

VISUALIZATION OF THE MEIOTIC SPINDLE OF OOCYTES IN THE IVF LABORATORY

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Abstract Body

VISUALIZATION OF THE MEIOTIC SPINDLE OF OOCYTES IN THE IVF LABORATORY Intracytoplasmic sperm injection (ICSI) is performed with the first polar body at 6 or 12 o'clock, and the injection is performed at 3 or 9 o'clock. This positioning aims to direct the path of the injection pipette at a distance from the presumed metaphase II spindle position. In recent years it has been possible to observe the birefringent meiotic spindle with the help of polarized light. Sometimes the meiotic spindle may be very out of phase with the polar body and for this reason it could be damage during the ICS. The aim of this study was to compare the outcome of the use of spindle visualization during the ICSI (SL-ICSI) versus the conventional ICSI (ICSI). Prospective and observational study. A total of 531 ICSI cycles of patients. The oocytes (n=4318) were separated depending on the fertilization technique that was used either SL-ICSI (n=2673) or ICSI (n=1645). When the SL-ICSI was performed the spindle position relative to the first polar. Blastocyst formation, normal fecundation and abnormal fecundation were recorded. The study was performed using Fisher's Exact test. Differences were considered significant at $P < 0.05$. It was observed that using SL-ICSI there is an increase statistically significant in the blastocyst rate (52.4% to 59.1%) and normal fertilization (77% to 82.1%), while the abnormal fertilization was reduced (11.1% to 4.8%). The results of this study show that the visualization of the meiotic spindle can be used to have better information of the meiotic spindle as the position that helps to diminish a possible damage on mitotic spindle increasing the rates of normal fertilization and blastocyst.