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considered as alternative simple and safe assisted hatching technique not requiring use of micromanipulator.

P-1045

Acrosome Reaction, Swelling in Hypoosmotic Medium and Nuclear Maturity of Human Spermatozoa in Subfertile Men Selected by Percoll Density Gradient and Swim-Up Procedure. C. T. Erel, L. Şentürk, L. Ercan, K. Elter, T. Irez, U. Çolgar, E. Ertüngealp. Istanbul University, Cerrahpaşa School of Medicine, Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology, Istanbul, Turkey.

Objectives: According to the WHO criteria, an abnormal conventional semen analysis can not always detect abnormal sperm function. Acrosome reaction (AR), swelling in hypoosmotic (HOS) medium and nuclear maturity (NM) of human spermatozoa can give us better information about sperm function. We aimed to investigate the correlation between conventional semen parameters (sperm concentration, motility and morphology) and AR, HOS, and NM tests. We also compared the two most common sperm preparation techniques, percoll density gradient and swim-up procedures, in terms of AR, HOS and NM tests.

Design: A prospective, controlled study. Human spermatozoa were examined for AR, HOS and NM before and after percoll density gradient and swim-up procedures.

Materials and Methods: According to the WHO criteria, 23 subfertile men with abnormal (group I) and 20 fertile men with normal (group II) semen analysis were included into the study. Semen was obtained by masturbation. Each specimen was divided into aliquots, in order to assess AR by triple staining after Ca induction, HOS and NM by acridine orange staining in both raw semen sample and in processed semen samples using swim-up and percoll density gradient techniques.

Results: The results of AR, HOS and NM tests were poor in raw semen samples of group I in comparison to those of group II ($p < 0.001$, $p < 0.01$ and $p < 0.001$, respectively). We found a significant positive correlation between sperm concentration and HOS test in raw semen samples of group I ($r = 0.6$, $p = 0.003$). In the same group, NM test was correlated with motility and morphology ($r = 0.6$, $p = 0.002$ and $r = 0.8$, $p < 0.001$, respectively). Semen samples with high motility ($> 20\%$) or morphology ($> 25\%$), showed NM rates greater than 50% in group I ($p = 0.04$, $p = 0.003$, respectively). In both groups, percoll density gradient was superior to swim-up procedure with respect to AR, HOS and NM tests of human spermatozoa ($p < 0.05$) except NM in group II.

Conclusions: 1) Subfertile men have poor sperm function test results. 2) Conventional semen analysis may not give us consistent results with sperm function tests in subfertile men. AR and HOS may give additional information about sperm functions. 3) NM can be predicted from sperm motility and morphology. 4) Percoll density gradient is superior to swim-up procedure. Therefore percoll density gradient should be preferred in subfertile men.

P-1046

Chromosomal Aberrations in Unfertilized Human Oocytes. ¹I. Vatev, ²D. Toncheva. ¹Human IVF Laboratory, Department of Biology, Higher Medical School—Sofia, Bulgaria and ²Department of Medical Genetics, Higher Medical-School, Sofia, Bulgaria.

Objectives: A number of surveys have been conducted to ascertain the role of chromosomal aberrations in the human reproduction failure. It is established that chromosome rearrangements occur in 2 to 18.75% of males and about 15% of females attending infertility clinics. The spontaneous abortions gives a chromosome anomaly rate of over 50%. The incidence of chromosomal abnormalities in unfertilised oocytes varies within a wide range (11–47%) according to different authors. The present study has been conducted to investigate the role of chromosomal abnormalities for successful fertilization of oocytes, obtained from patients undergoing in vitro fertilisation and embryo transfer (IVF-ET) procedures.

Design: Chromosomal aberrations were analysed in oocytes which failed to be fertilised in vitro after the standard procedures for insemination.

Materials and Methods: A total of 18 unfertilised oocytes which had not cleaved 65 hours after the insemination and had no pronuclei in their cytoplasm were cytogenetically studied. The oocytes were placed in hypo-

tonic solution—0.9% sodium citrate for 30–60 minutes at room temperature. Each oocyte was then transferred in a minimal volume of hypotonic solution to a grease-free slide with the help of a Pasteur pipette drawn at the tip. Immediately after that, 3–5 drops of ethanol:glacial acetic acid (3:1) were consecutively dropped over the oocytes and the slide air-dried. The chromosomes were stained with Giemsa.

Results: The normal haploid karyotype 23,X was established in 14 of the oocytes out of the 18 studied metaphase plates. The remaining 4 oocytes revealed chromosomal abnormalities: disomy in G group, disomy in # 3 chromosome, hypoploidy 20,X (2 missing chromosomes in the C group and one lost chromosome in the G group) and a dicentric in the B group.

Conclusions: 1. The frequency of chromosomal aberrations in oocytes which fail to fertilise in vitro is high—22.2%. 2. The disomy in the third chromosome pair is causative factor for oocyte infertility. 3. The additional chromosome in G group (#21 or #22) reduces the fertilising ability of oocytes and may be lethal or sublethal factor. 3. A new chromosomal aberration, dicentric in the group B chromosomes, was identified in unfertilised oocytes.

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Clinical Female Infertility and Gynecology

P-1047

Hysterosalpingography and Laparoscopy in the Diagnosis of Tubal Infertility. S. Stanisic, M. Dunjic, P. Djurovic, S. Slavica, L. Vitkovic, T. Uskokovic. Department of Infertility, University Clinic of Obs&Gyn, Pristina, Yugoslavia.

Objectives: We started with diagnostic laparoscopy in 1995. To assess the value of hysterosalpingography (HSG) in diagnosing tubal patency and peritubal adhesions compared to laparoscopy.

Design: Hysterosalpingography using water soluble contrast media and laparoscopy with chromopertubation as a gold standard.

Materials and Methods: Retrospective analyse of hysterosalpingographic and laparoscopic findings were compared in 38 infertility women in 1997, 25 had primary and 13 secondary infertility. Patients suspected of having one or two closed tubes or having tubal adhesions, and undergoing both hysterosalpingography and laparoscopy. This was then used to calculate sensitivities, specificities and likelihood ratios.

Results: Indications were Pelvic inflammatory disease. We established primary diagnosis after hysterosalpingographic and compared to laparoscopic diagnosis. We were corrected primary diagnosis after laparoscopic findings. Normal findings was established in 12 (31,6%) patients. Peritubal adhesions with tubal patency were found in 15 (39,4%) women, distal unilateral and bilateral obstructions in 11 (28,9%), 8 had hydrosalpinx and 3 sactosalpinx. Peritubal adhesions were identical in 13,1% patients and different in 26,3%, tubal obstructions in 21,5% and different 7,8%, normal findings were identical in 31,6%, and different in 5,26%.

Conclusions: HSG is of limited use for detection of tubal patency because of its low sensitivity, though it may be useful for ruling in tubal obstruction because of its high specificity. It is not reliable for detection of peritubal adhesions. If HSG shows tubal obstruction, further investigations are unnecessary. However, if HSG shows no obstruction the results should be regarded as no more than suggestive.

P-1048

Clinical and Morphology Correlation Findings in Woman with PCOS. L. Vitkovic, S. Stanisic, M. Dunjic, A. Vitkovic, V. Kaludjerovic. Department of infertility, University Clinic of Obs&Gyn, Pristina, Yugoslavia.

Objectives: Basic problem in PCOS is anovulation, which causes infertility in 74% woman with PCOS. In this examination we do correlation between clinical-laboratory findings and hist-citology findings in infertile woman with PCOS.

Design: Hormones were diagnosed by RIA methods. Endometrial slice after necessary preparation were colored HE. Vaginal smear, for citohormonal analysis we colored by Papanicolau method.

Material and Methods: By using prospective studies in term of jan-d 1997 year we examined 20 infertile woman in which both clinical a hormones findings indicated the existance of PCOS. With RIA methods