında hastanın adet rötarı olması üzerine istenen beta hCG: 245 ng/mL geldi. Beta hCG: 3007 ng/mL olduğunda yapılan ultrasonografide gestasyonel kese endoservikal yerleşimli izlendi(Resim 1). Takiplerde spontan regresyon izlenmemesi (Resim 2) ve beta hCG nin progressif olarak artması(12.129ng/mL) üzerine transvajinal ultrason eşliğinde 22 gouge oosit aspirasyon iğnesi ile gestasyonel kese aspire edilip içerisine 50 mg metotreksat verildi. Takipte beta hCG de beklenen düşüşün olmaması(7. günde 9683 ng/mL) ve servikal kitlenin sebat etmesi nedeniyle hastaya anestezi altında servikal küretaj yapıldı. İşlem sırasında endoservikal kanala tamponad amaçlı 16 numara Foley sonda yerleştirildi. Postoperatif kanama kontrolü sağlandı. 1.hafta ve 1. ayda yapılan kontrollerde endometrium ve endoservikal kanal düzenli izlendi, beta hCG< 1.2ng/mL ölçüldü.

Sonuç: Nadir görülen bir ektopik gebelik türü olan servikal gebelik endometriuma ve endoservikal kanala yapılan müdahalelere ve yardımcı üreme yöntemlerine sekonder gelişebilir. İnsidansı normal popülasyonda 1/9000-18000 arasında değişirken fertilite tedavisi alan hastalarda 1/1000 e kadar çıkmaktadır(Karande VC, 1991).Tanıda seri ultrasonografi çekimleri ve beta hCG takibi altın standartır. Servikal gebelik vakaları çok nadir görüldüğünden tedavisi hakkında geniş serilerle yapılmış çalışmalar bulunmamaktadır. Günümüzde invaziv cerrahi yöntemler yerini fertilite koruyucu yaklaşımlara bırakmıştır(Leeman LM,2000). Erken tanı cerrahi müdahaleden önce konservatif yöntemlerin uygulanmasına olanak tanır(Kung FT, 1999). Servikal ektopik gebeliklerin medikal tedavisi sistemik veya lokal uygulanan metotreksat ile yapılır. Yüksek dozda ve tekrarlayan sistemik metotreksat kullanımının yan etkileri ve fetal kalp atımı pozitif gebeliklerin sistemik metotreksat ile sonlandırılma oranlarının daha düşük olması nedeniyle lokal tedavi yöntemleri geliştirilmiş, gebelik kesesinin aspirasyonunu takiben kese içine metotreksat enjeksiyonu ile servikal gebeliklerin güvenli şekilde sonlandırılabileceği bildirilmiştir (Šijanovic S,2011). Servikal gebeliklerin tedavisinde, servikal aspirasyon veya dilatasyon-küretaj uygulandığı zaman oluşabilecek şiddetli kanamayı azaltmak için cerrahi yöntemlere başvurulmadan önce sistemik veya lokal metotreksat uygulanması uygun bir yaklaşım olabilir. Ancak müdahele zamanının belirlenmesi ve servikal gebeliğin servikse invazyon derinliğinin tedavi yöntemini seçmekte bir kriter olarak tayin edilebilmesi için farklı tedavilerin karşılaştırıldığı gebelik haftaları ve yerleşim yerleri çeşitli hasta gruplarını içeren çalışmalara ihtiyaç vardır.

Anahtar kelimeler: Servikal gebelik, intraservikal metotreksat

RESİM 1: Servikal gebelik kesesi.



RESİM 2: Metotreksat sonrası regrese olmayan kese.

[Abstract: 0161] [P-33] [Accepted: Poster Presentation]

In vitro Effects of Melatonin on Colonization of Co-culture of Neonate Mouse Spermatogonial Stem Cells with Sertoli Cells

Shadan Navid[1], Mehdi Abbasi[2]

We have recently reported that antioxidant supplements enhance the efficacy of cryopreserved spermatogonial stem cells. Melatonin is considered a free radical scavenger which has a direct and indirect antioxidant effects in in-vitro and in-vivo microenvironments Due to the anti-apoptotic properties of melatonin, researchers have proposed that melatonin may improve the efficiency of Spermatogonial Stem Cells (SSCs) transplantation. However, the appropriate methodology which facilitates SSCs proliferation remains to be determined. Identification of a proper propagation system is essential for future application of SSCs in the field of infertility. The aim of the present study was to investigate the effects of melatonin on the colonization of SSCs. SSCs were isolated from the testes of 3to 6 day old mice, and their purities were assessed by cytometry using PLZF antibody. Isolated testicular cells were cultured in the absence or presence of melatonin extract for two weeks. Suppression of differentiation and maintenance of spermatogonial stem cells was confirmed by alkaline phosphatase staining and immunocytochemistry using PLZF antibody. The number and diameter of the colonies of SSCs were assessed during the 7th and14th days of culture, and the expression of Id4, Plzf, and C-kit were evaluated using real-time PCR at the end of the culture period.The survival rate of the cultured cells in the presence of melatonin was significantly higher than the control group. The number and diameter of colonies also increased in the cells treated with melatonin. The results of our study suggest that culture of SSCs with 100 μM melatonin supplementation can increase SSCs proliferation significantly.

Keywords: Spermatogonial stem cell, Melatonin, Colonization, Proliferation, mouse

[Abstract: 0162] [P-34] [Accepted: Poster Presentation]

The Effects of Melatonin on Colonization of Neonate Spermatogonial Mouse Stem Cells in a Three-dimensional Soft Agar Culture System

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Melatonin is a pleiotropic hormone with powerful antioxidant activity both in vivo and in vitro.The present study aimed to investigate the effects of melatonin on the proliferation efficiency of neonatal mouse spermatogonial stem cells (SSCs) using a three-dimensional soft agar culture system (SACS) which has the capacity to induce development of SSCs similar to in vivo conditions. SSCs were isolated from testes of neonate mice, and their purities were assessed by flow cytometry using PLZF antibody. Isolated testicular cells were cultured in the upper layer of the SACS in MEMα medium in the absence or presence of melatonin extract for four weeks.Identity of colonies was confirmed by alkaline phosphatase staining and immunocytochemistry using PLZF and α6 integrin antibodies. The number and diameter of colonies of SSCs in the upper layer were evaluated at the 14th and 28th days of culture.The number and diameter of colonies of SSCs were significantly higher in the melatonin group compared with the control group. The levels of expression of ID-4 and Plzf, unlike c-kit, were significantly higher in the melatonin group than in the control group.Results of the present study show that supplementation of the culture medium (SACS) with 100 μM melatonin significantly decreased ROS production in the treated group compared with the control group, and increased SSCs proliferation.

Keywords: Spermatogonial stem cell, Melatonin, Colonization, Three-dimensional soft agar culture system, Proliferation

[Abstract: 0163] [P-35] [Accepted: Poster Presentation]

A Female with Habitual Abortus and t(14;16)(q23;q22) Translocation

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It was reported that translocation and inversion carriers were reported in 6% of couples with recurrent pregnancy loss. The most common chromosomal rearrangements in parents are balanced reciprocal or robertsonian translocations. A 27-year old wife with a rare balanced reciprokal translocation t(14;16)(q23;q22) investigated for habitual abortus were presented with clinical findings for contribution to literature. Karyotype analysis of the couple with recurrent habitual abortus were done. Routin biochemical analaysis and radiologic evaluation were carried out. We investigated the 27 years old women and 30 years old her husband with recurrent miscarriage story and without consangineous marriage story. They don't have a chronic disease history. There are 5 recurrent misscarriage story ranging from 4 to 10 weeks. According to karyotype analaysis results, it was detected that the wife had a balanced reciprocal translocation 46,XX,t(14;16)(q23;q22) while her husband's karyotype analaysis was normal. Spermiogram analaysis of men was also normal. It was observed that her parents had a history about miscarriages, too. Although resiprocal translocations carriers are generally normal as phenotypical, they have increased risk for miscarriage and livebirth of children with chromosomal abnormalities due to the production of unbalanced gametes. Along with all this information, we referred the couple who wanted to have a healthy child to an IVF and PGD center.

Keywords: Habitual abortus, translocation

[Abstract: 0166] [P-36] [Accepted: Poster Presentation]

The Effect of Lipiodol on Endometrial Receptivity in Infertile Women

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Aim: In the 1970s, a Lipiodol histerosalpingogram (HSG) was the routine test for tubal patency, also it was offered as an innovative treatment in New Zealand from September 2003. The purpose of this study is to present the effect of Lipiodol on endometrial receptivity, using Doppler ultrasound, because observational studies, then randomised controlled trials, provided evidence of a fertility enhancing effect of Lipiodol on the endometrium.

Materials-Method: 35 cases who had ovulation induction were included in the study. Patients performed HSG with Lipiodol after their first negative intrauterine insemination (IUI), on their 7th and 10th day of menstruation.4 cases who have pregnancy after their first IUI were excluded since HSG wasn't be able to performed. Endometrial thickness, uterine artery systol/diastol ratio (S/D), resistance index (RI), subendometrial vessels were measured S/D ratio and RI were measured before and after HSG for evaluating the effect of Lipiodol on uterine artery and subendometrial blood flow.

Results: After HSG with Lipiodol, the decrease in endometrial thickness, increase in trilaminar echogenity were determined. Blood flow in uterine artery and subendometrial vessels using Doppler USG were decreasedbut this decrease was not statisticallyy significant.

Conclusion: HSG, which has an important role for diagnosisof the infertile patients, needs to be studied further more to see the effects on endometrial receptivity, while using Lipiodol.

Keywords: Endometrial receptivity, Lipiodol, HSG, infertility

[Abstract: 0169] [P-37] [Accepted: Poster Presentation]

Identification of Rare Beta-Globin Gene Frameshift Mutation (14LeuFsX21) in HBB Gene by Direct Sequencing in Azerbaijani Patients

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Objective: To report the very rare occurrence of a mutation of thalassemia major, which was found out in two patients. This type of mutation should be also screened in prenatal diagnosis of the thalassemia and accentuate the importance of sequencing in prenatal genetic diagnosis.

Materials and Methods: 1 DNA Extraction for PCR. (QIAmp DNA Blood Mini Kit). 2 Amplification and Sequencing Analysis: For the detection of mutation two segments of the β-globin gene were amplified separately that cover almost full of HBB (1210 bp out of 1605 bp) by polymerase chain reaction using specific primers designed in-house. The amplification products were then electrophoresed in a 2% agarose gel to assess PCR efficacy. Excess primers and unincorporated dNTPs in each PCR products were cleaned by EXOSAP IT (USB Corporation, USA). After purification, 2.5 μL of the amplicons and 1 μmol/L of either forward or reverse primers were used for sequencing. The cycle sequencing reaction was carried out using BigDye Terminator cycle sequencing kit v3.1 (Thermo Fisher Scientific, USA) following the protocol provided by the manufacturer. The sequencing amplicons were purified with BigDye XTerminator™ Purification Kit (Thermo Fisher Scientific, USA) and separated by capillary electrophoresis on 3130 XL Genetic Analyzer (Thermo Fisher Scientific, USA). The resultant sequence was compared with NCBI Ref Seq entry of HBB (NG_000007.3) using SeqScape software (Applied Biosystems, USA).

Results: Direct sequencing of the beta-globin gene showed that the patient had a very rare mutation at codon 14 of the β-globin gene (HBB: c.44_45insT). This mutation was caused by the insertion of a thymine at codon 14 of beta-globing gene changing the reading frame which usually results in premature termination of translation. HBB c.44_45insT is located in codon 14 of exon 1 of Hb gene (shown in figure) This insertion caused a frame-shift in premature termination of translation at codon 21(TGA) resulting in beta-thalassemia major. A review of literature suggests that this mutation is very rare case and previously reported only in one Azerbaijani patient. This mutation not found in the databases of mutations of the Hb gene. The patients also had a second common mutation of the β-globin gene (HBB: c.251delG) [82/83GlyFsX89]. Mutation at this position contribute premature termination of translation at codon 89(TGA) which results in incomplete beta-globin chain formation.

Conclusion: Clinical laboratories use a battery of mutations for routing diagnosis or screening purpose based on the most common mutations specific for a particular population. However, this approach sometimes misses rare presence of mutations. Therefore, an undetected rare mutation if co-inherited with a common mutation may be wrongly diagnosed as beta-thalassemia trait. In this study we report a rare mutation HBB: c.44¬¬_45insT which was co-inherited with a common mutation, HBB: c.251delG [82/83GlyFsX89 (rs193922555)] found in two a Azerbaijani patients (table). This compound heterozygote condition explained the generation of significant reduction in the synthesis of beta-globin chain as exhibited the patient and complications compatible with β thalassemia major. This combination of mutations clearly leads to β0/ β0- thalassemia.

Keywords: Hemoglobin, thalassemia, mutation, sequencing analysis, gene

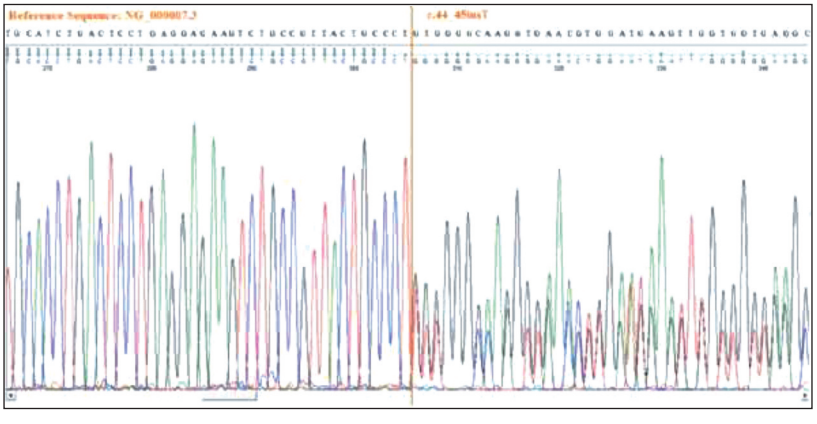

FIGURE 1: Sequencing results of the affected individual showing insertion of T at codon 14 in exon 1 of the HBB gene (Forward).

TABLE 1: Results of sequencing of the HBB gene.

Family members	Result
Subject: A	c.44¬¬_45insT / c.250delG
Mother of Subject A	c.44¬¬_45insT
Father of Subject A	c.251delG
Fetus of Subject A	Normal
Subject: B	c.44¬¬_45insT / c.251delG
Mother of Subject: B	c.251delG

[Abstract: 0172] [P-38] [Accepted: Poster Presentation]

İnfertil Populasyonda Tedavi Öncesi, TORCH Taraması Rutin Yapılmalı mı?

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Sakarya Tıp Fakültesi Eğitim Araştırma Hastanesi Kadın Hastalıkları ve Doğum Kliniği

Amaç: Perinatal enfeksiyonlar, düşük, ölü doğum, konjenital anomali gibi patolojilere yol açarak,özellikle az gelişmiş ve gelişmekte olan ülkelerde perinatal morbidite ve mortalitenin önemli nedenlerinden birini oluşturmaktadırlar. En sık etken patojenler Toksoplazma gondii protozoonu, CMV(sitomegalovirüs), Rubella virüsleridir. TORCH taraması yapılması araştırmacılar arasında halen tartışmalı olan bir konu olduğu için, karar vermek açısından, diğer faktörler yanında, öncelikle o bölgeye ait seropozitiflik oranlarının bilinmesi gerektiğini düşünerek çalışmayı planladık.

Materyal Metod: Sakarya Üniversitesi Tıp Fakültesi Kadın Hastalıkları ve Doğum İnfertilite Polikliniğine 2017 yılı içinde, primer ve sekonder infertilite nedeniyle başvuran çiftler arasından,100 infertil kadın hasta çalışmaya alındı. Katılımcıların rutin infertilite tanı testlerinin yanı sıra, TORCH serolojileri de çalışıldı. TORCH serolojisi, Sakarya üniversitesi hastanesi mikrobiyoloji laboratuvarlarında, ELISA yöntemi ile çalışıldı.Sonuçlar retrospektif olarak değerlendirilmiştir.

Bulgular: Hastaların yaş ortalaması 27.5 olan çalışma grubunda, Toksoplazma IgG seropozitiflik oranı %17, seronegatiflik oranı % 83 olarak bulundu. Ülkemizde Toksoplazma seropozitifliği ile ilgili çok sayıda araştırma yapılmış olup, bölgelere ve çalışma gruplarına göre farklılık göstermekle birlikte %14 ile %85 arasında değişen oranlarda bildirilmektedir. Çalışmamızda Rubella IgG seropozitiflik oranı %95, Seronegatiflik % 5 bulundu.Bu değer literatürle uyumludur.CMV IgG seropozitiflik oranı %99 olarak tespit edildi. Cytomegalovirus (CMV) infeksiyonu, her yaşta görülebilen, sağlıklı kişilerde genellikle asemptomatik seyreden bir hastalıktır.CMV seropozitifliği çalışmamızda oldukça yüksek saptanmış olup,bununda sosyoekonomik düzey ile ilişkili olduğu düşünülmüştür.

Sonuç: İnfertil çiftlerde, planlanan bir gebelik söz konusu olduğu için, çoğunlukla tedaviye başlamadan önce, kadınlar gebelikte sorun yaratabilecek enfeksiyonlar açısından incelenmelidir. Bölgemiz de Toksoplazma seropozitifliğinin düşük oranlarda izlenmesinden dolayı, konjenital toksoplazmoz riskine karşı tarama stratejilerinin belirlenebilmesi ve seronegatif gebelerin korunma yöntemleri konusunda bilgilendirilebilmesi önem taşımaktadır. Rubella Ig G taramasını gebelik öncesinde yapıp, seronegatifleri aşılamak konjenital rubella sendromunu önlemede etkin olucaktır. TORCH enfeksiyonlarının tümünün, İnfertil hastalarda taranması maliyet etkin ve gerekli gibi görünmesede; özellikle Toksoplazma ve Rubella enfeksiyonları için rutin taramanın, koruyucu ve önleyici hekimlik açısından gerekli olduğu düşüncesindeyiz.

Anahtar kelimeler: İnfertlite, TORCH enfeksiyonları, Tarama Testleri

[Abstract: 0173] [P-39] [Accepted: Poster Presentation]

The Effect of the Embryo Flash Position and Migration After Embryo Transfer on ART Outcome

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Introduction: Despite high rate of success of ART with great advances in several factors, there is no consensus on the optimal ET technique. Therefore, studies recently focused on the importance of ET to achieve higher pregnancy rate (PR). Monitoring the final position of air bubble at ET could identify PR. In our previous study, we already demonstrated that the optimal position of air-bubble, used as an identifier of the position of the embryo at ET, is a distance of <10 mm from the fundal endometrial surface and placing air bubbles closer to fundus is associated with higher PRs. But the position of air bubble in the uterine cavity may change following ET. Therefore, after the initial assessment of the air bubbles at ET, the embryo can migrate towards fundus or towards cervix, or it may remain static. Whe hypothesized that the change of the embryo flash position at 60 min after ET may has either positive or negative influence for PR. The purpose of our current study is to evaluate the effect of embryo flash position and movement of the air bubbles at 1 and 60 min following ET on clinical PRs.

Materials and Methods: A total of 230 fresh US-guided ETs performed at IVF center of Yeditepe University Hospital between September 2016 and February 2017 were included. All ET was classified into 3 groups according to the embryo flash movement/migration. It was evaluated by measuring the change of the embryo flash position at 60 min after ET. If it had remained within ±1.5 mm from its original position it was classified as static, if it had migrated <1.5 mm towards the fundus or >1.5 mm towards the cervix it was classified as fundal and cervical, respectively (Figure 1). The evaluation and management of the patients and ET are performed by one operator(C.F.).

Results: There was no significant difference in terms of CPRs between women with embryo flash located >15 mm from the fundus and women with embryo flash located <15 mm from the fundus at 1 or 60 min (p=0.6 and p=0,7, respectively).The pregnancy rates in women with embryo flash located <15 mm and >15 mm from the fundus were 47% and 60%, respectively (p=0.6) (Table 1). It may not reach statistical significance, it mayresult from the small sample size of women with embryo flash located >15 mm from the fundus. The clinical intrauterine PRs were 69,5%, 38,5% and 19,1% in fundal, static and cervical, respectively (Table 2).The highest PR was in fundal when compared with others(p < 0.01). The clinical PR appears to be associated with the the embryo flash movement/migration and the PR was dramatically reduced when embryo migrated from its original position towards the cervix at 60 min.

Conclusion: We concluded that clinical PR appears to be associated with the the embryo flash movement/migration at 60 min after ET and embryo flash movement towards the fundus is associated with higher clinical PRs. Further well-designed randomized controlled trials are required to optimize ET technique in the future.

Keywords: Embryo Transfer, In vitro fertilization, air bubble, embryo flash position

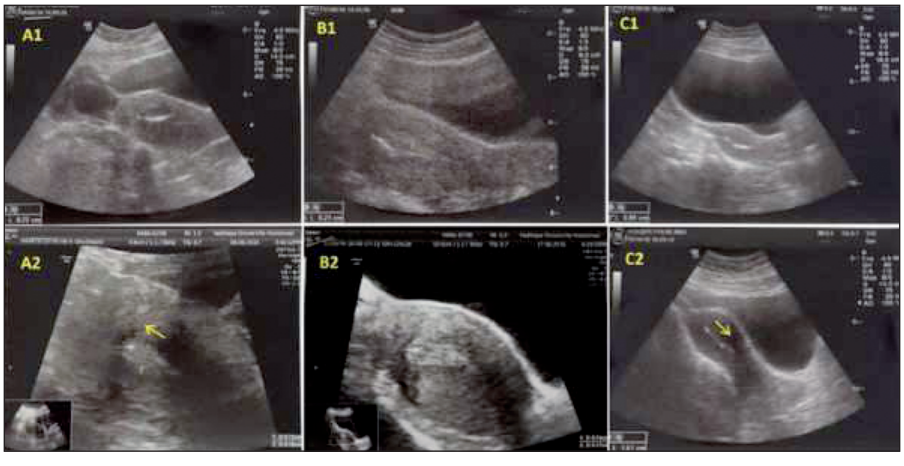

FIGURE 1: The embryo flash movement/migration: (A) fundal, (B) static, (C) cervical.

TABLE 1: CPRs according to the position of the embryo flash relative to the fundus at 1 and 60 min after ET

Embryo flash	<15 mm	>15 mm
1. min	100/213 (46,9%)a	4/7 (57,1%)a
60. min	101/215 (47%)b	3/5 (60%)b

TABLE 2: CPRs according to embryo flash movement within 60 min of ET.

Embryo flash movement	Pregnancy rate
Fundal migration group	65/95 (68,4%)a
Static group	30/78 (38,5%)
Cervical migration group	9/47 (19,1%)

[Abstract: 0175] [P-40] [Accepted: Poster Presentation]

The Efficacy of Transferring Blastocysts Developed from Embryos with Multinucleated Blastomeres

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Objective: Multinucleated blastomeres (MNB) are sometimes found during morphological observation of early cleaved embryos. The mechanism of MNB formation is not clear and sometimes the MNB disappears during cleavage. When found, some IVF institutions exclude embryos which have had MNB from transfer. Due to its nature, fixed-point observation by microscope can overlook its occurrence. However, detailed MNB observation has recently become possible by tracking real-time embryo development using time-lapse cinematography (TLC). In this study, the time and incidence of the formation of the MNB, and its influence on the good-quality blastocyst development rate and pregnancy rate were evaluated retrospectively.

Materials and methods: A total of 209 cases of oocyte retrieval in complete natural cycle carried out in our clinic from July 2014 to October 2015 was included in the study. A total of 527 embryos, which were fertilized normally by ICSI, were cultured up to blastocyst-stage under TLC observation using Embryo ScopeTM. All the blastocysts were subjected to assisted hatching, then vitrified, warmed in the transfer cycle, and transferred under transvaginal ultrasound guidance using single embryo transfer.

Results: Of the cleaved embryos in this study, 203 embryos (38.5%) developed into blastocysts which met the criteria for vitrification in our clinic. Of the 203 blastocysts, 161 were warmed and transferred. The formation of MNB was observed in 57.9% (305/527) and the average tMNB was 33.5±8.1 hours. The development rates to blastocyst of MNB-formed embryos and non-MNB-formed embryos were 27.9% (85/305) and 53.2% (118/222), respectively ($P<0.0001$). The implantation rates per transfer of the two categories of embryos were 54.7% (35/64) and 48.5% (47/97), and the live birth rates were 40.6% (26/64) and 32.0% (31/97), respectively. Also, among the MNB-formed embryos, the MNB appeared significantly later in those embryos unable to be vitrified than in those able to be vitrified ($P<0.001$). Equally, the time the embryo took to cleave up to the 4-cell stage was significantly longer in those unable to be vitrified than in those able to be vitrified ($P<0.05$).

Conclusions: The chance of missing the MNB formation when using a conventional observation method is probably higher than when using TLC, due to the fact that the MNB disappears relatively quickly, as well as due to the size and positional relationship of the blastomeres. The blastocyst development rate of embryos with MNB-forming blastomeres was significantly lower than that of embryos with non-MNB-forming blastomeres. However, there was no significant difference regarding the pregnancy rate per transferred embryo and the live birth rate. The findings suggested that, although the formation of MNB reduced the blastocyst developmental competence, once the embryo became a good-quality blastocyst, it had equivalent fertility to one with a non-MNB-forming blastomeres. They also suggested the possibility that the delay in the timing of MNB formation may delay cleavage, in turn undermining the embryo's developmental ability.

Keywords: Multinucleated blastomeres, time-lapse cinematography, natural cycle IVF, single embryo transfer

[Abstract: 0181] [P-41] [Accepted: Poster Presentation]

Açıklanamayan İnfertilitesi Olan Kadınlarda Tam Kan Sayımındaki İnflamatuar Parametrelerin Araştırılması

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Amaç: Açıklanamayan infertilite (UI) standart infertilite tetkiklerinin normal olduğu infertilite durumudur. İn vitro fertilizasyon (IVF) başarısı UI'de diğer infertil gruplara göre daha düşüktür. Kronik inflamasyon pek çok inflamatuar belirtecin yüksekliği olarak tanımlanır. UI'de interlökin ve proinflamatuar faktörler ile yüksek başarısızlık oranları arasında ilişki gösterilmiştir. Beyaz kan hücresi (WBC), nötrofil, nötrofil-lenfosit-oranı (NLR), platelet-lenfosit-oranı (PLR) ve ortalama platelet hacmi (MPV) gibi bazı tam kan parametreleri inflamasyon belirteçleri olarak kullanılmaya başlamıştır. İnfertilitenin kronik inflamatuar bir durum olduğu bilinse de artmış inflamatuar yanıtın IVF başarısına etkisi net bilinmemektedir. Çalışmamızda, UI'de IVF başarısını tahminde tam kan sayımının inflamatuar belirteçlerinin kullanılabilirliğini araştırmayı amaçladık.

Yöntem Gereç: 2012-2016 yılları arasında kliniğimize IVF tedavisi için başvuran hastaların dosyaları tarandı. 121 tane UI'lı infertil hasta ve 125 tane kontrol grubu hasta çalışmaya alındı. Kontrol grubu azospermi ve şiddetli oligoastenospermi dışında erkek faktör nedenli IVF tedavisi alan hastalardan oluşmaktaydı. Ciddi pelvik yapışıklık, pelvik inflamatuar hastalık, endometriozis ve düşük overyan rezervi olanlar kontrol grubu dışında bırakıldı. Sistemik hastalık, endokrinopati, hematolojik hastalık, infeksiyon hastalığı, malignansi, otoimmun hastalık, glikokortikoid ve antiinflamatuar ilaç kullanımı, kronik antiinflamatuar durumu olanlar ve obez olanlar (BMI>25 kg/m2) çalışma dışına bırakıldı. Overyan stimulasyon öncesi rutin bakılan tam kan sayımından WBC, nötrofil, lenfosit, NLR, PLR, PLT ve MPV sayıları kaydedildi. Hastaların dosyalarından demografik veriler ve bazal hormon değerleri not edildi. Embriyolojik notlardan toplanan oosit sayısı, metafaz II (MII), MI, germinal vezikül (GV), empty zonalı oosit (EZ) ve anomalili oosit sayıları kaydedildi. Fertilizasyon kaydı, embryo sayıları ve kaliteleri, transferden sonra bakılan β-hCG değerleri, uterin gestasyonel kese görünümü, canlı bebek doğum kayıtları dosyalardan bakıldı. MII oranı MII/toplam oosit sayısı, fertilization oranı (FO) embryo sayısı/MII formülüyle bulundu. FR<%60 ise düşük FR, >%60 ise normal FR olarak tanımlandı. İmplantasyon, embyo transferinden 14 gün sonra bakılan β-hCG pozitifliği, klinik gebelik (CP) ultrasonda gestasyonel kese varlığı, eve bebek götürme canlı doğum yapması olarak tanımlandı. Biokimyasal abort (BA), gestasyonel kese görülmeden β-hCG'nin negatifleşmesi, klinik abort (CA) gestasyonel kese görüldükten sonra abort olması olarak tariflendi.

Bulgular: Yaş, BMI, infertilite süresi, siklus sayısı ve bazal hormon seviyeleri açısından UI grupla kontrol grubu arasında fark yoktu. Total oosit, MII, MI, GV, EZ, anomalili oosit sayısı, MII oranı, FO, embryo sayı ve kalitesi ve gebelik ve abort sonuçları iki grup arasında homojen dağılmıştı (Tablo 1). WBC, PLT, nötrofil, lenfosit, NLR, PLR ve MPV değerleri de gruplar arasında benzerdi (Tablo 2). UI grup içinde inflamatuar belirteçler ve FSH ve E2 seviyeleri arasında ilişki bulunmazken, LH seviyeleri PLR ile pozitif koreleydi. PLT ile embryo sayısı ve FO arasında pozitif korelasyon bulundu. Lenfosit sayısı ile FR arasında pozitif korelasyon ve MPV ile embryo sayısı arasında negatif korelasyon vardı (Tablo 3). Yaş ve BMI etkisi çıkarıldıktan sonra regresyon analizinde açıklanamayan infertil grup içinde lenfosit sayısı FR üzerinde etkili tek pozitif belirteç iken, PLR implantasyon üzerinde tek negatif prediktif etkili belirteçti. Araştırılan parametrelerden hiçbiri CP, eve bebek götürme, BA ve CA üzerine prediktif değildi.

Sonuç: Açıklanamayan infertil kadınlarda lenfosit sayısı FR üzerinde pozitif, PLR ise implantasyon üzerine negatif belirteç olarak kullanılabilir.

Anahtar Kelimeler: Tam kan sayımı, inflamasyon, in vitro fertilizasyon başarısı, açıklanamayan infertilite

TABLO 1: Açıklanamayan infertil grup ve kontrol grubu arası bazal özellikler ve IVF parametrelerinin karşılaştırılması.

	Açıklanamayan infertil grup(n=121)	Kontrol grubu (n=125)	p
Yaş (yıl)	30.09±4.59	29.72±5.09	0.54
VKİ (kg/m2)	23.58±3.37	23.16±2.81	0.28
İnfertilite süresi (yıl)	7.09±4.1	6.31±4.28	0.14
Siklus sayısı	1.47±0.82	1.52±0.81	0.58
TSH	2.06±1.17	1.82±0.88	0.06
E2 (pg/ml)	50.43±34.31	60.7±57.09	0.09
FSH (mIU/ml)	7.72±2.65	7.66±3.5	0.88
LH (mIU/ml)	5.36±3.14	5.33±3	0.92
PRL	14.53±8.22	14.59±11.63	0.96
Ooosit parametreleri			
Total oosit sayısı	9.12±4.96	9.91±6.38	0.28
MII oosit	6.33±3.57	6.88±4.38	0.28
MI oosit	1.35±1.32	1.56±1.92	0.31
GV oosit	1±1.91	1.06±1.52	0.79
Anomalili oosit	0.13±0.53	0.08±0.38	0.46
EZ	0.14±0.45	0.12±0.39	0.71
MII oranı	71.24±21.97	71.61±19.09	0.88
FO	55.09±30.97	48.33±31.6	0.1
Embryo sayısı	3.78±2.88	3.39±2.77	0.29
Embryo kalitesi			
Grade 1	92/102 (90.2%)	83/95 (87.4%)	
Grade 2	9/102 (8.8%)	9/95 (9.5%)	0.5
Grade 3	1/102 (1%)	3/95 (3.2%)	
İmplantasyon (%)	14/99 (14.1%)	20/95 (21.1%)	0.1
Klinik gebelik (%)	12/99 (12.1%)	16/95 (16.8%)	0.35
Eve bebek götürme (%)	11/99 (11.1%)	12/95 (12.5%)	0.76
Biokimyasal abort (%)	1/99 (1%)	3/95 (3.2%)	0.29
Klinik abort (%)	1/99 (1%)	3/95 (3.1%)	0.29

VKI: Vücut kitle indeksi; TSH: Tiroid stimulan hormonn; E2: Estradiol; FSH: Folikul stimulan hormon; LH: Luteinizan hormon; PRL: Prolaktin; r-FSH: Recombinan folikul stimulan hormon; u-FSH: Üriner folikul stimulan hormon; MII: Metafaz II; MI: Metafaz I; GV: Germinal vezikül; EZ: Empty zonalı oosit; FO: Fertilization oranı.

TABLO 2: Açıklanamayan infertil grup ve kontrol grubu arası tam kan sayımının inflamatuar belirteçleri.

	Açıklanamayan infertil grup (n=121)	Kontrol grubu (n=125)	p
WBC	9.12±2.14	8.99±2.31	0.64
PLT	258.86±63.97	266.08±60.78	0.36
Nötrofil	6.23±1.87	5.98±1.66	0.27
Lenfosit	2.15±0.57	2.26±1.25	0.37
NLR	3.05±1.21	2.88±0.94	0.22
PLR	126.01±37.98	130.08±42.62	0.43
MPV	8.62±0.94	8.59±0.93	0.82

WBC: Beyaz kan hücreleri; PLT: Platelet; NLR: Nötrofil lenfosit oranı; PLR: Platelet lenfosit oranı; MPV: Ortalama platelet hacmi.

TABLO 3: Tam kan sayımının inflamatuar belirteçleri ve bazal hormon değerleri ve IVF sonuçları arasındaki ilişki.

		Yaş	VKI	Total oosit sayısı	MII sayısı	MII oranı	FO	Embryo sayısı	E2	FSH	LH
WBC	r	-0.08	-0.11	0.1	0.14	0.05	0.1	0.12	-0.07	-0.05	-0.07
	p	0.34	0.2	0.24	0.1	0.54	0.24	0.19	0.39	0.55	0.4
PLT	r	-0.01	0.17	0.04	0.03	-0.007	0.27	0.22	-0.17	0.02	0.1
	p	0.9	0.05	0.61	0.69	0.94	0.003	0.01	0.06	0.76	0.26
Nötrofil	r	-0.09	-0.12	0.12	0.16	0.06	0.03	0.07	-0.007	-0.04	-0.02
	p	0.32	0.18	0.18	0.07	0.48	0.71	0.41	0.93	0.59	0.82
Lenfosit	r	0.03	0.03	-0.02	-0.003	0.01	0.23	0.13	-0.1	0.06	-0.17
	p	0.72	0.7	0.81	0.97	0.84	0.01	0.14	0.25	0.47	0.05
NLR	r	-0.15	-0.09	0.13	0.16	0.05	-0.11	-0.02	0.09	-0.02	0.08
	p	0.09	0.28	0.14	0.07	0.52	0.19	0.79	0.3	0.82	0.36
PLR	r	-0.04	0.1	0.04	-0.01	-0.05	0.03	0.03	0.008	-0.01	0.22
	p	0.62	0.23	0.6	0.91	0.52	0.72	0.68	0.92	0.91	0.01
MPV	r	0.08	-0.11	-0.11	-0.12	-0.006	-0.15	-0.18	-0.06	-0.05	-0.15
	p	0.36	0.2	0.21	0.17	0.95	0.1	0.04	0.46	0.57	0.09

WBC: Beyaz kan hücreleri; PLT: Platelet; NLR: Nötrofil lenfosit oranı; PLR: Platelet lenfosit oranı; MPV: Ortalama platelet hacmi; VKI: Vücut kitle indeksi; MII: Metafaz II; FO: Fertilizasyon oranı; E2: Estradiol; FSH: Folikul stimulan hormon; LH: Luteinizan hormon.

[Abstract: 0182] [P-42] [Accepted: Poster Presentation]

Sekonder İnfertil Nedenli Transvers Vajinal Septum Tedavisi: Olgu Sunumu

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Amaç: Genellikle karşımıza primer amenore veya infertilite nedeniyle çıkan, transvers vajinal septum vakalarından farklı olarak, sekonder infertilite nedeniyle yapılan değerlendirme ilk kez tanı alan olgunun başarılı bir şekilde yapılan tedavisini sunmayı amaçladık.

Giriş: Transvers Vaginal Septum, vajinanın herhangi bir yerinde olabilirse de, ençok 1/3 üst kısımda görülür. Müllerian kanallar veya sinovaginal bulbus fuzyonunun yetersiz kanalizasyonu ya da müllerian kanallar ile ürogenital sinus arasında anormal fuzyondan oluşur. Bu septum açılma olmadan (tamamlanmış veya tıkanmış olabilir) veya küçük bir merkezi açıklığa sahip olabilir (eksik veya tıkanmamış). İnsidans, 30.000 ila 84.000 kadın için 1'dir.

Olgu: 34 yaşında, G1P1Y1,olan hasta Sakarya Tıp Fakültesi İnfertilite polikliniğimize 2016 Aralık ayında, çocuk istemi ile başvurdu. Hasta özgeçmişinde; 2014 yılında spontan gerçekleşen gebeliği olduğu,takibinde 33 haftalık pretem eylem, preeklampsi nedeniyle sectio ile doğum yaptığı öğrenildi. İlk doğum için yattığı hastanede,hastaya vajinal anomalisinin olduğu, normal doğum yapamıyacağı konusunda bilgi verildiği de öğrenildi. Sekonder infertiitel nedeniyle başvuran hastanın ve eşinin rutin infertilite tetkikleri istendi.Alınan anemnezde hastanın adetleri düzenli,fakat disparoni ve dismenoresi olduğu saptandı.Yapılan jinekolojik muayenede; servix izlenemedi. Transabdominal ultrasonografide uterus ve adneksler doğal görünümde izlendi.. Transperineal ve vulvar yaklaşımla yapılan US incelemesinde distal vaginal transvers septum ile uyumlu hiperekojen lineer yapı izlendi. İleri tetkik olarak çekilen MR sonucunda da; Uterus, her iki over doğal görünümde değerlendirildi. Hastaya diagnostik vajinoskopi ve Histeroskopi planlandı.Operasyonda inkomplet transvers vajinal septum tanısı doğrulandı.Septum rezeke edildi.Hastanın postoperatif takibinde komplikasyon gelişmedi, hemoglobin 9.5 gr/dl, hematokrit % 31.4 Hasta postoperatif 1. günde vajinal dilatötör önerileri ve östrojen tedavisi ile taburcu edildi. Postoperatif 3. ayda hasta spontan gebe kaldı.Gebeliği halen sağlıklı birşekilde devam etmektedir.

Tartışma ve Sonuç: Vertikal füzyon defektleri transvers vajinal septumun oluşumunda etkindir. Klinik tablosu, septumun perfore (inkomplet) veya imperfore (komplet) olmasına göre değişir. Erken çocukluk çağında hidrometrokolpos ve geniş abdomino-pelvik kitle ile görülebilir. Perfore transvers septum ilk pelvik inceleme yapılırken serviksin görülememesi ile fark edilebilir. Ayrıca ilişki veya tampon kullanım zorluğu yada yoğun vajinal akıntı,infertilite nedeniyle de karşımıza gelebilir. Tedavi septumun eksizyonu, alt ve üst mukozanın birleştirilmesidir. Rezeksiyon sonrası vajinal protez kullanılması cerrahi yüzeyde stenozu engeller.

Anahtar kelimeler: Transver vajinal septum, sekonder infertilite

[Abstract: 0185] [P-43] [Accepted: Poster Presentation]

Chronic Lymphofollicular Endometritis is a Cause of Endometrial Receptivity Disorder and Recurrent Implantation Failure

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A high prevalence of implantation failure determines study relevance of pathogenesis, timely diagnosis and targeted therapy of chronic endometritis as one of the leading factors of endometrial receptivity disruption. The lymphoid follicles (LF) morphogenesis in the endometrium remains poorly investigated: their prevalence in chronic endometritis varies from 9% to 19.5% and their significance in the local immune response is still under discussion.

Objective: The purpose of this study is comparative analysis of chronic endometritis with (CELF+) and without lymphoid follicles (CELF-) evaluated on the basis of hysteroscopic, histological and immunohistochemical methods of endometrium in women with recurrent implantation failure (RIF).

Material and Methods: Histological, immunohistochemical examination of endometrium biopsy samples obtained while performing hysteroscopy in the first phase of menstrual cycle (from 5-9 days) in 964 women with RIF and verified diagnosis of chronic endometritis for the period from 2011-2016. The average age of participants was 35.7 years. Immunohistochemical method was used to determine CD20, CD138, CD56, CD16, HLA-DR immune cells. After complex therapy of chronic endometritis depending on the severity of inflammatory infiltration and LF prevalence 266 patients from total 964 participants had conventional IVF protocol.

Results: The prevalence of CELF + in women with RIF was 14.9% (144 of 964) and was characterized by two morphological variants: focal LF - 9.1% (N=88) and diffuse LF - (5.8% (N=56). Moreover, a higher number of NK(CD56, CD16)-lymphocytes, plasma cell (CD138), HLA-DR lymphocytes and severe progressive fibrosis was statistically significant comparing to CELF- ($p<0,001$). Hysteroscopic pattern was characterized by white-pointed mucosa which has the form of "semolina" and pseudopolypoid submucosal protrusions. The IVF results were analyzed in 266 women with individual complex therapy. The patients were divided into two groups: CELF + (N=31; 11.6%) and CELF- (N=235; 88.4%). The clinical pregnancy rate was 1.9 times lower in CELF + group (8 out of 31 (25.8%)) comparison with CELF- (113 out of 235 (48%)).

Conclusion: We have identified a special morphological form CE– so called “lymphofollicular chronic endometritis”, which has specific histopathologyc and hysteroscopic manifestations characterized by an unfavorable prognosis in IVF effectiveness. We hypothesize that the formation of lymphoid follicles in the background of lymphocytic infiltration and endometrial fibrosis should be considered as a pathognomonic sign of autoimmune endometritis. Thus it requires further study, creates real prospects for pathogenetic diagnosis and development targeted timely treatment of women with RIF.

Keywords: Lymphoid follicles, chronic endometritis, endometrial receptivity, recurrent implantation failure

[Abstract: 0186] [P-44] [Accepted: Poster Presentation]

Tekrarlayan Düşükleri Olan Kadınlarda Faktör XII Aktivitesinin Değerlendirilmesi

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Amaç: Amacımız tekrarlayan düşükleri olan kadınlarda faktör XII aktivitesinin aPTT ölçümüyle değerlendirilmesidir.

Gereç-Yöntem: Bu çalışma 2014-2016 yılları arasında tekrarlayan düşük problemi ile kliniğimize başvuran toplam 145 hastada yapıldı. Dahil olma kriterleri olarak 12. gebelik haftanın altında ardışık 2 tane ya da ardışık olmayan 3 tane düşük hikayesi olan hastalar alındı. Faktör XII aktivitesi aPTT bakılarak değerlendirildi.

Bulgular: Çalışmaya dahil edilen 145 tekrarlayan düşükleri olan kadınların ortalama yaşları 28.4 (± 7.6) ve ortalama düşük sayısı ise 2 olarak tespit edildi. Ortalama Faktör XII aktivitesi % 106.19 ± 33.62 (90-200) bulundu. Hastaları %6.8'inde (n=10) faktör XII aktivitesi %60 dan küçük olarak bulundu. Faktör XII aktivitesi % 35'in altında toplam 3 vaka vardı. %93.2 (n=135) hastada faktör XII aktivitesi %60'dan büyük olarak bulundu.

Sonuç: Tekrarlayan düşükleri olan vakalarda rutin trombofilik faktörlerin araştırılması sırasında en azından aPTT ölçümününde yapılması tanı açısından faydalı olabilir. Uzamış aPTT si olan kadınlarda açıklayıcı bir sebep yoksa, her ne kadar nadir de olsa faktör XII bakılması önerilebilir.

Anahtar kelimeler: Tekrarlayan düşükler, aPTT, FaktörXII

TABLO 1: Çalışma grubunun demografik özellikleri.

		Min-Max
Yaş (ort±SD) (yıl)	28,4±7.6	19-37
Gravida	4	2-9
Abortus	2	2-8
Daha önce canlı doğum	0	0-2

TABLO 2: Habitüel abortuslu kadınlardaki Faktör XII seviyesinin dağılımı.

Faktör XII dağılımı	n=145	%	Mean±SD
< %10	1	0,3	0,9
%10-35	2	1,4	23,65± 7,49
%35-60	7	5,1	49,71± 6,71
%60-150	117	81,1	103,47± 18,23
%150-200	18	12,1	179,61± 15,41
Total	145	100	106,19± 33,62

[Abstract: 0189] [P-45] [Accepted: Poster Presentation]

The Role of Urinary NGAL (Neutrophil Geltinase-Associated Lipocalin) and Serum MMP-9 (Matrix Metalloproteinase-9) in Prediction of Presence and Severity of Endometriosis

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Objective: To investigate the roles of urinary NGAL (neutrophil geltinase-associated lipocalin) and serum MMP-9 (matrix metalloproteinase-9) levels in prediction of presence and severity of endometriosis.

Material - Method: Patients that underwent laparoscopic surgery due to benign gynecologic disorders between November 2016 and June 2017 at Clinic of Obstetrics and Gynecology, Ufuk University, School of Medicine, were included in the study. The biochemical parameters of patients with surgically staged, histopathological diagnosis of endometriosis were compared in terms of severity of disease (stage I-II vs stage III-IV) and with the control group that had no endometriosis proven with laparoscopic surgery. Mann-Whitney U, chi-square, and Fisher's exact tests were used for univariate analyses. Variables with a P value <0.05 in the univariate analysis were included into a multiple lineer regression analysis. The effects of variables on prediction of severity of endometriosis were reported using adjusted odds ratios (ORs) and 95% confidential intervals (95% CI). The diagnostic performances and cut-off values of variables in prediction of severity of endometriosis was determined using receiver operating characteristics curve (ROC-Curve) analysis.

Results: The median age of the patients was 34 and the median body mass index (BMI) was 26.7 kg/m2. The mean levels of Ca-125, urinary NGAL, and serum MMP-9 were 48.9 U/mL, 3.9 ng/dL, and 22.4 pg/ml, respectively. There were 30 patients with stage I-II endometriosis, 30 patients with stage III-IV endometriosis, and 31 patients in the control group. The levels of urinary NGAL did not differ significantly between patients with and without endometriosis (P = 0.551), and between patients with early and advanced staged endometriosis (P = 0.232). However, the levels of serum MMP-9 were significantly different both between patients with and without endometriosis (P = 0.002), and between patients with early and advanced staged endometriosis (P<0,001) (Table 1). To determine factors predicting severe endometriosis, age, BMI, levels of serum Ca-125, urnary NGAL, and serum MMP-9, and the ratio of serum MMP-9/urinary NGAL were included in the multiple linear regression analysis as potential covariates. Among these variables, only the serum Ca-125 [OR:1,04; %95 CI: (1,01 – 1,06); P = 0,002] and serum MMP-9 [OR:1,69; %95 CI: (1,17 – 2,43); P = 0,005] levels were found to be independently associated with severe endometriosis (Table 2). According to ROC analysis, the cut-off values of these variables in prediction of severe endometriosis were 23 U/mL for Ca-125 [sensitivity, 90%; specificity, 76.7%; positive predictive value (PPV), 76.9%; and negative predictive value (NPV), 94.5%], and 14,13 pg/mL for MMP-9 [sensitivity, 80%; specificity, 68.4%; PPV, 64.1%; and NPV, 68.4%](Figure 1)

Conclusion: Urinary NGAL is associated neither with the presence of endometriosis nor with the severity of disease. Serum Ca-125 and MMP-9 levels are two independent predictors of severe endometriosis.

Keywords: Endometriosis, matriks metalloproteinaz-9(MMP-9), neutrophil gelatinase-associated lipocalin (NGAL), serum MMP-9/urinary NGAL rate

TABLE 1: Comparison of urinary NGAL and serum MMP-9 values between groups.

Variables	Endometriosis No (N = 31)	Endometriosis Yes (N = 60)	P	Endometriosis Stage I-II (N = 30)	Endometriosis Stage II-III (N = 30)	P
Urinary NGAL (ng/dL)	3,9 ± 4,1	3,9 ± 4,6	0,551	4,5 ± 4,7	3,7 ± 4,5	0,232
Serum MMP-9 (pg/ml)	11,6 ± 3,7	28,0 ± 33,3	0,002	11,8 ± 3,7	44,1 ± 41,3	<0,001
Serum MMP-9/urinary NGAL rate	20,8 ± 40,3	58,5 ± 93,2	0,031	32,3 ± 57,5	84,7 ± 113,9	0,003

TABLE 2: Factors predicting stage III-IV endometriosis.

Variables	Univariate analysis OR	Univariate analysis OR	Univariate analysis P	Multiple linear regression analysis OR	Multiple linear regression analysis OR	Multiple linear regression analysis P
Age	1,08	0,97-1,21	0,164	-	-	-
Body mass index	0,94	0,80-1,11	0,467	-	-	-
Ca 125	1,03	1,01-1,04	0,001	1,04	1,01-1,06	0,002
Urinary NGAL	0,95	0,85-1,06	0,358	-	-	-
Serum MMP-9	1,34	1,11-1,62	0,002	1,69	1,17-2,43	0,005
Serum MMP-9/urinary NGAL rate	1,01	1,00-1,02	0,050	-	-	-

[Abstract: 0192] [P-46] [Accepted: Poster Presentation]

Polyvinylidene Fluoride (PVDF) as a New Material: Our Initial Experience in Stress Incontinence Treatment

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Purpose: The use of %100 monofilament polyvinylidene fluoride (DynaMesh -SIS minor, mini- sling) as a mesh material in mini-sling operation which is a minimally invasive surgery in urinary incontinence treatment is a new approach compared to other sling materials (polypropylene monofilament mesh). Previous studies have reported that after 12 month follow-up mini-sling operations have cure rates of %78-88. In this study,it was aimed to evaluate the success rates for polyvinylidene fluoride mesh implant used mini-sling cases in stress and mixed incontinence treatment.

Materials-Methods: Cases applied single incision sling with PVDF mesh in our clinic between March 2015 and September 2016 were included to the study.The success rates for mini-sling and other urogynecological problems developed during the follow-up were evaluated by analyzing records of the cases belonging to the follow-up period. Continued urinary incontinence complaints were evaluated as a failure of mini-sling.

Results: 17 cases applied mini-sling with PVDF mesh and having regular follow-up were included to the study. The median age of cases was 50 (43-60) years. %64.7(n=11) of the cases were postmenopausal, %76.4 (n=13) of them were multiparas and %29.4 of them had other operations at the same time with mini-sling. The most frequent concurrent operation was vaginal hysterectomy. (n=3, %17.6) The average postoperative follow-up of cases was 1 year. (0.6-1.6). During follow-up,continued urinary incontinence complaint were observed in %17.6 (n=3) of the cases. Success rate of mini-sling was detected as %82.3. The success rate was found to be %80 in cases having additional operations and%83.3 ($p>0.05$) in cases having no additional operations, %81.8 in menopausal cases and %83.3 ($p>0.05$) in premenopausal cases. During the follow-up,mesh erosion was detected in %17.6 of the cases.

Conclusion: The cure rates of mini-sling cases for our clinic are consistent with the numbers present in literature. The success of mini-sling has not been affected by the patient's menopausal condition or any other gynecological surgery performed at the same time.

Keywords: Mini-sling, urinary incontinence, postoperative complication

[Abstract: 0196] [P-47] [Accepted: Poster Presentation]

Serum Anti-Mullerian Hormone Levels are not Effect on Perinatal Outcome In vitro Fertilization Patients

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Anti mullerian hormone (AMH) is used as a biomarker to assess ovarian reserve. Serum level of AMH is also suggested to be used as a marker to evaluate IVF outcomes. Our aim is o investigate the predictive role of serum anti-mullerian hormone (mAMH) levels in adverse maternal and perinatal outcomes during pregnancy.

This prospective case-control study was conducted. Serum AMH levels were analyzed using ELISA kit in normal pregnant women (n=32) and in pregnant women (n=36) conceived with IVF. AMH level was 5.4 times higher in the control group with normal pregnancy compared with patients conceived with IVF ($p<0.05$). AMH levels was not different in single and twin IVF pregnancies (0.55±0.33 vs. 0.60±0.37 $p>0.05$). There were no statistically significant differences between groups in terms of age, BMI, gestational diabetes, gestation hypertension, preeclampsia ($p>0.05$). Gestational week, vaginal delivery, birth weight, newborn Apgar scores, newborn gender are also similar between the groups.

The findings of the study revealed that AMH levels are lower in IVF pregnancies compared to control patients. But lower AMH is not associated with maternal and perinatal outcome.

Keywords: Anti-Mullerian hormone, IVF, biological marker, perinatal outcome

[Abstract: 0199] [P-48] [Accepted: Poster Presentation]

The Role of ADAMTS-1, -9, and -20 Proteases in the Pathogenesis of Endometrial Polyps

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Background and Aim: A disintegrin-like and metalloproteinase domain with thrombospondin-type 1 motifs (ADAMTS) protein superfamily includes 19 secreted metalloproteases. Proteolytic substrates of ADAMTS enzymes have been linked to female reproductive function. Herein, we aimed to investigate serum ADAMTS-1, -9, and -20 levels in women with and without endometrial polyp (EP).

Methods: A total of 80 women were enrolled in this prospective case-control study. The selection criteria for the study group were hysteroscopic detection and histological confirmation of EPs. ADAMTS-1, -9 and -20 values were measured by commercially available enzyme linked immunosorbent assay. Serum levels of ADAMTS proteinases were calculated from standard curve expressed as ng/ml. The intra- and inter-assay coefficients of variation of kit were lower than 10% and 12% respectively.

Results: There were no statistically significant differences between the groups in term of demographics. Also, no statistically significant differences were observed between the groups with regard to ADAMTS-1 and -20 levels (p>0.05). However, ADAMTS-9 was significantly lower in the study group compared to the controls (p=0.010). To discriminate the 2 groups by using a ROC curve analysis, the cut-off value for ADAMTS-9 was found to be 163.26 ng/ml with a sensitivity of 100% and specificity of 35%.

Conclusion: This is the first study performed to investigate the relationship between some ADAMTS proteases and EPs. As a conclusion, decreased ADAMTS-9 protein may have a role in the pathogenesis of EPs.

Keywords: ADAMTS proteases, Endometrial polyp, Extracellular matrix

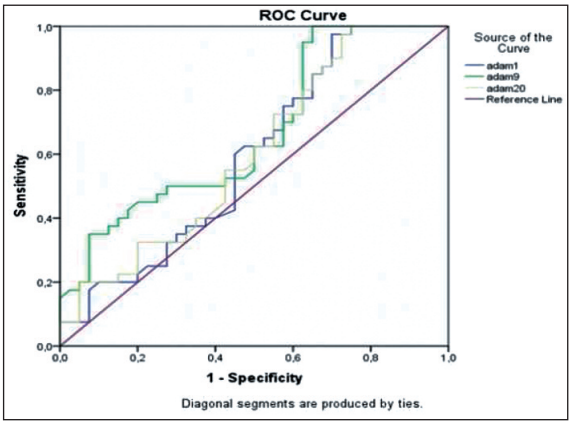

FIGURE 1: Roc curve analysis of serum ADAMTSs levels to discriminate EPs.

TABLE 1: The results of ROC curve analysis.

	AUC	Std. Error	95% CI	P
ADAMTS-1	0.594	0.064	0.468-0.720	0.148
ADAMTS-9	0.667	0.061	0.547-0.786	0.010
ADAMTS-20	0.603	0.064	0.478-0.728	0.112

TABLE 2: Clinical and laboratory characteristics of the patients.

Variables	Polyp group (n:40)	Control group (n:40)	P value
Age (years) x[?]± SD	32.1±5.3	30.1±5.3	0.106
BMI (kg/m2) x[?]± SD	26.8±4.3	25.5±3.9	0.150
Gravida median(min-max)	1(0-6)	1(0-5)	0.980
Parity median(min-max)	0(0-6)	0(0-4)	0.426
No. of Miscarriage median(min-max)	0(0-3)	0(0-3)	0.234
Nulliparity n(%)	21 (52.5)	22 (55)	0.823
Smoking n(%)	10(25)	9(22.5)	0.793
ADAMTS-1 (mean ±sd)	4.0±1.6	8.9±9.9	0.148
median (min-max)	3.7(0.6-9.9)	4.0(2.1-36.0)	
ADAMTS-9 (mean ±sd)	69.5±31.2	177.5±179.8	0.010
median (min-max)	64.4(8.7-158.2)	72.5(43.8-632.6)	
ADAMTS-20 (mean ±sd)	5.3±3.1	15.3±20.2	0.112
median (min-max)	4.6(0.7-16.5)	5.0(2.2-70.3)	

[Abstract: 0200] [P-49] [Accepted: Poster Presentation]

Single Versus Sequential Medium, Which is Better?

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A retrospective and randomized comparison of single-step and sequential medium on pregnancy and implantation rates together with blastocyst development was performed in fresh IVF cycles between January 2015 and August 2017. Patients were grouped according to single-step (n: 59) versus sequential medium (n:86) used in their fresh IVF cycles. Only blastocyst stage embryos with similar number and grade were transferred to the patients. Each group was compared in terms of blastocyst development, pregnancy and implantation rates. Statistically significant result was obtained in single-step medium group in terms of blastocyst development (p: 0.025)(45,47% and 29.70%, respectively). 1,26 fold increase was found with single-step medium utilization on pregnancy results (p: 0.039, OR: 1.26, CI:(1.01-1.057) (single-step medium group: 57,9%, sequential medium group: 45,9%). Implantation rates were found similar in each group.

Keywords: Single-step medium, sequential medium, blastocyst development, implantation, pregnancy

[Abstract: 0203] [P-50] [Accepted: Poster Presentation]

Does Dual Triggering Has an Effect to Oocyte Maturation at ART Cycles?

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In most of the studies Dual triggering protocol has positive effect on retrieved oocyte number as well as oocyte maturation although there are studies which no effect was known. There is no prior published comparison of the dual trigger to an hCG trigger at different ART cycles per patient.In this retrospective, cohort study, retrieved oocytes number and maturity at the ART cycles triggered with gonadotropin-releasing hormone agonist and recombinant chorionic gonadotropin(dual triggerin) were compared to conventional protocol (hCG) at the ART cycles for the same 22 patients aged 29-46 between 2016 and 2017.

The mean age of the patients was 36,09±4,57 years (range: 29-46). The mean AMH value was 2,09±2,56 (range: 0,09-7,63). The duration of stimulation and average total dose of gonadotropins given were varied per patient to age, body mass index, ovarian reserve and previous response to COH in insemination cycles. Mean oocyte number at the dual triggering group was 4,45±2,68 (range: 1-10) and at the conventional group was 5,50±3,41 (range: 1-16). Average MII(mature) oocyte number at the dual and hCG trigger group were 3,45±1,92 (range: 1-8) and 4,55±3,17 (range: 1-15). Percentage of mature oocytes of the dual triggering cycles were %83,72±16; furthermore at the hCG triggering cycles we found %MII 82,59±16,5. % of mature oocytes (p: 0,865), Number of total oocytes (p:0,157) and mature (MII) oocytes (p:0,114). As a result, no statistically signaficant difference was found between dual triggering protocol and conventional protocol in terms of retrieved oocyte, MII oocyte number and MII oocyte percentage at different ART cycles per same patients.

Keywords: Dual triggering, hCG trigger, oocyte maturation, IVF

[Abstract: 0206] [P-51] [Accepted: Poster Presentation]

İntramural Myomlar İmplantasyonu Engellermi? İki Başarılı İmplantasyon Olgusu

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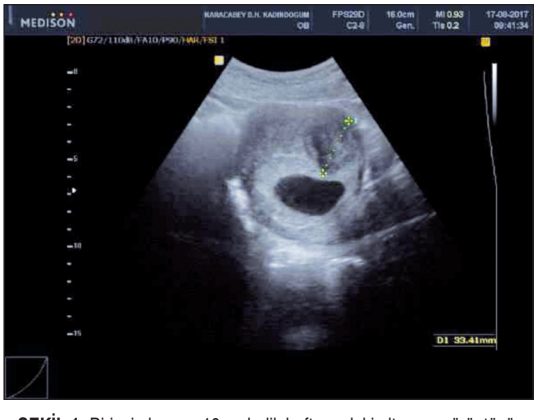
Giriş: Myomlar, miyometriyumun düz kas hücrelerinden kaynaklanan monoklonal tümörlerdir. Genellikle submüköz, intramural, subseröz yerleşimli olurlar. Submüköz myomların fertiliteyi olumsuz yönde etkiledikleri bilinirken, intramural olanların etkisi halen tartışmalıdır.

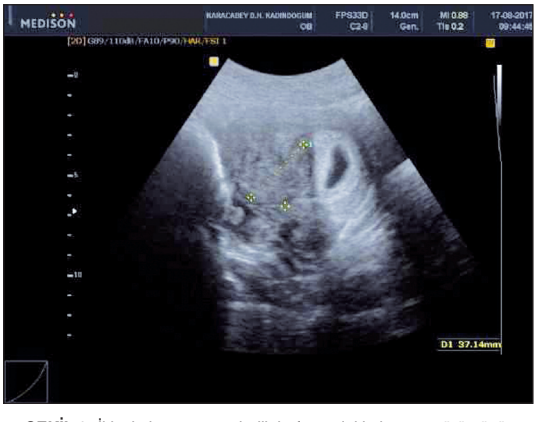
Olgu: Birinci olgu, 26 yaşında primigravid olup infertilite öyküsü bulunmamaktadır. Polikliniğimize başvurduğunda 10 hafta ile uyumla canlı gebelik mevcuttu. Ultrason muayenesinde gebelik kesesisin fundusta yer aldığını, uterus korpus anterior yerleşimli 33 mm boyutundaki myomun gebelik kesesine kadar uzandığı görüldü (Şekil 1). İkinci olgu, 25 yaşında ve primigravid olup ilk olgu gibi infertilite öyküsü yoktu. Yapılan ultrason muayenesinde 6 hafta ile uyumlu fetal kalp atımı olan embriyo izlendi. Fundus posteriorda gebelik kesesine baskı yapan 37 mm boyutunda myom izlendi (Şekil 2).

Tartışma ve Sonuç: İntramural myomların infertil olgularda yardımlı üreme yöntemleri öncesi çıkartılması halen tartışma konusudur. Parker ve arkadaşları intramural myomların fertiliteyi azalttıklarını ve bu tür myomları olmayan kadınlarla karşılaştırıldığında gebelik kaybı oranlarını artırdıklarını bildirmişlerdir. Ünlü ve arkadaşları tarafından endometriyal implantasyon genlerine preoperatif ve postoperatif dönemde bakılmıştır. Endometriyal kaviteye baskı yapmayan intramural myomların çıkarılması sonrası implantasyon genlerinin arttığı bulunmuştur. Güven arkadaşları ise endometriyal kaviteye baskı yapmayan intramural myomu olan olgularda ICSI/ET sikluslarının, myomu olmayanlara kıyasla sonuçların daha olumsuz olduğunu bildirmişlerdir. Ayrıca endometriyal kaviteye baskı yapmasalar bile IVF uygulanacak hastalarda tedavi öncesi intramural myomların çıkarılması gerektiğini savunmuşlardır. Aksi yönde görüş bildirenlerde mevcuttur. Bozdağ ve arkadaşları ise intakt endometriyum varlığında, tek intramural myomun ICSI (intrasitoplazmik sperm enjeksiyonu) sikluslarına zararlı etkilerinin olmadığını rapor etmişlerdir. Horcajadas ve arkadaşları ise oosit donasyonu yapılarak uygulanan IVF sikluslarında intramural myomların, endometriyal reseptivite ve implantasyon oranlarını değiştirmediğini iddia etmişlerdir. Pritts ve arkadaşları yaptıkları metaanalizde sübmüköz myomların fertilite sonuçlarını azalttığını ve bunların çıkarılmasının olumlu etkisinin olduğunu bildirmişlerdir. Subseröz myomların fertilite sonuçlarını etkilemediğini ve çıkarılmalırının faydasını olmadığını rapor etmişlerdir. Metaanalize göre intramural myomlar fertiliteyi azaltmaktadır ancak çıkarılmasının olumlu etkisi net değildir. Myomların gebelik üzerine etkileride tartışmalıdır. Myomlar gebelik sonuçlarını olumsuz etkileyebilir. Lam ve arkadaşları 4 cm ve üzeri myomu olan gebeleri takip etmişler ve gebelik sonuçlarını değerlendirmişlerdir. Tek myomu olanlara göre çok sayıda myomu olanlarda daha çok preterm doğum gerçekleştiğini bildirmişlerdir. Ayrıca alt segmentteki myomların artmış sezaryen oranları, postpartum kanama ile daha ilişkili olduğunu bildirmişlerdir. Bizim olgularımızda infertilite öyküsü olmayıp, ilk trimesterde sorunsuz gebelik devam etmektedir. Gebelik sonuçları görülmeden, myomların gebelik üzerine etkisi konusunda konuşmak mümkün görülmemektedir. Sonuç olarak intramural myomların fertilite üzerine etkilerini değerlendirmek üzere, myomların boyut, sayı, endometriyuma yakınlık ve olgular gebe kaldıkları takdirde gebelik sonuçlarını kapsayan prospektif kapsamlı çalışmalara ihtiyaç vardır.

Anahtar kelimeler: Myom, implantasyon, gebelik



ŞEKİL 1: Birinci olgunun 10. gebelik haftasındaki ultrason görüntüsü.



ŞEKİL 2: İkinci olgunun 6. gebelik haftasındaki ultrason görüntüsü.

[Abstract: 0208] [P-52] [Accepted: Poster Presentation]

Hasta Bakış Açısından Tüp Bebek Tedavisi Süreci

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Medical Park Göztepe Hastanesi, İstanbul

Giriş: Özel Medical Park Göztepe Hastanesi ÜYTE Merkezinde tüp bebek tedavisi gören hastaların, tedavi sürecinde yaşadıkları zorlukları, öncelikli beklentilerini saptamak ve bu doğrultuda hizmet kalitesini arttırmak.

Metod: Nisan-Ağustos 2017 tarihleri arasında, çalışmaya katılmaya gönüllü olan 100 hastaya, embriyo transferi sonrasında, derecelendirmeli soru tekniği ile hazırlanmış 70 soruluk anket uygulanmıştır. Çalışma sonuçları, 5 başlık altında toplanarak değerlendirilmiştir.

Sonuçlar:

1- Hastaların merkezi seçimindeki öncelik ve beklentileri:

-Öncelikler

• %27.32 'si merkez seçiminde öncelik olarak, başarılı sonuçlar elde eden bir merkez olmasına dikkat etmişler.
• %25.92'si merkezde tanınmış bir doktor olmasına öncelik vermiş.
• %24.79'u merkezin uzun yıllardır var olmasına öncelik vermiş.
• %21.97'si embriyoloğun tanınmış olmasına öncelik vermiş.

-Beklentiler

• %29.22'si hızlı ve zamanlı işleyişi, merkez tercih nedeni olarak göstermiş.
• %27.7'si güler yüz ve ayrıcalık hissi veren bir merkez beklentisinde ve bu durumun güvenini artırdığını belirtmiş.
• %26.5'i tedavi bilgilerinin telefon ve/veya mesaj yoluyla verilmesi beklentisinde ve bunu güven verici bulmuş.
• %23.49'u fiyatların uygunluğu beklentisinde

2- Hastaların tedavi aşamasında yaşadığı zorluklar:

• %29.83'ü iğne kullanımı ile ilgili sorun yaşıyor.
• %26.52'si aile ve çevresindeki kişilerin transfer sonrası sürekli yatak istirahati ile ilgili baskılarından dolayı zorlanıyor.
• %23.76'sı herkesin farklı fikirler belirtmesinden dolayı zorluk çekiyor
• %19.89'u farklı merkezlerde tedavi gören hastaların kendi ilaç ve tedavi yöntemlerini uygulatmaya çalışmalarından dolayı zorluk çekiyor.

3- Hastaların tedavi aşamasında en çok kim ya da kimlerin desteğine ihtiyaç duyduğu ve hizmet aldığı merkezde kendisine en yakın olarak kimleri gördüğü:

• %30.37'si tedavi aşamasında en çok eşinin desteğine ihtiyaç duyuyor.
• %26.30'u doktor ve embriyolog desteğine ihtiyaç duyuyor.
• %22.96'sı anne/baba, kayınvalide/kayınpeder desteğine ihtiyaç duyuyor
• %20.37'si dost ve arkadaş desteğine ihtiyaç duyuyor.

-Hastaların tedavi gördükleri merkezde kendilerine en yakın gördükleri kişiler:

• %35.97si doktorunu
• %34.39'u hemşireleri
• %29.64'ü embriyologları kendine daha yakın hissediyor.

4- Hastaların tedavi aşamasında sosyal medya araçlarını kullanım oranı:

• %22.16'sı IVF tedavisi ile ilgili televizyondan bilgi almış.
• %21.65'i tüp bebek ile ilgili blogları takip etmiş.
• %21.13'ü kadın sağlığı içerikli site ve blogları takip etmiş.
• %19.07'si Instagram üzerinden bilgi almış
• %15.98'i Facebook üzerinden bilgi almış.

5- Hastaların tedavinin sonucuna bakmaksızın tüp bebek tedavisini önerme oranı:

• %46.43'ü sonuç ne olursa olsun mutlaka tedaviyi öneriyor.
• %41.84'ü maddi durumu uygun olanlara öneriyor
• %11.73'ü çok zorlu bir süreç olduğu için önermiyor.

Yorum: Tüp bebek tedavisi, özellikle kadınlar için, psikolojik olarak oldukça zorlu bir süreç ve bunun yansımaları ankete verilen cevaplarda göze çarpmakta. Hastaların, merkezin bilinirliği, doktorun tanınırlığı ve sosyal medya araçlarının yönlendirmelerine olan ilgisi, tercihlerinde çevrelerinin etkisini gösterirken; tedavi sürecinde yaşadıkları zorlukların kaynağının ve destek için yöneldiklerinin yine çevrelerindeki insanlar olduğu göze çarpmakta. Bu noktada, tedavi sürecinde hastaya gösterilen ilgi ve yakınlığın hasta psikolojisi için önemi ortaya çıkmaktadır. Hemşirelerin, hastalar tarafından, doktorlar ile benzer oranda yakın görülen çalışanlar olması nedeniyle, bu noktada hasta memnuniyetini ve dolayısıyla hizmet kalitesini arttırmada önemleri gözardı edilmemelidir. Bu çalışmada ve hastalarla birebir iletişimde öne çıkan asıl etmen, hastanın kendini güvende hissetmesi, saygı ve değer gördüğüne inanmasıdır. Bu doğrultuda yaklaşılan hastaların çoğunluğunda her bir deneme, sonuç negatif bile olsa, hasta açısından bir kazanç olmaktadır.

Anahtar kelimeler: Tüp bebek, IVF, hasta, hemşire, beklenti

[Abstract: 0209] [P-53] [Accepted: Poster Presentation]

Çoğul Gebeliklerde Selektif Fetoredüksiyon Uygulaması: Bir Olgu Sunumu

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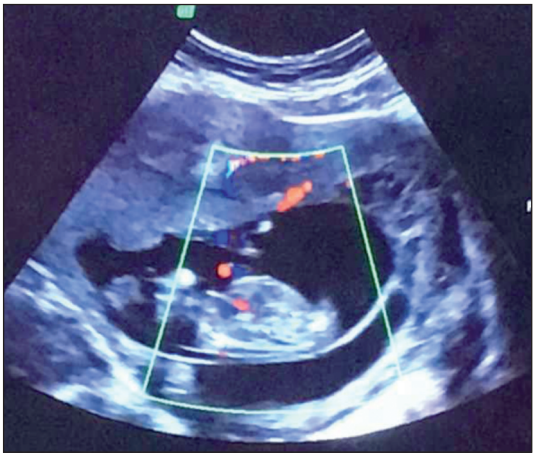
Gelişmiş ülkelerde, yardımcı üreme tekniklerinin(YÜT) kullanımının artmasından dolayı multipl gebeliklerde bir artış söz konusudur. Çoğul gebeliklerde, maternal ve fetal obstetrik sonuçlarla beraber fetal yapısal ve kromozomal anomalilerin insidansında artış olduğu saptanmıştır. Bu gebeliklerde anomalili fetus saptanmasına güncel yaklaşım fetusun selektif fetoredüksiyonudur.

Gravida 3 parite1 olan otuziki yaşında diamniyotik-dikoryonik gebe, fetüslerden birinde anomali saptanması üzerine tarafımıza refere edildi. Hastanın spontan olarak gebe kaldığı öğrenildi. Ultrasonografi muayenesinde; 13 hafta 2 günlük anomali saptanmayan normal fetüs ve 12 hafta 2 günlük kalvaryal kemik yapılarının izlenmediği, beyin parankim dokusunun distrofik gözlendiği ekzensefalik ikiz eşi fetüs saptandı. Gebeliğin prognozu ve anomalili fetüs için yapılabilecekler hakkında aileye bilgilendirme yapıldı. Ailenin onayı ile selektif fetosite karar verildi. Transabdominal ultrason eşliğinde22 gauge 120mm'lik spinal iğne ile üst yerleşimli ekzensefalili fetüsün kalp boşluğuna girilerek, intrakardiyak 4cc %7,5 lik potasyum klorür (KCl) verildi. Fetüste kardiyak arrest gelişti ve işleme son verildi. Takiplerinde sorun olmayan hasta eksterne edildi.

Tekil gebeliklerle karşılaştırıldığında ikiz gebeliklerde daha fazla yapısal anomali gelişmektedir. Bu gebeliklerin %1-2' sinde, tek fetusu etkileyen anomali nedeniyle selektif terminasyon seçeneği düşünülmelidir. YÜT sonucu gelişen çoğul gebeliklerde maternal morbitide ve fetal mortaliteyi azaltmak için, sosyoekonomik ve psikolojik nedenlerden dolayı fetus sayısını bire, ikiye indirmek amacıyla fetal redüksiyon işlemi gerekebilir. Çoğul gebeliklerde, terminasyon amacıyla intrakardiyak potasyum klorür kullanımında koryonisitenin önemi ortaya çıkmaktadır. Dikoryonik veya trikoryonik gebelikte, birinden diğerine plasental anastomoz varlığı, monokoryoniklere nazaran daha az olacağından, uygulanan potasyum klorür tedavisi güvenli olmaktadır. Ultrasonografi eşliğinde fetal kalbe potasyum klorür uygulanması, teknik olarak neredeyse %100 başarılı bir prosedürdür.

İkiz gebeliklerde fetal anomalili fetüs varlığında, terminasyon amacıyla selektif fetoredüksiyon yapılması en güncel yaklaşımdır.

Anahtar kelimeler: Çoğul gebelik, diamniyon-dikoryon, ekzensefali, fetosid



RESİM 1: Fetosid öncesi fetal kordon ve kardiyak doppler görüntüsü.

RESİM 2: Fetoredüksiyon işlemi sırasında fetal intrakardiyak potasyum klorür enjeksiyonu görüntüsü.

[Abstract: 0210] [P-54] [Accepted: Poster Presentation]

Levonorgestrel-releasing Intrauterine Device in Patients with Symptomatic Adenomyosis: Single Center Experience

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Aim: The aim of this study was to evaluate the clinical aspects of the levonorgestrel-releasing intrauterine device (LNG-IUD) in patients with adenomyosis associated with dysmenorrhea and/or menorrhagia

Materials and Methods: From December 2010 to December 2014, 38 patients of symptomatic adenomyosis diagnosed by transvaginal ultrasound in outpatient or inpatient gynecology clinics of Mustafa Kemal University Faculty of Medicine were given the treatment of LNG-IUS. Clinical outcomes, including symptomatic changes of dysmenorrhea and menorrhagia, uterine volume change, complications, and the overall success rate were evaluated in each patient after treatment with the LNG-IUS.

Results: The patients' mean age was 42.6 ± 5.1 years, and the median follow-up duration was 27 months (range, 7-44 months). Significant improvements (p 0.01) in dysmenorrhea and menorrhagia were observed. There was no significant change in the uterine volume (0 and 12 months). The most common side effects were prolonged vaginal spotting (n=11, 28.9%) and LNG-IUD expulsion (n=2, 5.2%). Three (7.8%) patients underwent hysterectomy. The overall success rate of the LNG-IUD was 86.8%.

Conclusion: The LNG-IUD is a suitable alternative treatment option for the management of dysmenorrhea and menorrhagia prior to hysterectomy, for patients with symptomatic adenomyosis

Keywords: Levonorgestrel-releasing intrauterine device, Adenomyosis, Menorrhagia

[Abstract: 0212] [P-55] [Accepted: Poster Presentation]

Düşük Over Rezervine Sahip İnfertil Hastaların Antagonist Protokol Tedavisinde Dual Trigger Uygulamasının Oosit Maturasyonuna Etkisi

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Bu çalışmada, düşük over rezervi nedeni ile tüp bebek tedavisi gören hastalarda uygulanan trigger yönteminin oosit sayısına ve matürasyon oranlarına etkisi retrospektif olarak araştırılmıştır. Çalışmamıza Ocak 2015- Ağustos 2017 arasinda merkezimizde tedavi gören 43 adet standart trigger (İnsan koriyonik gonadotropini 10000 IU) ve 57 adet dual trigger (Gonadotropin-releasing hormon agonisti- triptorelin asetat 0,2 mg + İnsan koriyonik gonadotropini 10000 IU) uygulanmış toplamda 100 adet hasta dahil edilmiş olup kontollü ovaryen stimulasyon için tüm hastalara antagonist protokol ve elde edilen oositlere ICSI işlemi uygulanmıştır. Oosit toplama işleminde (OPU) elde edilen toplam oosit sayısı, matür (MII) oosit sayısı ve matürasyon yüzdesi (MII/toplam oosit sayısı) t-test (SPSS 21.0) ile karşılaştırıldı.

Standart ve dual trigger gruplarındaki ortalama veriler sırasıyla; toplam oosit sayısı 2,26±1,31 ve 1,86±1,45 (p=0,15), MII oosit sayısı 1,74±1,18 ve 1,71±1,14 (p: 0,88) ve matürasyon yüzdesi %67,44±31,18 ve %77,52±33,18 (p: 0,15) olarak bulunmuş olup iki grup arasında istatistiksel olarak anlamlı farklılık izlenmemiştir.

Anahtar kelimeler: Dual triggering, hCG trigger, oocyte maturation, IVF

[Abstract :0216] [P-56] [Accepted: Poster Presentation]

Same-Day Discharge Within Less Than 12 Hours After Laparoscopic Proximal Tubal Occlusion and Operative Hysteroscopy Before Embryo Transfer: Is it Feasible and Safe?

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Laparoscopic hysterectomy has shown some advantages over laparotomy, such as fewer infections, less postoperative pain and shorter hospital stay. It has been suggested that proper selection of candidates could help ensure a safe same-day discharge after laparoscopic surgery in gynecologic oncology too. Operative hysteroscopic procedures may be performed in the day-surgery setting under general anaesthesia. On the other hand there is no consensus about the same-day discharge after laparoscopic proximal tubal occlusion and operative hysteroscopy. We reported an infertile woman whom underwent laparoscopic proximal tubal occlusion and hysteroscopic adhesiolysis which was performed at the same session before embryo transfer and was discharged within less than 12 hours from our clinic.

A 45 years old secondary infertile woman admitted to our clinic for the evaluation of tuboperitoneal adhesions and uterine cavity before frozen embryo transfer. She underwent diagnastic laparoscopy under general anaesthesia. The tubal patency was tested by transcervical dye hydrotubation with methylene blue. The right tube was normal. But there was a hydrosalpinx at left tube and tubal passage was blocked. The proximal tubal occlusion was performed with a tissue fusion device. Then a diagnostic hysteroscopy was performed and the adhesions at the left fundal area were dissected with resectoscope. A hemoglobin assay was performed approximately 8 hours after the operation. It was within normal range and the patient was discharged.

In our case the same-day discharge within less than 12 hours after laparoscopic proximal tubal occlusion and operative hysteroscopy before embryo transfer was feasible. But prospective, randomised and controlled trails are needed in order to routine use of this prosedure.

Keywords: Laparoscopic proximal tubal occlusion; operative Hysteroscopy; same-day discharge

[Abstract: 0219] [P-57] [Accepted: Poster Presentation]

The Efficacy of Levonorgestrel-Releasing Intrauterine Device in the Treatment of Myoma-related Menorrhagia

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Aim: To evaluate the efficacy of the levonorgestrel-releasing intrauterine device (LNG-IUD) in the treatment of leiomyoma related menorrhagia.

Materials and Methods: In this prospective before and after study, LNG-IUD was inserted in 38 women with myoma-related menorrhagia. The patients were evaluated for serum levels of hemoglobin (Hb), hematocrit (Htc) and uterine volume at the time of insertion and at 12 months. The uterus was regarded as an ellipsoid organ. V = D1x D2x D3x 0.52 formula (D1: transverse diameter, D2: antero-posterior diameter, D3: longitudinal diameter) was used for volume calculation using three diameters of the uterus.

Results: The mean age of the 48 enrolled patients was 40.7 ± 5.1 years and the median follow-up duration was 27 months (7-44 months). Increases in serum hemoglobin levels and in amenorrhea was observed within three months. Hb before treatment: 9.03 ± 0.98, Hb after treatment: 11.34 ± 0.87 (p = 0.001). Htc before treatment: 27.51 ± 3.03, Htc after treatment: 33.57 ± 2.28 (p = 0,001). However, there was no statistically significant reduction in the uterine volume (p>0.005).

Conclusion: The use of LNG-IUD is effective in reducing menorrhagia associated with leiomyomas and may be a simple and effective alternative to surgical treatment of leiomyoma-related menorrhagia.

Keywords: Levonorgestrel-releasing intrauterine device, leiomyoma

[Abstract: 0220] [P-58] [Accepted: Poster Presentation]

PEComa (Perivasküler Epitelioid Hücre Tümörü) Sonrası Gebelik Olgusu

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Amaç: Nadir bir mezenkimal tümör olan PEComa sonrası gebelik olgusunu literatür eşliğinde değerlendirmek

Olgu: 31 yaşında Gravida:1 Parita:0 39 haftalık gebeliği olan olgu yaklaşık 6 yıl önce Ultrasonografide 9x7x6cm uterus fundus kaynaklı intramural-subseröz miyoma uteri ön tanısı ile opere edildi. Patolojik bulgularda 7cm çapındaki tümörde hücresel atipi,nekroz ve lenfovasküler alan invazyonu izlenmedi. Mitoz 1/50BBS'den az izlendi. İmmünhistokimyasal incelemede HBM-45 pozitif ve Melen-A,S-100,Ki-67,CD1a negatif izlendi. Olguya Benign PEComa tanısı konuldu. 23 ay sonra spontan gebelik elde edildi.39.haftada sezeyan doğum ile 3150 gr canlı bebek doğurtuldu.

Tartışma: PEComa terimi ilkez 1992 yılında bonnetti tarafından kullanılmıştır. Dünya sağlık örgütü (WHO) 2002 yılında PEComa tanımlamıştır. Daha sonra Folbe ve arkadaşları PEComa'ları Benign, Malign potansiyeli belli olmayan ve malign olarak tariflemiştir. PEComa literatüre bakıldığında böbrek, uterus, karaciğer, akciğer gibi organlarda oldukça nadir olarak görülebilmektedir. Bu tümörlerde standart tedavi yöntemi cerrahi eksizyondur, Kemoterapi ve radyoterapinin yeri net değildir. Bugün için özellikle malign PEComalarda MTor inhibitörleri(evarilimus)nin kullanımı ile ilgili sınırlı sayıda çalışma vardır. Pubmed veri tabanı tarandığında PEComa sonrası gebelik olgusu bildirilmemiştir. Pommtavron ve arkadaşları sezaryen doğum sırasında gizli kalmış bir PEComa hastasını doğurmuşlardır.

Sonuç: PEComa nadir görülen bir malignitedir. Temel tedavisi cerrahi rezeksiyondur. Özellikle düşük malign potansiyeli olan olgularda fertilite korunabilir.

Anahtar kelimeler: PEComa, gebelik

[Abstract: 0221] [P-59] [Accepted: Poster Presentation]

The Relationship Between the Levels of Anti-müllerian Hormone, Vaspin, and Visfatin and the Patterns of Nutrition and Menstruation in Non-polycystic Ovary Syndrome and Non-obese Young Women

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Objective: The aim of this study was to investigate the relationship between the levels of anti-Müllerian hormone (AMH), vaspin, and visfatin and the patterns of nutrition and menstruation in healthy non-polycystic ovary syndrome (PCOS) and non-obese young women.

Materials-Methods: A total of 77 medical faculty students aged between 18 and 28 years were included in the study. The students were asked to fill out a self-reported questionnaire including questions on their menstrual pattern, eating, exercise, drinking, and smoking habits. Blood levels of AMH, vaspin and visfatin of individuals were examined by the enzyme-linked immunosorbent assay (ELISA) method. The relationship between the levels of AMH, vaspin, and visfatin and the menstrual patterns and parameters related to daily life habits was examined.

Results: There was no statistically significant relationship between the AMH, vaspin, and visfatin ($p=0.712$). However, a statistically significant positive correlation was found between the vaspin and visfatin ($p<0.001$). There was no relationship of AMH, vaspin and visfatin with age, body mass index (BMI) and anthropometric body measurements. No statistically significant relationship was found between the nutritional and menstrual patterns in the study participants ($p=0.070$). The levels of vaspin and visfatin increased ($p<0.001$ and $p<0.001$, respectively), as the nutritional quality decreased, in the group with regular exercise, while the levels of vaspin and visfatin were also found to increase ($p<0.001$ and $p<0.001$ respectively). The AMH levels were lower in the smokers and also in the group with irregular menstrual cycle ($p=0.048$ and $p=0.001$respectively). No relationship was found between the menstrual pattern and the vaspin and visfatin levels ($p=0.870$ and $p=0.918$, respectively).

Conclusion: In conclusion, in this study including non-PCOS and non-obese young women, we investigated the possible relationship between the reproductive system and adipose tissue which is now accepted as an endocrine organ, and the role of daily life habits of young individuals on this relationship. In our study, vaspin and visfatin levels were found to be correlated with each other, although we found no relationship between the AMH and these adipokines. The AMH levels decreased in smokers and menstrual irregularities were found to increase, as the AMH levels decreased. The fact that increased vaspin and visfatin levels with decreased nutritional quality suggests a possible protective compensatory mechanism against atherosclerosis, obesity and diabetes in younger bodies, and regular exercise was considered to be a contributory factor in this direction. However, further studies are needed to confirm these findings in the future.

Keywords: AMH, vaspin, visfatin, nutrition, PCOS

[Abstract: 0222] [P-60] [Accepted: Poster Presentation]

Is Stem Cell Factor Concentration of Follicular Fluid in Polycystic Ovarian Syndrome Effective on IVF/ICSI Outcome?

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Objective: This study aimed to compare the levels of SCF in serum and follicular fluid of PCOS patients with those of non-PCOS group and to investigate the relationship of SCF levels with IVF/ICSI success.

Method: This study included the patients who underwent IVF/ICSI in the Infertility-IVF center at Ankara University Faculty of Medicine between March 2016 and February 2017. The study group consisted of 19 PCOS patients and the control group consisted of 25 patients with normofollicular and regular menstrual cycles. Gonadotropin-releasing hormone (GnRH) agonist and GnRH antagonist protocols were applied for controlled ovarian hyperstimulation protocol. Serum and follicular fluid samples were taken on day of oocyte retrieval. Serum and follicular fluid SCF levels were determined by ELISA using the SCF ELISA kit.

Results: Serum SCF (sSCF) levels were compared between PCOS and control groups and sSCF level in PCOS group was found to be statistically lower than control group ($p<0.001$). The median (min-max) values of sSCF level in the PCOS and control groups were found to be 3.61 (0.83-12.00) and 10.17 (1.89-48.85), respectively. Similarly, follicular fluid SCF (ffSCF) levels were compared between PCOS and control groups and ffSCF level in the PCOS group was found to be statistically lower than control group ($p<0.001$). The mean ± SD values of the ffSCF level in the PCOS and control groups were found to be 10.98±4.58 and 30.01±16.59, respectively. SCF levels in serum and follicular fluid in PCOS and control groups are shown in Figures 1 and 2. As seen in Table 1, ffSCF/sSCF ratios were statistically significantly higher who had clinical pregnancy and live birth than those who had no clinical pregnancy and no live birth in the PCOS group ($p=0.047$ and $p=0.044$, respectively). There was no statistically significant difference in the ffSCF/sSCF ratios between who had clinical pregnancy and live birth with who had no clinical pregnancy and no live birth in the control group ($p=0.055$ and $p=0.465$ respectively). It was observed that serum and follicular fluid SCF levels were lower in the PCOS group than in the control group and presence/absence of pregnancy or live birth did not display difference. However, in the PCOS group, there was a statistically significant increase in the ratio of ffSCF/sSCF in the presence of clinical pregnancy and live birth. Lineer regression analysis were performed to investigate the effect of SCF and the ratio of ffSCF/sSCF on oocyte maturation and model of regression was found as Oocyte maturation ratio=0.392-0.071xsSCF+0.054x ffSCF and Oocyte maturation ratio = 0.519+0.034 x ffSCF/sSCF.

Conclusions: This study suggests that SCF levels are low in serum and follicular fluid in patients with PCOS and that the increase in ffSCF/sSCF ratio is associated with an increase in oocyte maturation and pregnancy rates. In the future, there is a need for studies to explain at what stage this increase in SCF occurs at which step of folliculogenesis. Therefore, we believe that treatment strategies targeting SCF to improve pregnancy rates in PCOS can be developed.

Keywords: Stem cell factor, PCOS, follicular fluid, implantation rate, pregnancy rate

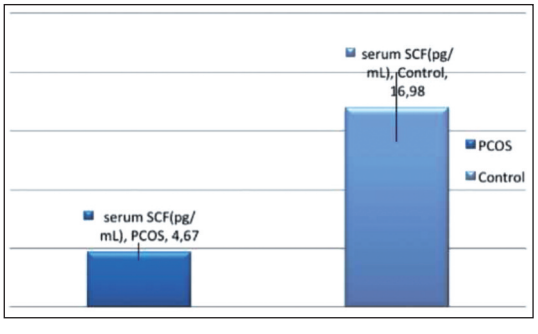

FIGURE 1: Serum SCF levels in PCOS and control groups.

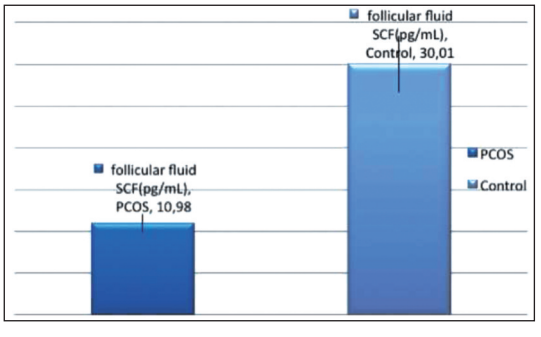

FIGURE 2: ffSCF levels in PCOS and control group were shown..

TABLE 1: Relationships between clinical pregnancy and live birth and ffSCF, sSCF and ffSCF/sSCF in PCOS and control groups.

Group	Variables			Serum SCF	Follicle SCF	Follicle/Serum SCF
PCOS	Clinical Pregnancy	Yes (n=6)	Mean±SD	2.84±2.45	10.95±3.56	8.81±6.91
			Median (Min-Max)	2.45 (0.83-7.48)	9.61 (8.86-18.10)	6.19 (3.09-21.81)
		No (n=13)	Mean±SD	5.52±3.20	11.00±5.11	1.86±1.31
			Median (Min-Max)	3.80 (1.07-12.00)	10.87 (3.17-20.00)	1.33 (0.39-4.36)
			p value	0.088	0.861	**0.047***
	Live birth	Yes (n=5)	Mean±SD	2.83±2.74	11.37±3.82	9.96±7.06
			Median (Min-Max)	2.15 (0.83-7.48)	10.15 (9.05-18.10)	7.29 (4.72-21.81)
		No (n=14)	Mean±SD	5.33±3.15	10.84±4.95	1.95±1.30
			Median (Min-Max)	3,74 (1,07-12,00)	10,26 (3,17-20,00)	1,78 (0,39-4,36)
			p value	0,136	0,711	**0,044***
Control	Clinical Pregnancy	Yes (n=8)	Mean±SD	11,10±13,19	24,52±15,25	2,73±2,32
			Median (Min-Max)	8,45 (1,89-42,17)	20,32 (9,8-57,24)	2,09 (0,65-6,90)
		No (n=17)	Mean±SD	19,75±14,99	32,60±17,00	1,20±1,05
			Median (Min-Max)	17,77 (4,11-48,85)	33,06 (2,79-65,30)	0,67 (0,26-4,16)
			p value	0,081	0,264	0,055
	Live birth	Yes (n=6	Mean±SD	12,39±14,98	25,59±17,23	2,37±1,76
			Median (Min-Max)	8,45 (1,89-42,7)	20,31 (9,88-57,24)	2,09 (0,65-5,23)
		No (n=19)	Mean±SD	18,43±14,78	31,41±16,61	1,47±1,65
			Median (Min-Max)	14,57 (1,98-48,85)	28,94 (2,79-65,30)	0,72 (0,26-6,90)
			p value	0,203	0,465	0,143

*p<0.05 statistically significant.

[Abstract: 0223] [P-61] [Accepted: Poster Presentation]

Fresh Versus Frozen-Thawed Blastocyst Transfer in High Responders with and without Calcium Infusion

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Objective: In this study, we aimed to investigate the pregnancy and live birth rates in frozen-thawed embryo transfer that carried out by embryo transfer in fresh cycle and all the embryos obtained from the fresh cycle were frozen transferring to the artificially prepared endometrium in another cycle for the group with high OHSS risk.

Materials-Methods: This is a retrospective study including a total of 254 patients who underwent ICSI in a private IVF center between 2013 and 2016. The study group consisted of women with high response to controlled ovarian hyperstimulation (high responder). Patients with a total follicle count of 15 or more and/or estradiol (E2) value of over 3000 pg/mL on the day of ovulation induction were considered as high responders and with a high risk of OHSS. Patients over 40 years old, male factor, recurrent pregnancy loss stories, those with uterine pathologies, chronic systemic medical problems, systemic drug use and those induced with agonist were excluded from the study. The patients who received embryo transfer in fresh cycle and calcium infusion referred as Fresh Ca+ group, whereas those without calcium therapy were called as fresh Ca- group. In the frozen group, those receiving calcium infusions were called as frozen Ca+ group, whereas those without calcium treatment were called as frozen Ca- group. In this study, gonadotropin-releasing hormone (GnRH) agonist and GnRH antagonist protocols were administered in patients during COH.

Results: A total of 254 high-responder were included in this study. Fresh cycles were performed to 181 (71.2%) patients, while frozen cycles were performed to 73 (28.7%) patients. Calcium treatment was administered to 109 (60%) patients in fresh cycle, while it was administered to 45 (61.6%) of them in frozen cycle. The patients' age, body mass index (BMI), hormonal values at the beginning of the cycle, infertility duration and the IVF cycle are shown in Table 1. The characteristics of the cycle were shown in Table 2 in comparison between four groups. In Table 3, the results of the cycle were also given comparatively between four groups. Implantation rates, clinical pregnancy rates, and live birth rates did not show statistically significant difference between groups.

Conclusion: In this study, there was no statistically significant difference between fresh and frozen-thawed cycles in patients with high OHSS risk in terms of implantation, clinical pregnancy, and live birth rates. Furthermore, these rates were not different in the cycles with or without calcium treatment. The OHSS rates were not different between fresh and thaw cycles; however, these rates were significantly less in the Ca+ group than in the Ca- group. OHSS was not developed in the total freeze group with Ca treatment. Thus, freeze-all policy can be applied more reliably in order to be protected from OHSS. We also conclude that calcium infusion is beneficial in preventing OHSS without altering pregnancy rates.

Keywords: OHSS, fresh embryo transfer, frozen-thawed transfer, calcium, pregnancy rate

TABLE 1: The comparison of demographic and precycle characteristics between groups.

Variables	Group												
	Fresh Ca+			Fresh Ca-			Frozen Ca+			Frozen Ca-			
	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	p value
Age	109	30.79±4.67	31.00 (20.00-39.00)	72	30.72±4.88	30.00 (20.00 40.00)	45	30.67±4.19	30.00 (22.00-39.00)	28	31.18±4.55	31.00 (22.00-38.00)	0.970[a]
The Age of Male	109	34.79±5.07	34.00 (24.00-55.00)	72	34.75±5.16	34.50 (23.00-48.00)	45	34.51±4.38	34.00 (28.00-52.00)	28	34.61±5.61	33.50 (26.00-51.00)	0.979[a]
BMI (kg/m²)	109	24.10±4.23	23.44 (16.23-37.11)	69	24.33±4.24	23.88 (17.51-39.66)	44	26.13±5.49	25.65 (20.08-52.08)	28	27.08±5.63	25.26 (20.20-46.65)	0.007[a]
AFC	109	14.16±3.89	14.00 (5.00-23.00)	72	12.24±3.58	12.00 (5.00-19.00)	45	13.60±4.20	13.00 (4.00-22.00)	28	13.18±4.29	12.50 (6.00-26.00)	0.012[a]
AMH (ng/mL)	105	3.68±1.53	3.00 (1.00-9.00)	70	2.99±1.55	3.00 (1.00-9.00)	40	3.85±1.61	3.50 (2.00-7.00)	28	3.21±1.60	3.00 (2.00-8.00)	0.005[b]
FSH Level in Day 3 (mIU/mL)	109	5.96±1.71	6.00 (2.00-12.00)	72	5.97±1.97	6.00 (2.00-13.00)	44	5.84±1.78	6.00 (0.00-10.00)	28	6.00±1.78	6.00 (2.00-9.00)	0.970[b]
E_2 Level in Day 3 (pg/mL)	104	33.05±16.36	31.50 (5.00-97.00)	70	35.26±15.02	34.50 (5.00-75.00)	44	34.20±15.02	32.00 (2.00-66.00)	27	35.85±16.16	35.00 (5.00-74.00)	0.609[a]
TSH (mIU/L)	108	1.85±0.99	2.00 (0.00-5.00)	66	1.83±0.94	2.00 (0.00-4.00)	45	1.78±1.17	2.00 (0.00-5.00)	25	1.99±1.25	2.00 (0.00-5.00)	0.796[b]
PRL (ng/mL)	105	20.02±12.82	16.00 (2.00-88.00)	55	18.20±10.49	15.00 (2.00-50.00)	43	15.88±9.10	14.00 (1.00-43.00)	28	19.43±10.28	18.50 (2.00-43.00)	0.282[a]
Duration of Infertility (year)	109	6.89±4.00	6.00 (1.00-22.00)	72	7.19±4.36	6.75 (1.00-23.00)	45	7.51±3.71	8.00 (4.00-18.00)	28	8.23±4.99	8.00 (1.00-20.00)	0.382[a]
Which Cycle	109	2.55±1.89	2.00 (1.00-10.00)	70	2.80±2.15	2.00 (1.00-10.00)	45	2.71±1.66	3.00 (1.00-6.00)	27	3.00±2.50	2.00 (1.00-10.00)	0.716[b]

TABLE 2: Comparison of the treatment cycle parameters in fresh and frozen cycles of those with and without Ca treatment.

Variables	Group												
	Fresh Ca+			Fresh Ca-			Frozen Ca+			Frozen Ca-			
	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	N	Mean ± SD	Median (Min-Max)	p value
Duration of COH	109	8.51±1.54	8.00 (0.00-13.00)	70	8.23±1.28	8.00 (5.00-12.00)	45	9.47±2.95	9.00 (7.00-25.00)	27	9.04±1.26	9.00 (7.00-12.00)	0.009[b]
Total FSH dose	109	1938.59± 644.41	1850.00 (800.00-3525.00)	70	2169.10± 945.48	2025.00 (1200-6600.00)	45	1976.24± 515.72	1878.00 (1125.00-3375.00)	27	2341.30± 695.12	2250.50 (1275.00-4050.00)	0.028[a]
Total LH dose	10	735.00± 435.60	675.00 (225.00-1800.00)	14	960.71± 711.90	600.00 (300.00-2700.00)	4	862.50± 666.61	787.50 (150.00-1725.00)	5	1425.00± 1009.02	900.00 (450.00-2625.00)	0.641[b]
E2 (pg/mL) in hCG Day	107	3940.20± 1640.88	3659.00 (1282.00-9591.00)	67	2983.27± 852.38	2969.00 (1073.00-5311.00)	45	4385.91± 2579.35	3802.00 (1274.00-14620.00)	28	3427.04± 1501.67	3097.50 (826.00-7525.00)	<0.001[a]
Expected Oocyte	109	16.60±4.02	16.00 (8.00-32.00)	72	15.31±3.25	15.00 (10.00-27.00)	44	17.66±4.30	17.00 (12.00-28.00)	28	16.57±4.87	16.00 (10.00-32.00)	0.024[b]
Collected Oocyte	109	17.68±2.48	17.00 (10.00-28.00)	72	17.912±2.00	17.00 (6.00-21.00)	45	18.58±3.77	18.00 (10.00-28.00)	28	19.00±3.31	18.00 (15.00-30.00)	0.053[b]
Number of Mature Oocytes	109	10.45±3.18	10.00 (5.00-20.00)	72	9.67±3.05	10.00 (5.00-19.00)	45	10.64±3.96	10.00 (3.00-21.00)	28	9.39±3.83	9.00 (3.00-22.00)	0.136[b]
Mature Oocyte Ratio	109	0.60±0.19	0.56 (0.29-1.50)	72	0.57±0.18	0.56 (0.28-1.00)	45	0.57±0.18	0.60 (0.19-1.00)	28	0.50±0.18	0.45 (0.19-1.00)	0.069[b]
Number of Fertilized Oocytes	109	8.00±3.91	8.00 (1.00-20.00)	72	6.83±3.47	6.00 (1.00-18.00)	45	8.38±4.41	8.00 (1.00-18.00)	28	7.89±3.99	7.50 (2.00-17.00)	0.162[b]
Fertilization Rate (%)	108	80.69±24.74	89.00 (11.00-100.00)	68	78.18±24.35	83.50 (20.00-100.00)	43	79.40±24.85	92.00 (14.00-100.00)	27	83.85±22.37	88.00 (28.00-100.00)	0.817[b]
Number of Blastocyst	103	4.99±3.58	4.00 (1.00-18.00)	67	4.28±2.99	3.00 (1.00-14.00)	41	4.27±3.11	4.00 (1.00-12.00)	25	4.04±2.75	3.00 (1.00-10.00)	0.526[b]
Number of Transferred Embryos	109	1.45±0.50	1.00 (1.00-2.00)	72	1.47±0.50	1.00 (1.00-2.00)	44	1.59±0.50	2.00 (1.00-2.00)	26	1.46±0.51	1.00 (1.00-2.00)	0.456[c]
Endometrial Thickness (mm) in ET Day	109	10.31±1.89	10.00 (6.00-18.00)	72	10.28±1.89	10.00 (6.00-15.00)	45	10.56±2.14	10.00 (7.00-17.00)	28	10.11±1.50	10.00 (8.00-13.00)	0.862[b]
Endometrial Thickness (mm) in hCG Day	109	10.11±1.63	10.00 (6.00-14.00)	72	10.21±1.81	10.00 (6.00-14.00)	45	9.84±1.71	10.00 (7.00-14.00)	28	9.57±1.71	10.00 (5.00-13.00)	0.410[b]

TABLE 3: Comparison of pregnancy results for cycles between groups transferred fresh and frozen, with and without calcium treatment.

Variables	Group				
	Fresh Ca+	Fresh Ca-	Frozen Ca+	Frozen Ca-	p value
Implantation Rate Per Cycle, n (%)	49 (45.0)	31 (43.1)	21 (46.7)	13 (46.4)	0.980
Implantation Rate Per ET, n (%)	49 (31.0)	31 (29.2)	21 (30.0)	13 (34.2)	0.951
Clinical Pregnancy Rate Per Cycle, n (%)	46 (42.2)	28 (38.9)	18 (40.0)	11 (39.2)	0.973
Clinical Pregnancy Rate Per ET, n (%)	46 (29.1)	28 (26.4)	18 (25.7)	11 (28.9)	0.938
Live Birth Rate Per Cycle, n (%)	46 (42.2)	26 (36.1)	16 (35.6)	9 (32.1)	0.696
Live Birth Rate Per ET, n (%)	46 (29.1)	26 (24.5)	16 (22.9)	9 (23.7)	0.711

[Abstract: 0226] [P-62] [Accepted: Poster Presentation]

ICSI is a Successful Treatment for a Man with Oligozoospermia and Woman with Vaginismus

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Genito-pelvic pain/penetration disorder (GPPPD) is a wide range disorder that includes vulvodynia and vaginismus. Vaginismus is defined as the over tightening of vaginal muscles, involuntary muscle spasms or severe pain during sexual intercourse. It is known that the sexual dysfunction can be related to infertility. Oligozoospermia is a common causes of male infertility. The concentration less than 5000000 /mL is recognized as severe condition, but the severity of this condition affecting the reproductive viability is not clearly defined. We reported here a case of successful treatment for a man with oligozoospermia and woman with vaginismus.

A 32 year old man presenting with oligozoospermia referred to our clinic. The woman was 33 years old and having GPPPD. The couple had primary infertility for 10 years. The ovarian stimulation protocol was started with 450 IU of recombinant FSH. The follicular growth was monitored by pelvic ultrasound. Seven oocytes were obtained. Intracytoplasmic sperm injection (ICSI) was performed. One frozen embryo was transferred under general anesthesia. The patient became pregnant and fetal heartbeat was detected.

Performing folliculometry, and embryo transfer are difficult processes for woman with vaginismus. ICSI improves fertilization rates and prevents total failed fertilization compared with conventional insemination. ICSI may be a good treatment option for the woman with GPPPD whose partner having severe oligozoospermia.

Keywords: Intracytoplasmic sperm injection; oligozoospermia; vaginismus

[Abstract: 0228] [P-63] [Accepted: Poster Presentation]

A Severe and Dramatic Ovarian Hyperstimulation Syndrome in Donor Oocyte Cycle an Use of an Agent Called Bevasizumab

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19 years old university student applied to emergency department of an university hospital. Sshe suffered from abdominal tenderness, pain and swelling. After Gynecology consultation, she had ascites, huge bilateral ovaries and multiple diameters of ovarian follicles, she admitted to the hospital. right ovarian volume was 400 cc and left ovarian volume was 382 cc. We started immense IV liquids, Anticoagulation agent,GnRh antagonist and cabergolin. And with in 7 days we aspirated 14500 ml of ascites from abdominal space via vaginally or transcutaneous. Her vital parameters getting worse day by day. even if we added Human Albumin, antidiuretic. At day 7 we consulted her to an internal medicine doctor as Gastroenterohepatologist. he suggest us Bevacizumab (VEGF antagonist). we informed with the patient and her family for adverse effect. Because there is no human data for this drug for this indication. One day after 5 mg/kg Bevacizumab IV with in 100 ml Saline within 90 minutes there was dramatically improvement of her vital signs and blood serum parameters. After one year followup we did not see any side effect for her body. She is in control every 3 months.

Keywords: Ovarian Hyperstimualtion, Donor Oocyte Cycle, Vascular Endothelial growth Factor Bevacizumab

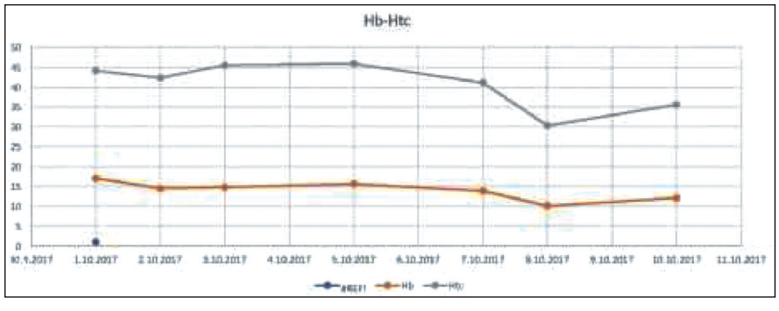

FIGURE 1: Hemoglobin and Hematocrit Changes.

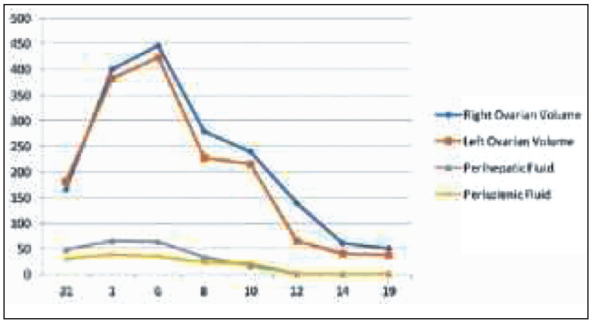

FIGURE 2: Ovarian Volume Changes.

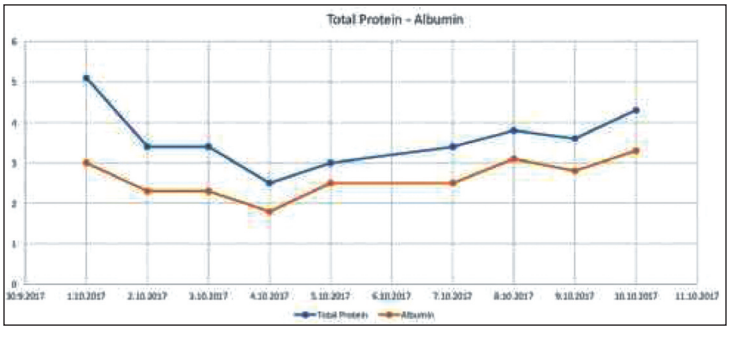

FIGURE 3: Plasma Protein Changes.

TABLE 1: Ovarian Volumes day by day.

Date	Right Ovarian Volume	Left Ovarian Volume
1.10.2016	400	382
6.10.2016	446	423
8.10.2016	278	227
10.10.2016	239	215
12.10.2016	139	65
14.10.2016	60	40
19.10.2016	50	37

TABLE 2: Hemoglobin and Hematocrite Changes day by day.

Date	Hb (g/dl)	Htc (%)
1/10/2016	17.0	44.1
2/10/2016	14.5	42.3
3/10/2016	14.8	45.5
5/10/2016	15.6	45.9
7/10/2016	13.9	41.1
8/10/2016	10.1	30.3
10/10/2016	12.1	35.6

TABLE 3: Serum Protein Changes day by day.

Date	Total protein (g/dl)	Albumin (g/dl)
1/10/2016	5.1	3.0
2/10/2016	3.4	2.3
3/10/2016	3.4	2.3
4/10/2016	2.5	1.8
5/10/2016	3.0	2.5
7/10/2016	3.4	2.5
8/10/2016	3.8	3.1
9/10/2016	3.6	2.8
10/10/2016	4.3	3.3

[Abstract: 0229] [P-64] [Accepted: Poster Presentation]

Could There be Any Role of Thiol Disulphide Homeostasis in the Pathogenesis of Endometrial Polyps?

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Background and Aim: Endometrial polyps are localised hyperplasic overgrowths of endometrial glands and stroma that protrude projections from the surface of the endometrium. They can be single or multiple and range from a few milimeters to several cantimetres. Thiol is an organic compound which include sulfhydryl group has critical role of preventing oxidative stress situation in cells. Thiols can undergo oxidation reaction via oxidants and form disulphide bonds. A disulphide bond is a covalent bond. Under conditions of oxidative stress, the oxidation of cysteine residues can lead to the reversible formation of mixed disulfides between protein thiol groups and low molecular mass thiols. The formed disulphide bonds can again reduced to thiol groups, thus dynamic thiol-disulphide homeostasis is maintained. Herein the authors searched oxidative stress markers which are thiol, disulphide and ischemia modified albümin (IMA) to evaluate whether they have any effect on the augmentation of endometrial polyps.

Methods: A total of 87 women were enrolled to this study. All patients were evaluated with office hysteroscopy, and then those with endometrial polyps underwent operative hysteroscopy. 43 of these women had pathologically confirmed endometrial polyps (study group) and 44 had not (control group). Fasting blood samples were obtained from the antecubital vein before the operation in all women. Thiol/disulphide levels were analyzed with a newly developed method by Erel. IMA measurement was performed using an indirect method based on the colorimetric assay as previously defined. After the determination of native thiol and disulphide amount, native thiol/disulphide ratio was calculated.

Results: There were no significant differences between the 2 groups in terms of demographic characteristics including age, body mass index, and past obstetric history. Similarly no significant difference was observed regarding infertility ratio and smoking status. Native thiol, total thiol, disulphide levels were found to be 263.6±63.3 μmol/l vs. 280.9±63.8 μmol/l (p:0.208), 296.9±64.9 μmol/l vs. 315.2±67.3 μmol/l (p:0.202), and 16.6±6.5 μmol/l vs.17.1±7.8 μmol/l (p:0.759) in the study and control groups, respectively. There was also no significant difference with regard to serum IMA levels (46.5±12.1 vs. 44.9±12.6; p: 0.539).

Conclusions: Serum thiol/disulphide homeostasis and IMA levels have no significant effect in the pathogenesis of endometrial polyps.

Keywords: Endometrial polyp, thiol disulphide homeostasis, ischemia modified albumin, oxidative stress markers

TABLE 1: Comparison of the demograhic features of the subjects.

Variables	Study group (n:43)	Control group (n:44)	P value
Age (years) x[?]± SD	30.0±6.5	32.3±6.6	0.101
BMI (kg/m^2) x[?]± SD	26.0±4.7	25.7±3.6	0.763
Gravida median (min-max)	1(0-6)	1(0-5)	0.980
Parity median (min-max)	0(0-6)	0(0-4)	0.426
No. of miscarriage median (min-max)	0(0-3)	0(0-3)	0.234
Nulliparity n(%)	21 (52.5)	22 (55)	0.823
Infertility n(%)	16 (37.2)	12 (27.3)	0.399
Smoking n(%)	10(25)	9(22.5)	0.793

TABLE 2: Laboratory parameters of the patients.

Variables	Study group (n:43)	Control group (n:44)	P value
Native thiol (µmol/l) x[?]± SD	263.6±63.3	280.9±63.8	0.208
median (min-max)	364.5(130.4-410.3)	285.1(127.8-414.9)	
Total thiol (µmol/l) x[?]± SD	296.9±64.9	315.2±67.3	0.202
median (min-max)	295.3 (154.9-462.6)	320.5 (159.6-439.1)	
Disulphide (µmol/l) x[?]± SD	16.6±6.5	17.1±7.8	0.759
median (min-max)	15.7(2.8-30.3)	17.3 (4.0-32.5)	
Disulphide/Native thiolx100 x[?]± SD	6.7±3.4	6.4±3.4	0.675
median (min-max)	6.3(1.4-18.0)	6.0(1.5-13.4)	
Disulphide/Total thiolx100 x[?]± SD	5.7±2.5	5.5±2.6	0.661
median (min-max)	5.6(1.4-13.2)	5.4 (1.5-10.6)	
Native thiol/Total thiolx100x[?]± SD	88.4±5.1	88.9±5.2	0.661
median (min-max)	88.6(73.4-97.2)	89.1(78.7-97.0)	
IMA(ABSU) x[?]± SD	46.5±12.1	44.9±12.6	0.539
median (min-max)	44.8(27.2-91.4)	44.4(28.5-100.1)	
Albumin ((mg/ml) x[?]± SD	4.4±0.2	4.4±0.3	0.956
median (min-max)	4.4(3.7-4.8)	4.4(2.4-5.2)	

IMA: ischemia modified albumin. A p<0.05 was considered as statitistically significant.

[Abstract: 0230] [P-65] [Accepted: Poster Presentation]

The Comparison of Thiol-Disulphide Homeostasis in Male Infertility And Varicocele

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Objective: Infertility affects an estimated 15% of couples globally. Male factor infertility accounts for about a half of infertility cases. About 40% of infertile men have varicocele. The aim of this study was to investigate thiol-Disulphide homeostasis in semen samples of infertility and varicocele groups.

Material-Methods: Patients (n=86) that applied to Ankara Ataturk Training and Research Hospital between 05.08.2017-07.18.2017 were enrolled in the study. The patients diagnosed infertility and varicocele separated two groups and compared to both each other and control group that applied to our hospital urology clinic due to other reasons. We analysed semen samples of patients for evaluating thiol-disulphide homeostasis. The results were investigated by using IBM SPSS 22.0.

Results: In this study, 24 patients in control group, 32 patients in infertility group and 30 patients in varicocele group were evaluated. Native thiol levels were found 111.3, 85.5 and 73.3 μmol/L in control, infertility and varicocele groups respectively. Native thiol levels in control group was significantly higher than both infertility and varicocele group $p<0.0001$. There was not found any significant difference between infertility and varicocele group for native thiol levels $p >0.05$. There was no any significantly difference for total thiol levels in three groups $p >0.05$.

Conclusion: In our study, native thiol levels was significantly decreased in infertility and varicocele patients compared to control group. There are several reports in literature about that oxidative strees may be one of the reasons for infertility. Our native thiol results are very suitable with these studies. Oxidative stress could decreased native thiol levels in infertility and varicocele groups.

Keywords: Thiol-Disulphide homeostasis, İnfertility, Varicocele

[Abstract: 0231] [P-66] [Accepted: Poster Presentation]

Severe Preeclampsia Developing After Recurrent In Vitro Fertilization Cycles: A Case Report

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Objective: Assisted reproductive technology pregnancies are known to have a higher risk of adverse perinatal outcomes. It is related with preterm delivery, low birth weight, placenta previa, gestational diabetes and hypertensive pregnancy disorders. Higher doses of gonadotropins used to achieve pregnancy are claimed to have a role in impaired placentation and as a consequence development of preeclampsia. Here, we presented a case underwent 8 in vitro fertilization cyle and developed severe preeclampsia.

Case: A 39 year old pregnant women with increased blood pressure and vaginal fluid leakage at the 35th gestational week was admitted to our clinic. In medical history, she had 7 unsuccessful in vitro fertilization cyle with an indication of unexplained infertility and this pregnancy was the 8th cycle with GnRH antagonist protocol. She had no history of any hypertensive disorder. Body mass index was 24.1 and on admission her blood pressure was 160/100 mmHg and heart rate was 92 beat per minute. In vaginal examination, active fluid leakage was present, cervix was 8 santimeter dilated and 80% effacement. Her laboratory parameters were normal except +++ proteinuria. She delivered a girl with 1 and 5 minute apgar scores of 8 and 9 and 2300 gram weight. In postpartum 14th hour, blood pressure was 170/110 mmHg, aspartate aminotransferase was 447 and alanine aminotransferase was 170 U/L and platelet was 27000/mm^3. Magnesium sulphate infusion therapy at 2 g/hour for eclampsia prophylaxis was started and continued during postpartum 24 hours. On postpartum second day, her liver function tests tend to decrease and her blood pressures were <140/90 mmHg. She was discharged on postpartum 6th day and her blood pressures and laboratory parameters were completely normal.

Conclusion: In vitro fertilization has been a gradually increasing assisted reproductive technology among infertile couples worlwide in recent decades. Although clinical pregnancy is a major outcome, managing obstetric complications is crucial for these patients to avoid maternal and fetal mortality and morbidity. We suggest that careful antenatal surveillance and delivery in tertiary center may provide beneficial effects for these patients.

Keywords: In vitro fertilization, preeclampsia, pregnancy outcome

[Abstract: 0232] [P-67] [Accepted: Poster Presentation]

The Comparison of the Effect of Agonist and Antagonist Protocols on In Vitro Fertilization Outcome in Patients Underwent Laparoscopic Surgery for Endometrioma

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Objective: The prevalence of endometriosis has gone up to % 50 in women suffering from infertility. Patients with a history of laparoscopic endometrioma surgery have a higher chance for diminished ovarian reserve. The aim of this study is to investigate the effect of two different ovarian stimulation protocols on in vitro fertilization (IVF) outcome in the patients who had laparoscopic endometrioma surgery.

Material-Methods: We retrospectively analyzed 2793 cycles of Etlik Zubeyde Hanım Women's Health Teaching and Research Hospital Centre of Assisted Reproduction, between 2007-2015. Sixty four patients who had a laparoscopic surgery due to endometrioma were included in this study. The exclusion criteria were as follows: male factor infertility, female patients' age >42 years and multiple infertility factors. Demographic features and controlled ovarian stimulation cycle parameters of patients treated with GnRH long agonist protocol were compared with patients treated with GnRH antagonist protocol.

Results: In this study, 38 patients in agonist group, 26 patients in antagonist group were evaluated. The basal FSH level was significantly higher in antagonist group when compared to long agonist group. The other demographic parameters were comparable in both groups. The cycle cancelation rate was significantly higher and fertilization rate was significantly lower in antagonist group when compared to long agonist group. No difference was found between two groups regarding stimulation parameters (number of developing follicles, maximum E2 level, number of oocytes obtained, number of mature oocytes), number of good quality embryos, implantation rate, clinical pregnancy and live birth rates.

Conclusion: Pregnancy outcome were not affected from the use of ovarian stimulation protocols in patients with a history of laparoscopic endometrioma surgery.

Keywords: Endometrioma, In vitro Fertilization, Agonist Protocols, Antagonist Protocols

[Abstract: 0233] [P-68] [Accepted: Poster Presentation]

The Association Between Serum AMH Levels and ART Cycle Outcomes: A Retrospective Analysis of 889 Cycles

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Objective: The purpose of this study was to evaluate the association between serum AMH levels and ICSI cycle outcomes. The secondary aim was to investigate the role of age on cycle outcomes in women with AMH levels <=1ng/ml.

Materials-Methods: Between January 2015 and December 2016, 889 consecutive fresh ICSI/ET cycles in which AMH levels were obtained prior to the treatment were included for this study. All ICSI/ET cycles were performed in a single tertiary IVF Center. AMH levels were obtained from the patient medical charts. ICSI cycle parameters were obtained from our IVF database. Multivariate logistic regression analysis was performed for the value of AMH levels on the number of obtained oocytes and clinical pregnancies. Also analyses were performed to evaluate the predictive factors of clinical pregnancies in patients with low AMH levels (<=1 ng/ml).

Results: The mean age was 32.8±5.3 years, mean AMH was 2.2±2.4 ng/ml and mean number of obtained oocytes was 7.4 ±6.2 for the total group. The AMH levels were positively correlated with the number of oocytes (r:0.571, p<0.001), peak endometrial thickness (r:0.188, p<0.001) and peak serum estradiol levels (r:0.505, p<0.001). Regression analysis showed that; basal FSH, age, AMH level and endometrial thickness are all independent factors for obtaining more than five oocytes. The AMH levels were categorized as >1 ng/ml and <=1 ng/ml. The AMH level>1 ng/ml was also one of the significant predictive factor for obtaining >5 oocytes (OR;6.7, 95% CI= 4.6-9.7). Although clinical pregnancy (CP) rates were significantly higher in patients with AMH level >=1 ng/ml compared to AMH levels below 1 ng/ml (38.3% vs.23.2%, p<0.001), multivariate analysis showed that only age and number of 2PN's were significant predictive factors for CP. When only cycles with AMH<=1 ng/ml were considered (n=345); the significant predictive factors for CP were related only again with the age and number of 2PN. In the low AMH group, patients older than 35 years had significantly lower CPR than younger ages, 17.8% (30/169) vs. 28.4% (50/176), respectively.

Conclusion: AMH levels seem highly predictive for obtaining more oocytes in ICSI cycles but we found no independent association with AMH levels and clinical pregnancy outcome. For patients with low AMH levels, age is the important factor for predicting clinical pregnancies.

Keywords: AMH, ICSI, reproductive outcome

[Abstract: 0234] [P-69] [Accepted: Poster Presentation]

Mikroakışkan Çip Kullanımının Blastokist Gelişimine Etkisi

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Bu çalışmada, Ocak 2014-Ağustos 2017 arasında merkezimizde tüp bebek tedavisi yapılan toplam 364 hastada sperm ayrıştırma tekniği olarak mikroakışkan çip kullanımının standart gradient yoğunluk (Percoll) yöntemine göre blastokist gelişimine etkisi retrospektif ve randomize olarak karşılaştırılmıştır. Hastalar sperm ayrıştırma tekniğine göre çip (117 kişi) ve gradient (244 kişi) olarak gruplandırılmış ve tüm hastalara ICSI işlemi uygulanmıştır. Hasta verilerini karşılaştırmada istatistiksel test olarak t-test (SPSS 21.0) kullanılmıştır. Gradient ve çip gruplarında sırasıyla hasta yaşı 34,12±6,37 ve 35,26±5,44 (p: 0.095), elde edilen toplam oosit 8,91±4,74 ve 9,23±5,2 (p: 0.55) ve matür (MII) oosit sayıları 7,36±4,04 ve 7,53±4,43 (p: 0,71), döllenme,oranları 90,02±13,22 ve 87,91±12,72 (p:0,15), sperm sayısı (mil/ml) 49,11±40,44 ve 41,32±36,08 (p: 0,06), total hareketlilik oranı (%) 54,84±17,46 ve 52,26±15,54 (p:0,17), progresif hareketlilik oranı (%) 46,13±18,46 ve 42,7±16,57 (p: 0,08) ve Kruger kriterlerine göre normal morfolojide sperm oranı (%) 2,22±1,42 ve 1,97±1,36 (p: 0,11) benzer olarak bulunmuştur. Blastokist gelişimi (toplam blastokist/döllenen oosit (%) açısından her iki grup arasında istatistiksel olaral anlamlı fark gözlenmemiştir (Gradient: 42,76±28,42, Çip: 39,91±26,64. p: 0,08).

Anahtar Kelimeler: Mikroakışkan çip, gradient, sperm, blastokist, ICSI

[Abstract: 0236] [P-70] [Accepted: Poster Presentation]

Primer İnfertilitenin Prevalansı ve Nedenleri

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Giriş: İnfertilite birçok çiftin gebe kalmak için mücadele ettiği temel sağlık sorunudur. Çalışmamızın amacı Sağlık Bilimleri Üniversitesi Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi Kadın Hastalıkları ve Doğum Kliniği'ne başvuran infertil hastaların infertilite nedenleri ve dağılımlarının saptanmasıdır.

Materyal-Metod: Çalışmamıza 15-01/15-07-2017 tarihleri arasında infertilite polikliniğimize başvuran toplam 1522 infertil hasta retrospektif olarak dahil edildi. Risk faktörleri sorgulandı. Hastalar vajinal ultrasonografileri, HSG değerlendirmeleri, eşlerin spermiyogramları, bazal hormon tetkiklerinin yapılmasının ardından, 6 aylık takibe alındı.

Bulgular: Yaş ortalaması 31.2, (20-35 yaş arası) idi. 645 hasta sigara kullanımı, %60 hasta body-mass indeks 30'un üstü obezite risk faktörü taşıyordu. Çoğunlukla eğitim düzeyi ilköğretim seviyesindeydi. Hastalardan 410 hastada (%27) ovulatuar nedenler, 355 hastada (%23) erkek faktörü, 322 hastada (%21) tubal – peritoneal nedenler, 300 hastada (%20) açıklanamayan infertilite ve 135 hastada (%9) diğer nedenler infertilite nedeni olarak tespit edildi.. Hastaların HSG testleri ile uterin tubal anatomileri incelendi. Endometriozis, enfeksiyoz veya gelişimsel nedenler ile tubal yapıların hidrosalpenks, piyosalpenks, agenezik veya normal olup olmadığı tespit edildi. Histeroskopi ile uterin kaviteleri değerlendirildi. Endometrial polipler, sineşiler, septum, submukoz myom yapıları görülerek rezeke edildi. Tanısal Laparoskopi yapılan hastaların kromopertubasyonları ile tubal geçişleri değerlendirildi. Endometriozis ve enfeksiyoz nedenler ile oluşmuş olan adhezyonlar, endometriomalar cerrahi olarak tedavi edildi. Cerrahi olarak müdahele edilen ve tıbbi tedavi uygulanan hastalara postop TVUSG takibi yapıldı. Ovulatuar bozuklukları olan hastaların medikal tedavileri yanı sıra yaşam tarzı değişiklikleri takip edildi.

Sonuç: İnfertilite nedenleri arasında en büyük oranı ovaryan faktörler ve ardından erkek faktörü oluşturmaktadır. Bu nedenlerin doğru bir şekilde saptanması hastaların tedavilerinin de uygun şekilde yapılabilmesine olanak sağlayacaktır. İVF bazı durumlarda ilk seçenek olsa da, genel olarak risk faktörleri ile mücadelede danışmanlık (obezite, sigara, eğitim gibi) önceliklidir.

Anahtar kelimeler: Primer infertilite, prevalans, nedenleri

[Abstract: 0237] [P-71] [Accepted: Poster Presentation]

Düşük Sperm Değerlerine Sahip Hastalarda Mikroakışkan Çip Kullanımının Blastokist Gelişimine Etkisi

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Bu çalışmada, Ocak 2014-Ağustos 2017 arasında merkezimize tüp bebek tedavisi için başvuran, sperm değerleri düşük hastalarda sperm ayrıştırma tekniği olarak mikroakışkan çip kullanımının standart gradient yoğunluk (Percoll) yöntemine göre blastokist gelişimine etkisinin retrospektif ve randomize olarak karşılaştırılması amaçlanmıştır. Hastalar 'WHO 2010 Sperm Kriterleri' ne göre Oligozoospermi (Çip:28 hasta, Gradient:48 hasta), Astenozoospermi (Çip:30 hasta, Gradient:56 hasta),Teratozoospermi (Çip:99 hasta, Gradient: 184 hasta) ve uygulanan sperm ayrıştırma tekniğine göre 'Çip' ve 'Gradient' olarak gruplandırılmışır, Tüm hastalara ICSI işlemi uygulanmıştır. Blastokist gelişimi hesaplanırken elde edilen toplam blastokistin döllenen oosite oranı yüzde (%) olarak hesaplanarak bulunmuştur. İstatistiksel test olarak t-test (SPSS 21.0) kullanılmıştır.

Sonuçlar: Oligozoospermi hastalarında gradient ve çip gruplarında sırasıyla kadın eşin yaşı 33,27±6,81 ve 33,89±5,48 (p: 0.68), elde edilen toplam oosit 10,31±5,21 ve 10,68±4,67 (p: 0.76) ve matür (MII) oosit sayıları 8,33±4,65 ve 8,5±4,00 (p: 0.87), döllenme,oranları 89,97±10,65 ve 87,56±10,37 (p:0.33), sperm konsantrasyonu (mil/ml) 5,52±4,48 ve 6,27±4,21 (p: 0.47), total hareketlilik oranı (%) 45,90±19,27 ve 46,36±17,05 (p:0.91) ve progresif hareketlilik oranı (%) 34,29±19,45 ve 33,64±16,22 (p: 0.87), blastokist gelişimi (%) 40,69±28,05 ve 35,91±25,42 (p:0.45) olarak bulunmuştur. Sperm konsantrasyonu az olduğu için morfoloji değerlendirilmemiştir. Astenozoospermi hastalarında gradient ve çip gruplarında sırasıyla kadın eşin yaşı 33,86±6,54 ve 35,03±6,06 (p: 0.41), elde edilen toplam oosit 9,21±4,75 ve 10,17±5,59 (p: 0.40) ve matür (MII) oosit sayıları 7,55±4,25 ve 8,00±4,55 (p: 0.65), döllenme,oranları 89,68±11,72 ve 90,27±9,25 (p:0.81), sperm konsantrasyonu (mil/ml) 28,74±30,47 ve 27,64±32,42 (p: 0.87), total hareketlilik oranı (%) 31,80±12,04 ve 35,07±13,19 (p:0.26) ve progresif hareketlilik oranı (%) 20,34±7,64 ve 21,67±8,15 (p: 0.45), Kruger kriterlerine göre normal morfolojiye sahip sperm sayısı (%) 1,17±1,16 ve 1,40±1,00 (p: 0.35), blastokist gelişimi (%) 41,49±28,46 ve 37,81±26,21 (p:0.54) olarak bulunmuştur. Teratozoospermi hastalarında gradient ve çip gruplarında sırasıyla kadın eşin yaşı 34,25±6,22 ve 34,98±5,45 (p: 0.32), elde edilen toplam oosit 8,93±4,90 ve 9,76±5,35 (p: 0.19) ve matür (MII) oosit sayıları 7,40±4,21 ve 7,90±4,57 (p: 0.36), döllenme,oranları 89,52±13,3 ve 87,46±12,98 (p:0.21), sperm konsantrasyonu (mil/ml) 41,80±33,62 ve 35,75±31,09 (p: 0.13), total hareketlilik oranı (%) 53,00±18,16 ve 50,42±15,54 (p:0.23) ve progresif hareketlilik oranı (%) 44,16±18,92 ve 40,30±16,27 (p: 0.08), Kruger kriterlerine göre normal morfolojiye sahip sperm sayısı (%) 1,60±0,95 ve 1,56±1,00 (p: 0.72), blastokist gelişimi (%) 41,59±28,07 ve 37,87±25,64 (p:0.26) olarak bulunmuştur. Sonuç olarak, sperm değerleri düşük hastalarda sperm ayrıştırma tekniği olarak mikroakışkan çip kullanımının standart gradient yoğunluk yöntemine göre blastokist gelişimi üzerine istatistiksel olarak anlamlı bir etkisi gözlenmemiştir.

Anahtar kelimeler: Mikroakışkan çip, blastokist, oligozoospermi, astenozoospermi, teratozoospermi

[Abstract: 0238] [P-72] [Accepted: Poster Presentation]

Aggression, Health Anxiety and Impulsiveness Among Spouses of Infertile Women: A Case Control Study

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Objective: Infertility is defined as the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse. Excessive cognitive and behavioural efforts to manage infertility may be needed as an abrupt, unanticipated, and sometimes chronic distressful life crisis (1). The scope of the psychological dimensions of this health problem is multifaceted. The issue has been receiving more interest due to the premise that the fertility is strongly associated with distress. Grief, aggression, frustration, self-blame, denial, anxiety, depression, negative body image and poor self-esteem are not rare among spouses in the face of this problem (2,3). Several studies reported that women had more intense reactions in the face of infertility than men (4). Nevertheless, so far, spouses of infertile women have received less attention in the literature. The aim of the study is to compare impulsiveness, health anxiety and aggression between spouses of infertile women and control subjects.

Material: The Buss-Perry Aggression Questionnaire (BPAQ), Health Anxiety Inventory (HAI-18) and Barratt Impulsiveness Scale were administered to volunteers.

Method: Twenty spouses of infertile women and fifty male controls with no fertility problem in their spouses included in the study. Spouses of infertile women and controls did not differ according to their education (Likelihood ratio (3)= 6.820 p=0.078) and income (Likelihood ratio (3)= 3.300 p= 0.348). Male control participants had longer marriage than spouses of infertile women (t(33)=2.113 p=0.042) that we compared groups by using multivariate analysis of covariance (MANCOVA) to adjust for group difference in the mean duration of marriage.

Results: Using MANCOVA we found that the multivariate group difference on scale scores was significant (Wilks' $\lambda = 0.569$ $F(3, 30)= 7.583$ $p=0.001$). Spouses of infertile women reported significantly greater aggression ($F(1, 32)= 5.488$ $p=0.026$ $\eta 2 =0.146$) and health anxiety ($F(1, 32)= 21.506$ $p<0.001$ $\eta 2 =0.402$), but not impulsivity ($F(1, 32)= 3.013$ $p=0.092$ $\eta 2 =0.086$).

Conclusion: We concluded that spouses of women patients with infertility are at greater risk of aggression and healthy anxiety which may affect interpersonal relations in their marriage and further complicate the treatment of infertility in women.

Keywords: Distress, emotional dysregulation, family relations, infertility, men

References

1. Forrest L, Gilbert LG. (1992). Infertility: an unanticipated and prolonger life crisis.J Mental Hlth Counselling, 14,42
2. Kraft AD.,Palombo J. (1986). The psychological dimensions of infertility. Am. Journal of Orthopsyc.,50,618-627.
3. Berg BJ., Wilson JF. (1990). Psychiatric morbidity in infertile population. Fertility and Sterlity, 53(4): 654-661
4. Ying LY, Wu LH, Loke AY. (2015).Gender differences in experiences with and adjustments to infertility: a literature review. Int J Nurs Stud, 52:10 1640-1652.

[Abstract: 0239] [P-73] [Accepted: Poster Presentation]

Correlation of Anti-Muller Hormone, Ingibin A and Ingibin B in Infertile Women

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Background: The objective of our study was to identify the correlations between the anti-Mullerian hormone (AMH), Ingibin A (Ing A) and Ingibin B (Ing B) and to distinguish the most reliable markers for ovarian reserve in order to select an adequate strategy for the initial stages of infertility treatment.

Materials-Methods: In this prospective study, 106 infertile (mean group) and 32 reproductive healthy (control group) women were assessed. AMH, Ing A and Ing B were determined on days 2-3 of the patients' menstrual cycles.

Results: The mean levels of AMH, Ing A and Ing B are showen in pictures. The levels of AMH was significantly higher in control group ($p<0,001$). And there was a significantly elevated positive correlation between Ing A and AMH ($k=0.325$, $p<0.001$) and Ing B ($k=0,27$ $p<0.001$) in infertile women. We observed a significantly positive correlation between AMH and IngA ($k=0,412$, $p<0.001$) in healthy women,too. But, Ing A negatively correlated with Ing B ($k=-0512$, $p<0.001$) in reproductive healthy women.

Conclusion: Currently, AMH should not be used alone as the marker of ovarian reserve. The use of AMH combined with Ing A and Ing B may improve ovarian reserve evaluation.

Keywords: Anti-Mullerian Hormone, Ingibin B Hormone, Ingibin A hormone

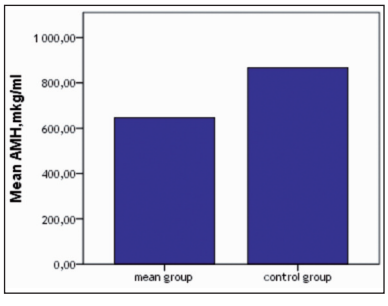

FIGURE 1: AMH levels in group.

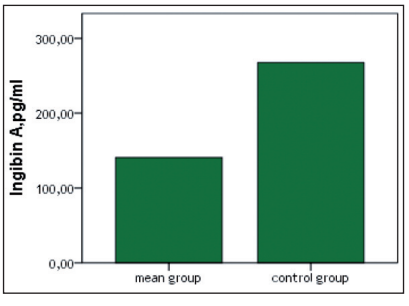

FIGURE 2: Ingibin A level in groups.

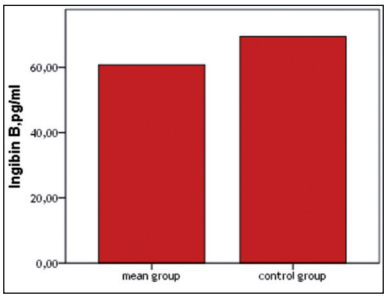

FIGURE 3: Ingibin B level in group.

[Abstract: 0240] [P-74] [Accepted: Poster Presentation]

Effectiveness of Surgical Treatment for Tubal Infertility

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Objective: Due to the clinical definition of infertility used by the World Health Organization, women diagnosed as infertile who had not a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. The aim of this study was to evaluate the pregnancy rates after endoscopic surgical treatment in patients with tubal infertility.

Material and Method: 42 patients with bilateral tubal ligation were evaluated and included to this prospective cohort study, from January 2015 to January 2017 in the Department of Obstetrics and Gynecology, Educational Surgical Hospital of Azerbaijan Medical University. The diagnosis of the patients was established by hysterosalpingogram. Patients followed up for 6-24 months and the pregnancies were recorded. All women were separated into three categories according to severity of their tubal damage, namely: mild/grade I, moderate/grade II and severe/grade III (The Hull and Rutherford classification, 2002). At first an adhesiolysis was perfomed when discovered the pelvic adhesions. Primary, gentle blunt dissection was done to separate the adhesions but sharp dissection also performed when necessary. Fimbrioplasty and neosalpingostomy were done using bipolar electrocoagulation and atraumatic endoscopic forceps. Data was entered and analyzed using Statistical Package for the Social Sciences (SPSS). Mann-Whitney U test and Fisher`s exact test were used to compare the different variables and cumulative rate curves of intrauterine pregnancies with respect to the tubal stages. A p-value<0.05 was considered statistically significant.

Results: The mean age of our patients was 29.8 (21-41). Women with primary and secondary infertility were 25 (60%) and 17 (40%) respectively. Forty two patients had undergone the surgical procedure that eventually we obtained 22 (52%) pregnancies. Two of these pregnancies resulted with spontaneous abortion at first trimester. At this time we have 13 (31%) live born babies of the 42 (100%) operated patients and 7 (17%) ongoing pregnancies at their second and third trimesters. There were no ectopic pregnancies in this study. Pregnancy rates were significantly associated to the tubal damage grade, so the significant higher intrauterine pregnancy rate were in grades I+II than in grade III (15(68%) vs 7(32%), p=0.027). All detailed descriptions of the patients were given in the Table.

Conclusion: Reproductive surgery also involves the treatment that aimed to increase the pregnancy rates by restoring of a natural permeability of fallopian tubes. Surgical treatment of tubal infertility remains a popular option of couples in our country despite the different complications and risks of this procedure. So, a lot of families cannot receive in vitro fertilization (IVF) treatment because of religious, emotional and material reasons. Though IVF is remains as the single choice of older infertile women with severe tubal damage. In our study, as in literature, we could show the effectiveness of surgical treatment in population with tubal infertility. The obtained pregnancy rates in a small study group was 52% that encourages the improvements of surgical technics and tools for the better results in a well selected population.

Keywords: Tubal infertility, IVF, fimbrioplasty, neosalpingostomy

TABLE 1: Characteristics and the pregnancies of the study patients.

		N, %, (min-max)	Pregnancies N, (%)	Abortions N (%)	Livebirth	p-value
Age, years		29.8(21-41)				
Type of infertility	Primary	25(60%)	8(36%)	1(5%)	5(38%)	.130
	Secondary	17(40%)	14(64%)	1(5%)	8(62%)	
Mean infertility duration, months		16(9-35)				
Type of tuboplasty						
	Fimbrioplasty	24(57%)	12(55%)		7(54%)	.206
	Neosalpingostomy	18(43%)	10(45%)	2(9%)	6 (46%)	
Grade of tubal damage	Mild	9(21%)	6(27%)	1(5%)	4(31%)	
	Moderate	16(38%)	9(41%)	1(5%)	6(46%)	.027*
	Severe	17(41%)	7(32%)		3 (23%)	
Previous abdominal surgery		19(45%)	14(64%)		4 (31%)	
Mean duration of tuboplasty, min		36(22-87)				
Severe adnexial adhesions		11(26%)	5(23%)		2 (15%)	
Follow up time, months		6-24				
Livebirth, N (%)		13 (31%)	13 (%59)			
Total N, (%)		42(100%)	22(100%)		13(100%)	

[Abstract: 0241] [P-75] [Accepted: Poster Presentation]

The Effect of Surgical Treatment for Hydrosalpinx Before In vitro Fertilization Cycles on Pregnancy Outcome

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Objective: Tubal pathologies play an important role in the etiopathogenesis of infertility. Hydrosalpinx is a common tubal pathology which has an immortal effect on pregnancy outcome of in vitro fertilization cycles. It is still controversial whether surgical interventions such as salpingectomy before in vitro fertilization improves the pregnancy outcomes. In this study, we evaluated the pregnancy outcomes of patients who underwent salpingectomy for hydrosalpinx prior to in vitro fertilization.

Material-Methods: In this study, we included 25 infertile patients who underwent salpingectomy for hydrosalpinx. All patients were <35 years old and were scheduled for in vitro fertilization within 12 months. Surgical procedures, demographic findings and clinical pregnancy rates were recorded.

Results: The mean age of the patients were 30.2±6.8 years. The indication of all patients were hydrosalpinx and laparoscopic salpingectomy was performed for all patients. Of the 25 patients, 4 patients underwent unilateral and 21 patients underwent bilateral salpingectomy. There was no difference in the antral follicle counts and hormone profile before and after salpingectomy. According to the clinical pregnancy rates, in unilateral salpingectomy group, 1 patient had spontan pregnancy and 1 patient had clinical pregnancy after in vitro fertilization. In bilateral salpingectomy group, 3 patients had clinical pregnancy with in vitro fertilization. All of pregnant women had live birth.

Conclusion: We suggest that tubal surgery prior to assisted reproductive techniques is a useful protocol for infertile patients. But further studies are needed to evaluate the benefits of unilateral or bilateral salpingectomy on ovarian reserve and pregnancy outcomes.

Keywords: Hydrosalpinx, in vitro fertilization, pregnancy outcome

[Abstract: 0242] [P-76] [Accepted: Poster Presentation]

Correlation Between Anti-Muller Hormone, Ingibin A and Ingibin B in Infertile Women

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Background: The objective of our study was to identify the correlations between the anti-Mullerian hormone (AMH), Ingibin A (Ing A) and Ingibin B (Ing B) and to distinguish the most reliable markers for ovarian reserve in order to select an adequate strategy for the initial stages of infertility treatment.

Materials-Methods: In this prospective study, 106 infertile (main group) and 32 reproductive healthy (control group) women were assessed. AMH, Ing A and Ing B were determined on days 2-3 of the patients' menstrual cycles.

Results: The mean levels of AMH, Ing A and Ing B are showen in pictures. The levels of AMH was significantly higher in control group ($p<0,001$). And there was a significantly elevated positive correlation between Ing A and AMH ($k=0.325$, $p<0.001$) and Ing B ($k=0,27$ $p<0.001$) in infertile women. We observed a significantly positive correlation between AMH and IngA ($k=0,412$, $p<0.001$) in healthy women,too. But, Ing A negatively correlated with Ing B ($k=-0512$, $p<0.001$) in reproductive healthy women.

Conclusion: Currently, AMH should not be used alone as the marker of ovarian reserve. The use of AMH combined with Ing A and Ing B may improve ovarian reserve evaluation.

Keywords: Anti-Mullerian Hormone, Ingibin B Hormone, Ingibin A hormone

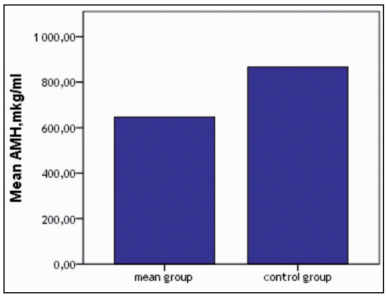

FIGURE 1: AMH level in group.

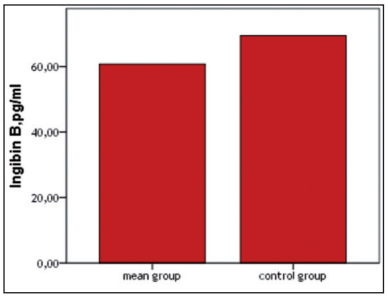

FIGURE 3: Ingibin B level in groups.

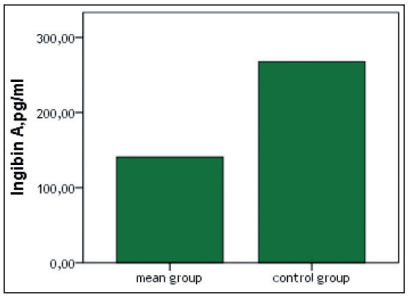

FIGURE 2: Ingibin A level in groups.

[Abstract: 0243] [P-77] [Accepted: Poster Presentation]

Random Start Stimulation in Fertility Preservation

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Introcuction: The female fertility preservation (FP) is a real emergency and the time available for it is always limited. In this context, the concept of "starting ovarian stimulation at any time in the ovulation cycle" or the "Random start" ovarian stimulation was defined. The aim of our study was to compare clinical and biological parameters of RS ovarian stimulation with those obtained in Conventional Ovarian Stimulation (COS) in early follicular in fertility preservation.

Methods: We conducted a prospective study in the reproductive medicine department during fifteen months (from January 2016 to March 2017). Patients older than 42 years old, or whose AMH was very low or those who had already received gonadotoxic treatment were excluded from the study. A total of 91 patients was recorded. Patients were referred by their oncologists for PF. We proposed freezing oocysts or embryos (depending on the marital status and the desire of the couple). Ovarian stimulation was started the day of the consultation or the day. The protocol used was the antagonist protocol. Letrozole was associated for patients with breast cancer. Clinical and biological parameters of ovarian stimulation were noted and analyzed. We compared the results between ovarian stimulation in RS and COS. $P < 0,05$ was considered statically significant.

Results: Forty-nine patients received ovarian stimulation for PF: 25 (51%) COS in early follicular phase and 24 (49%) RS. The two groups were comparable in age and ovarian reserve (AMH). The total dose of gonadotrophins in the two groups was comparable. The mean number of cumulative oocyst complexes was 7.96 +/-4 in the COS group and 7.17 +/-3.8 in the RS and the difference was not significant ($p = 0.6$). The mean number of mature oocysts was 6.12+/-3 in the COS group and 5.02+/- 3 in the RS group and the difference was not significant ($p = 0.4$).

Conclusion: The ovarian stimulation can be started in any time of the ovarian cycle. There is no difference between starting in the early follicle phase or later the the total dose of gonadotrophins and the number of mature oocyte. Folliculloge-nesis can be considered like a continuous process with 2 or 3 waves.

Keywords: Fertility preservation, Ovarian Stimulation, Random start, Vitrification

[Abstract: 0245] [P-78] [Accepted: Poster Presentation]

Using of Anti-IL-6 Receptor Monoclonal Antibody in Treatment of Endometriosis: Proof of Concept

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Introduction: In the light of the fact that many pro-inflammatory cytokines are elevated in the peritoneal fluid and the serum of patients of endometriosis, the one of our interest is interleukin-6 (IL-6) (1, 2). Our aim is to assess the role of usage of anti-IL-6 as alternative line of treatment in cases of endometriosis in vivo, using Tocilizumab (Actemra; Roche, Switzerland), a humanized anti-IL-6 receptor monoclonal antibody that is used in treatment of some immunological diseases such as rheumatoid artheritis, exerting its action by binding to IL-6 receptor preventing its inflammatory action.

Materials and methods: Induction of endometriosis was performed on female Sprague-Dawley rats (n=20) as described before (3), 5 mg/kg IM estradiol benzoate was injected to all rats I.M biweekly for four weeks, then the animals were re-opened, peritoneal cavities with endometriotic lesions were photographed, tissue samples were taken from the lesions to confirm the presence of endometriosis. Then, rats were divided randomly into 2 groups, the first one (the test group, n=14 (one rat died)) received 8 mg/kg Tocilizumab intraperitoneally biweekly for 4weeks. The second group (the control group, n=5) was given saline solution at a similar volume and frequency. After four weeks, the animals were euthanized, opened and the lesions photographed, endometiosis was taken from the ectopic lesions and the eutopic endometrium was taken from the intact left uterine horns. All tissue specimens were processed as paraffin embedded tissues. Histopathological examination was performed using 5 μm thick H&E stained tissue sections. The presence of endometriotic vesicles was confirmed by the presence of epithelial lining. This epithelium was evaluated as being intact or attenuated. Immunohistochemical staining was performed using antibodies against IL-6 (NB600-1131, Novus Biologicals, Littleton CO, USA). The procedures were done according to the manufacturer's instructions. The immunoreactivity was indicated by the presence of cytoplasmic staining in the epithelium of the endometriotic vesicles. The intensity of the stain was scored as none, mild (+), moderate (++) or marked (+++). High-performance liquid chromatography (HTLC) was performed from blood samples taken from the rats before and after treatment and from the liver and kidneys of the animals after sacrifaction.

Results: The epithelial linings of ectopic endometrium in the test group were attenuated in 6 out of 14 rats (42.8%) with variability in immunohistochemical staining intensity from + to +++. In comparison with the control group, none of the epithelial linings of ectopic endometrium were attenuated with immunohistochemical staining intensity not exceeding +. Regarding the eutopic endometrium epithelial linings in both the test and the control group, they were intact with immunohistochemical staining intensity +. The drug could not be identified in the liver and kidney samples of the animals using HTLC study, reflecting its safety.

Conclusion: We explored a proof of concept for the usage of humanized anti-IL-6 receptor monoclonal antibody as a promising biologic drug could be used safely in treatment of endometriosis, planning a step up in its investigation to be tested in a human phase of experiments.

Keywords: Endometriosis, Anti-IL-6, Animal model

[Abstract: 0247] [P-79] [Accepted: Poster Presentation]

Is Leptin Receptor Expression Trigerred in Case of Embryo Transfer to Endometrium Co-Culture?

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Background: A synchronized dialogue between maternal and embryonic tissues is required for a successful implantation. Low uterine receptivity is responsible for two-thirds of implantation failures and leptin is effective in physiology of reproduction by binding to specific receptors. In this study, our aim is to investigate leptin receptor expression in cases of embryo transfer to endometrial co-culture.

Method: Biopsy materials were taken from 20 females with indication for co-culture application and were cultured in appropriate medium, after the epithelial cells were isolated. The grown cells were cultured in chamber slides as the first group. For the second group, day 3 embryo was added to chamber slides and the development was observed. 1-2 days later, the embryo was transferred and other cells (after the transfer process) were used to form the second group. All the samples were fixed in %4 paraformaldehyde for 30 minutes, and then immunohistochemical staining with anti-leptin primary antibody was done.

Results: Regarding the co-culture without the embryo transfer, moderate leptin receptor immunoreactivity was seen in perinuclear region and in cell membrane. And regarding co-culture with the embryo transfer, moderate leptin receptor immunreactivity was seen in cytoplasm and strong leptin receptor immunoreactivity was seen in cell membrane.

Conclusions: Embryo transfer to the endometrium co-culture triggers leptin receptor expression.

Keywords: Embryo Culture, Embryo, Endometrium

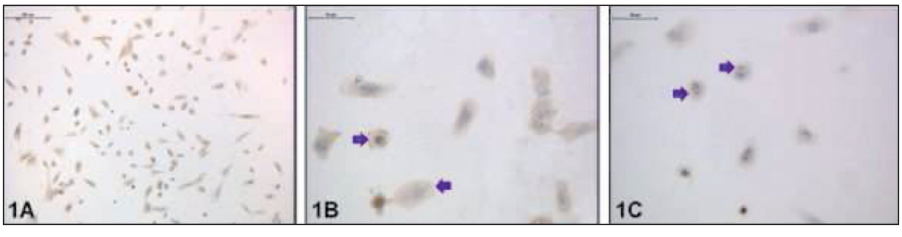

FIGURE 1: Leptin-receptor immunreactivity was seen in non embryo-added co-culture. Æ: Moderate immunreactivity in perinuclear region and also in cell membrane (İmmünperoxidase-hematoxylin A x100; B, C x400).

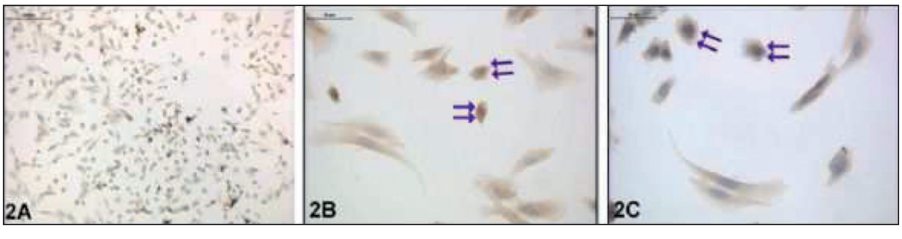

FIGURE 2: Leptin-receptor immunreactivity was seen in embryo-added co-culture I: Moderate cytoplasmic and strong membranous immunreactivity (İmmünperoxidase-hematoxylin A x100; B, C x400).

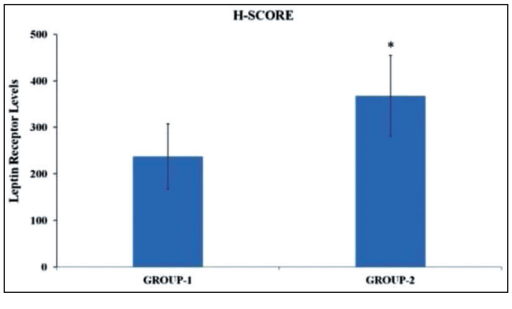

FIGURE 3: Statistical diagram of Leptin-Receptor Levels as a result of H-Score analyses.

[Abstract: 0248] [P-80] [Accepted: Poster Presentation]

Effect of Embryo Vitrification on Methylation Pattern of Imprinted Genes in In Vitro Produced Human Blastocysts?

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Subject: 'Freeze-all' strategy has been proposed in ART clinics due to prevention of interference between superovulation and endometrial receptivity. Superovulation may decrease endometrial receptivity. In addition of benefits of embryo vitrification, there are concerns about possible neonatal complications in children born after freezing ET such as large baby syndrome. Also vitrification of Day 3 embryo coincides with genome-wide epigenetic reprogramming and zygotic genome activation (ZGA) which may prone embryos to alterations of imprinting control region (ICR). Regarding the possibility of epigenetic risks induced by vitrification, this study assessed the effect of vitrification on DNA methylation pattern of ICR1 in human blastocyst.

Method: This study was approved by the ethics committee of Tehran University of Medical Science and ethical committee Royan Institute (No=24088). A total 30 embryos were donated from 11 healthy couples with at least two children of same sex referring for family balancing. Assessment of the Day 3 embryos was performed in two non-vitrified and vitrified groups. Then, embryos were cultured to day 5. Un-desired blastocysts were donated for our study. The methylation pattern of ICR1, also known IGF2/H19 DMR was determined by bisulfite conversion and sequencing, on 30 blastocysts and one million peripheral blood lymphocytes as quality control.

Results: To identify whether day3 embryo vitrification could alter the DNA methylation degree of ICR1 in blastocyst, the region including 18 CpGs was analysed. In addition, more than 15 clones were sequenced per replicate. The average methylation pattern of CpGs in the non-vitrified and vitrified groups was 38.27 ± 4.1% and 35.3% ± 3.6, respectively. Thus, this level of overall methylation between the two groups was not significantly different (P>0.05). The methylation status of lymphocyte was 49.52 ± 1.86%. The percentage of hyper-methylated clones of ICR1 in non-vitrified and vitrified groups was 43.75 ± 5.1% and 38.7% ± 4.9, respectively. The difference of proportion of hyper- methylated clones between two groups was not significantly (P>0.05). This value for the lymphocyte was 50%.

Conclusion: The data revealed that vitrification could not affect DNA methylation pattern of ICR1 in blastocyst. However, the methylation status of ICR1 in both groups is lower than the expected methylation level of somatic cells. This finding may confirm the policy of "freeze all embryo" regarding the adverse effects of superovulation which may perturb endometrial receptivity.

Keywords: Embryo vitrification

[Abstract: 0249] [P-81] [Accepted: Poster Presentation]

Effect of Syzygium Aromaticum (Clove) Extract on Tissue Damage and Oxidative Stress After Testicular Torsion

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Introduction: The aim was to investigate the protective Effect of Extract of syzygium aromaticum on tissue damage and oxidative stress testicular torsion

Materials-Methods: Animals were randomly divided into a control group subjected to a sham procedure and three treatment groups. The first group: testicular torsion following by detorsion (TD), the second group: testicular torsion detorsion followed the treatment by extract of syzygium aromaticum (TDSA) and third group: treatment by extract of syzygium aromaticum alone (SA).Testicular torsion was induced by 720-degree counterclockwise rotation of the left testis for the 4 h. after duration of torsion, detorsion was doing. Animals were given by daily oral administrations SA (4 mg/kg) for 7 days. Measurement of the oxidative stress, testosterone levels and assessments of Histo morphometry 7 days after detorsion was conducted.

Results: The Johnsen's score, diameter of the seminiferous tubules and thickness of seminiferous tubule epithelium significantly increased in testicular torsion group receiving treatment with Extract of Syzygium aromaticum (TDSA) compared with the testicular torsion detorsion (TD) group. The level of testosterone and GPX increased significantly in testicular torsion group receiving treatment with Extract of Syzygium aromaticum (TDSA) compared with the testicular torsion detorsion (TD) group. The MDA level also decreased in the testicular torsion group receiving treatment with Extract of Syzygium aromaticum (TDSA) compared with the testicular torsion detorsion (TD) group.

Conclusions: The findings of the current study suggested that Syzygium aromaticum might have provided a protective effect against TD induce oxidative stress injury.

Keywords: Syzygium aromaticum, clove, oxidative stress, testicular torsion

[Abstract: 0250] [P-82] [Accepted: Poster Presentation]

Investigation the Fertility Power by Intrauterine Insemination After Testicular Torsion/Detorsion in Adult Rat

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Objective: This experimental study used a rat model to Investigation the quality of sperm and fertility power by intrauterine insemination after Testicular torsion/detorsion in adult rat.

Materials-Methods: In our experimental study, were used 14 male and 14 female Wistar rat. That the Male rats randomly divided into 2 groups; G1, Sham group; G2, testicular torsion for 4 hours followed by detorsion 24 h(TD). Their blood sampling, blood levels of testosterone, some oxidative stress markers and anti-oxidant enzymes were assayed. The sperm parameters including concentration, vitality, motility, and morphology were assayed. Also power of fertilization was investigated by intrauterine insemination in adult female rat.

Results: The histological parameters showed a significant change in the G2 group as compared with Sham group. The levels of Testosterone, GPX, and superoxide dismutase significantly decreased in G2 group, and the malondialdehyde level increased in the duration of ischemia increased. The sperm quality and fertility power was significantly decreased in G2 when compared with Sham group.

Conclusions: The results of present research show that the testicular torsion/detorsion have negative effect on testis tissue, sperm quality and reduce the power of fertilization.

Keywords: Torsion/detorsion, testis, fertility, IUI

[Abstract: 0251] [P-83] [Accepted: Poster Presentation]

Beneficial Effects of Onion on Sertoli and Spermatid Cells of Male Rat in Pyrethroid-Induced Toxicity

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Permethrin (PER), a type I pyrethroid, is usually used in agriculture and households to control of pests. High exposure to PER has destructive toxicity on spermatogenesis cycle. Our study aimed to investigate protective effects of onion juice against PER-induced damages on the testis. Adult male Wistar rats were divided into 5 groups of six each: Control, DMSO (0.5 ml/kg), PER (35 mg/kg), PER-onion juice and onion (3 cc). PER and DMSO were given by intra-peritoneal injection, onion juice by oral gavage. After two months, testes were processed for ultra-structural and histo-pathological studies. Serum levels of FSH and LH were examined by Elisa kit. PER exposure was evidenced by a significant decrease in hormonal levels (P-Value <0.001). Furthermore, histo-morphometric and cellular damages were observed. In the PER-onion group, onion prevented hormonal alteration and structural lesions which were confirmed by electron and light microscopy. The number of cells (Sertoli, Spermatogonial and Spermatid) decreased after PER injection (P-Value <0.05). Onion juice is useful to prevent toxicity effects of PER on testicular histology and cellular morphology.

Keywords: Onion, permethrin, sertoli cell, spermatid cell, FSH - LH

[Abstract: 0252] [P-84] [Accepted: Poster Presentation]

Effect of Fumaria Parviflora Extract on Sperm Parameters and Tissue Damage Induced by Testicular Torsion

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Aim: The aim was to investigate the protective Effect Fumaria parviflora extract on sperm parameters, tissue damage and oxidative stress induced by testicular torsion

Materials-Methods: Animals were randomly divided into a sham group and three exprimental groups. The first group: testicular torsion fallowing by detorsion (TD), the second group: testicular torsion detorsion Fallowed by receiving the extract of Fumaria parviflora (FP) (TDFP) and third group: receiving the extract of FP without TD (FP).Testicular torsion was induced by 720-degree counterclockwise rotation of the left testis for the 4 h. after duration of torsion, detorsion was doing. Animals were given by daily oral administrations FP (250 mg/kg) for 14 days. Measurement of the oxidative stress, sperm parameters, testosterone levels and assessments of Histo morphometry 14 days after detorsion was conducted.

Results: The Johnsen's score, diameter of the seminiferous tubules and thickness of seminiferous tubule epithelium significantly increased and decreased the index of apoptosis in TDFP group when compared with the TD group. Also treatment with FP extract was improved the sperm parameters in TDFP and FP groups as compared with TD group. The level of testosterone and GPX increased significantly in testicular torsion group that treatment with FP extract (TDFP) compared with TD group. The MDA level also decreased in the testicular torsion group receiving the extract of FP (TDFP) compared with the TD group.

Conclusions: The findings of the current study suggested that Fumaria parviflora might have provided a protective effect against TD induce oxidative stress injury.

Keywords: Fumaria parviflora, sperm parameters, antiapoptptic, testicular torsion

[Abstract: 0170] [P-85] [Accepted: Poster Presentation]

Direkt Swim Up Yönteminin IVF Laboratuvarında Kullanımı ve Diğer Yöntemler ile Karşılaştırılması

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Giriş: Yaklaşık 35 yıldır uygulanan tüp bebek işlemlerinde sonuçları manipülasyon ve işlem aşamaları etkilendiği düşünülmektedir. Bu aşamalardan en önemlilerinden sayılan Sperm Hazırlama tekniğidir. Biz çalışmamızda Sperm örneklerinin hazırlamasında sürecinde direkt swim up yönteminin yıkamalı swim-up ve çift fazlı gradient teknikleri ile karşılaştırılması amaçlanmıştır.

Gereç-Yöntem: Eylül 2014 Haziran 2017 tarihleri arasında Göztepe Medikal Park IVF Labotuvarında mikroenjeksiyon için sperm hazırlama işlemine alınan örnekler incelendi. Sperm örneklerinin hazırlanması için 3 grup oluşturuldu. Grup 1'de (n=244) likefaksiyondan sonra santrifüj işlemi gerçekleştirilmeksizin konik tüpe konulan semenin üzerine 1 ml medium eklenerek 30 dk. beklenip üst kısımdaki spermler toplandı. Grup 2'de (n= 306) likefaksiyondan sonra, ejakülata bire bir oranında medyum eklendi ve 1000 rpm'de 10 dk santrifüj edildi. Üst kısım atıldıktan sonra 0.5 ml taze medium eklendi. 45 derecelik açı oluşturularak yüzdürme işlemine tabi tutuldu. Grup 3 te (n=182) çift fazlı gradient işlemi uygulanmıştır.

Bulgular: Grup 1 de OPU ya alınan 242 hastanın ortalama yaşı 36,2±4, ortalama oosit sayısı 6,9±7 ortalama metafaz II Oosit sayısı 6,3±5,1, Fertilizasyon Oranı 89,7 Transfer işlemi yapılan 239 hastanın ortalama transfer edilen embriyo sayısı 1,4±0,5 Biyokimyasal Gebelik Oranı %57,8. Grup 2 de OPU ya alınan 291 hastanın ortalama yaşı 34,5±4,5 ortalama oosit sayısı 7,1±6,1 ortalama metafaz II Oosit sayısı 6,4±4,7, Fertilizasyon Oranı 88,3 Transfer işlemi yapılan 283 hastanın ortalama transfer edilen embriyo sayısı 1,3±0,5 Biyokimyasal Gebelik Oranı %56,3. Grup 3 de OPU ya alınan 180 hastanın ortalama yaşı 39,2±3,8, ortalama oosit sayısı 7,8±2 ortalama metafaz II Oosit sayısı 6,2±1,7, Fertilizasyon Oranı 85,2, Transfer işlemi yapılan 176 hastanın ortalama transfer edilen embriyo sayısı 1,6±0,3 Biyokimyasal Gebelik Oranı %59,1şeklinde bulunmuştur. Gruplar arasında istatistiksel olarak anlamlı fark bulunmadı.

Tartışma: Yardımcı ureme tekniklerinde Androloji laboratuvarlarında uygulanan sperm hazırlama prosedurlerinde Direkt swim-up yonteminin spermin doğal ortamındaki gibi şeçilimi ile benzerlik gostermesi, daha az zaman alması ve laboratuvar yukunu hafifletme gibi avantajlara sahiptir. Androloji laboratuvarında ICSI işlemi için sperm hazırlama santrifüj süreci en az yaklaşık 40 dakika sürmektedir. Yüksek devirli santrifüj işlemi yüksek sperm kondensasyonuna ve serbest radikallerin oluşmasına sebep olduğu bilinmektedir.

Sonuç olarak IVF laboratuvarlarında sperm hazırlama sürecinde yöntem farklılıklarının birbirine çok büyük üstünlükleri görülmemiştir. Bundan dolayı hem daha az zaman alması ve laboratuvar yukunu hafifletme gibi avantajlarından dolayı Gradient ve yıkamalı swim up teknikleri yerine direkt Swim up tekniğinin tercih edilebileceği düşüncesindeyiz.

Anahtar Kelimeler: Direkt Swim Up Tekniği, Sperm Hazırlama Teknikleri, Sperm, Swim Up

Kaynaklar

1. Björndahl L, Mohammadieh M, Pourien M, Söderlund I, Kvist U. Sperm DNA damage; clinical signi cance in the era of asisted reproduction. CMAJ. 2006;175:495-500.

2. Baker AM, Aitken RJ. Reactive oxygen species in spermatozoa; methodsfor monitoring and signi cance for the origins of genetic disease and infertility. Reprod Biol Endocrinol. 2005;3:67.

3. Funke S, Flach E, Kiss I, Sa'ndor J, Vida G, Bo'dis J et all. Male reproductive tract abnormalities: more common after assisted reproduction? Early Hum Dev. 2010;86:547-50.

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Does PICSI (Hyaluronic Acid) Sperm Selection Predict Chromosomal Normal Embryo? A Sibling Oocyte Study

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Aim of study: Although several sperm selection methods have rapidly been developed over 35 years in the field of IVF, genetically normal spermatozoa selection method not yet established. This study asks whether there exist significant differences in embryo preimplantation diagnosis with respect to the selection origin of spermatozoa used for insemination. This study is a randomized comparative study with sibling oocytes that were cultured to the blastocyst stage and transfer between 2014-2015 at a private IVF center.

Participants/materials, setting, Methods: A total of 348 oocytes that differ by their source of spermatoza used during insemination (220 with classic ICSI and 228 with PICSI) cultured up to blastocyte stage (156) were analysed for genetically with FISH. Statistical analysis done by student's t-test, Chi-Square, Kruskal Wallis test and Mann Whitney U test were used.

Main results and the role of chance: When ICSI and PICSI method were used for selection of spermatoza, the fertilization rate of PICSI selected group was found to be higer than tradional ICSI group (83% vs 88%,p= 0,003). The fertilization rate of PICSI oocytes was higher than that of the classical ICSI method. However in 2nd, 3rd or 5th day embryos there was no statistical difference in terms of number and quality (p=0,346,p=0,383, p=0,297) and chromosomal abnormality between embryo groups reaching the blastocyst stage (p=0,065) Our study shows that standart form with ICSI and PICSI embryos that contain genetically similar rate of abnormalities of the selected sperm. The use of PICSI selected spermatozoa for ICSI insemination is still highly controversial. Especially, it is known that the considerations about the fact that the sperms selected by the PICSI method genetically develop more normal embryos are highly controversial. Our findings also show that the PICSI method is not more successful than the conventional method.

Keywords: PICSI, sperm selection, aneuploidy

[Abstract: 0255] [P-88] [Accepted: Poster Presentation]

The Effects of Laparoscopic Cystectomy on Ovarian Reserve

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Introduction: Antimullerian hormone that designates inactive and growing follicular pool is being used commonly as an ovarian reserve marker at present. Its serum concentration changes minimally during menstruel cycle. In this study, we aimed to show changes of ovarian reserve by using all markers in combination that includes AMH in patients who have undergone laparoscopic cystectomy. At the same time, we aimed to state change in ovarian reserve with histopathologic examination of loss ovarian tissue during laparoscopic cystectomy.

Materials-Methods: 76 patients, 18 to 45 years of age, were enrolled who have undergone laparoscopic cystectomy. Preoperatively on the 3rd day of menstruation FSH, E2 and AMH were measured, also basal antral follicle (BAF) in both ovaries were assessed with transvaginal or transabdominal USG. Postoperatively on the 3rd and 6th month, patients were called for control: hormon profile that includes FSH, E2 and AMH were measured and BAF were counted by USG on the 3rd day of menstruation. The pathologist evaluated the presence or absence of the ovarian tissue adjacent to the cyst wall and graded the morphological characteristics of this tissue on a semiquantitative scale of 0 to 4 as previously published elsewhere (0-complete absence os follicles, 1-primordial follicles only, 2-primordial and primary follicles, 3-some secondary follicles, 4-pattern of primary and secondary follicles as seen in the normal ovary).

Results: Group of endometrioma, mean level of postoperative 3rd month serum FSH was higher than its preoperativve level as statistically significant (p=0.006). Mean postoperative 3rd and postoperative 6th month value of AMH was lower than its preoperative value as statistically significant (p=0.035, p=0.026). Group of non endometrioma, mean postoperative 3rd and 6th month value of FSH was lower than its preoperative value as statistically significant (p=0.009, p=0.011).

Conclusion: As follicular count increases in histopathologic examination, AMH level decreases concomitantly. So damage to ovarian tissue and decreasing of ovarian reserve is unavoidable during laparoscopic cystectomy.

Keywords: Antimullerian hormone, Endometrioma, Laparoscopic cystectomy, Ovarian reserve

[Abstract: 0256] [P-89] [Accepted: Poster Presentation]

Laparoscopic Cystectomy of a Large Ovarian Cyst Using Planned Needle Puncture

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Introduction: Laparoscopic surgery provides many advantages to patients, including improved cosmetic effects, reduced infection risk, less pain, and quickly recovery from surgery. However, challenges arise with the laparoscopic approach when large cystic ovarian masses. Removal of the cyst intact is usually not possible, and care must be taken to avoid the leakage of malignant cells from the cyst in cases of malignancy. Several approaches to removing large cystic ovarian masses have been described. Drainage of the cyst during laparoscopy followed by extracorporeal cystectomy or oophorectomy are general surgical roads.

Case: 25-year-old, para 0, patient presented for evaluation of increasing abdominal girth and abdominal pain. A MRI scan showed a large simple cystic right adnexal mass filling the entire abdomen, measuring 200x90x90mm (Figure 1). The CA-125 level was 18 (normal range, 0 to 35 units/mL). Physical examination confirmed the finding of a large cystic abdominal mass that was freely mobile and separate from the uterine body. A benign serous cystadenoma was suspected from the clinical examination, CA-125 level, and imaging results. The patient was taken to the operating room for surgical management. Laparoscopic access was obtained by standard umbilical approach. The surface of the cyst was smooth and regular and without excrescences. Direct laparoscopic visualization of the cyst supported the clinical suspicion that the mass was benign. Two additional ports were placed, one in the right lower quadrant and one in the right lower quadrant to complete the procedure.The suction irrigator was then advanced through the cannula to decompress and drain the cyst of approximately 3 liters of fluid without any spillage of the cyst fluid (Figure 2). The cyst capsule was taken out of the body, and extracorporeal cystectomy was performed (Figure 3). The patient was discharged home one day later. The final pathology report showed a benign serous cystadenoma.

Conclusion: Large ovarian cysts pose a surgical challenge when addressed laparoscopically. This technique is an effective variation of the previously described methods for the removal of large ovarian cysts.

Keywords: Large ovarian cyst, Laparoscopic surgery

FIGURE 1: MRI scan image of the large cystic ovarian cyst.

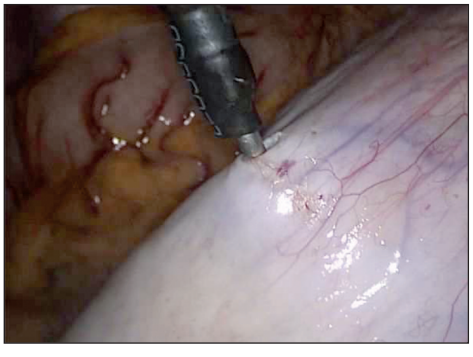

FIGURE 2: Laparoscopic view of the needle puncture and aspiration of the cyst.

FIGURE 3: Extracorporeal removal of the cyst capsule and cystectomy.

[Abstract: 0257] [P-90] [Accepted: Poster Presentation]

Nanomicelle Curcumin-induced Cytotoxic Effect on Male Gonad; Evidences for Germ Cells DNA Fragmentation, Sperm Quality and Pre-implantation Embryo Development

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Objective: Curcumin (CCM) is known as potential bio-antioxidant agent. The CCM, depending on tissue and/or microenvironment condition, plays two opposite roles emphasizing on cell proliferation and/or proliferation arrest. Indeed, under intensive oxidative condition, the CCM enhances both non-enzymatic and enzymatic antioxidant potential, leading to progressive cell proliferation. However, in physiologic antioxidant status of hypermitotic tissues such as various tumors, the CCM exerts anti-proliferative properties, leading to massive cells loss. Minding hypermitotic/proliferative characteristic of germ cells, high doses of CCM is able to adversely impact the spermatogenesis. Moreover considering the fact that, different agents are more pharmaceutically dynamic/effective when they are nano-sized, the nano-CCM is able to more effectively affect the spermatogenesis, as well. Thus, present study was done to uncover the crosslink between germ cells DNA fragmentation/replication, mitochondrial germ cells apoptosis, epididymal sperm quality and pre-implantation embryo development following dose dependent exposure to nano-CCM.

Materials-Methods: To follow-up current research 24 mature male wistar rats were divivded into control, 7.5 mg/kg, 15 mg/kg and 30 mg/kg nano-CCM-received groups and samplized following 48 days. To estimate the nano-CCM-induced effect on genomic DNA content, the DNA fragmentation, p53 and proliferative cell nuclear antigen (PCNA) expression were analyzed using DNA ladder, immunohistochemical (IHC) and RT-PCR techniques. To assess the preliminary factor resulting in massive DNA fragmentation, the mitochondria-related Bcl-2 and Bax proto-oncogenes expression was analyzed using IHC and RT-PCR techniques. In continue to find out the role of mitochondria on nano-CCM-induced apoptosis, the finisher caspase-3 mRNA and protein levels were evaluated. Finally, the sperm quality and pre-implantation embryo development were investigated.

Results: Observations revealed that, the nano-CCM enhanced DNA fragmentation, diminished PCNA expression and up-regulated the p53 expression, dose dependently. Moreover, the animals in nano-CCM-received groups exhibited diminished expression/synthesis of Bcl-2 and represented significant enhancement in mRNA and protein levels of Bax and caspase-3 compared to control group. Finally, the nan-CCM (30 mg/kg) decreased sperm count, motility, viability and DNA integrity and remarkable diminished zygote, 2-cell, blastocyst and hatched embryos versus control group.

Conclusion: Our data showed that, the nano-CCM triggers the DNA fragmentation through suppressing the PCNA transcription and/or translation ratios. In continue severe DNA damage results in resistance and overexpression/synthesis of p53, which in turn leads to Bcl-2 degradation. Thereafter, down-regulated expression/degradation of Bcl-2 initiates/stimulates Bax overexpression and consequent oligomerization, leading to pro-apoptosomes activation. As a result of pro-apoptosomes activation, the caspase-3 cleaves the cellular protein and DNA backbones. Therefore, the nano-CCM adversely affects the sperm count and quality by affecting early mitosis, meiosis and maturation (intratesticular stage), which naturally ends with pre-implantation embryo development arrest.

Keywords: Nanomicelle curcumin, spermatogenesis, DNA fragmentation, Apoptosis, in-vitro fertilization