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Poster Presentations

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Which sperm preparation technique separate the best quality sperm?

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Background: of all infertility cases, approximately 40-50% is due to male factor in fertility. One of the known causes of male infertility is associated with low sperm parameters and high level DNA fragmentation. Sperm preparation techniques in intracytoplasmic sperm injection procedures is used in order to obtain the best-quality sperm.

Objective: The present study was designed to compare Microfluidic, and Swim-up methods for sperm preparation and the effect of these methods on semen parameters and sperm DNA Integrity in

Infertile men.

Materials and Methods: In this study, semen samples were collected from 25 infertile men. Each sample was divided into 2 groups, one part for preparing by Microfluidic method and the other one was prepared by swim up method. Then sperm count, viability, motility and morphology were assessed according to World Health Organization 2010. DNA damage were assessed by Sperm DNA Fragmentation assay.

Results: Sperm parameters including viability, motility, and morphology in the Microfluidic method were significantly improved and sperm DNA damage were significantly lower than the swim up method ($p < 0.05$).

Conclusion: Our results showed that Microfluidic method improved the sperm parameters and decreased sperm DNA damage, and it can be an effective way to improve sperm quality of infertile male compared to conventional preparation methods.

Key words: *Microfluidic, Swim up, DNA fragmentation.*