

EPIDEMIOLOGY AND IMPORTANCE OF PROGNOSIS OF HUMAN PAPILLOMA VIRUS INFECTIONS

In a prospective clinical epidemiological study, the prevalence of low and high-risk HPV infections was examined in patients with positive colposcopic and/or cytological findings. Using the Hybrid Capture Technique among the 3480 patients in the study, we could detect HPV infection in 1222 cases (35.1%). Single prevalence of LR and HR infection, and the combination of the two were found in 91 cases (2.6%) and 1072 cases (30.8%), and 59 patients (1.7%), respectively. The median age of women with HR-HPV infection was 29.00 years, while the carriers of LR-HPV infection were 26.5 years of median age. The likelihood of high-risk HPV infection was higher compared to the low-risk one ($p < 0.001$), independently of age. We could also confirm the fact in the literature that both HR- and LR-HPV prevalence decreased by age. Statistically significant decrease in prevalence was noted in patients over 34 and 44 years of age in HR-HPV infections ($p < 0.001$). At the same time, however, high incidence of HR-HPV infection was also found among the elderly (19% and 8%, respectively). A decrease in prevalence came earlier in LR-HPV infections (after 25 and 34 years of age) but HPV-infection persisting into old age could be registered in a negligible number of cases. Analyzing the follow-up and HPV-clearance data of the 433 patients found positive for HR-HPV, we could see that virus clearance was rarer in the older age group, but the differences in monthly clearance-rates were not significant as far as the cytological findings and the patients' age were considered.

Studying the prognostics role of HPV in cervical cancer, in the 47 patients in the sample with operable cervical carcinoma (mean age 41.1 [21-59] years) the primary tumour and lymph nodes of the pelvis were used to perform HPV-typing via PCR after radical hysterectomy. Studying the patients' history further, early recidivation and short survival were found in 4 patients. In the lymph node preparations, the presence of HPV-18 coinciding with the primary tumour was found in each of the 4 cases, but, histologically, metastasis could only be detected in one patient. Based on the above, it might be hypothesized that HPV-specific nucleic acids act as sensitive indicators of metastasis development.

We evaluated the HCT I. HPV-specificity (widely used in clinical practice) in 570 cervical samples applying PCR (MY09-My11)-RFPL technique. The control technique confirmed the HCT results in cases of single infection (15 and 102 samples positive for LR-HPV and HR-HPV). At the same time, however, in double positive samples by HCT we failed to detect HR-HPV using PCR-RFLP in one case only. Based on our investigations, the type specificity of HCT was found to be 99.2%. Summing up our observations we can conclude that the HCT test is an easy and safe method to use in a secondary screening programme to highlight the population at high risk.