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Title: HPV test as stand-alone follow-up test after conization for CIN2+; a national retrospective study

Introduction: The aim was to investigate the feasibility of high-risk human Papillomavirus(HPV) test as stand-alone follow-up test in women treated for cervical intraepithelial neoplasia 2 or worse(CIN2+).

Material and methods: Retrospectively women with histologically verified CIN2+, who had a conization performed between January 1st 2013 and December 31st 2013, were included. Test results were obtained from Patobank for a 3 years follow-up period.

Results: 4364 women had conization performed in 2013, of which 240 (5.5%) developed recurrent dysplasia in the follow-up period. The 240 cases were divided into 198/2231 cases without free margins (8.9%) and 42/2133 cases with free margins (2.0%).

Post-conization follow-up of the cases without free margins showed HPV+ and/or cytology+ (defined as “Atypical Squamous Cells – cannot exclude High Grade Squamous Intraepithelial Lesions” or worse) vs. HPV+ alone in 37.6% and 32.1%, and for the cases with free margins 26.8% and 23.2%.

Using margin status and HPV test as follow-up test the sensitivity, specificity, positive and negative predictive values were 96.7%, 39.5%, 8.5% and 99.5% - and for combined testing (margin status, HPV and cytology) 97.9%, 37.7%, 8.4% and 99.7%, respectively.

Only 1 case with recurrent severe disease (CIN3) was missed in the 2133 cases with free margins, with both HPV- and cytology- in follow-up.

Discussion and conclusions: Using margin status and HPV test as post-conization follow-up resulted in a marginally lower NPV but no increase in missed cases with recurrent severe disease in follow up. HPV-test as stand-alone follow-up test seems to be non-inferior to combined testing.