

HUMAN PAPILLOMAVIRUS IN IRANIAN INFERTILE MEN WAS ASSOCIATED WITH SPERM DNA FRAGMENTATION

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Abstract

The present article aims to elucidate the possible association between Human Papillomavirus (HPV) infection and semen parameters in infertile Iranian men

This cross-sectional study included semen samples from 140 male partners in couples seeking fertility evaluation. Standard semen analysis was performed. In addition, sperm DNA fragmentation index (DFI) was assessed. Nested PCR and INNO-LiPA assay were used to identify HPV-DNA sequences in semen samples and determine HPV genotype, respectively

The results demonstrated that HPV DNA was detected in 18/140 (12.85%) of the semen samples (10% high-risk (HR), 2.14% low-risk (LR) genotypes, and one sample was excluded). According to our result, the presence of HPV DNA in the semen samples was associated with increased in DFI values ($P = 0.03$).

Conclusion: This study showed that the presence of HPV in semen samples was associated with higher sperm DNA fragmentation index. These results point to the importance of careful screening for the presence of HPV in semen samples from infertile men. It should also be noted that more studies are required to have a more comprehensive view of the relationship between HPV infection and semen quality.

Keywords: Male infertility, Human papillomavirus, Sperm DNA Fragmentation, DFI