The criteria for prognostic monitoring of cervical neoplasia

44. Screening and Prevention of Gynaecological Cancer

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Objective

The prevalence, diversity of pathological conditions and potential risk of malignant transformation of the cervical epithelium determine the high significance of prognostic criteria for the development of cervical intraepithelial neoplasia (CIN). The aim of the study was to increase the effectiveness of the diagnosis of patients with CIN I by improving and implementing an algorithm for diagnostic molecular-biological factors that were associated with neoplastic transformation of the cervical epithelium.

Study design

The patients were grouped into the main clinical group (women with CIN I) (n = 60). The control group included 36 healthy women who applied for contraception. Monoclonal antibodies to Ki-67, CD34 and monoclonal antibodies against the anti-apoptotic protein bcl-2 were used to investigate markers of proliferation and apoptosis. The manifestations of endothelial dysfunction were evaluated by quantitative indicators of desquamated endothelial cells (DEC) by the method of Hlacloyec, the rate of VE-cadherin and vascular-endothelial growth factor (VEGF) in the serum were determined by quantitative determination, by the method of immunoassay.

Results

It was justified causes and predictors of criteria of risk factors for CIN I, which increased when CD34 expression is present in the stroma (β = 0,518; $p<0.001$), with an increase of biomarkers of endothelial dysfunction: DEC (β = 0,430; $p<0.001$), VEGF (β = 0.271; p = 0,002), VE – cadherin (β = 0.157; p = 0.019).

Conclusions

As a diagnostic criterion for CIN I, an extensive examination should be conducted using immunohistochemical studies of the marker of neoangiogenesis (CD34). The identification of the risk of progression of CIN shows the use of a test laboratory system to obtain indicators of endothelial dysfunction (DEC, VEGF and VE-cadherin), which contributes to a more complete establishment of the biological nature of pathological changes in cervical epithelium.