

## THE P16<sup>INK4a</sup> PROTEIN: A CYTOLOGICAL MARKER FOR DETECTING HIGH GRADE INTRA-EPITHELIAL NEOPLASIA OF THE UTERINE CERVIX

Christine Bergeron

Laboratoire Pasteur-Cerba, Cergy Pontoise Cedex 9, France

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The identification of a small percentage of high grade cervical intraepithelial neoplasia (HGCIN) among patients with a diagnosis of atypical squamous cells of undetermined significance (ASC-US) and low grade squamous intraepithelial lesion (LSIL) is one of the difficulties in cytology based cervical cancer screening.

p16<sup>INK4a</sup> is a surrogate marker for the initiation of HPV mediated cervical carcinogenesis. This article describes the detection of the protein p16<sup>INK4a</sup> by immunocytochemistry coupled with the use of a nuclear score to differentiate abnormal basal cells from metaplastic or atrophic cells.

The results of a pilot series of 210 liquid based cytology (LBC) specimens of which 108 were considered normal, 52 with a diagnosis of LSIL and 50 with a diagnosis of high grade SIL are described. The second series includes 137 LBC specimens with an ASC-US diagnosis and 88 with a LSIL diagnosis with a histological correlation.

The overall sensitivity for the diagnosis of HGCIN using for the labeled squamous cells a nuclear score superior to 2 was 96% and the specificity was 83%. The sensitivity in the ASC-US was 95% and the specificity was 84%, in the LSIL group 100% and 81%, respectively. These data suggest to study a large series of LBC smears with a diagnosis of ASC-US and LSIL to confirm its efficacy of predicting the presence of an HGCIN.

### Bibliography

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