

TITLE: WOMEN HUMAN PAPILOMAVIRUS IN DOURADOS HEALTH REGION: MOLECULAR DIAGNOSIS AND CERVICAL CELLULAR ALTERATIONS.

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The Human Papillomavirus (HPV) is a small, icosahedral, non-enveloped virus, *Papillomaviridae* family. Its genome is conserved and composed of a double-stranded circular DNA. HPV is commonly detected from clinical samples by consensus PCR methods and the genotypes are classified into types, sub-types and molecular variants by sequencing the viral capsid structural L1 gene. The cellular transformation capacity of HPV classifies it epidemiologically into three main groups according to their oncogenic risk: low risk, high risk and undetermined. The molecular diagnostic methods and the conserved region of the L1 gene and the primer set PGMY09/11 is most commonly used in the classification of HPV infections. The study objective was determined the HPV infection in women between 18 and 65 years of age diagnosed with cervical cytological alterations in the basic health network of the macro-region of Dourados-MS, Brazil, the cellular alterations were visualized in the colpocitopathological examination (Papanicolau) and classified according to with the Bethesda system. In the diagnosis of HPV infection, the Polymerase Chain Reaction (PCR) technique was used in the extraction of DNA using the Wizard® Genomic DNA Purification Kit (Promega) and the PGMY09/PGMY11 oligonucleotide primers. In addition, a human beta globin marker sequence was used as a control of the reaction, the fragments were observed on GelRed® stained 1.5% (p.v.) gel stained in ultraviolet light. Of the 317 women participating in the study, 18 were positive for HPV without presenting cytologic abnormalities, 6 presented alterations but were negative for HPV and only 6 were positive and presented cytological alteration. The Pap smear is the standard diagnostic technique for pre-cancer cell changes that is reliable in preventing severe cases and affordable. High-risk oncology HPV infection is necessary, but not sufficient for the development of cervical cancer. However, molecular diagnosis of HPV infection can provide an early diagnosis of infection, directing the follow-up of patients before the onset of the lesions and avoiding the transmission of HPV, and has been recommended as a prevention tool, however, cost / effectiveness within the financing reality of the Unified Health System.

Keywords: colpocitopathology, Molecular diagnosis, HPV.

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