

Fertility Characteristics And IUI Outcome Associated With Asian Ethnicity

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Background: In a recent analysis of patients undergoing *in vitro* fertilization (IVF), Asian patients were found to have one third fewer pregnancies compared to their Caucasian counterparts. Multivariate analysis revealed that this discrepancy could not be accounted for by differences in female age, gravida status, stimulation protocol, or basal FSH levels. We therefore sought to investigate if this difference exists for patients undergoing intrauterine insemination (IUI) and to analyze the Asian infertility population for factors that may influence treatment outcomes.

Objective: The purpose of this study is to characterize the demographic profiles and treatment outcomes of Asian and Caucasian women undergoing IUI treatment.

Materials and Methods: This is a retrospective cohort study of patients treated between December 2002 and December 2004 with IUI. Demographic and clinical characteristics were abstracted from the initial consultation visit and IUI treatment cycles after IRB approval was obtained. Clinical pregnancy was defined as presence of cardiac activity by transvaginal ultrasound. Student's t test and chi-squared test were used for statistical analysis.

Results: A total of 439 patients underwent 1563 IUI cycles during the two-year period, 58.3% (n=256) of which were Caucasian and 29.6% (n=130) Asian. Baseline demographic characteristics were similar except Asian patients presented with a longer duration of infertility ($p < 0.001$). Treatment outcomes were also noted to be decreased in the Asian population at 18.5% vs 25.8% in the Caucasian population after four cycles, although this did not reach statistical significance ($p = 0.11$).

Conclusions: Asian ethnicity is associated with a longer duration of infertility and possibly lower pregnancy rates after IUI. Determining if the duration of infertility prior to initial presentation contributes to the difference in pregnancy rates may allow an intervention to improve Asian treatment outcomes.

	Asian, n=130	Caucasian, n=256	p value
Mean Age (+/-SD)	36.1 (4.2)	36.9 (4.1)	p=0.07
Mean Day 3 FSH (+/-SD)	7.8 (3.4)	8.4 (4.5)	p=0.21
Mean Day 3 Estradiol (+/-SD)	37.7 (22.3)	51.8 (59.2)	p=0.01
Mean AFC (+/-SD)	11.1 (6.8)	12.0 (7.2)	p=0.32
Dx of Endometriosis	8.5% (11/130)	4.7% (12/256)	p=0.98
Dx of DOR	18.5% (24/130)	27.3% (70/256)	p=0.07
Dx of Ovulatory Dysfunction *	15.4% (20/130)	8.2% (21/256)	p=0.05
Dx of Unexplained Infertility	35.4% (46/130)	35.6% (91/256)	p=1.00
Dx of Male Factor Infertility	40.0% (52/130)	40.2% (103/256)	p=1.00
Duration of Infertility *			p<0.001
0 to 6mo	0 (0%)	11 (4.9%)	
6-12 mo	21 (17.6%)	52 (23.3%)	
1-2 yrs	42 (35.3%)	105 (47.1%)	
2-5 yrs	44 (40.0%)	52 (23.3%)	
>5yrs	12 (10.1%)	3 (1.3%)	
Pregnancy Rate after 4 IUI cycles	18.5% (24/130)	25.8% (66/256)	p=0.11