

phase sampling) in this study. Gene expression analysis on the endometrial samples was performed using QPCR.

**Results:** The results showed that *VEGF*, *VEGFR1*, and *VEGFR2* genes significantly increased in the ES group compared with the non-ES group ( $P < 0.05$ ).

**Conclusion:** The increased expression of VEGF and its receptors, *VEGFR1* and *VEGFR2*, during the implantation time may be the mechanism responsible for improving implantation in uRIF patients through enhanced angiogenesis.

**Keywords:** Endometrial Injury, Repeated Implantation Failure, VEGF, VEGFR1, VEGFR2.

### **P-108: The Effect of Calligonum Comosum (Escanbil) Extract on Pregnancy and Live Birth Rate in Mice Model of Endometriosis**

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**Background:** Endometriosis is a chronic disease in which endometrium tissue grows outside the uterus and causes severe pelvic pain and pregnancy problems. Calligonum comosum is a medicinal plant that grows in desert areas of Iran and is used in traditional medicine for menstrual cramps.

**Materials and Methods:** This study aimed to investigate the effect of Calligonum comosum total extract (CCTE) on pregnancy and live birth rate in mice models of endometriosis. In this study, 24 female NMRI mice were modeled by autologous and grafting uterine tissue to the abdominal wall. The mice models were randomly allocated into two groups: the first group received 50 mg/kg of CCTE and the second group received normal saline. After 4 weeks of treatment and after mating, pregnancy rate, live birth rate, number and size of endometriosis lesions, histology of lesions, uterus and ovaries, and growth indices of infants were investigated.

**Results:** The findings showed that the effect of CCTE on the pregnancy rate was more than 50 percent compared to the control group. The live birth rate in the CCTE group was more than 50 the control group. The number and size of the lesions in the treated group were significantly ( $P < 0.05$ ) lower than the control group. Histology of ovaries also showed that the quality and number of oocytes in the treated group were better than the control group. CCTE had no negative effect on growth indices of infants. The growth indices of infants in the treatment group were better than the control group and the difference was significant ( $P < 0.05$ ).

**Conclusion:** These findings suggest that CCTE can be a promising treatment for treating and improving fertility in women with endometriosis. However, more research is needed to confirm these findings in humans. One of the mechanisms of CCTE on fertility in women with endometriosis is reducing pelvic inflammation, which is one of the main factors in creating fertility problems.

**Keywords:** Endometriosis, Pregnancy, Laboratory Mice, Scanbil, Growth Indices

### **P-109: Investigating The Effect of The Use of Sex Hormones on Ovarian Hyper stimulation Syndrome in Predicting Pregnancy Outcome of Fertilization in Women with Polycystic Ovarian Syndrome**

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**Background:** Ovarian hyper stimulation syndrome (OHSS) as a known complication in women with polycystic ovarian syndrome (PCOS) may occur following inducible fertility treatments such as fertilization (IVF) and can affect the sequels of these treatments. This study aimed to assess the effects of OHSS on pregnancy outcomes through IVF in women with PCOS. Also, we assessed the value of baseline sexual hormones to predict the pregnancy's success.

**Materials and Methods:** This retrospective case-control study was conducted on 180 consecutive women suffering from PCOS who were candidates for IVF at Fatemieh hospital in Hamadan, Iran, from May-July 2022. The women were assigned to the case group (with OHSS,  $n=129$ ) and the control group (without OHSS,  $n=51$ ). The case group consisted of people in whom the stimulation of controlled ovulation led to OHSS, while in the control group, the pointed condition was not observed. Frozen embryos were transferred in both groups. Embryos were cultured after ICSI for 3-5 days. Embryo quality was assessed before the transfer approximately 72 hours (8-cell stage) after insemination with a maximum of 3 embryos. Corpus luteal support was provided on the day of oocyte retrieval, with progesterone injections (i.m, 50-100 mg/day), until the pregnancy test. Frozen embryo transfer was performed by first administering in the middle of the luteal phase (day 21 of the cycle) GnRH agonist until the beginning of the period or menses. Measuring the sexual hormones was performed using the ELISA technique.

**Results:** Participants with OHSS had significantly lower BMI, had a higher number of oocytes, and suffered more from hirsutism. Concerning hormonal status, the mean serum level of AMH was significantly higher in the group with OHSS. At the same time, we found no difference in the levels of prolactin, TSH, FSH, or LH between the 2 groups. The mean of endometrial thickness ( $9.17 \pm 0.85$  vs.  $9.21 \pm 0.87$ ,  $P= 0.785$ ) and the number of transferred embryos ( $2.98 \pm 1.31$  vs.  $3.04 \pm 1.47$ ,  $P= 0.807$ ) did not differ between the two groups with and without OHSS. Although the rate of chemical pregnancy and clinical pregnancy were both significantly higher in the OHSS group than the control group ( $P < 0.001$ ), in the multivariable logistic regression model, OHSS could not predict the likelihood of clinical or chemical pregnancy following IVF. None of the baseline sexual hormones could predict the successful chemical or clinical pregnancy in PCOS women following IVF.

**Conclusion:** It can finally be concluded that no significant difference is expected in IVF-related outcomes, including clinical or chemical pregnancy, between the PCOS groups with and without OHSS. In other words, the occurrence of OHSS in such women may not be a main determinant for IVF poorer outcomes. Contrary to popular belief, laboratory markers, especially sex steroids, may not predict the outcome of IVF in these women.