

HIGH SUCCESS FOLLOWING CRYOPRESERVATION OF ALL EMBRYOS IN ASSISTED REPRODUCTIVE TECHNIQUES. PERSONAL EXPERIENCE AND REVIEW OF THE LITERATURE.



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Introduction:

Elective cryopreservation of all embryos in a cycle of Assisted Reproductive techniques have been proposed in a variety of instances such as: 1) prevention of ovarian hyperstimulation syndrome, 2) in patients planning to undergo cancer treatment such as chemo or radiotherapy, 3) in cases of poor endometrium characteristics (i.e.: deficient architecture, polyps) encountered at oocyte retrieval, 4) when mechanical difficulties prevent a smooth embryo transfer and 5) for legal reasons (some countries that obliged a quarantine of embryos prior to oocyte donation).

Materials and Methods:

Thirteen patients that underwent oocyte retrieval were not transferred at the fresh cycle due to various factors such as prevention of ovarian hyperstimulation syndrome (n:9) and presence of endometrial polyps greater than 2 cms in length (n:4) detected only at the time of oocyte retrieval. The age of the patients was 32 +/- 2.3 years, and the duration of infertility 4.9 +/- 2.2 years. The number of oocytes collected was 28 +/- 12 and the serum estradiol at the time of hCG (5,000 Units) administration 4,654 +/- 1,498 pg/ml. Ovarian stimulation was carried out with recombinant FSH (Puregon, Organon) and a GnRH antagonist (Orgalutran, Organon). Embryo cryopreservation was performed at the pronuclear or 2-4 cell stage. In subsequent cycles (3 to 12 months later) each patient underwent a frozen embryo transfer cycle under hormone replacement therapy with micronized estradiol (Primogyn, Schering AG) and progesterone in oil. All patients received from one to three frozen embryo attempts.

Results:

The cumulative clinical pregnancy rate per patient following 1-3 frozen embryo transfers was 77% (10 pregnancies). No cases of severe Ovarian hyperstimulation syndrome were observed. The following table compares our current results with similar studies reported in the literature.

Author	Year	Cases	CPR (%)
Pattison	94	10	40
Bergh	95	28	54
Tintinen	95	20	33
Frederick	95	36	58
Shaker	96	13	38
Queenan	97	15	67
Song	98	14	64
Ferraretti	99	58	48
Asch	03	13	77

Conclusions:

The results of this study demonstrate that deferring the embryo transfer in cases in which is not appropriate according to the clinical presentation of the case is not detrimental for the reproductive potential of the patient. Furthermore, pregnancy rates are excellent with subsequent transfer of cryopreserved-thawed embryos when clinical conditions are at their best.