DIAGNOSTICS AND TREATMENT OF HYPERPLASTIC ENDOMETRIAL PROCESSES IN WOMEN IN THE MENOPAUSAL TRANSITION

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Abstract. His article discusses the problems of diagnosis of diffuse hyperplastic processes of the endometrium in women in the menopausal transition. Endometrial hyperplasia is a heterogeneous set of pathological processes, ranging from benign proliferation to monoclonal tissue proliferation. During the study, the most optimal criteria for the diagnosis of endometrial hyperplasia in women during the transition to menopause based on the use of a modern diagnostic complex (immunohistochemical and endoscopic technologies) were selected and formed. Endometrium is a hormone–sensitive, cyclically renewed tissue that reacts to the slightest changes in the hormonal status. In this connection, an attempt was made to analyze the prospects and feasibility of using immunohistochemical technologies in gynecological practice. The authors found that the study and analysis of the hormone — receptor status in individuals with endometrial hyperplasia in gynecological practice, consists of two points, first, the hormone-receptor status in endometrial hyperplasia is individual, and the degree of expression of highly productive or low-productive receptor complexes speaks the mechanism of development of receptor desynchronosis, and secondly, the hormone-receptor status determines the sensitivity of endometrial hyperplasia to hormonal therapy.

Аннотация. Рассмотрены проблемы диагностики диффузных гиперпластических процессов эндометрия у женщин в менопаузальный переход. Эндометриальная гиперплазия — гетерогенная совокупность патологических процессов, варьирующих, как от доброкачественных пролифераций, так и до моно克莱нального разрастания тканей. В ходе исследования были подобраны и сформированы наиболее оптимальные критерии диагностики эндометриальной гиперплазии у женщин в период перехода к менопаузе на основе применения современного диагностического комплекса (иммуногистохимических и эндоскопических технологий). Эндометрий представляет собой гормоноконтролируемую,
циклически обновляющуюся ткань, реагирующую на малейшие изменения гормонального статуса. В связи с чем предпринята попытка анализа перспективности и целесообразности использования иммуногистохимических технологий в гинекологической практике. Авторами установлено, что исследование и анализ гормон — рецепторного статуса у лиц с эндометриальной гиперплазией в гинекологической практике, заключается в двух моментах, во-первых, гормон—репторный статус при эндометриальной гиперплазии носит индивидуальный характер, а степень экспрессии высокопродуктивных или низкопродуктивных рецепторных комплексов говорит о механизме развития рецепторного десинхроноза, во-вторых, гормон—репторный статус определяет чувствительность эндометриальной гиперплазии к гормональной терапии.

**Keywords:** endometrial hyperplastic processes, diagnostics and optimization of treatment.

Ключевые слова: гиперпластические процессы эндометрия, оптимизация диагностики и лечения.

The urgency of the problem of endoscopic diagnosis of endometrial hyperplastic processes (EHP) in women in the premenopausal period [1, p. 160; 2, p. 40] is due to the fact that there is a steady tendency towards an increase in the incidence of this pathology, but there are no universal diagnostic verification methods known to date that would allow distinctive diagnosis of various forms endometrial hyperplastic process in the early stages, therefore, optimal pharmacotherapy and surgical treatment is carried out more In this pathology, it is possible to optimize the timely diagnosis and differential treatment of EHP [4, p. 687]. From the clinical point of view, there are practically no specific and pathognomonic symptoms for EHP, which determines the complexity of the differential diagnosis [4, p. 686].

Currently, hysteroscopy [5, p.125] is a well-known method for selecting the diagnosis of EHP, but still the criteria for judging the choice of endoscopic treatment of EHP are very imperfect, since they do not take into account a number of morphofunctional features, therefore the modernization of medical diagnostic measures patients with EHP is relevant [6, p. 138; 7, p. 16].

**Purpose**

Optimization of the diagnosis of endometrial hyperplastic processes in perimenopausal women based on the use of modern endoscopic, immunohistochemical technologies, as the creation of a promising and innovative method for improving immediate and long-term results.

**Materials and methods**

A comprehensive clinical, laboratory and instrumental examination of 82 women with verified diagnosis of HPE was performed in the gynecological department of the state health institution of the Republican Clinical Hospital №4, Saransk. Depending on the nature of the diagnostic measures, the patient was divided into 2 groups: the 1st group included 42 women, in whom the process of diagnosing EHP was performed using hysteroscopy; out of 42 women in 22 patients, the process of diagnosing EHP was performed using an immunohistochemically study of biopsy specimens; The 2nd (control) group consisted of 40 women, the survey of which was carried out according to standard methods. Patients of the main and control groups were identical, both according to the nature of the disease, anamnestic data and clinical and laboratory parameters. The research methodology included a thorough examination of the history, the main clinical research methods, gynecological examination, pelvic ultrasound, a colposcopy with a smear on cytology,
microbiological, histological and immunohistochemically studies. Statistical data processing was carried out using the program Statistica 6.0.

Results and discussion

In the main group of 42 women, a comprehensive comprehensive clinical-anamnestic, laboratory and instrumental examination were performed in 38 patients with EHP. The following clinical diagnoses of uterine fibroids were made in patients in the main group at admission to hospital in 16 (42,1%) women, endometrial hyperplasia — in 7 (18,4%), ovarian tumor — in 2 (5,2%), adenomyosis — in 6 (15,7%), menstrual DMK — in 3 (7,8%), cervical ectopia — detected in 2 patients (5.4%), cervical polyposis — in 1 (2,7%), contact bleeding was detected in 1 patient (2,7%).

According to the results of a hysteroscopic study, the state of the endometrium, the uterine cavity was completely different from the data obtained during the initial examination of patients with metrorrhagia. Endometrial hyperplasia was found in 8 (21%) women, endometrial polyps — in 6 (15,7%), atrophy endometrium — in 6 (15,7%), submucous node — in 6 (15,7%), intruterine synechia — in 5 (13.5%), adenomatosis — in 4 (10,5%), polyposis of the cervical canal — in 2 patients (5.26%) and a foreign body in the uterus — in 1 (2,64%) patient. Based on the obtained results, a fundamental role in the development of metrorrhagia in women belongs to the GGE and polyps in 24 (57,1%) women. The results of hysteroscopy were compared and analyzed together with the results of the histological examination. Thus, it was found that endometrial glandular hyperplasia was diagnosed in 45,4%, atypical hyperplasia in 18,7%, and endometrial polyposis in 14,8% of patients. Based on the results of hysteroscopy, there is a clear tendency that the most frequent localization of benign endometrial tumors is the posterior wall of the uterus and the mouth of the fallopian tubes (29,1% and 26,4%). During the processing of the research results, it was found that endometrial glandular and adenomatous neoplasms more often had a size of 0.4-1.8 cm, the size of glandular-fibrous polyps varied from 0.5 to 4.5 cm. The removal of small polyps was done by forceps through the surgical channel hysteroscope. With the final hysteroscopy against the background of hypomenstrual syndrome or pathological uterine bleeding in the uterus, a rough adhesive process was determined.

Histological endometrium is characterized as incomplete and not functioning with pronounced stromal fibrosis or areas of proliferation have been identified.

The expression of receptors for estrogen (ER) and progesterone (RP) was assessed using criteria W and IHH in 38 patients with the above forms of HPE — typical endometrial glandular hyperplasia (TGHE), atypical endometrial glandular hyperplasia (AEGH) and endometrial hyperplasia (EH).

During the processing of the correlation matrix, between the degree of receptor expression and age, in patients with EHP, there is no reliable and statistically important relationship. We found that a statistically significant change in the expression of receptors occurs in PE (t-criterion 0.618, with p = 0.512), and the expression level of progesterone receptors decreases by 2 times compared with AHGE and TGHE, coinciding with a low level of RE expression. When TGHE level of receptor severity is much higher. Thus, the expression of RP is on average 1.9 times higher than the expression of RE, both in typical and atypical glandular hyperplasia. Interpreting these features in some, it can be noted that, for example, in glandular-cystic hyperplasia, RP expression is often moderately pronounced. In AHGE, it is quite often manifested at the same time by hypoexpression or overexpression of the receptors.

The severity of active ER causes triggering of trigger mechanisms that indirectly affect RP synthesis processes, while the regulatory system for the formation of steroid receptors is directly
related to the initial levels of estrogen and progesterone in the blood. An increase in the expression of steroidal ER and RP in the endometrium reaches its peak in the proliferation phase, but already in the luteal phase of the cycle, the persistence of progesterone causes low-producing ensembles of ER and RP in the glands and the endometrial secretory transformation is also noted. Thus, the study and analysis of the hormone-receptor status in individuals with EHP before treatment in gynecological practice, consists of two points: first, the hormone-receptor status in EHP is strictly individual, and the expression level of highly productive or low-producing receptor ensembles tells about the mechanism for the development of disorders, and secondly, the hormone-receptor status determines the sensitivity of GGE to hormonal therapy.

Findings

1. Considering the results of the performed hysteroscopy, it was established that the most common cause of metrorrhagia in patients in the premenopausal period is GGE (52.6%)

2. The study of the histological and immunohistochemical profile of biopsy specimens makes it possible to clearly interpret the type of HPE in women in the premenopausal period, with glandular endometrial hyperplasia detected in 45.4% of patients, atypical hyperplasia in 18.7% and endometrial polyps in 14.8%.

References:

1. Cooper, N. A., & Clark, T. J. (2013). Ambulatory hysteroscopy. The obstetrician & gynaecologist, 15(3), 159-166. doi: 10.1111/tog.12039.

2. Jacobs, I., Gentry-Maharaj, A., Burnell, M., Manchanda, R., Singh, N., Sharma, A., ... & Brunell, C. (2011). Sensitivity of transvaginal ultrasound screening for endometrial cancer in postmenopausal women: a case-control study within the UKCTOCS cohort. The lancet oncology, 12(1), 38-48. doi:10.1016/S1470-2045(10)70268-0.

3. Abu Hashim, H., Zayed, A., Ghayaty, E., & El Rakhawy, M. (2013). LNG-IUS treatment of non-atypical endometrial hyperplasia in perimenopausal women: a randomized controlled trial. Journal of gynecologic oncology, 24(2), 128-134. doi:10.3802/jgo.2013.24.2.128.

4. Behnamfar, F., Ghahtori, A., & Tavakoli, M. (2014). Levonorgestrel-releasing intrauterine system (Mirena) in compare to medroxyprogesterone acetate as a therapy for endometrial hyperplasia. Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences, 19(8), 686. doi:10.3390/healthcare5030030.

5. Zaino, R., Carinelli, S. G., Ellenson, L. H., Eng, C., Katabuchi, H., Konishi, I., & Lax, S. (2014). Tumours of the uterine corpus: epithelial tumours and precursors. WHO classification of tumours of the female reproductive organs, 4, 125-34.

6. Emons, G., Beckmann, M. W., Schmidt, D., Mallmann, P., & Uterus commission of the Gynecological Oncology Working Group. (2015). New WHO classification of endometrial hyperplasias. Geburtshilfe und Frauenheilkunde, 75(02), 135-136.

7. Gallos, I. D., Alazzam, M., Clark, T. J., Faraj, R., Rosenthal, A. N., Smith, P. P., & Gupta, J. K. (2016). Management of Endometrial Hyperplasia. Green-top Guideline, (67).
3. Abu Hashim H. et al. LNG-IUS treatment of non-atypical endometrial hyperplasia in perimenopausal women: a randomized controlled trial // Journal of gynecologic oncology. 2013. V. 24. № 2. P. 128-134. DOI: 10.3802/jgo.2013.24.2.128.

4. Behnamfar F., Ghahiri A., Tavakoli M. Levonorgestrel-releasing intrauterine system (Mirena) in compare to medroxyprogesterone acetate as a therapy for endometrial hyperplasia // Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences. 2014. V. 19. № 8. P. 686. DOI: 10.3390/healthcare5030030.

5. Zaino R. et al. Tumours of the uterine corpus: epithelial tumours and precursors // WHO classification of tumours of the female reproductive organs. 2014. V. 4. P. 125-34.

6. Emons G. et al. New WHO classification of endometrial hyperplasias // Geburtshilfe und Frauenheilkunde. 2015. V. 75. № 02. P. 135-136.

7. Gallos I. D. et al. Management of Endometrial Hyperplasia. Green-top Guideline № 67. 2016.

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