

Comparison of outcome of clomiphene citrate / human menopausal gonadotropin / cetorelix protocol and buserelin long protocol - a randomized study

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摘要

Abstract

This study evaluates the efficacy of a stimulation protocol with clomiphene citrate (CC)/human menopausal gonadotropin (hMG)/cetorelix and its effects on oocyte quality and endometrium. One hundred and twenty couples with male-factor infertility who were about to undergo their first intracytoplasmic sperm injection cycles were randomized into two groups. Sixty women were stimulated with the CC/hMG/cetorelix protocol (cetorelix group) and 60 received the buserelin long protocol (buserelin group). Fewer oocytes were recovered in the cetorelix group than in the buserelin group (mean $\pm$ standard deviation (SD): 11.1 $\pm$ 4.0 vs. 17.3 $\pm$ 5.8, $p < 0.001$); however, the percentages of metaphase II, metaphase I and germinal vesicle oocytes were similar between the two groups. Serum estradiol level was significantly lower in the cetorelix than in the buserelin group (mean $\pm$ SD: 2600.58 $\pm$ 1189.11 vs. 3293.46 $\pm$ 1221.49 pg/ml, $p = 0.006$), but the endometrial thickness was similar. The implantation rates (19.2% vs. 17.7%) and the pregnancy rates (41.7% vs. 40.0%) were similar between groups. The ampoules (mean $\pm$ SD: 18.9 $\pm$ 3.0 vs. 38.9 $\pm$ 12.2, $p < 0.001$) and injections (mean $\pm$ SD: 6.8 $\pm$ 1.1 vs. 15.7 $\pm$ 3.1, $p < 0.001$) of gonadotropin used were significantly lower in the cetorelix group than in the buserelin group. No patients in either group developed a premature luteinizing hormone surge. The present study found no statistically significant difference between the two treatment modalities with regard to pregnancy rates.