

## ROLE OF MITOCHONDRIAL DNA SCORE IN THE SELECTION OF EMBRYOS FOR EUPLOID SET

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### **Abstract Body**

**AIM:** To evaluate mitochondrial DNA count as a potential biomarker in determining the implantation outcome.

**METHODS:** This study was done in CRAFT hospital & Research Center, Kerala, India, from January 2016 to July 2017. The study included patients who underwent IVF- ICSI with indications of recurrent implantation failure, recurrent pregnancy loss and those women having more than 6 blastocysts on D5 were included in the study. All of them had euploid single embryo transfer after pre implantation genetic screening (PGS). Mitochondrial DNA (mtDNA) count assessment was done on NGS platform for all the embryos. MtDNA count less than 0.07 on NGS was set as the threshold in our study. Euploid embryos with mtDNA score less than this threshold were selected for transfer & implantation outcome was studied.

**RESULTS:** Euploid embryos with mtDNA (0.07) on NGS were found to have a higher implantation potential. However a few euploid embryos failed to implant.

**CONCLUSION:** In our study, euploid embryos with less mtDNA score had higher implantation potential. Clinical pregnancy rate of these embryos in our study was found to be 68.5%, with very less abortion rates.