

P-50 Extended Culture of Testicular Spermatozoa from Azoospermic Patients did not Decrease Fertilization, Cleavage and Pregnancy Outcome Following ICSI

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Objective: Fresh testicular spermatozoa collected at the day of oocyte retrieval are routinely provided for an ICSI-TESE program. Use of testicular spermatozoa cultured for several days yields enormous advantages in planning of urological procedure and synchronization of patients. This study was therefore conducted to compare ART and pregnancy outcome of an ICSI-TESE program used either fresh testicular spermatozoa or testicular spermatozoa cultured for 1 to 3 days.

Design: Fertilization, cleavage and pregnancy rates of patients following ICSI using testicular spermatozoa prepared by designated procedure. This study was undertaken at the university-affiliated hospital, Pochon CHA University.

Materials and Methods: A total of 21 stimulated IVF cycles were conducted in 20 couples with obstructive azoospermia and 1 couple with non-obstructive azoospermia. Testicular tissue collected by microsurgical method was minced and the supernatant was incubated in an organ culture dish containing 0.5-ml Hams F-10 medium supplemented with 15% human follicular fluid for 0, 24, 48 or 72 h. The testicular spermatozoa were then provided for ICSI procedure, and fertilization, cleavage and pregnancy rates were evaluated at 18 hours, 42 hours and 14 days after ICSI, respectively.

Results: There were no differences in fertilization (70 to 100%), cleavage (98 to 100%) and pregnancy rate (50 to 100%) among treatment groups.

Table. Fertilization, cleavage and pregnancy after ICSI used testicular spermatozoa culture for different periods

Parameters	Testicular spermatozoa cultured for			
	0 h (n=2)	24 h (n=5)	48 h (n=13)	72 h (n=1)
Mean age of patient	32.5±2.1	31.6±3.4	34.3±4.2	33.0
No. of retrieved oocytes	10	43	118	6
Fertilization rate (%)	7/10 (70)	34/43 (79)	95/118 (81)	6/6 (100)
Cleavage rate (%)	4/4 (100)	25/25 (100)	56/57 (98)	3/3 (100)
Pregnancy rate (%)	1/2 (50)	3/5 (60)	7/13 (54)	1/1 (100)

Conclusions: The results of this study indicated that testicular spermatozoa cultured for 0 to 72 in medium supplemented with human follicular fluid have the same potency to fertilize, cleave and establish pregnancy.