

Title: HPV AND *M. GENITALIUM* PREVALENCE IN WOMEN FROM BAHIA, BRAZIL.

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Abstract:

Cervical cancer is the second most common cancer among women worldwide. Human Papillomavirus (HPV) is considered necessary but not the unique or sufficient factor for development of the disease, which depends on factors such as lifestyle habits of the host and the presence of other microorganisms to the establishment of cervical lesion. In this context, *Mycoplasma genitalium* is a potential co-factor that can contribute to the establishment of HPV infection and the development of cancer because of its participation in genital infections. Thus, the aim of this study was to evaluate the prevalence of HPV and *M. genitalium* in cervical swab samples, and the possible relation of the detection findings with the clinical observation in patients. Cervical swab samples were collected from 140 women attending the Public Health System of Vitória da Conquista - Brazil. Each woman have signed the Term of Consent agreeing with the study. Of these women, 70 showed cervical lesions (CIN I, CIN II and CIN III) (case group) and 70 did not (control group). Samples were submitted to DNA extraction and submitted to conventional PCR and Real-Time PCR (qPCR) for detection of HPV and *M. genitalium* respectively. Of the samples tested, 9.3% (13/140) were qPCR-positive for *M. genitalium* and 54.3% (76/140) were PCR-positive for HPV. Co-infection was observed in 2.9% (4/140) of the samples tested. In samples of the control group, 15.7% (11/70) were qPCR-positive for *M. genitalium*, while in the case group only 2.9% (2/70). Interestingly, positive women for *M. genitalium* showed a lower risk to present cervical lesions ($p = 0.02$). Our findings suggest that infection with *M. genitalium* may not be related to the development of cervical lesions caused by HPV. Other studies are necessary to clarify this findings.

Keys Words: HPV, *Mycoplasma genitalium*, Cervical Cancer.

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