



Obstetrics, Gynecology and Pediatrics

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ON VITAMIN D DEFICIENCY IN RESPIRATORY PATHOLOGY IN YOUNG CHILDREN

INTRODUCTION. Nowadays, there is a growing interest in quantifying and understanding the mechanisms of vitamin D metabolism in the human body. Vitamin D plays a significant role in the functioning of various body systems. Indirectly, through its receptor, its hormone-active form causes biological effects, which altogether positively affect human health. However, prior studies have shown that about half of the world's population has vitamin D deficiency.[1]

Various diseases, such as rickets, diabetes, asthma and other pathologies, can be associated with vitamin D deficiency. [2] In addition, it has been shown that deficiency of vitamin D increases the risks of the flu and other acute respiratory tract infections.[3] Since infectious diseases remain one of the main causes of morbidity and mortality rates among children, it is of interest to examine the effects of vitamin D in this context.

Thus, the current study aims at investigating the role of vitamin D in curing respiratory pathology among children.

METHODS USED. The first step of this work in progress was to determine the level of vitamin D among 61 patients of 1 to 5 years old (66% boys and 34% girls), who entered the pediatric clinic of the Muratsan hospital complex during the period of February-May, 2017. Patients were divided into two identical groups in terms of age, sex, growth rates, and absence of chronic pathology: 27 (44%) with pneumonia and 34 (56%) with ARI. The level of vitamin D was as follows: in the group with pneumonia, vitamin D deficiency was detected in 14 (52%), insufficiency in 8 (30%), normal level in 5 (18%) patients. In the group of children with ARI, deficiency was noted in 11 (32%), insufficiency - in 9 (27%), normal level - in 14 (41%) children. From the history of the children surveyed, it was also found that vitamin D prevention from 27 patients with pneumonia received 13 children, and 15 - with ARI. At the same time, vitamin D deficiency was more common in children with pneumonia who received prophylaxis, whereas in the group with ARI the deficit was greater among children who didn't. Patients with vitamin D deficiency and insufficiency were prescribed vitamin D. The results are expected to be available in December. Afterwards, when the level of vitamin D is normalized, we intend to divide the children into two random groups, one of which will continue to receive a prophylactic dose of vitamin D, and the other will not. We will examine the occurrence of the diseases in the next year, following the treatment.

CONCLUSION. Hence, we believe that the level of vitamin D will be a landmark in assessment of severity of respiratory pathology. More specifically, we expect that it will provide evidence on whether there is a decrease in the incidence of the diseases after normalizing the level of vitamin D.

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PREGNANCY AND TETRALOGY OF FALLOT

BACKGROUND. Tetralogy of Fallot is one of the most common congenital heart disorders. Congenital heart defects are the leading cause of birth defect-related deaths [3], infants morbidity and mortality [1,3], heart failure and dilated cardiomyopathy. [2] Tetralogy of Fallot may be associated with chromosomal abnormalities, such as 22 q11 deletion syndrome. [1,2] It occurs in about 5 out of every 10,000 babies [1,2]. The defect affects boys and girls equally [2,3]. Tetralogy of Fallot is typically treated by open heart surgery in the first year of life. [1] The timing of the surgery will depend on how narrow the pulmonary artery is. In untreated cases, TOF carries a 35% mortality rate in the first year of life, and a 50% mortality rate in the first three years of life. Surgery is preferably done at or about 12 months of age. Due to advanced surgical techniques, a 40% reduction in deaths associated with Tetralogy of Fallot was noted from 1979 to 2005.

CASE PRESENTATION: Primipara 32 years old, entered the hospital with 27 weeks of gestation, with complaints of the passage of amniotic fluid and the pain in lower abdomen. Pathology wasn't found by sonography and amniotic fluid test. She was primary diagnosed with 27(25) weeks of gestation, Complicated gynecologic history, Threatened preterm labor, Anemia of the pregnancy, Premature rupture of the membranes. Taking into consideration the gestational age, it was decided to perform pregnancy-conserving therapy. After seven days treatment, the diagnose was- 30 (28 6/7) weeks of gestation, Oligoamnion (AFI-5sm), Congenital heart defect: Tetralogy of Fallot. Estimated fetus weight was 1367.0g. According to the «Norq-Marash» MC report we had to continue the pregnancy up to mature gestation, because medical operation of a premature infant was impossible or very limited. After month of treatment the diagnosis was 34(30) weeks of gestation, expressed oligoamnion (AFI-3.2sm), the fetal heart defect. The patient was delivered by cesarean section. It was born premature, alive boy, with weight of 1700.0g and height of 43 sm. Apgar was evaluated 6-7 points. Postoperative diagnose was 34(30) weeks of gestation, Complicated gynecologic history, Buttock presentation, Premature rupture of the membrane, Oligoamnion, Intrauterine growth restriction, Congenital heart defect Tetralogy of Fallot, Open arterial duct, Open botal duct, Preterm labor, Cesarian section.

CONCLUSION. Although congenital heart defects are the leading causes of birth-related deaths, infants morbidity and mortality, the experience shows, that in case of the right treatment the baby will be healthy and will have an excellent quality of life.

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PREGNANCY AND HLA INCOMPATIBILITY

INTRODUCTION. Study of the duration of pregnancy was performed with HLA-incompatibility of 60 women aged 24-35 years. The number of pregnant women with a multiple pregnancy was 10(16,6%).

METHODS USED. Depending on the HLA antibodies and degree of pathology, all pregnant women were divided into 3 groups.

RESULTS AND DISCUSSION. The first group involved 24(40%) women, in which the antibodies titre of refrigerant was up to 15%. In 6(25%) cases, the women received 1-3 courses of plasmapheresis before pregnancy. Group 2 included 30(50%) women, in which the HLA-antibodies titre of refrigerant was more than 15 up to 30%. In 20(66.6) pregnant women HLA incompatibility was diagnosed in the first trimester of this pregnancy. Group 3 included 6(10%) women, in which the HLA-antibodies titre of refrigerant was more than 30 up to 45%. They had a complicated obstetrical anamnesis. And before this pregnancy they had not received course of plasmapheresis. The HLA incompatibility was diagnosed in the first trimester of this pregnancy. Among the women of the second and the third group, genetic thrombophilia was detected in 18(50%) cases. HLA-ABO, 0(I) group and HLA-Rh(=) factor associated incompatibility were detected in 8(13,3%) cases. The second and particularly the third group had a high frequency of obstetrical complications, mainly during the first and second trimester of pregnancy(threatening and began miscarriages, missed abortion, early toxicosis, threatening preterm delivery, preterm labor and antenatal death). Necessary prenatal laboratory tests were performed for all pregnant women. The pregnancies were under the monitoring by obstetrician -gynecologist and a hematologist. The dynamics showed the antibodies titre determination. Particular attention was paid to indicates of blood coagulation, D-dimer, titre of Rh antibodies, anti-b2-glycoproteins, homocysteine, Protein C, Protein S, Factor II (protrombin), Factor V(Leiden), HLA B 27, MTHFR.

For correction of incompatibility, for reducing the most dangerous complications and the titre of antibodies, for continuing the ongoing pregnancy, correction of parameters were done using anticoagulants.

CONCLUSION. Proceeding from high risk of miscarriages in the second and the third group and high titre of HLA antibodies, the pregnant women received husband skin graft transplant during the 18-22 weeks of gestation in 12(33,3%) cases. After the transplantation, every 2 weeks the titre of antibodies and level of D-dimer were detected and coagulation and Protein C, S were detected every 4 weeks. The pregnancy was prolonged in 40(66,6%) cases up to 37-40 weeks of gestation, and in 20(33,3%) cases preterm labor was revealed (22-36weeks of gestation). Proceeding from obstetrical situation and the dynamic of HLA antibodies reduction and coagulation indicates, the optimal method of delivery was chosen. All the women from the first group were delivered. In 24(80%) cases women from the second group had delivery and in 6(20%) cases women proceeded from obstetrical situation delivered by cesarean section. In 4(66,6%) cases women from the third group had delivery and in 2(33,3%) cases women delivered preterm by cesarean section. After 2 month parturients continued to be monitored by hematologist and obstetrician. The titre of antibodies were in norm.

KEYWORDS:

Pregnancy,
HLA incompatibility,
pregnancy,
delivery,
transplantation.

THE EFFECT OF DEHYDROEPIANDROSTERONE (DHEA) ON INFERTILITY PATIENTS WITH DIMINISHED OVARIAN RESERVE (DOR)

INTRODUCTION. Diminished ovarian reserve (DOR) consists of a decline in the number of primordial and antral follicles and deterioration of oocyte quality. DOR is considered as one of major cause of female subfertility. Many studies have investigated the effects of different drug supplementation on ovarian function. Among them DHEA has been proven to be effective, however the results are non-consistent (1,2). This study aimed to assess the effect of DHEA on infertility patients with DOR in improving ovarian response.

Settings. Private University affiliated Fertility clinic

Design. Prospective comparative clinical study.

METHODS USED. 97 patients who applied to “Fertility Center” from 2014 to 2017 were enrolled in this study. Age of patients varied from 35 to 44 years. Mean age of women was 38 years. Inclusion criteria for DOR were defined according to Bologna consensus. Study subjects were divided into two groups. Group A (55 patients) received DHEA in a dose of 50 mg per day for 12 weeks. Group B (control group, 42 patients) did not receive any medication. Following parameters before and after DHEA treatment were analyzed: day 3 levels of FSH and AMH in the blood; antral follicular count (AFS) assessed by vaginal ultrasound and IVF outcome parameters, including quantity and quality of eggs and embryos, fertilization and pregnancy rate.

RESULTS AND DISCUSSION. Results of our study show that after 12 weeks of treatment with DHEA the overall AMH level was non-significantly higher compared with pre-treatment level in the same group A and significantly higher compared with non-treated group B (0.8 ± 0.2 ng/ml vs 1.1 ± 0.4 ng/ml, $P < 0.05$). This suggests that DHEA improves the ovarian response, since the AMH is considered as a most accurate marker of ovarian reserve. It is noteworthy that the elevation of AMH was found only in 65 % of A group patients (36 out of 55), while in 22% its level remained the same or even lowered (13%). At the same time in the control group the level of AMH either remained in the same level (35 out of 42, 83%), continued to decline (9 %), or elevated (in 8%). Overall pregnancy and live birth rates per cycle were significantly higher in DHEA group (33% and 20%) than in control group (28% and 12% respectively, $P < 0.05$). No differences were found between study groups in serum FSH level and AFS.

CONCLUSION. DHEA adjuvant therapy improves ovarian response and pregnancy rates in women with diminished ovarian reserve.

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MONITORING OF THE LAW OF REPUBLIC OF ARMENIA ON BREASTFEEDING PROMOTION AND REGULATION OF MARKETING OF BABY FOOD IN ARMENIA

INTRODUCTION. According to the article 24 of the Convention on the Rights of the Child each child has the right to life, survival, and development and to the highest attainable standard of health, as well as to safe and nutritious foods. Breastfeeding must be considered an integral component of these rights. Breastfeeding is also a rights issue for women. A mother has the right to accurate, unbiased information needed to make an informed decision about breastfeeding.

Breastfeeding reduces child mortality, increases child cognition, improves maternal and child health, and fosters economic development. WHO and UNICEF adopted the International Code of Marketing of Breast-Milk Substitutes in 1981, in order to protect children from aggressive marketing practices of infant food companies and distributors.

In 2014 the National Assembly of Republic of Armenia adopted the Law on “Breastfeeding Promotion and Regulation of Marketing of Baby Food”, which has a broad scope covering all baby foods for infants and young children up to 3 years of age and related products, has a wide range of prohibitions in relation to promotion to the public, including the ban of any advertising in health facilities and to health workers. Labeling provisions are extensive and include a ban for health and nutrition claims and a prohibition against labels of other products being similar to labels of infant formula in order to prevent cross-promotion. However, additional regulations on labeling and establishment of regular monitoring mechanisms is still not proved by the Government.

METHODS USED. During September-October 2016, “Confidence” health NGO monitored the implementation of the above-mentioned law in Yerevan and in Aragatsotn, Kotayk, Ararat and Armavir marzes. The group of observers using previously developed monitoring tools monitored 20 health facilities, 50 retail outlets, conducted interviews with 234 mothers of infants and 113 health workers, analyzed the labels of infant food and related products, information materials for health workers and the public on infant nutrition and information on child nutrition in mass media.

RESULTS AND DISCUSSION. The monitoring revealed violations of the law in the following institutions and fields:

- health facilities, including maternity hospitals, pediatric hospitals and polyclinics;
- retail outlets, including supermarkets and pharmacies;
- mass media;
- websites of infant food companies;
- informational materials of companies for mothers and health workers;
- labels of infant food and related products.

CONCLUSION. Although the Law is very much of a safeguard against today’s corporate marketing climate, monitoring of the Law carried out by «Confidence» Health NGO reports significant violations, evidencing that its monitoring and implementation still requires improvement. 19 months after the law enter into force (effective date 17.03.2015) in some maternities free formula supplies and their administration to newborns without medical indications are still continued, no labels are changed and some other violations are apparent.

In order to alter this situation regular monitoring mechanisms needs to be established and proved by the Government and strictly implemented.

HIGHLIGHTING THE IMPORTANCE OF EXTENDED GENE TESTING OF CYSTIC FIBROSIS IN ARMENIAN POPULATION

INTRODUCTION. Cystic Fibrosis (CF) is the most common life threatening genetic disorder among Caucasians with autosomal recessive inheritance. The Cystic Fibrosis transmembrane regulator (CFTR) gene is located on chromosome 7. Diagnosis of CF is based on typical clinical features, positive results of sweat tests and/or detection of two disease causing mutations. Recent progress in CF gene and pharmacogenetic therapy, family planning strategies with antenatal diagnosis, disease control by mutations' type make CF genetic testing especially important. So far, more than 2000 mutations are identified. The types and distribution of CFTR mutations vary widely among different ethnic groups and countries. A variety of mutation panels are available but these tests reflect population specific mutations with high detection rate in target populations particularly in Europe, USA, Canada, Australia. Countries without population based panels such Armenia can benefit from extended gene analysis especially in difficult diagnosis and family planning. However, absence of 2 CF causing mutations after extended DNA testing does not rule out CF.

METHODS USED. 4 Armenian patients of the CF center at the Muratsan University Hospital whose families were planning next child were chosen for gene extended analysis. In 4 patients the diagnosis of CF was made on the basis of typical clinical presentation and two positive sweat tests. Subsequent genetic testing for 34 mutations of CFTR gene detected only one mutant allele (2183AA>G/N, 2183AA>G/N, delF508/N and 3120+1G>A/N). To guide pregnancies samples from these patients were sent to Center of Molecular Genetics (Moscow) and Institute of Biology and Medical Genetics (Prague) for gene extended analysis. Sanger sequencing and MLPA methods were used for gene extended analysis.

RESULTS AND DISCUSSION. CFTR gene extended investigation in four patients detected the following mutations - delex13, D110H, 1677delTA, delex2 - 2183AA>G/delex13, 2183AA>G/D110H, delF508/1677delTA 3120+1G>A/delex2 respectively. Followed gene sequencing, in one family healthy child was born after prenatal genetic diagnosis.

CONCLUSION. Extended gene testing of CF in Armenian patients can be applied for genetic counseling, antenatal diagnosis and search for population specific CFTR mutation panel. Discovery of population specific mutations will help understand CF genotype-phenotype peculiarities in Armenian population.

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ROLE OF LUNG ULTRASOUND IN MANAGEMENT OF RESPIRATORY DISTRESS IN NEWBORNS

INTRODUCTION. Respiratory distress is a common cause of newborn admission in intensive care unit, and its clinical and radiological features are often not accurate enough to allow the clinician to predict the patient’s respiratory prognosis. In the last years, lung ultrasound (LUS) has been increasingly used in critically ill patients and it has become an important tool for neonatologists [1]. It can be performed at the patient’s bedside and is radiation free. Neonates present specific lung diseases with specific sonographic characteristics [2], which make ultrasound a reliable tool for use by neonatologists. Evaluation of LUS as a marker for prediction of the respiratory outcome may be useful for the clinician to choose appropriate method of respiratory therapy.

The aim of the present study was to investigate a usefulness of LUS performed soon after admission for prediction of severe forms of respiratory distress.

METHODS USED. This study was performed from October 2016 to September 2017 at the neonatal unit of the Research center of Maternal and Infant Health Protection, Yerevan, Armenia. Newborns admitted to the neonatal intensive care unit with respiratory distress who were not intubated were eligible for recruitment. Neonatologist skilled in lung sonography, performed the examinations. Hand-portable z. one ultra-convertible Ultrasound System (Zonare Medical Systems Inc, California, CA, USA) with 8 MHz frequency L 10-5 linear transducer. The images were stored digitally. Examinations were performed with the neonate placed in a supine position and the probe perpendicular to the ribs in anterior and lateral fields of lungs. LUS diagnosis were based in Lichtenshchtein and Copetti standards.

RESULTS AND DISCUSSION. During the study period, 46 neonates with respiratory distress were eligible for recruitment. More than half 25 (54%) of the patients recruited were clinically diagnosed with RDS, 11 (24%) of newborns diagnosed pneumonia, 10 (22%) -TTN. The highest concordance rate with clinical diagnoses showed patients with TTN (100%) and RDS (92%), (table 1).

LUS diagnosis (n)	Clinical diagnosis (n)	Concordance with clinical diagnosis (%)	IMV n (%)	NHF n (%)	CPAP n (%)	Surfaktant n (%)	Condition improving in 48 hrs (n)
TTN -16	10	100%	0(0%)	9(53%)	1(3.4%)	0	8
RDS -23	25	92%	4(100%)	0(0%)	25(86.3%)	2(100%)	1
Pneumonia -7	11	63,5%	0(0%)	8(47%)	3(10.3%)	0	2

Our findings showed that patients with a sonography signs of TTN showed a significantly better respiratory evolution than those with a RDS and pneumonia and needed less aggressive respiratory support.

CONCLUSION. Early LUS can differentiate patients with TTN from the other causes of respiratory distress of newborns and have a high accuracy. It can be used for respiratory prognosis and decrease the number of performed X- ray examinations and help to neonatologist to choose appropriate mode of respiratory therapy.

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THE DIAGNOSTIC VALUE OF CORTISOL AND INSULIN-LIKE GROWTH FACTOR LEVELS IN OBSTETRICS PATHOLOGY

INTRODUCTION. Gestosis/hypertensia, proteinuria and oedema/ and preterm rupture of membranes remain relevant obstetrics problems. Predictors of their development are not identified. The nature of changes in the synthesis of steroid hormones and cytokines at the mentioned pathologies is the subject of interest, that predetermined the aim of our study: determination of the nature of changes in concentration of cortisol and IGF levels among the pregnancy with gestosis and PRM.

METHODS USED. 90 women with full-term pregnancy were examined. The substance of study was blood serum and amniotic fluid where due to "ELISA" method the concentration of cortisol and levels of IGF have been determined.

The control group was consisted of 50 women with physiological gestation course. I group–30 women with gestosis, II-35 observations where premature rupture of membranes has been revealed, III–25 cases, where the combination of gestosis with premature rupture of membranes has been detected.

RESULTS AND DISCUSSION. Among the women with gestosis the concentration of hormone in amniotic fluid has increased almost 3-times. At the same time in the II group authentic changes are not identified. In the III group we have the significant increase of the cortisol level more than 1,5 times.

In respect to IGF, we have decreasing of level in II group and significant increasing 1,5 times in I group.

Thus, when studying the dynamics of changes in cortisol and IGF levels among the gravidas with gestosis, with premature rupture of membranes and with combination of these pathologies, a synchronous increase of this indicators is defined in group I.

With increasing severity of complications in gestation, a growing number of disruptions at the level of independent cytokines production are involved in the pathological process.

Dysfunction of immune competent cells to synthesize cytokines can reflect a dysfunction of immunological regulation which causes the development of complications.

CONCLUSION. Summarizing the data, we can conclude, that the pathogenesis of gestosis and the preterm rupture of membranes fits to syndrome of the systemic inflammatory response. The relevancy of immune disorders and imbalance of cytokine regulation in gestosis among pregnant women is fixed. In the blood serum in gestosis, a 2,5-times increase in the level of the anti-inflammatory cytokines was recorded. Urgent detection of the cytokine profile and concentration of cortisol in the amniotic fluid will prevent the development of complications during gestation.

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(CAA),
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(IVIG)

KAWASAKI DISEASE IN ARMENIA

INTRODUCTION. Kawasaki disease (KD) is an acute multisystem vasculitis of unknown etiology that occurs in infants and young children. The disease generally is self-limited, although serious cardiac complications can occur in 15-25% of patients. With prompt IVIG therapy this percentage decreases to about 5 % for any (including transient) abnormality and 1% for giant coronary artery aneurysms. We report patients (pts) with KD ever diagnosed in the general pediatric department of the “Arabkir” Medical Center during the last five years.

Methods used. KD was diagnosed on the basis of history of fever >5 days and any 4 of the following 5 criteria: (1) bilateral, non-exudative conjunctivitis, (2) mucous membrane changes, injected/fissured lips, infected pharynx, or “strawberry tongue”, (3) erythema of the palms or soles, edema of the hands/feet (4) polymorphous exanthema and (5) acute non-suppurative cervical lymphadenopathy.

Results and discussions. The study included 32 pts (15 males/17 females) mean age 40 month (7-152 month) with KD, diagnosed between 2013-2017.

CLINICAL FINDINGS: Median duration of fever on admission was 7 days. Non-suppurative conjunctivitis was documented in 26 pts (81%), rash in 25 (78%), cervical lymphadenopathy in 22 (69%), arthritis in 8 (25%), edema of the hands/feet in 16 (50%). All children developed peripheral desquamation at the subacute stage of KD.

Laboratory results: 25 (78%) had elevated ESR >15 mm/h (mean 35, max 62) and 23 (72%) elevated CRP >48 mg/dl, (mean 96, max 235) on admission. Other findings were leukocytosis >15-27.8*10⁹/l, thrombocytosis (mean 600*10⁹/l, max 1300*10⁹/l) at the second week of the disease in 20 (62.5%). 9 pts (28%) had elevated ALT (mean 132 IU/l) and AST (mean 66 IU/l). 4 patients (12.5%) had CAA on admission, of them 1 child showed giant aneurism.

Treatment: 26 pts (81%) received IVIG between 7 and 10 days (the median 9 day) as a single dose of 2g/kg. All had aspirin at the therapeutic dosage of 50-80 mg/kg/day followed by low dose 3-5 mg/kg/day after normalization of laboratory data. 6 pts (19%) did not get IVIG because of late referral already without fever. 2 pts (6%) required a second dose of IVIG and 2 pts (6%) received steroids. Echocardiography at follow-up was normal in all pts except 1 who developed CAA.

KD should be considered in the differential diagnosis of all children with otherwise unexplained prolonged (> 5 days) fever. Recognition of the disease and early introduction of IVIG results in significant reduction of the risk of CAA. KD is obviously underdiagnosed in our country and requires an increased awareness among pediatricians.

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LETROZOLE (LE) AND IN VITRO FERTILIZATION (IVF) IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME (PCOS)

INTRODUCTION. To investigate clinical outcome, cost effectiveness and safety of LE co-treatment in controlled ovarian stimulation using GnRH antagonists protocol in PCOS patients.

Design. Prospective, randomized, controlled clinical trial.

Setting. University affiliated private IVF center

METHODS USED. 48 patients of Armenian population at high risk for ovarian hyperstimulation syndrome (OHSS) applied to "Fertility Center" from November 2014 to November 2016. Diagnosis of PCOS was made according to the Rotterdam consensus. Inclusion criteria for all study women were ages between 21–38, AMH > 5 ng/ml.

Group A consisted of 24 PCOS women who received controlled ovarian stimulation (COS) with conventional antagonist protocol. Group B consisted of 24 women with PCOS who received COS with conventional antagonist protocol and LE. Number of ampoules of gonadotropin used, duration of the ovarian stimulation, cycle cancellation, endometrial receptivity, pregnancy, live birth and ovarian hyperstimulation syndrome (OHSS) rates were assessed.

RESULTS AND DISCUSSION. There were no significant differences between two groups for the number of oocytes retrieved, blastocyst formation, endometrial receptivity, clinical pregnancy rate and miscarriage rate. Overall cumulative live birth rates per retrieval were 32.0% and 34.6% in group A and B respectively ($p > 0.1$).

However, LE plus GnRH antagonist protocol (group B) was associated with significantly shorter duration of gonadotropins stimulation (10.2±0.1 days vs 11.3±0.3 days, $p < 0.05$) and significantly lower level of estradiol concentration on day of ovulation trigger (3200 ± 345 pg/ml vs 4500±430 pg/ml, $p < 0.05$) and total dose of gonadotropins (1550 ± 200 IU vs 2800±150 IU, $p < 0.01$) compared to conventional agonist protocol. In a group A there were 4 cycle cancellations, while no cancellation was reported in a group B. Importantly, in the LE group there was significantly lower rate of moderate and mild OHSS ($P < 0,05$). There were no cases of severe OHSS in both groups of our study.

CONCLUSION. Use of LE in GnRH Antagonist protocols is more cost-effective and safer way of handling PCOS patients with high risk of OHSS.

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KEYWORDS:

*In Vitro Fertilization,
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CONFERENCE ABSTRACTS
NOVEMBER 27th – DECEMBER 1st

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THE EFFECT OF ENDOMETRIAL SCRATCHING ON PREGNANCY RATE IN WOMEN WITH SUBFERTILITY OF UNKNOWN REASON AND REPETITIVE INTRAUTERINE INSEMINATION (IUI) FAILURES.

INTRODUCTION. It has been shown that the impact of “endometrial factor” infertility is underappreciated in IUI therapy (1). Growing evidence suggests that endometrial scratching may improve endometrial receptivity and thus raise pregnancy rate in women undergoing assisted reproductive technologies (2). While most studies were carried out on patients with repetitive implantation failure in in vitro fertilization programs (3) the applicability of this intervention in population of subfertile women with repetitive failure of IUI remains unclear. The aim of this study was to assess the effect of endometrial scratching on the pregnancy rate and clinical outcome in patients with subfertility of unknown etiology and repetitive unsuccessful attempts of IUI.

Deesign. Prospective, randomized controlled clinical trial.

Setting. University affiliated private IVF center.

METHODS USED. 74 patients who have failed to achieve pregnancy after 3 consecutive IUIs were included in the study and suggested to continue their treatment for up to 3 additional IUI attempts. Patients were divided into two groups. Group A subjects (n=37) underwent endometrial biopsy plus 3 days of antibiotic therapy, while group B (n=37) subjects received only the antibiotic therapy. Endometrial samples were collected on day 20 of spontaneous menstrual cycle preceding the IUIs using pipelle de Cornier. Ovarian stimulation and IUIs were performed according to local guidelines at “Fertility Center” and has been described elsewhere (1).

RESULTS AND DISCUSSION. Cumulative pregnancy rate after 3 cycles of IUI was 51.7% in group A (20 out of 37) while it was only 35.1% in group B (13 out of 37) ($p < 0.05$). The take-home baby rate was 37.8% and 21.6% in a group A and B respectively. There were no statistical differences in pregnancy complications in two groups in terms of spontaneous or missed abortions, preterm delivery, cesarean section and multiple pregnancies. Results of histological analyses of endometrial tissues demonstrated prevalence of chronic endometritis with or without fibrosis (70%), out of phase endometrial development (24%), as well as glandular endometrial hyperplasia without cellular atypia (24%). Taken together our results show that endometrial scratching may optimize endometrial receptivity, which in turn may lead to improved fertility success rates.

CONCLUSION. The results of this study suggest that the local injury to the endometrium during an IUI cycle significantly improves the rates of clinical pregnancy and live birth in a specific and well defined population of subfertile women.

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KEYWORDS:

endometrial injury,
biopsy,
scratching,
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