

Gamete Alerts

Contemporary Use of ICSI and Epigenetic Risks to Future Generations

The review article contemplates the use of intracytoplasmic sperm injection (ICSI) in current assisted reproductive technology (ART) in case of failed fertilization. It enumerates the literature concerning the possible epigenetic disorders in children born after ART. Novel studies have reported possible health consequences to offspring like the increase risk of epigenetic disorders, congenital malformations, chromosomal alterations, and subfertility in babies born following ICSI, compared to naturally conceived children. However, it is still to be clarified that to what extent these data are associated with the cause of infertility or the use of ICSI technique. This review overviews the epigenetic mechanisms and possible imprinting alterations following the use of ART, in particular ICSI. It also submits the sperm contribution to embryo epigenetic regulation and the risks of in vitro culture conditions on epigenetic dysregulation.

Contemporary Use of ICSI and Epigenetic Risks to Future Generations(Journal of Clinical medicine)

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Review Article

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