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TITLE

DETERMINATION OF THE PROTEINS SURVIVIN AND SMAC LEVEL IN DIFFERENT TYPES OF ENDOMETRIAL HYPERPLASIA

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ABSTRACT

Text: Survivin is one of the inhibitors of apoptosis. Survivin is synthesized in most common malignant and benign tumors and promotes resistance to anticancerous agents. SMAC is the natural inhibitor of Survivin.

Objective: The purpose of this research was to characterize apoptosis in endometrial hyperplasia without atypia and with atypia on the basis of enzyme-linked immunosorbent assays (ELISA) of the level of proteins Survivin and SMAC expression in the cells of the endometrium.

Methods: The analysis of biopsy samples of the endometrium by ELISA for determination of the level of Survivin and SMAC proteins expression was done by the diagnostic kit "Peptosurvim". The main group consisted of 100 women (aged 40-50) with endometrial hyperplasia. The control group consisted of 60 patients (aged 35-48) without endometrial hyperplasia. The main group was divided into 3 subgroups: the first- 33 patients with simple endometrial hyperplasia, the second – 34 patients with complex endometrial hyperplasia, the third- 33 patients with atypical endometrial hyperplasia.

Results: It was revealed, that level of expression Survivin increased only in the cases of atypical endometrial hyperplasia. This fact indicates severe suppression of apoptosis in patients with atypical endometrial hyperplasia. The level of SMAC protein did not differ among the subgroups of patients with different types of endometrial hyperplasia/

Conclusion: The level of Survivin increases 2 times in the case of endometrial hyperplasia with atypia compared to hyperplasia without atypia. Thus, this protein can be used in early diagnosis of atypical hyperplasia

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