Experience of in-vitro fertilization surrogacy in Finland

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Introduction:

In-vitro fertilization surrogacy (IVF-S) allows women without a functioning uterus or those with a severe medical disorder incompatible with pregnancy to have their own genetic offspring. In Finland, IVF-S treatments have been carried out at four clinics. After birth, the genetic parents adopt the child from the surrogate mother. We report our experience of all IVF-S arrangements carried out in Finland from 1991 to 2000.

Materials and methods:

A total of 16 couples completed 27 IVF surrogacy cycles. Two of the couples came from Sweden, one from Norway, and one from Denmark. The mean age of the commissioning mothers was 33 years (range 20–40 years). The indications for IVF surrogacy treatment were: congenital absence of uterus and vagina (5), hysterectomy because of obstetric complications (4), hysterectomy for severe uterine disease (3), uterine abnormality (3), and severe systemic lupus erythematosus (1). The commissioning couples arranged their surrogate mothers by themselves. One couple had two different surrogate mothers. All of them acted altruistically without commercial involvement.

In 11 cases the carrier was a close relative of the commissioning couple (sister 6, mother 3, husband's sister 1, cousin 1). The mean age of the surrogate mothers was 36 years (range 29–52 years). They had successfully delivered at least one child of their own (in mean 2.6 per woman). Both the genetic mothers and the gestational carriers were medically screened and counselled by an independent psychologist. The genetic mothers were stimulated according to a long ovarian stimulation protocol. In 15 cases, the embryos were transferred in a natural cycle and in 18 cases in a hormone replacement therapy cycle. After pituitary down-regulation, the surrogate mothers used oestradiol valerate, 4–6 mg/day, and vaginally administered natural progesterone, 600 mg/day, starting 2–3 days before embryo transfer (ET).

Results:
Two cycles were cancelled due to unresponsiveness of the ovaries. One couple received eight anonymously donated oocytes. An average of 13.1 oocytes (315/24) (range 1–30) were collected. The fertilization rate was 54.2% (175/323). The clinical pregnancy rate (PR)/ fresh ET was 53.3% (8/15). An average of 1.8 embryos were transferred at a time. The implantation rate was 33.3% (9/27). The clinical PR/ frozen–thawed embryos was 16.7% (3/18). The ongoing PR/genetic couple was 62.5% (10/16). Nine infants (7 singletons, one pair of twins) were born and two pregnancies are ongoing. One pregnancy ended in miscarriage. Caesarean section was carried out in five of eight labours (62.5%). The mean birth-weight of singleton infants was 3526 g (2270– 4650 g). The birth-weight of the twins was 2900 g and 2400 g.

In most cases the IVF-S arrangements worked well. As far as we know there were two cases of disagreement and unhappiness between the genetic couple and the surrogate. One of these surrogate mothers suffered from postpartum depression.

Conclusions:
According to our experience, the IVF-S treatments have mostly gone smoothly without any major problems. Proper assessment of the surrogacy arrangements, thorough patient preparation, and careful counselling throughout the pregnancy and after the birth of the child are vital parts of the process and enable a high success rate and a favourable outcome for the parties involved.