

Joint Event

Hematology, Immunology & Traditional Medicine

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p16/Ki-67 dual staining and HPV molecular testing in detecting high grade squamous neoplasia in abnormal cervical cytology - institutional experience

Sangeeta Mantoo

Singapore General Hospital, Singapore

Human papilloma virus (HPV) testing is being used to triage cervical smears with borderline squamous abnormalities such as atypical cells of undetermined significance (ASCUS) or low grade squamous intraepithelial lesion (LSIL) for colposcopy. We also know that many patients with ASCUS and LSIL have an underlying HPV infection of high risk subtype (HR-HPV) without accompanying high grade squamous intraepithelial lesion (HSIL) on cytology. Use of p16/Ki-67 dual immunocytochemical stain in this scenario could potentially help avoid colposcopy when the dual stain is truly negative. Testing this novel marker in our local patient population of abnormal cervical smears was our intention through this pilot study. We selected over 100 liquid based ThinPrep cervical smear preparations of abnormal cervical cytology specimens with ASCUS and above, that had a subsequent or corresponding cervical biopsy that was a histologic reference standard. The residual material in the ThinPrep vial for each case was used for p16/Ki-67 dual staining using the patented CINTec PLUS Kit, and was also sent for HPV testing, including HR-HPV testing. The sensitivity of detecting HSIL using the dual stain was found to be 93.8% while the specificity was 76.3% compared with HPV testing which was 87.5% and 21.1% respectively. p16/Ki-67 dual stain was more sensitive and specific than HPV testing in determining the presence of HSIL and above on histology. It could potentially help women avoid unnecessary colposcopies.

Notes: