Menotropins/triptorelin

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Ovarian hyperstimulation syndrome after inadvertent stimulation during *in vitro* fertilisation: case report

A 28-year-old woman developed severe ovarian hyperstimulation syndrome after inadvertent stimulation with menotropins and triptorelin during an *in vitro* fertilisation (IVF) procedure.

The woman, who had previously received hormonal therapy for amenorrhoea, underwent an IVF cycle using a gonadotropin releasing hormone long protocol. Downregulation with SC triptorelin [Decapeptyl] $0.1 \text{mg } 1 \times 1$ [sic] per day was initiated and, approximately 22 days later, she received 8 days of treatment with menotropins (three 75IU ampoules per day). She did not experience withdrawal bleeding, but this was considered normal due to her previous amenorrhoea. She received chorionic gonadotropin and, 34-35 hours later, her oocytes were collected. About 11 days after menotropins initiation, five oocytes were fertilised after IVF. On ovum pick-up day, her endometrium appeared pathologic, with fluid in the cavity and a thickness of 8mm. About 2 months after oocyte collection, one morulastage embryo was transferred back into her uterus. She received progesterone in oil and estradiol valerate until a negative pregnancy test 16 days later. About 13 days after her embryo transfer, she had a normal menstrual bleeding. Approximately 15 days later, she underwent a second IVF cycle and received SC triptorelin [Decapeptyl] $0.1 \text{mg } 1 \times 1 \text{ [sic]}$. Retrospectively, she was probably in her 1 + 5/7 pregnancy week after her last menstrual period. Approximately 15 days later, she underwent stimulation with 28 menotropins 75IU ampoules over a duration of approximately 9 days; an ultrasound on stimulation day 6 showed an abnormal endometrium that was 13mm in thickness, appeared to be filled with fluid and had an intracavitary homogenous structure of 7mm diameter. On ovum pick-up day, three oocytes were retrieved. She subsequently had a day 2 embryo transfer. At this time, she was probably in her 5 + 6/7 pregnancy week after her last menopausal period. About 10 days after her last menotropins she was hospitalised with severe hyperstimulation syndrome, with symptomatic ascites, moderate dyspnoea, abdominal pain. Her ovarian size was $70 \times 50 \times 90$ mm on the right side and $70 \times 80 \times 65$ mm on the left. She had an intact uterine gravity in 6 + 4/7 pregnancy week after her last menopausal period.

The woman received analgesia and forced diuresis; her symptoms started to decrease. She was discharged 7 days later. She subsequently had a normal pregnancy and the baby had so far developed normally.

Author comment: "The severe [ovarian hyperstimulation syndrome] may have been due to high [β-chorionic gonadotropin] titers in the serum of the pre-existing pregnancy."

Zech NH, et al. Development of severe ovarian hyperstimulation syndrome after inadvertent stimulation with a gonadotropin-releasing hormone agonist and human menopausal gonadotropin in a pre-existing early pregnancy. Fertility and Sterility 84: 1745, No. 6, Dec 2005 - Austria 80101327