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Key words: genital prolapse, recurrence, histology, vaginal mucosa, ligament of the uterus.

Received: 20.02.2014
Accepted: 22.03.2014

UDC 618.131/.138-007.43/.44-036.87-092-07-089-036.83

HISTOLOGICAL INVESTIGATION OF BIOPSY SPECIMENS OF THE VAGINAL MUCOSA AND UTERINE LIGAMENTS AMONG THE WOMEN WITH THE GENITAL PROLAPSE RECURRENCE

The study was performed as the part of research work “Developing new approaches to diagnosis, treatment and rehabilitation of medical assistance in gynecological pathology with the use of new and minimally invasive medical technologies” (state registration number 0112U002831).

ABSTRACT. Background. In most cases disorganization of connective tissue structures can be observed in the ligament apparatus of the uterus and cause a high risk of genital prolapse formation after a hysterectomy or prolapse recurrence after post-plastic surgery. These results are to be clarified while defining the relationship between the level of connective tissue structures disorganization and changes in the vaginal mucosa. **Objective.** To identify the peculiarities of the microscopic structure of fascial-ligamental genital apparatus and vaginal mucosa among the patients with genital prolapse recurrence. **Methods.** In the course of surgery, parts (fragments) of the vaginal mucosa and cardinal ligaments tissues from 60 patients with the genital prolapse recurrence (group R) and 30 patients without evidence of prolapse (group K) were taken for morphological studies. Collection of anatomical material - parts of the vaginal mucosa and ligaments - was conducted within the areas of medical intervention in gynecology during the surgery with the removal of uterus and vagina. **Results.** Analysis of histological structure of cardinal ligament showed that among the total number of patients 49 people (81,7%) demonstrated signs of edema and a destruction of connective tissue components of the ligament. In all women together with the violation in vaginal mucosa the abnormalities in the ligaments structure were observed. Identified changes were mostly prominent in the vascular component of the uterine ligaments. Thinning of the epithelial layer of vaginal mucosa among the women with genital prolapse recurrence has been defined as well as a significant reduction in the total number of vessels in the uterine ligaments. **Conclusion.** It has been revealed that the signs of atrophy of the epithelial layer of a vaginal mucosa are observed in 68,3%, while the edema of stromal component – in 80,0% of total cases with genital prolapse recurrence. The signs of connective tissue disorganization were revealed in 81,7% of uterine ligaments investigation. These histological peculiarities justify the usage of synthetic implants in cases with genital prolapse recurrence.

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Citation:

Banakhevych RM, Grytsenko PO. [Histological investigation of biopsy specimens of the vaginal mucosa and uterine ligaments among the women with the genital prolapse recurrence]. Morphologia. 2014;8(1):16-20. Ukrainian.

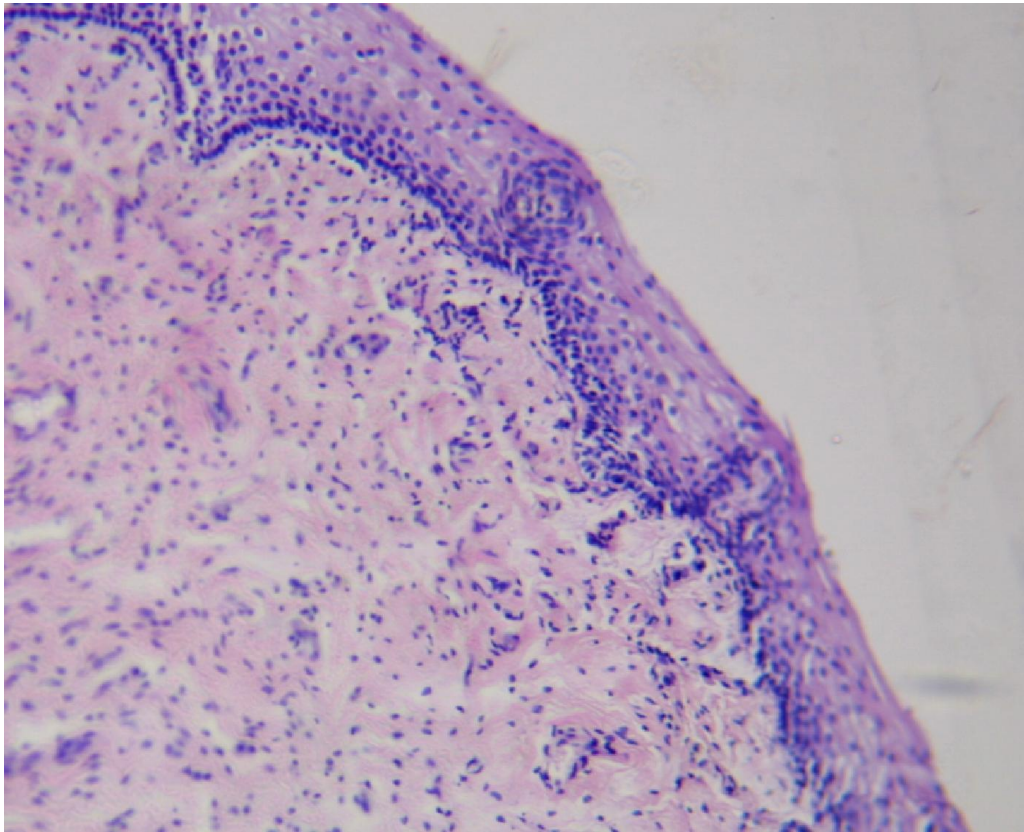


Fig.1. Histological structure of vaginal mucosa in patient with genital prolapse recurrence. Van Gieson's staining. $\times 100$.

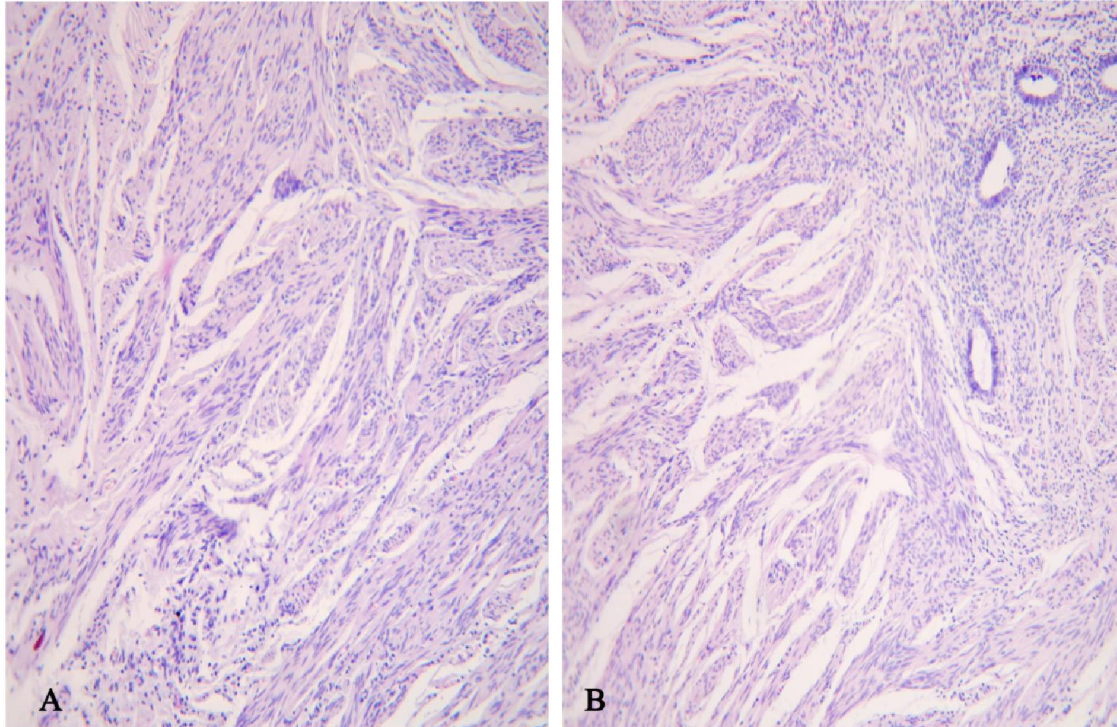


Fig.2. Histological structure of cardinal ligament. A – group K patient. B – group R patient. Van Gieson's staining. $\times 100$.

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