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P0478 Genetic distribution of high and low-risk HPV in women in reproductive period

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Background: HPV genotyping is used for risk determination of women with elevated potential for developing of cervical intraepithelial neoplasia (CIN) and cervical cancer, as well as for long term assessment of the efficacy of HPV vaccines. There is area-specific HPV types distribution in different geographical areas. This work is a retrospective study on the prevalence and genetic distribution of main high and low-risk HPV types in our region.

Materials/methods: A total of 310 non repetitive cervical samples in a period of one year were enrolled in this study. The samples were from out-patients on age between 16 and 50 years from Skopje and 5 large cities in our country. The DNA extraction was performed with QIAamp DNA Mini Kit, Qiagene. Seegene Anyplex™ II HPV 28 Detection Assay (Seegene) was used for HPV detection and typisation on CFX96 Real-time PCR System (Bio-Rad). The test simultaneously detects 19 high- (hr) and 9 low-risk (lr) HPVs using DPO™ and melting curve analysis (TOCE™) technology.

Results: Our data revealed that 30% (93/310) of patients were positive for HPV DNA, the most frequently in the age group between 26-35 years. 42% (39/91) of the patients had single high risk HPV genotype, most dominantly type 16 and 31, followed by HPV 51 and 53; 16% had single low risk HPV type. The other patients were with co-infection with multiple HPV genotypes, most frequently: HPV 16 combined with low risk HPV – 15 cases, HPV 66 combined with HPV 73, 82 or 6/11 – 9 cases and HPV 53 combined with 52 or 6/11 – 9 cases.

Conclusions: This retrospective report of HPV genotypes in our country mainly correlates with the published data for this area. HPV vaccination is introduced in our ciuntry since 2009. However, the current vaccination against HPV 16 and 18 doesn't protect the population from other frequently detected HPV types. Implementing the novel laboratory data is necessary for creating revised national strategies for the health population.