9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Key Lectures

K-33
Sperm selection using motile sperm organelle morphology examination (MSOME) in ART

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The ultimate aim of any sperm selection method is to provide the best-quality sperm possible so as to maximize the outcome of whatever assisted reproductive technology (ART) procedures are to be undertaken. Gamete micromanipulation, such as intracytoplasmic sperm. injection (ICSI), is very useful for treating couples with compromised sperm parameters. An alternative method of sperm selection has been described; the spermatozoa are selected under high magnification (over 6000x) with sperm organelle morphology examination (MSOME) criteria and used for ICSI. This technique, named intracytoplasmic morphologically selected sperm injection (IMSI), has a theoretical potential to improve reproductive outcomes among couples undergoing assisted reproduction technology (ART).

According to the majority of studies, it is not recommended to use MSOME/IMSI routinely in the ART program. The couples with repeated implantation failures, patients with severe male factor infertility, sperm DNA damage, advanced male, and maternal ages are the populations who will have higher chances to conceive from this technique. It is also recommended that diagnostic morphological evaluation of semen samples with MSOME is done before ICSI/IMSI procedure. The effectiveness of IMSI is still controversial mainly due to differences in inclusion criteria, stimulation protocols, seminal and oocyte qualities, and many other confounding variables within the ART program. However, there is no doubt that the use of MSOME/IMSI techniques can be helpful for some infertile couples to have a baby.