EXPOSURE OF HUMAN OOCYTES TO ENDOMETRIOMA FLUID DOES NOT ALTER FERTILIZATION OR EARLY EMBRYO DEVELOPMENT


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INFRACTOPLASMIC SPERM INJECTION INCREASED FERTILIZATION AND GOOD-QUALITY EMBRYO FORMATION IN PATIENTS WITH NON-MALE INDICATIONS FOR IN VITRO FERTILIZATION. A PROSPECTIVE RANDOMIZED STUDY.

Sara C. Lacanna, M.D., Firouz Khamsi, M.D., Yalcin Yavas, Ph.D., Sylvie Roberge, Ph.D., Jeremy C. Wong, M.D., Bok Lan The, M.D., Maxine Endman, Ph.D.

Fertility Sterility Institute, Division of Endocrinology and Metabolism, Toronto General Hospital, University Health Network, Department of Medicine, University of Toronto, Toronto, Ontario, Canada.

Objective: To compare the fertilization rate and formation of good-quality embryos from conventional IVF and ICSI in patients with non-male factor infertility.

Design: Prospective controlled study.

Setting: Infertility clinic.

Patients: Thirty-five patients with infertility of non-male factor.

Interventions: Retrieved sibling oocytes were randomly assigned to conventional IVF or ICSI. Of sibling oocytes assigned to ICSI, only metaphase II oocytes were injected with sperm. Subsequent analysis of data showed equal oocytes distribution between the two groups as judged by oocyte morphology.

Main Outcome Measures: Fertilization rate and formation of good-quality embryos per retrieved oocyte.

Results: Per retrieved oocyte, ICSI resulted in better (*P=0.002) fertilization rate in comparison to conventional IVF (71.3% vs 57.2% vs 107/187). Per retrieved oocyte, ICSI also resulted in better (*P=0.001) formation of good-quality embryos at 48 hours post-retrieval in comparison to conventional IVF (64.4% vs 22/2/188 vs 47.8% vs 88/187). In 4 patients with no fertilization and 5 patients with low fertilization (10 to 33%) with conventional IVF insemination, ICSI also resulted in a fairly normal fertilization (50 to 100%) of the sibling oocytes.

Conclusions: In IVF patients with infertility of non-male factor, subjecting some sibling oocytes to ICSI increases fertilization rate and formation of good-quality embryos per retrieved oocyte. It also avoids the problem of total fertilization failure in almost all cases. In a controlled study we have shown that the process of ICSI does not alter good quality embryo formation from fertilized oocytes (83% for IVF versus 91% for ICSI).