

CORRELATION BETWEEN FREQUENCY OF LOW- AND HIGH-RISK HPV
GENOTYPES AND SEVERITY OF CERVICAL INTRAEPITHELIAL NEOPLASIA
IN WOMEN FROM EASTERN CROATIA

Papic, S.¹; Glavaš-Obrovac, Lj.¹; Mihaljevic, I.¹

¹Department of Nuclear Medicine, Radiation Protection and Pathophysiology,
Clinical Hospital Osijek, J. Huttlera 4, 31000 Osijek, Croatia

Introduction and objectives: HPV infection can induce disorders like condyloma accuminata, cervical precancerous lesions and cervical cancer. We have attempted to determine correlation between frequency of low-risk-(LR) and high-risk-(HR) HPV genotypes with different grades of CIN and condyloma accuminata in 336 women using PCR-ELISA method. **Results:** HPV was detected in 136 (40.47%) specimens. Frequency of HPV genotypes was compared with Pearson's chi²-test or by Fisher exact test ($p < 0.05$). No statistically significant difference was observed between frequency of LR- and HR-HPV types in CIN-1, -2, -3 and condyloma accuminata, even though results indicate that HPV frequency growth follows severity of CINs. Results were subsequently reorganized in two groups (women over and under 30 years of age) and analyzed. The frequency of LR ($\chi^2 = 5.481$, $p = 0.019$, OR = 2.19(95%CI 1.08-4.63)) and HR-HPV ($\chi^2 = 4.710$, $p = 0.030$, OR = 1.73(95%CI 1.02-2.94)) was significantly more frequent in women under 30, as expected. However, HR-HPV genotypes were found to be more prevalent in CIN I group of younger women ($\chi^2 = 4.454$, $p = 0.035$, OR = 1.97(95%CI 1.00-3.96)). **Conclusions:** Our results indicate similar influence of LR- and HR-HPV types in development of CINs and condyloma accuminata. High incidence of HR-HPV types in CIN-I among young women argues in favor of HPV genotyping as a primary screening technique.

Key words: LR-HPV, HR-HPV, CIN, Croatia