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## HISTOLOGICAL AND IMMUNOHISTOCHEMICAL EVALUATION OF LEIOMYOMA AND ENDOMETRIAL TISSUE IN PATIENTS WITH UTERINE LEIOMYOMA AND ENDOMETRIAL HYPERPLASIA

*The study was conducted as part of research “Development of new approaches to prediction, prevention and treatment of hormone-dependent diseases of the female reproductive system” (state registration number 0107U011888).*

**ABSTRACT. Background.** Uterine leiomyoma and endometrial hyperplasia are commonly found disorders because of quite similar pathogenic pathways associated with action of sex steroids such as estradiol and progesterone. The gold standard of treatment of combination of uterine leiomyoma and endometrial hyperplasia is myomectomy with further prescription of gestagens. **Objective.** Histological and immunohistochemical evaluation of leiomyoma and endometrial tissue in patients with uterine leiomyoma and endometrial hyperplasia. **Methods.** In this study histological and immunohistochemical analysis of leiomyoma and endometrium samples were conducted in 30 patients with uterine leiomyoma and endometrial hyperplasia. Further evaluation with transvaginal ultrasound endometrial biopsy was conducted in 6 and 12 months after surgery. **Results.** In women with combined endometrial hyperplasia and uterine leiomyoma there is an increased risk of myoma relapse (23.3%) and treatment failure of endometrial hyperplasia (36.7%) after traditional treatment with gestagens. Among 7 patients with leiomyoma recurrence there was persistence of endometrial hyperplasia what was associated with increased proliferation, angiogenesis and decreased apoptosis. **Conclusion.** During a comprehensive immunohistochemical study of endometrial biopsies and uterine leiomyoma in women with histologically verified uterine leiomyoma and endometrial hyperplasia common immunohistochemical features had been identified such as increased expression of Ki-67 and VEGF and bcl-2. It was proposed that traditional scheme using derivatives of progesterone should be avoided in such patients. In order to optimize treatment outcomes in women with such findings proposed treatment of choice should be drugs with severe suppressive action on proliferation, angiogenesis with simultaneous stimulating action on apoptosis. Drug of choice in such case should be GnRH agonist what should be assessed in future research.

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