DIAGNOSTICS AND PREINVASIVE DISEASE

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HIGH-RISK HPV E6/E7 MESSENGER RNA TESTING VERSUS HPV DNA TESTING IN WOMEN WITH SQUAMOUS CELL ABNORMALITIES OF THE UTERINE CERVIX

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Aims

The study is performed in order to compare the results of two HPV screening methods: High-risk HPV E6/E7 mRNA and HPV DNA.

Method

Comparative prospective study, conducted in the period for April 2016 to March 2017 at the University Clinics for Gynecology and Obstetrics and Radiotherapy and Oncology in Skopje and Institute of Public Health of Republic of Macedonia of 98 sexually active women, age groups of 20 to 60 years, with squamous cell abnormalities on the cervical cytology. In all 98 women were done: HPV DNA testing, High-risk HPV E6/E7 mRNA testing and colposcopy and directed biopsy with endocervical curettage for histopathological analysis.

Results

Histopathologically, there were: 36.7% non-neoplastic lesions, 20.4% LGSIL cases, 29.6% HGSIL cases and 13.3% invasive squamous cell carcinomas. HPV DNA was found 78.6% of the cases; E6 and E7 transcripts were found in 58.2%. The rates of detection of HPV DNA and E6 and E7 transcripts were 83.3% and 22.2% for cases with non-neoplastic finding; 65.0% and 45.0% for cases with LGSIL; 75.9% and 93.1% for cases with HGSIL and 92.3% and 100% for cases with invasive squamous cell carcinoma. High-risk HPV E6/E7 mRNA testing showed a higher sensitivity than the HPV DNA testing (79.0% and 75.8%), higher specificity (77.8% and 16.7%) and a higher positive predictive value for HGSIL (93.1% and 75.9%) and invasive squamous cell carcinoma (100% and 92.3%).

Conclusion

High-risk HPV E6/E7 mRNA testing could be more powerful then HPV DNA testing for screening and investigation of HGSIL and invasive squamous cell carcinoma.