

Election to be a donor in a shared oocyte program

JH Check, J Choe, L Hoover, CL Hourani, DC Summers, KM Benfer

The University of Medicine/Dentistry of New Jersey, Robert Wood Johnson Medical School at Camden Cooper Hospital/University Medical Center Department of Obstetrics/Gynecology Division of Reproductive Endocrinology/Infertility, Camden, NJ USA

Reprint Requests to Jerome H. Check, M.D., 8002 E Greentree Commons, Marlton, NJ 08053. (609)751-5575

Abstract

A study was performed to evaluate the percentage of patients needing IVF-ET who would want to exchange half of their oocytes in exchange for almost all of their financial expenses. Overall 14.1% chose to be donors. Though their pregnancy rate was lower than recipients they had similar rates to non-donors. This method provides a mean for individuals without financial means to achieve pregnancies by IVF-ET.

Introduction

In vitro fertilization/embryo transfer IVF/ET, a widely used procedure throughout the world, is very expensive and is not usually covered by third party insurance agencies. Therefore, there are many childless couples who could easily conceive by IVF who are denied for financial reasons. Some choose natural cycle IVF but this has a lower pregnancy rate, and although less expensive, it still is too costly for many individuals(Cha et al., 1991). From the initiation of our IVF program we have tried to enable couples without the financial resources to undergo IVF-ET by sharing their oocytes. Recipients, in exchange for 50% of the donors eggs, would completely pay the \$1,450 retrieval and transfer fee, and provide the medication for controlled ovarian hyperstimulation which usually averages \$1,800.

The present study evaluated the percentage of couples choosing the option to be donors and to determine if they significantly reduced their success rate in so doing.

Materials/Methods

There were 100 consecutive IVF-ET cycles evaluated. The controlled ovarian hyperstimulation(COH) regimen used in most of the cases was the luteal phase leuprolide acetate (LA)-human menopausal gonadotropin (hMG)/SP regimen (Meldrum et al., 1989). A few of the cases were treated with follicular phase LA-hMG (flare technique)(Garcia et al., 1990) and some received ultrashort LA-hMG(Check et al., 1992).

Whenever there was a donor-recipient cycle, the recipients were treated with replacement estrogen (estradiol orally 2mg beginning on day 6 of the donor's leuprolide therapy with an increment of 2mg every 4 days up to 6mg). The estrogen was increased to 8mg when the donor

received hCG, and progesterone (P), 50 mg IM daily, was also started that day.

Endometrial biopsies in the late luteal phase were performed in the first cycle of all patients not conceiving. A sera hCG beta subunit level was obtained in the morning, and if negative, a biopsy was performed that evening. If slightly positive, the hCG would be repeated the next day, and if the levels were dropping, a biopsy would be performed that evening. The endometrial biopsies were all processed by Damon Clinical Laboratory, Trevoise, PA and were interpreted by their pathologists. A repeat endometrial biopsy was obtained in the second non-pregnancy cycle if the first out of phase; if this occurred, an additional 25 mg progesterone per day was given above that given the preceding cycle. The day of ovulation in the recipients used for calculation of the endometrial biopsies was assumed to be two days prior to embryo transfer. Pregnancy rates between the donors / recipients were recorded and compared.

The donors / recipients were advised that the oocytes would be equally divided as best as possible according to number and quality. The donors were advised that by donating half their oocytes, there would definitely be less possibility of having replacement of cryopreserved embryos on subsequent cycles, and possibly a reduced chance of conception related to replacing less embryos. Each recipient would be taken according to time of registering. She would be given a detailed description (both physical characteristics and schooling) and would have the right to accept this donor or pass her on to the next recipient, but she would now be next in line again. Identities were kept confidential.

Results

The study evaluated the decision to become a donor by 1000 consecutive patients. There were 126 women (12.6%) interested in becoming a donor from the beginning. An additional 15 patients elected to be a donor in subsequent cycles. However, 10 of the 15 made this decision by cycle 2 so that 89.4% wanted to be donors from the outset and 97% made their decision before their second IVF-ET cycle.

There were 106 patients(75%) who were oocyte donors in all cycles; 19 started out as donors(13%) but later wanted to keep all oocytes and 12(8.5%) became donors only after at least 1 cycle where all oocytes were kept by the donor. There were 3 donors (2.1%) who started as non-donors, became donors, then switched back and became non-donors, and finally, one woman (0.7%) was a donor for 2-cycles and then became a recipient because in both of her cycles the two different recipients did not have any fertilization of her oocytes nor did the donors.

Five of the 10 patients in cycle 2 chose to be donors, not for financial reasons, but because their oocytes did not fertilize they wanted to use the program as a test to see whether the problem was the sperm or the egg (Check et al., 1991). The clinical pregnancy rate/transfer for donors was 15.2% compared to our overall rate for non-donors of 15.8%. The pregnant rate for recipients was 25%.

Discussion

Our somewhat lower initial charges may have allowed more patients to try with their own oocytes than if they had to pay higher charges. However, higher charges may have precluded many recipients from participating. The patients were informed that we have a reasonably successful frozen embryo pregnancy rate (500 for frozen embryo transfer), and by sharing oocytes they will have to go through more COH cycles and more retrievals.

The reasonably good pregnancy rates in the donors versus other patients in our IVF program indicate that these patients are not severely reducing their success rates. Thus, a shared oocyte program enables patients to achieve pregnancies who, only for financial reasons, would have been previously denied, and at the same time help other couples with ovarian failure to also have babies.

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