Association of the number of follicles of various sizes and treatment protocol with multiple pregnancies following ovulation induction and intrauterine insemination

Moosavifar, N., Aliakbarzadeh, M., Shakeri, M.
Montaserieh IVF Center, Mashhad University of Medical Sciences, Iran

Abstract

Objective: To find the relationship between the number of follicles of different sizes and the stimulation protocol to the probability of multiple pregnancies. Methods: Out of 8002 cycles of OI-IUI in a university based infertility center, between March 2000 to March 2002, there were 88 clinically pregnant cycles. The following variables were tabulated for each cycle: female age, treatment protocol, follicle number and size on the day of hCG administration and number of gestational sacs detected by transvaginal ultrasonography at 9 weeks of gestation. Ovulation induction was done by cc, cc+hMG or hMG. Follicles were categorized by size as ≥15 mm, ≥18 mm and ≥21 mm. To find the relationship between singleton and multiple pregnancy with the average number of follicles of different sizes and the protocol of treatment, a statistical analysis was performed. Results: There were 85 (11.51%) multiple pregnancies in 88 pregnant cycles, consisting of 48 (6.81%) twin, 11 (1.32%) triplet and 1 (0.01%) quintuplet. Multiple pregnancy rate in cc, cc+hMG and hMG cycles were 9.11%, 18.81% and 18.31% respectively. There was no significant relationship between different treatment protocols and the risk of multiple pregnancy (p>0.1). The number of follicles ≥15 mm or ≥18 mm or ≥21 mm had significant relationship with single and multiple pregnancies (p<0.01), but the correlation coefficient was higher for ≥15 mm follicles. The mean age of the singleton and multiple pregnant women was not significantly different (p>0.1).

Conclusions: The risk of multiple conceptions is related to ≥15 mm follicles in addition to the total number of follicles ≥18 mm. Different protocol of ovulation induction revealed no relationship with the risk of multiple conceptions.

Indexed Keywords

EMTREE drug terms: chorionic gonadotropin; clomifene citrate; human menopausal gonadotropin; progesterone

EMTREE medical terms: adult; article; combination chemotherapy; controlled study; correlation analysis; female; human; infertility; intrauterine insemination; major clinical study; monotherapy; multiple pregnancy; ovary follicle; ovulation induction; pregnancy outcome; probability; risk assessment; transvaginal echography; twin pregnancy

Chemicals and CAS Registry Numbers: chorionic gonadotropin, 9008-21-0; clomifene citrate, 50-41-4; human menopausal gonadotropin, 11259-11-8; progesterone, 57-83-0.

Drug tradename: menogon, Ibsa, pregnyl, Organon.

Manufacturers: Drug manufacturer: Ibsa; Organon.

ISSN: 0000-9958 CODEN: JPKMAM Source Type: Journal Original language: English Document Type: Article