CONCURRENCE AND CONCORDANCE OF HUMAN PAPILLOMAVIRUS IN OROGENITAL INFECTION

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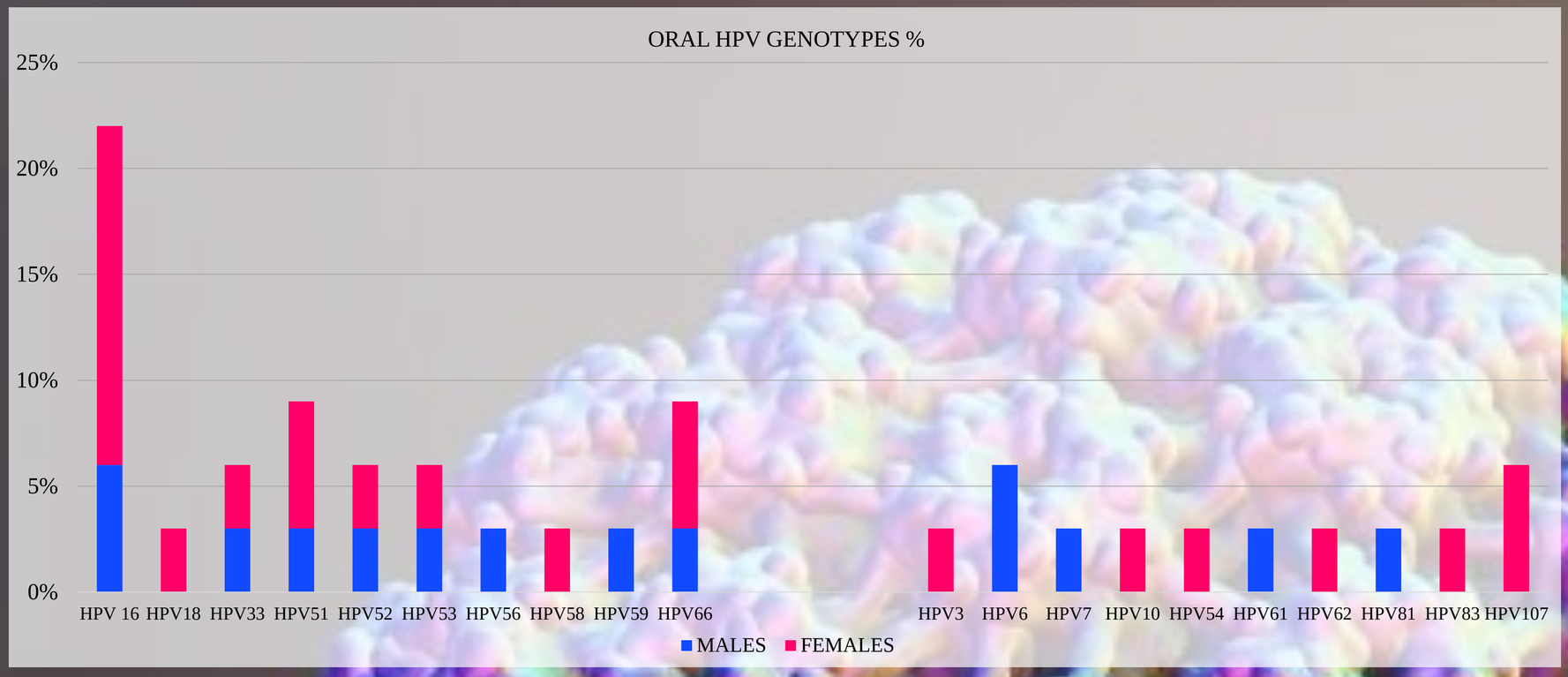
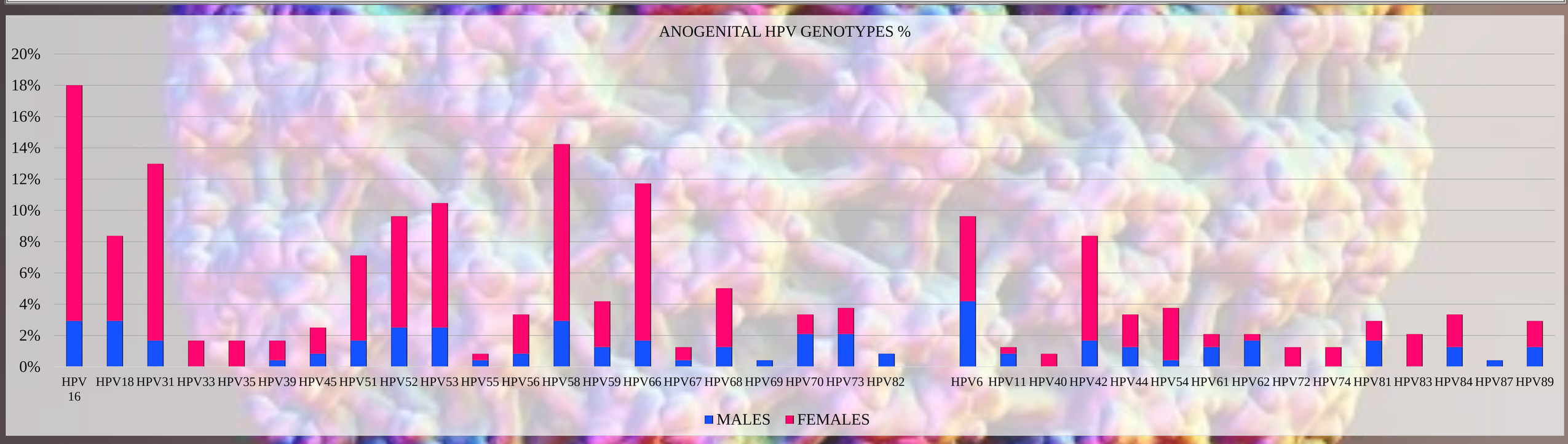
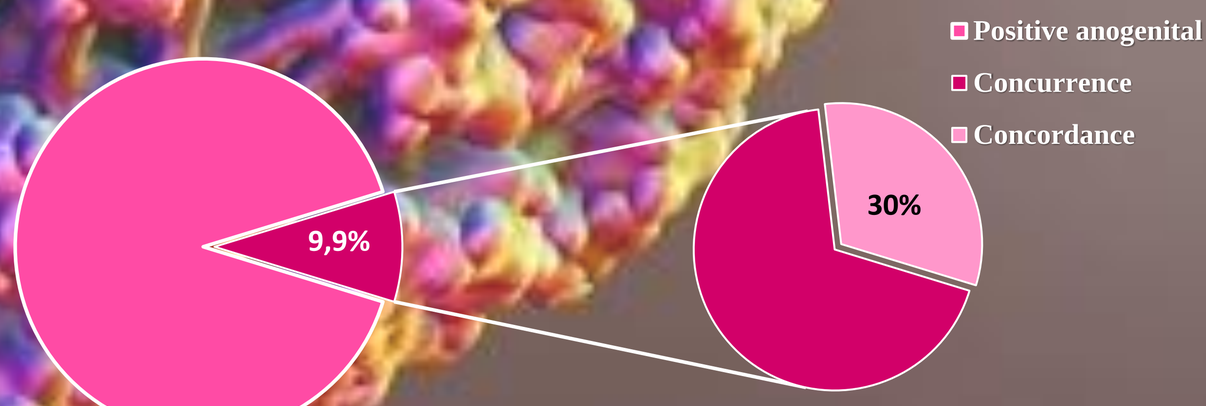
Introduction According to the World Health Organization (*WHO*), Human Papillomavirus (*HPV*) is the most widespread sexually transmitted pathogen worldwide. High-risk genotypes (HR-HPV) can induce the development of malignancies, including cervical, penile, and head and neck cancers (*HNSCC*). Data regarding simultaneous orogenital infection and genotype concordance in the same person or between partners are scarce and inconsistent. To elucidate this still controversial point, this preliminary study analyzed the rates of orogenital concurrent and type-specific concordant HPV infections in a cohort of patients who have been potentially exposed to the virus (i.e., positive partner or anogenital infection).



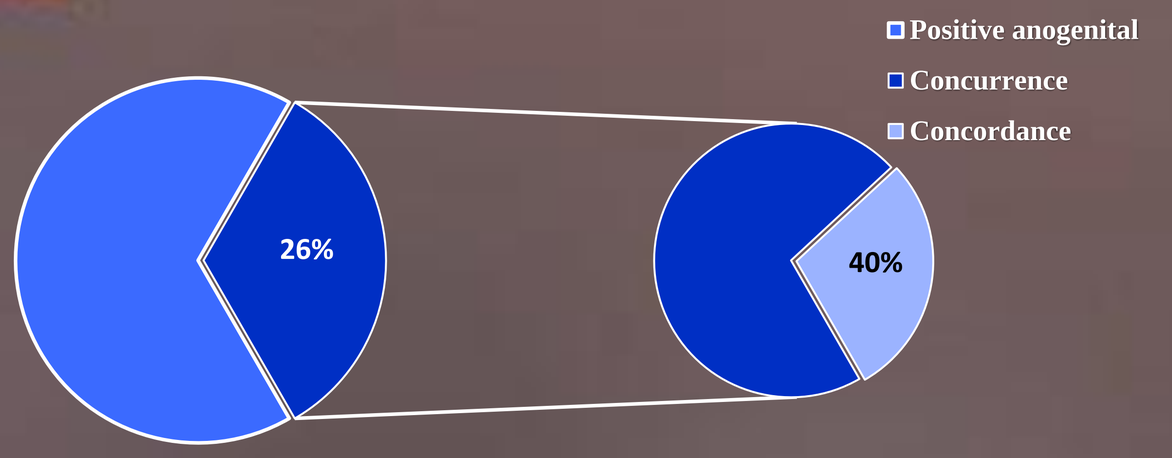
Materials and methods The study involved 280 female and 52 male patients tested for anogenital and oral HPV infection at the Microbiology and Virology Unit (Polyclinic Hospital "P. Giaccone" University of Palermo, Italy). Oral scopes were collected from both sexes; women provided cervical scrapings, while genital, urethral, and/or anal swabs were collected from men. HPV detection and genotyping were carried out using the INNO-LiPA HPV Genotyping Extra II (Fujirebio) kit.

Results HPV was detected in 9.3% and 72% of oral and anogenital samples. Both sample groups were mainly positive for HR-HPV, with a rate of 64.5% for oral and 86.6% for anogenital sites. The prevalence of multiple infections was 6.5% in the oral sites and 35.6% in the anogenital area. HPV16 was the most common genotype (22.6% and 18%). Among women, oral and cervical infection rates were 7.1% and 71.8%, respectively, while men showed a positivity percentage of 21.2% in the oral mucosa and 73.1% in the anogenital region. Concurrent infections were detected in 9.9% of anogenital-positive women and 26% of anogenital-positive men, while type-specific concordance was found in 30% and 40% of cases, respectively.





FEMALE CONCURRENCE AND CONCORDANCE



MALE CONCURRENCE AND CONCORDANCE

Conclusions The oral HPV prevalence found in this study as well as the figures regarding concurrent infections were higher than those described by Sonawane Deshmukh et al. Such differences are probably imputable to the probable exposure to the virus of the analysed group. As concerns type-specific concordance, our values are added to the scarce literature data, which report rates of approximately 30% for both sexes. These preliminary results suggest expanding the study to broader patient groups to allow a better understanding of the relationship between oral and genital infection.

References
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