

Diagnostic efficiency of electropunctural diagnostics by the method of autonomic resonance test in detecting internal endometriosis

body of the uterus

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Summary

The paper presents the results of clinical studies of the application of the method of electropunctural diagnostics using the autonomic resonance test to detect internal endometriosis of the uterine body and an assessment of its diagnostic efficiency.

Using the method of electropuncture diagnostics by vegetative resonance test (ART), 113 women aged 28 to 54 years old, suffering from uterine masses, were examined, for which they were subjected to surgical interventions. The diagnosis of internal endometriosis of the body of the uterus by the method of electropuncture vegetative resonance test was established in 43 of 46 patients with a clinical diagnosis of adenomyosis. False negative results were obtained in 3 subjects. Conclusion: "there is no internal endometriosis of the uterine body" by the method of electropuncture vegetative resonance test was done in 60 of 67 patients in whom adenomyosis was not detected during surgery. False positive results were observed in 7 cases.

Thus, the diagnostic significance of the study is: sensitivity - 93.5%, specificity - 89.6% and overall test accuracy - 91.2%. It is concluded that the electropuncture vegetative resonance test is a simple, safe and highly effective method that allows for the diagnosis and differential diagnosis of internal endometriosis of the uterine body.

Internal endometriosis of the uterine body (adenomyosis, internal genital endometriosis) is the most common manifestation of genital endometriosis (HE). Among all lesions of genital endometriosis, the frequency of adenomyosis reaches 70–90% [11].

Internal endometriosis of the uterus is a benign pathological process characterized by the appearance in the myometrium of epithelial (glandular) and stromal elements of endometrial origin. Adenomyosis is localized in the muscular layer of the uterus and therefore its other name is internal genital endometriosis.

Endometriosis of the body of the uterus most often occurs in women of reproductive age (25-40 years old), but often at the age of 40-50 years, especially in combination with

myoma of the uterus. Its exact population frequency is unknown. B.I. Zheleznov and A.N. Strizhakov found internal endometriosis in 14% of women who underwent hysterectomy, R. Shaw - in 15%, J. Berek et al. - in 27%, S. Markham - in 31% [13, 15, 16].

Pathological childbirth, abortion, diagnostic curettage of the uterine cavity and other intrauterine interventions, as well as inflammatory processes, play a significant role in its occurrence. Pathological childbirth and abortion, accompanied by inflammatory processes, lead to morphological and metabolic disorganization of the endometrium and the adjacent myometrium, disruption of functional connections in the pituitary gland - uterus - ovaries system and subsequent disorder of follicular maturation and the ovulation process. In this regard, hyperplastic processes often occur in the endometrium, for which diagnostic curettage is performed, which often leads to violations of the connective tissue base of the basal layer of the endometrium and adjacent muscle elements (protective zone).

Diagnosis of internal endometriosis is significantly difficult and various methods are used to detect it - hysterosalpingography, hysteroscopy, computed tomography, ultrasound. It should be noted that hysteroigraphy and hysteroscopy are invasive procedures [6, 10].

The disadvantages of computed tomography include its low throughput and high cost of equipment [5]. In a clinic, before surgery (in a radical volume), the diagnosis of adenomyosis, according to M. Atri et al., is made only in 10–20% of cases [12]. On an outpatient basis, the diagnosis of internal endometriosis is even lower and, according to N.N. Ruhlyada is 1.6% [9].

Insufficient sensitivity methods research, complexity differential diagnosis and, to a lesser extent, the presence of diagnostically negative forms of adenomyosis leads to the fact that in 85–93% of cases adenomyosis is a postoperative, or rather a histological diagnosis [8, 14].

Thus, preoperative detection of internal genital endometriosis is still a difficult task and is possible only with the use of invasive research methods that allow morphological examination of pathological material, which is the "gold standard" for the diagnosis of adenomyosis [2].

The search for other diagnostic methods, safer and less traumatic, with a high diagnostic efficiency remains topical. The method of vegetative resonance test (ART), based on electropuncture diagnostics, can meet these requirements [3].

It is known that these methods make it possible to purposefully examine a patient with high diagnostic reliability and minimal time and material costs. Research conducted in Belarus on the diagnosis by R. Voll and ART of a number of diseases of the female genital area (ovarian cysts, uterine fibroids and inflammatory processes of the uterine appendages) showed a coincidence with clinical diagnoses in 96.2% of cases [7].

Diagnostics by the ART method consists in the phenomenon of resonance that occurs in the body of the investigated person when the frequencies of a certain spectrum are presented from the outside, corresponding to a specific pathological process. In the presence of a similar frequency spectrum in the patient's body, this manifests itself in a change in the electrical resistance of the skin at its specific point, which is recorded by an ART device. This allows for the diagnosis and differential diagnosis of latent, erased forms of the disease, including such as internal genital endometriosis.

For diagnostics by ART, nosodes and organopreparations are used. The "products" of diseases (blood, lymph, secretions of glands, tissues of affected organs, etc.) and tissue of healthy organs serve as a starting material for their preparation. Currently, nosodes and organ preparations are presented in the form of the so-called. "Information analogs of diagnostic markers" located in diagnostic test cassettes or in the drug selector of devices for ART. "Informational analogs of diagnostic markers" are electronic copies of the spectral-wave characteristics of organopreparations, nosodes, etc.

In the available literature data on the diagnosis of internal endometriosis of the uterus by the ART method were not found, which determined the relevance of the studies.

Material and research methods

A randomized controlled study of patients with masses of the uterine body, for which they were subjected to surgical interventions, was carried out. The ART method was used to examine 113 women aged 28 to 54 years. All patients were hospitalized in the gynecological department of the State Institution "Central City Clinical Hospital" in Grodno. The criterion for inclusion in the study was the presence of a mass of the uterine body requiring surgical correction. The group of examined patients excluded those patients who refused treatment and diagnostic manipulations or for whom the volume of surgical intervention did not allow excluding or confirming the diagnosis of internal endometriosis of the uterus.

The clinical diagnosis of internal genital endometriosis was established by morphological examination of the pathological formation of the body of the uterus. The patients were examined by the ART method before the operations, without acquaintance with the medical documentation and data from other examination methods. Voluntary informed consent was obtained from all patients to conduct the study. To determine the resonance to nosodes and organ preparations, microresonant circuits proposed by V.N. Sarchuk (Ukraine), and diagnostic cassettes produced by the IMEDIS Center (Russia) [1, 4].

When diagnosed by the ART method, gynecological status was determined in all patients. At the same time, we used the original examination algorithm proposed by us to detect internal endometriosis of the uterine body. Based on the results of the examination using the ART method, a diagnosis was made, which, upon completion of the entire study, was verified by the history of the disease with the clinical diagnosis.

Based on the results of the definitive clinical diagnosis, all

the subjects were divided into two groups: the main group and the comparison group. The first group consisted of 46 women with adenomyosis, the second group - 67 patients with uterine myoma. Statistical processing was carried out using nonparametric statistics (median (Me), 25% and 75% percentiles). The confidence interval (CI) was taken as 95%. Evaluation of the difference in proportions was carried out using Fisher's angle transducer, a two-sided criterion. Differences were considered significant at $p < 0.05$.

Results and discussion

The age of the subjects ranged from 28 to 53 years, averaging 43.3 ± 8.9 years in the 1st group, and from 28 to 54 years with an average age - 44.0 ± 9.1 years in the 2nd group. The average age of menarche onset in patients in group 1 varied from 12 to 17 years, averaging 13.9 ± 1.3 years, in patients in group 2 - from 11 to 17 years (on average, $13.6 \pm 1, 2$ years), menstruation in most of the subjects of both groups was established immediately. The duration of the menstrual cycle before the disease averaged 27.0 ± 1.5 days (ranges from 21 to 3 days) and 27.3 ± 1.6 days (ranges from 24 to 35 days) in groups 1 and 2, respectively. The duration of menstruation in the majority of patients with endometriosis - 36 (78%; CI - 66-90%) was 5-7 days, in the 2nd group of such women 35 (48%; CI - 37-4%; $p < 0, 05$).

The features of the reproductive history of the examined patients suffering from endometriosis were a large number of abortions - artificial and spontaneous - in 35 (76%; CI - 63-88%) patient and a large number of births - in 42 (91%; CI - 83-99%) people, only 4 (9%; CI - 0-17%) had no delivery. A history of spontaneous miscarriages was observed in 11 (24%; CI - 11-36%) patients. Many of the surveyed group 2 - 47 (70%; CI - 59 - 81%) had a history of abortion, 25 (37%; CI - 25-49%) of them had 2-3 or more abortions. 59 (88%; CI - 8-96%) women of the 2nd group gave birth, 8 (12%; CI - 4-20%) had no births.

From the transferred gynecological diseases in the 1st and 2nd groups of the examined prevailed: inflammatory diseases of the uterus and appendages (65%; CI - 51-79% and 36%; CI - 23-47%; $p < 0.05$), erosion cervix (61%; CI 46-75% and 57%; CI 44-67%), dysfunctional uterine bleeding (22%; CI 9-34% and 27%; CI 16-37%), cysts ovaries (24%; CI 11-36% and 12%; CI 4-20%).

16 (35%; CI - 21-49%) patients from the group of patients with endometriosis and 8 (12%; CI - 4-20%; $p < 0.05$) women of the 2nd group had a history of surgical interventions on the genitals about ectopic pregnancy, ovarian apoplexy, torsion of the ovarian cyst and other pathology.

34 (74%; CI - 61-87%) patients with endometriosis had a history of indications of a large number of past and concomitant diseases (childhood infections, ODS, tonsillitis), every fourth (24%; CI - 11-36%) suffered bronchitis, pneumonia, 2 subjects (44%; CI - 29 - 58%) had chronic gastritis, cholecystitis, in 15 (33%; CI - 19-40%) metabolic and endocrine disorders (obesity I-III degree, sugar diabetes), as well as arterial

hypertension and neurocirculatory dystonia. Indications of kidney and bladder diseases were observed in 13 (28%; CI - 15 - 41%) patients. Of the transferred extragenital diseases, acute respiratory diseases were most common in the 2nd group of women - 51 (76%; CI - 65-88%) patient and childhood infections - 4 (60%; CI - 48-74%) patients. 19 (28%; CI - 17-39%) women complained about diseases of the gastrointestinal tract, 11 (16%; CI - 7-25%) complained about diseases of the liver and biliary tract. Previous diseases of the urinary tract were mentioned by 1 (15%; CI 10-24%) patients, diseases of the respiratory system - 9 (13%; CI 5-21%) examined.

Before admission to department 1 (22%; CI - 9-34%) women with endometriosis and 13 (19%; CI - 10-29%) patients of group 2 received long-term conservative treatment, including physiotherapy, antibacterial and anti-inflammatory therapy ... Of these, 7 (15%; CI - 4-26%) of the examined group 1 and 9 (13%; CI - 5-21%) of the second group received hormonal therapy for 6-12 months: norkolut, 17- OPK, depot-provera, progesterone, duphaston, clostilbegit, marvelon, etc. 19 (41%; CI - 27-55%) and 24 (36%; CI - 24-47%) patients were previously inpatient , including many times 9 (20%; CI - 8-31%) and 16 (24%; CI - 13-34%) women.

The duration of observation of patients before admission to the gynecological department and this examination was almost the same and rather long, ranging from 3 to 15 years in the 1st group (on average 6.3 ± 1.4 years), in the 2nd group - from 6 months to 14 years (average 5.4 ± 0.8 years). Complaints of the 1st group subjects were of the following character: various pains in the lower abdomen and in the lower back prevailed (83%; CI - 71-93%), abundant, with clots and prolonged periods (79%; CI - 66-9-%), painful course of the monthly cycle (61%; CI - 46-75%), perimenstrual spotting spotting from the genital tract (39%; CI - 25-53%), dyspareunia (35%; CI - 21-49%). Patients of the 2nd group most often had aching pains in the lower abdomen not associated with menstruation (75%; CI 64-85%), pain in the lumbar region and sacrum (4%; CI 28-52%; $p < 0.01$), algomenorrhea (39%; CI - 27-50%; $p < 0.05$), polymenorrhea (42%; CI - 30 - 53%; $p < 0.01$), scanty spotting from the genital tract before and after menstruation (28 %; CI - 17-39%), discomfort and pain during intimacy (8%; CI - 1-14%; $p < 0.01$). Other dysfunctions of adjacent organs (constipation, tenesmus, difficulty or increased frequency of defecation and urination) occurred in 16 (35%; CI - 21-49%) women with endometriosis and 8 (12%; CI - 4-2-%; $p < 0.01$) patients of the 2nd group.

After a complete clinical and instrumental examination before surgery, respectively, in the 1st and 2nd groups of patients, the following diagnoses were established: uterine fibroids in 37 (79%; CI - 66-90%) and 67 (100%; $p < 0, 01$) patients, ovarian cystomas were detected in 11 (24%; CI - 11-36%) and 16 (24%; CI - 12-36%) cases, chronic salpingo-oophoritis was established in 15 (36%; CI - 19-46 %) and 5 (8%; CI - 2-14%; $p < 0.01$) women.

The increase in the size of the uterus, corresponding to 1-12 weeks of pregnancy, as well as the lack of effect from the conservative treatment carried out were the main indications for surgery.

After surgery and histological examination of the removed tissues in the group of patients with adenomyosis, uterine myoma was diagnosed in 37 (79%; CI - 66–90%) patients, adhesions were detected in 12 (28%; CI - 15–41%) patients, cystoma ovaries - in 11 (24%; CI - 11–36%), chronic salpingo-oophoritis - in 15 (33%; CI - 19–46%) patients.

The localization of pathological foci in patients with internal EH was as follows: the body of the uterus - in 46 (100%), retrocervical endometriosis - in 9 (2%; CI - 8 - 31%), fallopian tubes - in 6 (13%; CI - 3–23%), cervix - in 2 (4%; CI - 0-10%).

In women of the 2nd group, clinical diagnoses were distributed according to the following nosological forms: uterine myoma - in 67 (100%) patients, salpingo-oophoritis was detected in 1 (15%; CI - 6–25%, $p < 0.05$) patients, ovarian cystoma - in 22 (33%; CI - 21–44%) of patients, adhesions of the pelvic organs were found in 19 (13%; CI - 5–21%) patients.

The diagnosis of internal endometriosis of the uterine body by the ART method was established in 43 of 46 patients with a clinical diagnosis of adenomyosis, which is 93.5%. False negative results were obtained in 3 patients. Conclusion: "no internal endometriosis" by ART was done in 6 out of 67 patients (89.6%), in whom the diagnosis of adenomyosis was not revealed during surgery. The discrepancy was observed in 7 cases.

As follows from the above data, the diagnostic value of the study using the ART method is: sensitivity - 93.5%, specificity - 89.6%, overall accuracy - 91.2%, diagnostic significance of negative results - 95.2%, diagnostic significance of positive results - 86.0%.

The advantages of the ART method include its non-invasiveness, harmlessness and safety. In this regard, the examination can be carried out repeatedly by the patient in any phase of the menstrual cycle. The method of diagnostics using the ART method does not require special preliminary preparation of patients.

conclusions

1. The ART method in the diagnosis of internal endometriosis of the uterine body has sensitivity - 93.5%, specificity - 89.6%, accuracy - 91.2%.
2. The ART method can be recommended for use as an express method for screening examination of patients with masses of the uterine body, as well as for differential diagnosis in clinically difficult cases.
3. When establishing the diagnosis of adenomyosis by the ART method, patients are shown targeted examination in specialized clinics.

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