

is of importance in terms of theoretical rationale behind administering of MT-based medications in case of hypothyroidism.

For explaining the mechanism of stimulating impact that MT has on the thyroid gland hormonal activity, it is important to have a look at the data related to single-time detecting of blood TTH levels, which reveal lack of any statistically significant change in the respective index. The outcomes allow concluding that melatonin has a direct impact on the thyroid gland. The reason behind such activation of the system may be found in direct stimulating effect that MT has on the thyroid parenchyma, yet also involving the specific receptors [5].

The data obtained from the group of the animals that received MT while developing hypothyroidism, were compared to the respective indices in hypothyroid rats. This showed that in hypothyroid rats a course of MT brought up the fT_4 15.5 times, while the levels of T_3 went up 1.8

times. The coefficient values went down and approached the normal rate while the TTH level was 0.12 ± 0.01 mIU/l, which was 1.4 times below that level in thyroid animals. The outcomes suggest that MT may act through the pituitary-hypothalamic axis as well.

Conclusions. Given the data above, we can say that MT has a stimulating effect when administered against reduced thyroid activity. This makes it possible to suggest that under natural conditions the pineal gland acts as a modulator for the pituitary-thyroid functioning. This role is due to uneven interactions with various components of the endocrine axis of hypothalamus – pituitary gland – thyroid gland [4]. In particular, it is not impossible that the system in question is inhibited through depression of its central components with MT due to disturbed thyroliberin production by neurons of hypothalamus, as well as thyrotropic hormone by pituitary cells through the MT-receptors embedded into these structures.

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THE ROLE OF HYSTEROSCOPY IN DIAGNOSIS THE PELVIC PAIN SYNDROME CAUSED BY ADENOMYOSIS

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РОЛЬ ГИСТЕРОСКОПИИ В ДИАГНОСТИКЕ ТАЗОВОЙ БОЛИ, ОБУСЛОВЛЕННОЙ АДЕНОМИОЗОМ

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Endometriosis, including adenomyosis, remains one of the important clinical problems of modern gynecology. To date, the diagnostic value of hysteroscopy in the detection of foci of adenomyosis varies widely depending on the shape and the extent of spreading of the pathological process. The aim of the study was to determine the diagnostic capabilities of operative hysteroscopy with adenomyosis, accompanied by the pelvic pain syndrome. 120 female patients with pelvic pain adenomyosis were included into the present study. The verification of the diagnosis of adenomyosis was made on the basis of clinical and anamnestic, objective gynecological, ultrasound, tomography data. The

results of the study demonstrated the presence of nodular form of adenomyosis in 36 (30.1 %) patients, diffuse forms of adenomyosis – «the phenomenon of wave formation» was detected in 78 (65 %) women with a pelvic pain of moderate and weak intensity. The combination of diffuse-nodular was diagnosed in 6 (5.9 %) patients. The results of the research testify to high diagnostic value for the detection of adenomyosis, and for differential diagnosis of proliferative diseases of the uterus and endometrium. Significantly more nodular form of adenomyosis ($p < 0.05$) were detected in patients with pelvic pain of severe intensity.

Key words: adenomyosis, pelvic pain, hysteroscopy

Эндометриоз, в частности аденомиоз, остается одной из важных проблем современной клинической гинекологии. На сегодняшний день диагностическая ценность гистероскопии в выявлении очагов аденомиоза варьирует в широких пределах в зависимости от формы и степени распространения патологического процесса. Целью исследования явилось определение диагностических возможностей оперативной гистероскопии при аденомиозе, сопровождающемся синдромом тазовой боли. В настоящее исследование были включены 120 пациенток с тазовым болевым синдромом аденомиоза. Верификация диагноза аденомиоза производилась на основании клинико-анамнестических, объективных гинекологических, эхографических, томографических данных. Результаты исследования продемонстрировали наличие узловой формы аденомиоза у 36 (30,1 %) в группе пациенток с тазовыми болями выраженной интенсивности, диффузной формы аденомиоза – «феномен волнообразования» – у 78 (65 %) женщин с тазовыми болями умеренной и слабой интенсивности. Сочетание диффузно-узловой формы диагностировано у 6 (5,9 %) пациенток. Результаты исследования свидетельствуют о высокой диагностической ценности как для выявления аденомиоза, так и для дифференциальной диагностики пролиферативных заболеваний матки и эндометрия. У пациенток с тазовыми болями выраженной интенсивности достоверно больше выявлялась узловатая форма аденомиоза ($p < 0,05$).

Ключевые слова: аденомиоз, тазовая боль, гистероскопия

The pelvic pain in women with adenomyosis has a serious impact on the quality of patients life and disruption. Central mechanisms of vital body regulation of the systems [1]. The clinical symptoms are nonspecific and include dysmenorrhea starting at an early age around the time of menarche, chronic pelvic pain and dysfunctional uterine bleeding. The dysmenorrhea tends to progressively increase and is resistant to therapy with analgesics or cyclic oral contraceptives. When viewed with ultrasound, the cyst increases in size at the time of menstruation and hormonal suppression with continuous oral contraceptive pills results in a partial regression [3]. Diagnostic problem can be significantly solved with the help of endoscopic visualization, allowing to carry out differential diagnosis between endometrial hyperplasia, adenomyosis and submucous myoma [2].

Hysteroscopy is an operative method of visual examination of the uterine cavity using an optical instrument, giving the opportunity to detect an intrauterine pathology, to determine the localization and size of endometrial lesions. Modern hysteroscopy has become more than just a royal study; she opened a new section of surgical gynecology – intrauterine surgery. It is possible to replace laparotomy operations gave an invaluable contribution to the development of surgical hysteroscopy [4]. To date, the diagnostic value of hysteroscopy in the detection of foci of adenomyosis varies widely depending on the shape and extent of spreading of the pathological process [5].

The aim of the study was to determine the diagnostic possibilities of the operative hysteroscopy with adenomyosis, accompanied by the pelvic pain syndrome.

Material and Methods. 120 female patients with pelvic pain adenomyosis were included into the present study. The verification of the diagnosis of adenomyosis was made on the basis of clinical and anamnestic, objective gynecological, ultrasound, tomography data. The endoscopic examination was performed by hysteroscopy in the traditional way, using the equipment produced by a well-known German company *Karl Storz*, with a set of surgical instruments in the first phase of the menstrual cycle, under intravenous anesthesia.

The dominant symptom of the disease in the focus group was the pelvic pain syndrome. Depending on the severity of pain (using a VAS), the patients of the main group were divided into three subgroups:

Subgroup 1 (n=42) – with a pelvic pain of weak intensity;
Subgroup 2 (n=40), – with a pelvic pain of moderate intensity;

Subgroup 3 (n=38) – with a pelvic pain of severe intensity.

Results. The results of the study demonstrated the presence of nodular form of adenomyosis in 36 (30.1 %) patients, diffuse forms of adenomyosis – «the phenomenon of wave formation» was detected in 78 (65 %) women with a pelvic pain of moderate and mild intensity. The combination of diffuse-nodular form was diagnosed in 6 (5.9 %) patients.

Morphologically, the endometrium corresponded to the phase of proliferation in 48 (40 %) patients, the morphological characteristics of a simple hyperplasia without atypia were diagnosed in 46 (38.3 %) patients, and 26 (21.7 %) of women showed signs of the glandular-fibrous polyp.

The informative value of hysteroscopy in case of disputes regarding the identification of traits differed significantly when performing studies as planned on the last day of her menstrual period or for 3 days after surgical curettage of the uterus. Under these conditions the method was most sensitive in identifying the focal forms of the disease. Adenomyosis, the heterotopic presence of endometrial glands and stroma within the myometrium, has traditionally been diagnosed by the pathologist in hysterectomy specimens. Hysteroscopy offers the advantage of direct visualization of the uterine cavity, and since nowadays it is performed in the office, it can be offered as a first-line diagnostic tool for evaluation of uterine abnormalities in patients with abnormal uterine bleeding and/or infertility. Although diagnostic hysteroscopy does not provide pathognomonic signs for adenomyosis, some evidence suggests that irregular endometrium with endometrial defects, altered vascularization, and cystic haemorrhagic lesion are possibly associated with the entity. In addition to the direct visualization of the uterine cavity, the hysteroscopic approach offers the possibility of obtaining endometrial/myometrial biopsies under visual control.

Conclusions. Our study indicates its high diagnostic value for the detection of adenomyosis, and for differential diagnosis of proliferative diseases of the uterus and the endometrium. In patients with pelvic pain of severe intensity significantly more nodular form of adenomyosis ($p < 0.05$) were detected.

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CORRELATION BETWEEN FIBRINOGEN BETA-CHAIN GENE POLYMORPHISM, PLASMA FIBRINOGEN AND THROMBOEMBOLIC COMPLICATIONS IN PATIENTS WITH ATRIAL FIBRILLATION

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ВЗАИМОСВЯЗЬ ПОЛИМОРФИЗМА ГЕНА БЕТА-ЦЕПИ ФИБРИНОГЕНА И УРОВНЯ ФИБРИНОГЕНА ПЛАЗМЫ С РАЗВИТИЕМ ТРОМБОЭМБОЛИЧЕСКИХ ОСЛОЖНЕНИЙ У БОЛЬНЫХ С ФИБРИЛЛЯЦИЕЙ ПРЕДСЕРДИЙ

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In a prospective cohort study the effect of the fibrinogen β -chain gene polymorphism -455G-A and fibrinogen plasma levels on the risk of stroke and systemic thromboembolism in 102 patients (83.3 % men, mean age 52.9±8.4 yrs) with non-valvular atrial fibrillation. Identification of fibrinogen B gene 455G-A polymorphism can be useful to customize the anticoagulation strategy in patients with atrial fibrillation.

Key words: atrial fibrillation, fibrinogen, thromboembolic complications, genetic polymorphism, fibrinogen β -chain gene

В проспективном когортном исследовании изучено влияние полиморфизма -455G-A гена фибриногена В и уровня фибриногена плазмы крови на риск развития инсульта и системных тромбоемболий у 102 пациентов с неклапанной формой ФП (83,3 % мужчин, средний возраст 52,9±8,4 года) в течение 24 месяцев. Определение полиморфизма -455G-A гена фибриногена В может быть рекомендовано с целью индивидуализации тактики антикоагулянтной терапии у больных с фибрилляцией предсердий.

Ключевые слова: фибрилляция предсердий, тромбоемболические осложнения, генетический полиморфизм, ген β -цепи фибриногена

The key focus in treating patients with atrial fibrillation (AF) is prevention of thromboembolic complications (TEC) [5]. Currently, assessment of TEC risk in patients with AF is done employing the *CHA₂DS₂-VASc* clinical scale, which leaves the doctor with no precise recommendation regarding tactics for antithrombotic therapy in case the number

of points scored on the scale belongs to the 0-to-1 range [2]. The issue of identifying certain additional TEC risk factors in this group of patients yet remains unresolved. Gene polymorphism of coagulation factors has a significant impact on the hemostatic system. Proper attention paid to the genetic parameters may facilitate developing individual