

Comparison frequency of human papilloma viruses in fertile and infertile women

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Introduction:

15% of people are infertile in industrialized nations, and it has become a top priority for many health organizations and governments. The reasons of infertility are categorized in three different groups: genetic, anatomic and environmental factors¹. Infection is one of the environmental reasons that can cause infertility in female. human papillomaviruses (HPVs) can cause different malignancies in asymptomatic women^{2,3}. The role of HPVs in causing infertility in male and female is controversy.

Objectives:

In this study, we compared the frequency of HPVs in fertile and infertile women.

Materials and Methods:

In this case control study from 2012-2015, both cervical and vaginal smears were prepared from infertile and fertile women in Mashhad, Iran. Informed written consent was obtained from them. None of the participants had autoimmune or immune deficiency diseases. HPVs were detected by polymerase chain reaction. All data were analyzed by SPSS v.16 and p value <0.05 considered as statistical significant.

Results:

115 infertile women with the mean age of 30.5 ± 5.6 years and 60 fertile women with the mean age of 32.6 ± 9.3 years were included ($p=0.07$). Among women who were infertile (cases), 121 (52.6%) of 230 smears were positive, while in control group (who were fertile), 50 (41.7%) of 120 smears were positive ($p=0.052$). The differences between infertile and fertile groups in history of previous abortion was statistically significant ($p=0.002$). The frequency of HPV had no significant difference between primary and secondary infertility ($p>0.05$).

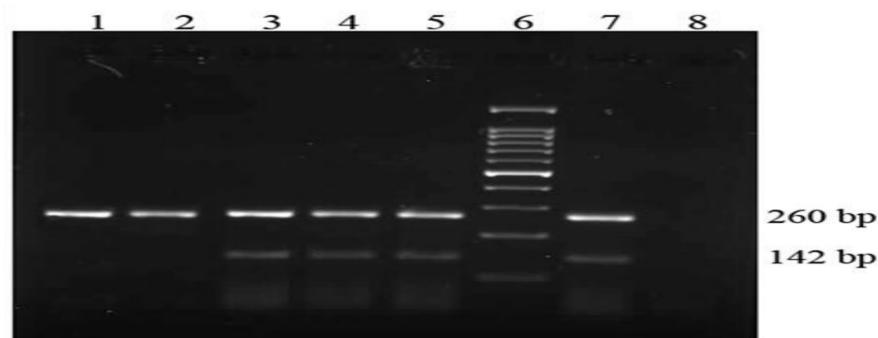


Figure 2. Electrophoresis of β -globin and HPV PCR products.

Conclusion:

the frequency of HPV had no statistically significant association among infertile and fertile women. However, the prevalence of HPV in both groups of participants was high.

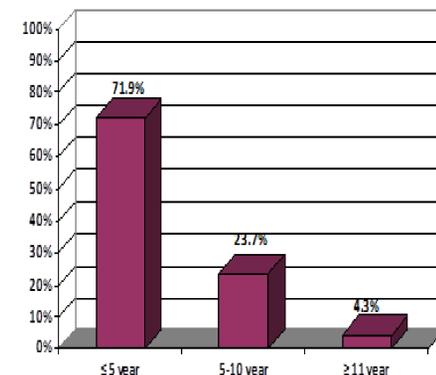


Figure 1. The distribution of the duration of infertility in the infertile women

References:

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- 3- Faridi R, Zahra A, Khan K, Idrees M. Oncogenic potential of Human Papillomavirus (HPV) and its relation with cervical cancer. *Virology Journal*. 2011;8(1):1.