Study on the clinical efficacy and safety of combined growth hormone antagonist regimen in elderly patients with *in vitro* fertilization

Xiaoxiao Zhang, Min Zhang and Qun Lv  
Sichuan Academy of Medical Sciences & Sichuan Provincial People's Hospital, China

**Objective:** To observe the clinical efficacy and safety of combined growth hormone (GH) antagonist regimen in elderly patients receiving *in vitro* fertilization (IVF).

**Methods:** A total of 120 elderly patients receiving IVF assisted pregnancy were randomly divided into control group (n=60) and treatment group (n=60). Two groups of patients were treated with antagonistic regimen. The control group did not use GH whereas, treatment group received subcutaneous injection of once daily 4.5 U GH starting from 6th or 7th day after ovulation until the day of injection of human chorionic gonadotropin (hCG). The clinical pregnancy rate, number and days of gonadotropin-releasing hormone (Gn), number of oocytes retrieved and the incidence of adverse drug reactions were compared between the groups.

**Results:** The treatment group could significantly (P <0.05) reduce the total dose of Gn and the use of time increased the number of oocytes and improves the clinical pregnancy rate. The days of Gn use in the treatment group and the control group were 10.45±1.68 and 11.12±1.67, and the total dose of Gn was 2353.01±731.13 U and 2669.17±948.28 U, respectively. Furthermore, the number of oocytes retrieved was 7.10±2.59 and 4.93±3.22, the clinical pregnancy rates were 51.85% and 30.91%, respectively.

**Conclusions:** Growth hormone combined with antagonist treatment regimen for elderly patients with IVF assisted pregnancy is better than single antagonist treatment regimen.