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**METHODS OF EARLY DIAGNOSTIC OF ADENOMYOSIS**

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**Introduction.** Adenomyosis is a condition in which the inner lining of the uterus (the endometrium) breaks through the muscle wall of the uterus (the myometrium). In recent years, significant progress has been made in the study of proliferative processes with the use of immunohistochemical techniques and 3D ultrasound. To date, there is a need to create complex, including morphological, criteria for predicting the progression of endometriosis. Immunohistochemical study of indicators with 3D ultrasound will allow to estimate the degree of activity of infiltrative endometriosis.

**Aim.** Improving the diagnosis of adenomyosis by studying the parameters of immunohistochemical study and 3D ultrasound.

**Materials and methods.** The study involved 61 women, who underwent hysteroscopic surgery, aged 27 to 53. The first study group included 16 patients with grade I – II adenomyosis. Group II comparisons - consisted of 18 patients with adenomyosis in combination with polyp and endometrial hyperplasia. Group III mapping - included 17 cases of hyperplastic endometrial processes. Group IV is a control group consisting of 10 patients with a diagnosis of infertility I. After standard clinical laboratory examination, the second stage was a hysteroscopic surgery, during which patients in the II and III study groups were first removed with polyps or endometrial hyperplasia, and then doing endometrial biopsy with underlying part of the myometrium polyp or hyperplasia. Before surgery, a 3D ultrasound of the pelvic organs was performed. The diagnosis of adenomyosis and uterine fibroids was verified histologically.

**Results.** Expression of Ki-67 antigen was positive in nuclei of epithelial cells of glands of foci of adenomyosis and, to a lesser extent, of cells of cytogenic stroma. Higher values of expression were noted in the epithelium of glands of superficially located heterotopias - at adenomyosis of I-II degrees, in comparison with other studied groups. In materials I (21,74 ± 0,05) and II (20,04 ± 0,05) of the studied groups positive expression of vascular endothelial growth factor was detected in membranes of epitheliocytes of glands of foci of adenomyosis and basal layer of endometrium. In women with adenomyosis with ultrasound, the spherical shape of the uterus is registered in 96% of cases; myometrial striation - in 82%; myometrical cysts - in 28%; myometrial nodes - in 14%.

**Conclusion.** Evidence of increased expression of Ki-67 proliferation protein and intensification of the neovascularization process in endometrial biopsies with underlying myometrium in adenomyosis and under conditions of combination of adenomyosis with hyperplastic processes, endometrial, be used as a diagnostic in detecting adenomyosis, including associated with hyperplastic endometrial processes. 3D ultrasound with the definition of uterine junctional zone is an effective method of noninvasive diagnosis of adenomyosis.