CHARACTERIZATION OF *TP*53 POLYMORPHISMS IN WOMEN WITH CERVICAL LESIONS

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The p53 protein plays several intracellular functions including induction of transcription of genes involved in apoptosis, DNA repair and cell cycle control. HPV infection can interfere in such processes since the oncoprotein E6 can bind p53 causing its degradation, which favors the uncontrolled proliferation of cells with damaged genetic material. The p53 protein is encoded by *TP53* gene that exhibits two polymorphisms located at intron 3 (p53PIN3), characterized by a 16-bp insertion, and exon 4 (codon 72), a G/C transition with substitution of arginine for proline in the protein. Our aim was to evaluate the importance of these polymorphisms for the development of cervical lesions using a group of 105 patients submitted to colposcopy at HUPE/UERJ for having previously presented any alterations in the Pap smear test. Genomic DNA was extracted from cervical material and used as template to amplify the region of interest by PCR. The genotypes corresponding to p53PIN3 was identified by direct analysis of amplicons by electrophoresis on a polyacrilamide gel. The PCR-*Bst*UI RFLP was used to analyze the codon 72 polymorphism. The population is in agreement with Hardy Weinberg equilibrium regarding to both polymorphisms. Appropriate analysis showed that there is no significant difference in the genotypic distribution between subgroups formed according to lesion grade (HSIL or LSIL) and HPV status (HPV+ or HPV-). Supported by UERJ and FAPERJ.