EVALUATION OF 16,18,45 HPV DNA PROBE – COMPARISON WITH CERVICAL CYTOLOGY AND FOLLOW-UP

Danijela Vrdoljak-Mozetič[1], Vanja Kaliterna[2], Snježana Štemberger-Papić[1], Damjana Verša-Ostojić[1], Renato Rešetar[1], Maja Krašević[3], Alemka Brnčić-Fischer[1], Herman Haller[1]

[1]*University Hospital Centre Rijeka, Rijeka, Croatia*

[2]*Educational Public Health Institute of Split and Dalmatia County, Split, Croatia*

[3]*School of medicine, University of Rijeka, Rijeka, Croatia*

Objective: Comparison of 16, 18, 45 HPV DNA probe results with cervical cytology findings and evaluation according to follow-up cytology or/and histology findings.

Materials and Methods: 16,18,45 HPV DNA probe was done as an additional test using the Hybrid capture 2 test kit (*Digene*, USA) in previously high risk HPV DNA positive patients. Conventional cervical cytology samples were taken shortly prior or at the same time as HPV test, while histology diagnoses were done on biopsy, LLETZ or conisation samples. Follow up period was 6 to 12 months.

Results: Out of 224 high risk HPV positive samples, 113 (50,4%) were 16, 18, 45 HPV positive and 111 (49,6%) were negative. Cytology findings were: 2 unknown, 31 negative, and 191 positive (57 ASCUS, 20 ASC-H, 64 LSIL, 50 HSIL+). Positive 16, 18, 45 HPV test was found in 14 (45%) patients with negative cytology, 22 (39%) with ASCUS, 14 (70%) with ASC-H, 31 (49%) with LSIL, 30 (60%) with HSIL+ cytology. Cytology follow-up was available in 57, and histology in 31 patients. Positive follow-up cytology at level of ASCUS was found in 23 (88%), and at level of ASC-H or HSIL+ in 15 (58%) patients with positive 16, 18, 45 HPV test (N=26). Positive follow-up cytology at level of ASCUS was found in 27 (87%) and at level of ASC-H or HSIL+ in 8 (26%) patients with negative 16, 18, 45 HPV test (N=31). Positive histology (CIN2+) was found in 20 (95%) positive 16, 18, 45 HPV (N=21) test and in 7 (70%) negative 16, 18, 45 HPV test (N=10). Negative, ASCUS, LSIL initial cytology (N=46) had HSIL+ follow up cytology or high grade histology in 9 (43%) cases of positive 16, 18, 45 HPV test (N=21), and in 4 (16%) cases of negative 16, 18, 45 HPV test (N=25). Out of the five carcinomas found, one was 16, 18, 45 HPV negative.

Conclusion: A higher percent of high grade initial and follow-up cervical cytology and histologicaly confirmed high grade cervical lesions showed positive 16, 18, 45 HPV test. Additional tests and longer follow-up should be applied to achieve more precise evaluation of this probe and its possible clinical application.