

## FSH

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### The relation between third day FSH level and incidence of poor response in patients undergoing ART cycles

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#### \*Abstract

**Background:** The number and the quality of oocyte are very important in ART cycles. The level of serum FSH on third day of menstrual cycle plays an important role in success of ART cycles.

**Objective:** To study the relation between third day FSH level and ovarian response in patients undergoing control ovarian hyperstimulation for IVF cycles.

**Methods:** This was an analytical study in which 2200 files from patients referred to Royan institute between 1991 and 1999 were examined. The study group included 212 patients whose serum FSH was measured for a maximum of six months before ovarian stimulation with long protocol GnRHa. Exclusion criteria included endometriosis and pervious treatment with ART. The patients were divided into two groups on the basis of third day serum FSH levels. Group I included 36 patients with  $FSH \geq 15IU/L$  and group II included 176 patients with  $FSH < 15IU/L$ . The data (age, number of mature follicles, infertility duration, infertility type, and the levels of FSH, LH and progesterone) were analyzed using  $\chi^2$ , t-test and Fisher's exact test.

**Findings:** There were statistically significant differences between two groups in the number of mature follicles ( $3.3 \pm 3.3$  vs.  $5.2 \pm 2.9$ , respectively), number of retrieved oocytes ( $4.5 \pm 7.75$  vs.  $7.0 \pm 5.5$ ), number of transferred embryos ( $1.4 \pm 1.5$  vs.  $2.2 \pm 1.7$ ), number of cancelled cycles (30.5% vs. 2.8%) and the level of serum LH ( $23.5 \pm 20.5$  vs.  $9 \pm 8.5$ ).

**Conclusion:** The third day level of serum FSH can be relatively used as a predictor of ovarian reserve and success of ART cycles.

**Keywords:** In Vitro Fertilization, Ovary, Oocyte, Ovulation, FSH

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FSH

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IVF

FSH

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FSH

IVF

FSH

FSH

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FSH

LH FSH

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FSH

(Poor responder)

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HCG

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FSH

FSH

FSH

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Inhibin-B

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Inhibin-B

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FSH ,GnRH ( )

FSH FSH

FSH

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FSH

:(HMG+GnRH)

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LH FSH

DHEA

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(Superfact, Hoechst AG Germany/Allemege)

(Humegon, Organon Eragny sur Epte BP6) HMG

HMG

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**HMG**

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FSH

HMG

FSH

HMG

FSH  
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FSH

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HMG

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FSH LH

LH FSH

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