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Technical problems of hysterosalpingography
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Investigation of the intrauterine cavity and tubal patency is indicated for many clinical conditions in gynecology. Despite the varied diagnostic options such as hysteroscopy and laparoscopy, hysterosalpingography is still an important and complementary examination in the early evaluation of infertility. The technique of HSG is quite simple, less invasive, more convenient, and provide reliable information about the uterine cavity, tubal patency, lesions, congenital anomalies and different types of intrauterine defects at less cost. Other than diagnostic, it can be therapeutic at time. Utilization of proper procedure can provide valuable diagnostic information and limit technical errors. A variety of technical problems may occur during HSG. These may relate to instrumental malfunction, anatomic abnormalities, artifacts or functional disturbances, and patient discomfort causing termination of the examination. The technical difficulties of HSG with an emphasis on the ways of facing problems are addressed in this presentation.

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The role of Metformin in induction of ovulation in obese infertile patients with polycystic ovary syndrome
F. Al-Dahhan

Objective: To find the effective method of induction of ovulation; in obese infertile patients with polycystic ovary syndrome.

Study design: Prospective case – control study.

Setting: Infertility clinic of Basra Maternity and Child hospital.

Material and Method: 60 obese, hirsute infertile patients for more than two years; with ultrasound findings of polycystic ovary syndrome, subjected to the following investigations: Serum LH, FSH, Testosterone, Prolactin & fasting blood sugar. All investigations were carried on early follicular phase of the cycle. Patients were divided randomly into two groups: Group A and group B. All patients received clomiphene citrate 50–150 mg for five consecutive days beginning on day 5 of the cycle. The patients with group B also received 500mg of Metformin tablet three times daily for 6 days beginning on day 5 of the cycle. Ovulation – which assessed by transvaginal folliculometry, and ovarian artery Doppler velocimetry; triggered with hCG when one or more follicle measuring ≥18mm in diameter, and blood flow indices of the active ovary; showing the dominant follicles were good; on ultrasonic examination. Ovulation response and pregnancy rate were assessed in both groups.

Results: Results obtained from this study pointed out the beneficial effect of Metformin on ovulation induction in obese hirsute women with PCOS.

Conclusion: PCOS remains an enigmatic disease. Once considered relatively benign, PCOS is implicated in medical disorders related to hyperinsulinism and hyperandrogenemia. Restoring fertility and treating abnormal hair growth remain important considerations in the physical and psychological health of reproductive-age women. Metformin has shown great promise in the treatment of insulin-resistant PCOS, but whether it would benefit all women who have PCOS remains unclear. Weight loss is the most important primary recommendation that can be made in the treatment of PCOS.

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Hysterosalpingography limits in tubal-peritoneal factor investigation in infertility women
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Objective: to compare hysterosalpingography (HSG) and videolaparoscopy (VLP) in diagnosing tubal and peritoneal factors in the infertile women.

Methods: A retrospective study has evaluated 224 infertile women that have been seen at Human Reproduction ambulatory of HSL-PUCRS. In comparison of both methods, the statistical analysis has searched the sensitivity, specificity, positive predictive value (VPP), negative predictive value (VPN), kappa coefficient (CK) and likelihood ratio (LR).

Results: While evaluating the tubal factor the HSG has demonstrated a sensitivity of 81.3%, specificity of 86.7%, VPP of 87.2%, VPN of 80.7% and diagnostic accuracy of 83.9%. The CK was moderate (0.55) and the positive LR was 6.11. In the peritoneal factor analysis HSG has showed a sensitivity of 88%, specificity of 20%, VPP of 71%, VPN of 43% and diagnostic accuracy of 67%. CK has demonstrated good concordance between both methods (0.6) and the LR was neutral 1.1.

Conclusions: HSG has demonstrated high diagnostic performance in evaluation of tubal factor, that in addition to the clinical investigation can lead to less invasive procedures. However, regarding the peritoneal factor, HSG has showed high sensitivity but low specificity, which does not allowed guaranteeing the absence of peritoneal pathology only by HSG. So, regarding the choice of diagnostics methods is the individual analysis of each patient into the infertility context that helps the better option decision.

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GnRH agonist versus GnRH antagonist: What is the effect on pregnancy rate?
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Objective: To compare the effects of GnRH agonist and GnRH antagonist on pregnancy rates.

Methods: 458 women that had embryo transfers in Istanbul University School of Medicine have been analyzed. Comparative data was gathered on pregnancy rates, FSH dosage, numbers of follicles, retrieved oocytes and transferred embryos.

Results: GnRH agonist showed strong association with numbers of follicles, retrieved oocytes and transferred embryos (p < 0.01). It has showed significant association with hCG (+) pregnancy (p < 0.05). GnRH antagonist showed significant association with tuboperitoneal, ovarian, endometriosis, multiple and unexplained infertility (p < 0.05). The sample groups were non-randomized and the average age of patients that received GnRH antagonist was higher. This is important, because age can affect the quality of the ovary and the response.

Conclusions: Several studies have compared GnRH analogues in terms of clinical pregnancy outcome and did not find a statistically significant difference. Secondary outcomes suggested that in GnRH antagonist fewer oocyte complexes were retrieved and less OHSS was observed. On the basis of current evidence, to achieve higher rate of pregnancy, the analogue of first choice is not clear. Considering data, GnRH antagonist might be a good choice due to reduction in occurrence of OHSS. However, research is necessary on the probability of live births in patient groups such as patients with endometriosis and poor ovarian reserve.

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Our clinical experiences with use of cabergoline in treatment of OHSS
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Objectives: During treatment of infertile women with gonadotropins some degree of ovarian hyperstimulation may occur. While mild OHSS has no clinical significance, severe OHSS is a life threatening condition. A lot of strategies are used to prevent and treat this condition. OHSS is caused by increased vascular permeability through ovarian hypersecretion of vascular endothelial growth factor (VEGF)-activating VEGF receptor 2 (VEGFR-2). Recent
studies from Valencian Infertility Institute motivated us to use
cabergoline in prevention of developing of severe OHSS.

Materials and Methods: Starting from November 2006 cabergoline
has been used in the treatment of 17 women identified as high-
risk patients for developing severe OHSS. All patients received
cabergoline starting from hCG administration, except for one
patient to whom cabergoline was given on the 3rd day after hCG
administration. The dose of cabergoline was 0.5 mg per day and
duration of treatment was 8 days. All patients have been carefully
monitored every day of hospitalization.

Results: During medication with cabergoline all of patients were
in very good clinical condition, with symptoms and clinical,
ultrasound and biochemical signs of OHSS in regression. All of
patients had the successful embryo transfer and consecutive clinical
pregnancies were detected in 8 patients.

Conclusions: Our first clinical experiences in using cabergoline to
treat patients under the risk of severe OHSS show that cabergoline
improves clinical conditions of these patients without influencing
the success of embryo transfer.

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The protocols of stimulation in the programme of IVF/ICSI/ET
in patients with PCOS
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Aim of investigation: To analyze the effect of long and short
protocol of stimulation on the outcome of IVF and ICSI procedure
in the patients with PCOS.

Material and Methods: Clinical investigation was performed as a
prospective study at The Frauenklinik der Justus-Liebig-Universitat
in Giesen (Germany). The study comprised 103 (122 cycles) patients
with PCOS included in the programme of in vitro fertilization (IVF
and ICSI).

Results of investigation: Following the aspiration, the mean
number of obtained follicles in the group of patients with a long
stimulation protocol (X = 9.3) was significantly higher (p < 0.05) than
in the group with a short stimulation protocol (X = 6.8). The number
of biochemical, clinical and realized pregnancies in relation to
the total number of cycles in both investigated groups was not
statistically significant. The incidence of abortions in the patients
with a long protocol N = 3 (5%), did not significantly differ from the
patients with a short protocol N = 3 (11.5%).

Conclusions: The administration of a long stimulation protocol
in the patients with PCOS included in the programme of IVF And
ICSI/ET, showed a tendency of better success in realization of
conception and decrease of the abortion rate relative to the
short protocol. The short protocol of stimulation was useful in the
PCOS patients with weaker response to the stimulation in previous
cycles.

P790
Correlation between infertility and rapid sperm head
decondensation after lysis challenge
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Introduction: Apoptotic human sperm cells are not distinguishable
from healthy sperm by conventional microscopy leading to
incorrect diagnoses. Dying sperm exhibit subtle disrupted
membranes with phosphotidylserine translocating from the inner
to outer membranes. Assessment of rapid head decondensation
after lysis reagents would help identify males with predominance
of apoptotic sperm. The hypothesis was that rapid sperm head
decondensation was associated with infertility. The objective was
to analyze the different levels of sperm head decondensation after
lysis reagent exposure.

Materials and Methods: Frozen-thawed sperm from fertile (n = 5,
gravida >0, female age <35 yrs, sperm count >20 mill./mL) and
infertile (n = 5) cases were centrifuged-washed and 0.1 mL aliquots
added with 0.1 mL (mercaptoethanol-based) lysis reagent. After
5 mins (21°C), the sperm were categorized by phase contrast
microscopy into: (A) complete decondensation (B) balloon-shaped
(C) dumbbell (D) granular or (E) compacted shapes. The data were
analyzed by Student t-test statistics.

Results: The infertile group had more (P < 0.05) type A completely
decondensed heads (67.8 ± 19.5 % versus 25.0 ± 15.5% fertile; mean
± SEM). Furthermore, there was less granular heads in the infertile
group (4.8 ± 2.5% versus 24.8 ± 10.0%). There were no differences in
the remaining categories (B, C, E) of decondensation.

Conclusions: The results suggested that sperm from the
infertile group had weak membranes that rapidly dissolved
to decondense sperm DNA content. Fertile sperm heads showed
more granularity suggesting the presence of non-
condensed nucleosomes. Interestingly, fertile sperm exhibited
higher percentages of compacted heads when challenged by lysis
reagents but significance was not reached. Clinical significance in
this study included demonstrating a link between rapid sperm
decondensation and infertility. Upcoming research will involve
testing other lysis reagents in support of the development of a
rapid and reliable male fertility test.