Expression of major histocompatibility class II antigens by Langerhans' cells in cervical intraepithelial neoplasia.

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Abstract

Cervical biopsy samples from 67 patients who had various grades of cervical intraepithelial neoplasia (CIN) or who showed evidence, in the form of koilocytosis, of human papillomavirus (HPV) infection of the uterine cervix, and from 10 women with normal cervices were examined. Cryostat sections from the biopsy samples were stained using monoclonal antibodies to T6, a Langerhans' cell marker, and to major histocompatibility complex (MHC) class II antigens (HLA-DP, DQ, and DR). Epithelial Langerhans' cells were reduced in number and showed changed morphology and distribution in koilocytic lesions and in all grades of CIN (p less than 0.01) except CIN I. HLA-DR expression by Langerhans' cells was significantly increased in koilocytic lesions and in CIN grades I and II (p less than 0.05); HLA-DQ expression was significantly increased in all grades of CIN (p less than 0.05) with the increase being most pronounced in CIN I (p less than 0.01). Columnar epithelium expressed MHC class II antigens in all samples tested and squamous epithelium in four of 29 cases of CIN III. These findings support the view that there is a localised disturbance of immune function in both neoplastic cervical epithelium and that infected with papillomavirus.

Clin Pathol 1988;**41**:253-259 doi:10.1136/jcp.41.3.253