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FP14

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

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Extensive endometriosis causes mechanical disturbance in the pelvis leading to obstructive type of infertility. However, minimal or mild endometriosis is suspected to cause infertility possibly through a humoral agent. Previous studies reported presence of a factor in the serum of patients with endometriosis, which reduced fertilization and early embryo formation in a rat IVF model. In the present article, we report a comparison of oocytes exposed to endometrioma fluid and those not exposed (controls) in the context of a human IVF setting. We have been in the practice of aspirating oocytes into prewarmed 60 ml syringes containing culture medium. We had previously shown that this technique reduces the length of oocyte retrieval without comprimising success. In 14 women undergoing oocyte retrieval, we inadvertently entered an endometrioma. This resulted in retrieved oocytes that were either exposed or not exposed to endometrioma fluid. In contrast to previous reports, we found no difference in fertilization or early embryo development between the 2 groups. The fertilization rate for oocytes exposed to endometrioma was 60% versus 56% for controls. Good quality embryo formation rate for oocytes exposed to endometrioma was 45% versus 46% for controls. We conclude that minimal or mild endometriosis may be a coincidental finding rather than a causative agent in infertility.

FP15

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

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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=0.005) fertilization rate in comparison to conventional IVF (71.3%; 134/188 vs 57.2%; 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%; 121/188 vs 47.1%; 88/187). In 4 patients with no fertilization and 7 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 affect good quality embryo formation from fertilized oocytes (82% for IVF versus 91% for ICSI).

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