

Sharing of oocytes from infertile versus paid donors results in similar pregnancy and implantation rates

Addition of infertile donors to the recipient program would increase availability of donor eggs and reduce long waiting times. Furthermore, it may allow some patients (i.e., the donors) to have IVF services even though they do not have adequate finances. (Fertil Steril® 2004;81:703-4. ©2004 by American Society for Reproductive Medicine.)

There is a great need for donated oocytes despite relatively high fees paid to oocyte donors. There is a long waiting time for recipients in most IVF centers. The majority of IVF centers use paid donors. Of course siblings and relatives as volunteers are always welcomed (1). For many years at the Cooper Center for IVF, we have used infertile women in need of IVF as the source of donated oocytes (2, 3). In fact, initially our source of donated oocytes was exclusively from infertile women. Because of supply and demand problems we added paid donors in January 1997. This present study compares the pregnancy rates in recipients who received eggs donated by infertile women who shared half the egg pool vs. those recipients receiving eggs from paid donors (where the oocytes were shared between two recipients) to determine whether the selection of oocyte from infertile donors lowers the odds of successful pregnancy.

A retrospective review of clinical outcomes of all recipient cycles from January 1, 1997 to May 1, 2002 was performed. Cycles were not counted if, because of inadequate endometrial thickness or other factors, all fertilized oocytes were cryopreserved and embryo transfer (ET) deferred (4). An oocyte donor was treated with a luteal phase leuprolide acetate (LA)-gonadotropin stimulation regimen. On day 6 of LA administration the recipients began 2 mg of E₂ by mouth for 5 days, then 4 mg for 4 days, then 6 mg for another 5 days. If the endometrial thickness was ≥ 8 mm, and there was no homogeneous hyperechogenic pattern (4), P vaginal suppositories were initiated at a dosage of 200 mg twice daily along with 100 mg of P in oil given IM daily. The embryos were transferred at the day 3 stage on the fourth day of P administration. Assisted embryo hatching was used when deemed appropriate based on zona pellucida (ZP) thickness. The E₂ and P were continued through the first trimester. All pregnant patients had pelvic sonograms performed at 6, 8, and 12 weeks of gestation.

Recipients were given a list of donors with their characteristics and they knew if the donor was paid or an infertile donor sharing oocytes. For the infertile donors, the recipients were made aware of the nature of the fertility problem. If either the paid or shared donor previously had controlled ovarian hyperstimulation (COH) and oocyte retrieval, the recipients were made aware of the outcome. All donors had early follicular phase serum FSH levels and these were made known to the recipients. Donors with serum FSH levels ≥ 8 mIU/mL were further given a clomiphene challenge (CC) test as were donors ≥ 35 years of age; a level of ≥ 10 mIU/mL on day 10 would cause elimination. Women ≥ 40 years of age were excluded as donors. The mean ages for the paid donors was 30.0 ± 3.2 years vs. 31.3 ± 3.3 years for the infertile donors. The mean number of embryos formed by recipients receiving oocytes from paid donors was 8.0 ± 4.0 and was 7.0 ± 3.6 from those receiving embryos from infertile ones.

Robert Wood Johnson Medical School at Camden does not require institutional review board approval for a retrospective study. However, the policy of using infertile donors or paid donors was approved by the 12-member panel of the ethics committee at the Cooper Institute for Reproductive and Hormonal Disorders.

There were 182 fresh ET using eggs from paid donors (group 1) and 238 from infertile shared donors (group 2). The mean number of embryos transferred was 3.3 ± 1.5 for group 1 and 3.0 ± 1.3 for group 2 recipients. The clinical and delivered pregnancy rates per transfer for group 1 recipients were 56.6% (103/182) and 48.9% (89/182) vs. 55.0% (131/238) and 52.1% (124/238) for group 2 recipients ($P = \text{not significant [NS]}$). The implantation rates were 30.4% (181/595) for group 1 vs. 29.8% (215/721) for group 2 ($P = \text{NS}$).

Donated oocytes are at a premium. There are long waiting times for donated oocytes in many IVF centers. The use of donated oocytes from infertile donors who are also trying to conceive through IVF increases the availability of oocytes. At the same time this policy enables a woman to receive IVF services that they otherwise may not have been able to afford. The important question to the recipient is whether by expediting the process and choosing an infertile donor will she be sacrificing her chance of a successful pregnancy. These

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data provide the assurance that the outcome will be similar whether the source is an infertile donor or one who is financially compensated.

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