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DIFFERENCES IN HPV GENOTYPES DISTRIBUTION AMONG YOUNG WOMEN IN TWO BIGGEST CROATIAN COUNTIES

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Introduction: The aim of this study was to compare the prevalence of high-risk HPV (hrHPV) infection between young women from two biggest Croatian counties: the City of Zagreb (CZ) and the Split-Dalmatia County (SDC), considering severity of cervical lesions and distribution of the most important hrHPV types.

Methods: The study included young women (< 30 years), who were on their gynecologist's request tested on hrHPV infection with molecular Cobas 4800 HPV Test. Liquid based cytology (LBC) were performed from hrHPV-positive cervical samples. The cytology was reported using Bethesda system, and Linear Array was used for further HPV genotype determination of 37 low and high-risk genotypes.

Results: During the research period, a total of 158 hrHPV-positive cervical samples collected from Pap positive young women from both counties were detected. HPV16 was detected in 20 and HPV18 in 13 out of 72 samples collected in CZ, while in SDC significant difference in prevalence of HPV 16 and HPV18 infection was observed with 37 HPV16 and only six HPV18 genotypes detected out of 86 samples tested ($p<0.05$). HPV 31 was detected in 15/72 and in 16/86 in CZ and SDC, respectively ($p>0.05$), and statistically significant difference was not observed for HPV33, 45, 52 and 58 as well. HPV 51 infection was significantly more prevalent among young women in CZ than in SDS ($p<0.05$). HPV coinfection with two or more HPV types was detected in 118 (74.7 %) samples with similar distribution of hrHPV monoinfection in both counties. LBC detected ASCUS in 60, LSIL in 77 and HSIL in 21 cervical samples without observed statistically significant differences between counties.

Conclusions: The observed differences in hrHPV genotypes distribution among adolescent and young women with positive cervical cytology in two Croatian counties reflects different prevalence of HPV genotypes in those regions and required further studies.