

() FSH
FSH Watt ()
() FSH
() FSH FSH
IVF
Cabrera ()
LH FSH Witt ()
LH IUI
() FSH
()
() FSH
FSH % IVF
FSH FSH
LH ()
HCG FSH
FSH
FSH
()
ICSI
()
ICSI
FSH LH
GnRH :
) HMG IVF HCG

ICSI	
()	
/ ± /	()
/ ± /	()
± /	()
/ ± /	(pg/ml) FSH
/ ± /	(pg/ml) LH
/ ± /	(pg/ml)
/ ± /	(pg/ml)HCG
(/)	()
(/)	
(/)	
(/)	

(Merional;DarouPakhsh /IU)(
 /IU)() HCG 10000
 (Pergonal;Tevapharma
 (PESA)
 (TESE)
 ICSI.()
 (II)
 ICSI
 (2PN)
 .()

(% /)
 (% /)
 (% /)

B (% /) A
 (% /) C (/)
 ICSI
 (P<0.05)
 .(P>0.05)

βHCG
 :
 SPSS.10
 :
 LH FSH
 HCG
 %
 ICSI
 <0.05

FSH
 .()
 % /
 .()
 ICSI
 %

/ ± / (% /)
 ± /
 (% /)
 LH FSH
 HCG

LH

FSH
.()

ICSI

ICSI

HCG

ICSI

()

P<0.05	/ ± /	/ ± /	()
P<0.05	/ ± /	/ ±	()
P>0.05	/ ± /	/ ± /	()
P<0.05	/ ± /	/ ± /	(pg/ml) FSH
P>0.05	/ ± /	/ ± /	(pg/ml) LH
P>0.05	± /	/ ± /	(pg/ml)
P>0.05	/ ± /	±	(pg/ml)HCG
P>0.05	/ ± /	/ ± /	
P>0.05	± /	/ ± /	
P<0.05	± /	± /	
P<0.05	/ ± /	/ ± /	

ICSI :

()

	()	()	
P>0.05	()	(/)	
	(/)	(/)	
	(/)	()	
	(/)	(/)	
P>0.05	(/)	(/)	A
	(/)	(/)	B
	(/)	(/)	C
	()	()	

ICSI :

()

OR	P value	S.E	B	
/	P<0.05	/	/	
/	P<0.05	/	/	FSH

()
FSH FSH Watt
FSH IVF ICSI
FSH IVF ICSI
FSH FSH
FSH FSH IVF
LH FSH () FSH
FSH FSH ()
IVF Toner () FSH
FSH Witt IVF FSH
IUI
FSH FSH
FSH FSH
FSH FSH
FSH FSH FSH
Ebrahim ()
FSH LH
FSH () FSH
Basil ()
LH IVF FSH
FSH

FSH . FSH
) LH
 .(LH FSH
 Cabrera() FSH
 LH
 ()
 LH
 FSH
 IVF ,
 B LH FSH

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Predictive Value of FSH, LH, and Estradiol Levels in Third Day of Menstrual Cycle and the Day of HCG Injection in Intra Cytoplasmic Sperm Injection Outcome

Asgharnia M.(MD), Mehrafza M.(MD), Oudi M.(B.Sc), Aram R. (MsC), Hoseeieni A.(Ph.D).

Abstract

Introduction: Several methods have been developed to estimate the functional or biological age of the ovary. Survey Follicle Stimulating Hormone (FSH) is used as a means of predicting value to fertility treatments success in most of fertility clinics across the world.

Objective: Predicting value of FSH, Luteinizing Hormone (LH), and Estradiol (E2) levels in third day of menstrual cycle and the day of HCG injection in follow of Intra Cytoplasmic Sperm Injection (ICSI) outcome.

Materials and Methods: In this cross-sectional study we evaluated all infertile couples who referred to Mehr infertility institute between Sep. 2004 and Dec.2006 for ICSI, with male factor, tubal factor, ovulatory factor and unexplained infertility prospectively. Long protocol Controlled Ovarian Hyperstimulation (COH) was performed for all patients.

Evaluated variable consisted of female and male age, duration and cause of infertility, LH and FSH levels, estradiol (E2) levels in the third day and day of HCG administration and embryo quality. Logistic regression was performed to determined associated factors with success of ICSI. An alpha error of <0.05 was considered significant for all calculations.

Results: 500 patients were evaluated during study. Rate of pregnancy was 162(36.2%). The mean age of patients showed a significant influence on ICSI in pregnant women (30.9 ± 5.4) in comparison with non pregnant (32.4 ± 6.4). The mean duration of infertility and cause of it didn't show any significant difference in pregnant and non pregnant ($P>0.05$).

The mean of estradiol levels in 3rd day of period and HCG injection's day and LH level weren't statistically significant between pregnant and non pregnant ($P>0.05$). Relations between pregnancy rate (PR) and FSH level were statistically significant (6.4 ± 7.4 in pregnant versus non pregnant 9.2 ± 15.4 pg/ml) ($P<0.05$). Multiple logistic regressions showed no significant effect of male age, duration of infertility, cause of infertility, embryo quality also estradiol and LH levels in the outcome of IVF/ICSI ($P>0.05$), but there was significant relation between female age and FSH level in ICSI success ($P<0.05$).

Conclusion: Age of female and mean of FSH level has predictive role on success of ICSI treatment.

Key words: Estradiol/ Follicle Stimulating Hormone/ Luteinizing Hormone/ Pregnancy/ Sperm Injections, Intra cytoplasmic