
P-25; RELATION OF THE PATTERN OF P16INK4A EXPRESSION TO THE GRADE OF CERVICAL INTRAEPITHELIAL NEOPLASIA

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Background: The purpose of our study was to determine whether the picture of immunohistochemical expression of p16INK4a is related to the grade of cervical intraepithelial neoplasia (CIN) and HPV status.

Materials and Methods: 44 women with histologically confirmed CIN (mean age 31.1 ± 6.1): 18 patients with CIN 1, 14 with CIN 2, 12 with CIN 3 and 12 women with benign cervical lesions such as hyperkeratosis and glandular papillary metaplasia (mean age 32.4 ± 6.0) were accepted for a present study. Of 44 patients with CIN, 28 were treated with LEEP, 16 were followed with regular Pap smears and colposcopic exams. Thirty-two biopsy specimens: two with benign glandular papillary metaplasia, 13 with CIN 1, 10 with CIN 2 and 7 with CIN 3 were stained using p16INK4a mouse monoclonal antibodies (Abcam plc., Cambridge, UK) according to the instructions of the manufacturer. The staining pattern was diffuse full-thickness, diffuse basal, focal or negative.

Results: Immunohistochemical staining for p16INK4a was focal in 3 CIN 1 (23%), 3 CIN 2 (30%) and 1 CIN 3 (14.3%). The staining pattern was diffuse basal in 4 CIN 2 (40%); diffuse full-thickness in 3 CIN 2 (30%) and 6 CIN 3 (85.7%). Both cases with benign metaplasia were negative for p16INK4a expression. Diffuse basal staining for p16INK4a was associated with CIN 2 ($p < 0.01$); diffuse full-thickness staining was associated with CIN 3 ($p < 0.001$). All samples positive for p16INK4a had histological signs of HPV infection.

Conclusions: The pattern of immunohistochemical staining for p16INK4a is related to the grade of CIN and evolves from focal to diffuse full-thickness staining with CIN progression.