

IVF versus ICSI in sibling oocytes from patients with polycystic ovarian syndrome: a randomized controlled trial

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摘要

Abstract

BACKGROUND: This study compares the fertilization rate and embryonic development of oocytes randomly inseminated by conventional IVF or ICSI in patients with polycystic ovarian syndrome (PCOS) and normozoospermic semen during IVF cycles. **METHODS:** Sibling oocytes were randomized to be inseminated either by ICSI or IVF. Fertilization rate (two pronuclei/COC), day 2 embryonic morphology and rate of development were assessed. **RESULTS:** A total of 1089 cumulus-oocyte complexes (COC) were collected in 60 cycles (mean \pm -SD, 18.2 \pm 7.2). Totals of 541 and 548 COC were inseminated by IVF and ICSI respectively, with a significantly higher fertilization rate in the ICSI group (ICSI versus IVF, 72.3 \pm 15.5 versus 44.8 \pm 25.1%). No fertilization failure occurred in the group of oocytes inseminated by ICSI, whereas the COC in nine patients (15%) inseminated by IVF had complete fertilization failure. The day 2 embryonic morphology and rate of development were not different regardless of the insemination method. **CONCLUSIONS:** Our results suggested that another randomized controlled study, randomizing patients instead of sibling oocytes, should be undertaken to compare the pregnancy rate per started cycle and to see whether ICSI should be performed on all, or at least on a portion of, oocytes for patients with PCOS undergoing IVF cycles.