

## **Serum and follicular fluid IL-6 and sex steroid hormone levels and their correlation of undergoing IVF-ET with endometriosis and pregnancy rate in women.**

**Nouri, M. (Ph.D.)<sup>1</sup>, Ghaffari M. (M.D.-Ph.D.)<sup>1,2</sup>, Salmasi A. (Ph.D.)<sup>3</sup>, Farzadi L. (M.D.)<sup>4</sup> and Ghasemzadeh A. (M.D.)<sup>4</sup>.**

1- Asistant Professor of Biochemistry Department, Tabriz University of Medical Sciences, Tabriz, Iran.

2- Asistant Professor of Reproductive Endocrinology, Avesina Research Center, Tabriz, Iran.

3- Asistant Professor of Infertility Center, Kiel University, Kiel, Germany.

4- Asistant Professor of Obs & Gyn. Department, Tabriz University of Medical Science, Tabriz, Iran.

### **Abstract**

Cytokines Not only do regulate physiological processes, but also play important roles in immunopathological reactions. The aim of this study was to evaluate the correlation between IL-6 and sex hormone levels with endometriosis and pregnancy rate at the time of oocyte retrieval. In infertile women undergoing IVF-ET Eighty patients received ovulation induction drugs and underwent IVF-ET. IL-6 levels in serum and follicular fluid (FF) were measured by ELISA and FSH, estradiol and progesterone by RIA. In 36 out of 80 patients embryos were transferred and pregnancy rate were evaluated after two weeks. The result showed no significant correlation between serum and FF levels of estradiol, progesterone and FSH with pregnancy rate in IVF patients. Similar levels of IL-6 in serum and FF of pregnant and non pregnant patients after embryo transfer were observed ( $P>0.05$ ). However there was a significant correlation between FF levels of IL-6 in pregnant and non pregnant endometriosis patients ( $P<0.05$ ). These results indicate that increase of FF levels of IL-6 may be accompanied by pregnancy rate reduction in endometriosis patients.

**Keywords:** IL-6, Follicular fluid, Sex hormone, Endometriosis, Pregnancy rate, IVF-ET

**Corresponding address:** Infertility Center, Alzahra Hospital, Tabriz University of Medical Science, Tabriz, Iran.