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**P-04: GENITAL HUMAN PAPILLOMAVIRUS INFECTION AND DISTRIBUTION OF DIFFERENT HPV GENOTYPES IN WOMEN FROM ZAGREB REGION, CROATIA**

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**Background:** Persistent infection with high risk HPV (HR HPV) genotypes is recognised as primary risk for development of cervical cancer and its precursor lesions.

**Objectives:** The aim of this study was to determine the prevalence of HR HPV infection in women from Zagreb region and to evaluate the distribution of different HPV genotypes according to patients' age and grade of cytological abnormality.

**Materials and Methods:** From November 2005 to November 2007 a total of 7,445 cervical samples from cytologically selected women were received and tested for 13 HR HPV genotypes by AM-PLICOR HPV Test (Roche Molecular Systems). Randomly selected 140 cervical samples tested positive were further analyzed with Linear Array HPV Genotyping test (Roche Molecular Systems).

**Results:** Overall prevalence of HR HPV was 35.88%. Prevalence of HR HPV was significantly higher in the group of women aged 30 years and younger (47.40%) compared to women older than 30 (25.25%) as well as in women with high-grade squamous intraepithelial lesions (HSIL) (73.01%) compared to women with milder cytological abnormalities (37.11%) ( $p < 0.01$ ). The most prevalent type was HPV 16 (24.64%) followed by HPV types 51, 31, 18, 58 and 52 with prevalence of 14.69%, 11.37%, 8.06%, 7.58% and 7.11% respectively. Multiple infections were more frequent in women younger than 30 (72.73%) than in women aged 30 years and more (48.57%) ( $p < 0.01$ ). There was no significant difference noticed in the number of multiple infections between women with milder cytological abnormalities (50%) and those with HSIL (34.04%) ( $p > 0.05$ ). HPV 16 was most frequently found type in HSIL samples.

**Conclusions:** As expected, HR HPV infection is more prevalent in younger women and women with higher grade of cytological abnormality. Due to the fact that previous studies on HPV genotypes in Croatian women were not looking for HR HPV type 51, this is the first report revealing type 51 as the second most common one. Therefore, HPV positive women in Croatia should be closely monitored, besides other common types, for HR HPV type 51 as well.