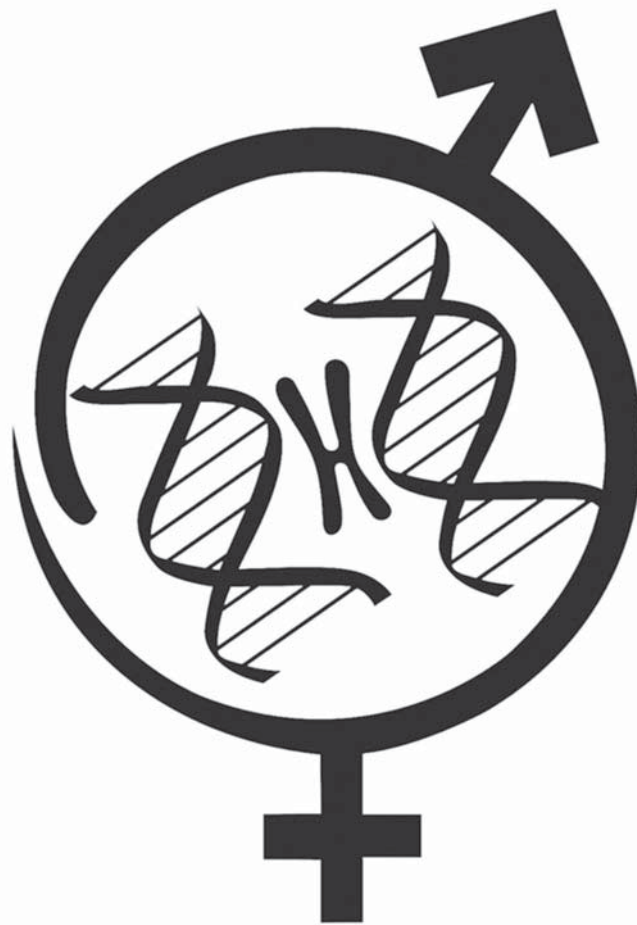


Abstracts of
Royan International Hybrid Twin Congress

24th Hybrid Congress on Reproductive Biomedicine
31 August-1 September 2023

18th Seminar on Nursing and Midwifery
31 August 2023



Royan Institute

Reproductive Biomedicine Research Center
Tehran, Islamic Republic of Iran



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24th Hybrid Congress on Reproductive Biomedicine
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Background: One of the discussed approaches for dealing with cryoinjuries during human sperm cryopreservation is the use of antioxidants. This study compared the effects of melatonin (MEL), an intracellular antioxidant, and hypotaurine (HYP), an extracellular antioxidant, on the routine and functional test of sperm, and the expression of HspA2 and Caspase9 during rapid freezing of human sperm.

Materials and Methods: After obtaining 34 normospermia semen samples, each sample was divided into four experimental groups: fresh, control freezing (which include human tubal fluid medium and 0.5M sucrose), and two freezing groups that were treated with 50 mM HYP and 2 mM MEL, respectively. To perform rapid freezing, a volume of 200 µl of the sample was transferred into a straw and subsequently cryopreserved in liquid nitrogen. The expression levels of HspA2 and Caspase9, along with the sperm classical parameters, viability, acrosome integrity, and DFI, were evaluated in both pre-and post-rapid freezing.

Results: As expected, the fresh group exhibited a significantly higher percentage of sperm classical parameters, viability, and acrosome integrity ($P<0.05$), as well as a lower level of DFI ($P<0.05$) in comparison to the freezing groups. In freezing groups, the HYP group showed an upper percentage of motility, morphology, and viability compared to others freezing groups ($P<0.05$). Additionally, the results indicated that the HYP group exhibited significantly lower levels of DFI, and acrosome reaction compared to the control freezing and MEL groups ($P<0.05$). However, the expression level of HspA2 was significantly higher in the group that received MEL treatment ($P<0.05$). The expression of Caspase 9 was not changed by the addition of MEL and HYP.

Conclusion: While the intracellular antioxidant MEL increased the expression of HspA2, the extracellular antioxidant HYP displayed a greater protective effect on sperm classical parameters, acrosome integrity, and DFI during rapid freezing.

Keywords: Human Sperm Cryopreservation, Hypotaurine, Melatonin

Imaging

P-154: To Compare The Success Rate of Assisted Reproductive Technology in T-Shaped and Normal Uterus

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Background: According to the ESHRE classification T₁-Shaped uterus belongs to the Class U1: Dysmorphic uterus. Hysterosalpingography (HSG) and Ultrasound are used to diagnose of T₁-Shaped uterus. The prevalence of T-shaped uterus is reported about 0.02 -5%. It is said that T-Shaped uterus could relate to poor reproductive outcomes. We aim to find the success rate of ART in T-Shaped uterus and normal group.

Materials and Methods: A cross-sectional study was done in Royan Institute between 2019-2020. Information was extracted from patients' files. According to the inclusion criteria, patients were selected and categorized to T-shaped and normal groups. HSG was done for all infertile patients, and T-shaped uterus were approved by hysterosalpingography. We compared the

success rate of IVF in both groups.

Results: Cases that were defined as medium were omitted. Total sample size was 468. The frequency of the T-shaped uterus was 19.4% and the frequency of the normal uterus was 80.6%. Then the positive chemical pregnancy was calculated that was 47%. Positive pregnancy in the T-Shaped group and normal group was 42.8% and 48.01%, respectively. The difference was not significant ($P\text{ value}>0.05$). Our finding reminds that metroplasty should not be a routine treatment for T-Shaped uteruses. It should be considered in RIF cases, recurrent abortions, and those who are symptomatic.

Conclusion: There was no significant difference between the outcomes of ART in the T-Shaped group and normal group. More studies are necessary to find the efficacy and the need of medical interventions in T-shaped uteruses.

Keywords: ART, Success Rate, T-shaped,

P-155: Early Pregnancy in Hysterosalpingography

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Background: Hysterosalpingography (HSG) remains a reliable technique in assessing luminal patency of the fallopian tubes and the shape of uterine cavity in spite of all advanced diagnostic methods. In respect of the increasing the average age of first-time mothers and progresses in assistive reproductive medicine, the number of hysterosalpingography requests has substantially raised. Thence the likelihood of patients presenting with unsuspected early pregnancies prior to HSG has increased as well. Despite using pregnancy test and accurate menstrual history a few numbers of unexpected pregnancy reports have been still published. For women with a positive history of irregular menstrual bleeding or amenorrhea, both mid-cycle bleeds or early pregnancy bleeds could be misinterpreted as regular menses. Hereupon this test is susceptible to error and may be performed accidentally on pregnant women.

Materials and Methods: This study is based on the review of the hystero-grams performed at the imaging department of Royan Institute.

Results: Early pregnancy can be recognized by some radiological features as following; double-outline uterine cavity (DOUC), intrauterine filling defect and irregularity with intravasation. Uterine cavity enlargement and elongation may be visualized as well. DOUC is the earliest specific sign of pregnancy which is seen as a thin line of water-soluble contrast medium surrounds the uterine wall. Filling defect is the other sign that is caused by the intrauterine gestational sac. Ectopic pregnancies following HSG is the other condition that has reported in hysterosalpingography and may result in tubal damage or possibly a 'flushing effect' of the amniotic sac by the contrast media.

Conclusion: It is significant to recognize early pregnancy signs for hystero-grapher to terminate the introduction of contrast medium. Furthermore, the differentiation of these signs from other anomalies or disorders has the notable role in interpretation.

Keywords: Early Pregnancy, Hysterosalpingography, Unsuspected Pregnancy

P-156: The Frequency of Coexistence of Polyp and Fibroma in the Uterus of Infertile Women Referred to The Royan Institute