

Stages of Genital Endometriosis by Ultrasound Examination

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ABSTRACT

The prevalence of retrocervical endometriosis among all localizations ranges from 0.5% to 6.5%, yielding only to uterine and ovarian endometriosis. This disease has a tumor-like growth, affects adjacent organs, significantly worsens the quality of life of patients, in some cases leading to severe complications: sprouting into the intestine, bladder, development of intestinal obstruction, spontaneous pneumothorax, etc.

Key words: *uterine endometriosis, ultrasound examination*

INTRODUCTION

Objective of the study: Genital endometriosis stage studies by ultrasound

Materials and Methods: We examined 40 women of reproductive age with diagnosed endometriosis. Ten healthy women of similar age without gynecological diseases, with a regular menstrual cycle and who had a history of childbirth made up the control group.

Results of the study. At the preoperative stage, all the patients underwent physical examination, a comprehensive ultrasound examination on a Medison Accuvix V20 (Korea), including a 4-8 MHz transvaginal transducer in the small pelvis and a 3-6 MHz convex transducer in the kidneys. All pelvic organs, including adjacent organs, were examined with division of the small pelvis plane in the sagittal section into two conventional sections (compartments): anterior and posterior. The division into sections was carried out along a conditional line passing along the median uterine axis (the median M-echo was taken as the uterine axis). The anterior section included: anterior vaginal wall, urethra, urinary bladder, vesicoureteral fold, ureters, and parametrium. The posterior section included the posterior vaginal wall, recto-vaginal septum, rectum, recto-sigmoid colon and inferior sigmoid colon, douglas space, sacro-uterine ligaments, posterior surfaces of the uterine broad ligaments, ovarian fossae, and retrocervical region. The topical location of all detected foci was carefully described with measurement of lesion sizes in three planes, with obligatory assessment of involvement of neighboring organs and structures; if there was invasion or infiltration of the organ wall, the depth of damage was assessed. Ultrasound scans were performed on days 5-9 of M.C. with a regular menstrual cycle no later than 3 months before surgical treatment. In cases where the patient received hormonal therapy, the scan was performed on admission to the hospital regardless of the cycle, type and duration of therapy. The degrees of internal uterine endometriosis were assessed using Demidov V.N. criteria. First-degree adenomyosis on ultrasound examination was established when marked dysmenorrhea from the age of menarche was indicated, with the mandatory presence of the following changes in the myometrium hyperechogenic inclusions of minimal size in the uterine walls with a diffuse chaotic arrangement, decreased echogenicity and thickening of the subendometrial zone (transitional layer), blurring or absence of a clear basal layer

projection line, discontinuity and/or pitting of the basal layer projection, uterine wall asymmetry over 3 mm, local thickening of the uterine wall, vertical band effect, presence of nodular inclusions in the myometrium without clear contours, anechogenic inclusions of any shape. In the presence of dysmenorrhea from the age of menarche and in the absence of the above changes in the myometrium, the diagnosis of grade 1 adenomyosis was not made.

Grade 2 adenomyosis at the preoperative stage was established when the following markers were detected on the scans: 1) an increase in uterine thickness exceeding the upper limit of normal; 2) a thickening of one uterine wall compared to the other by 0.4 cm or more; 3) the appearance of a zone of increased heterogeneous echogenicity in the myometrium immediately adjacent to the uterine cavity of varying thickness; 4) presence of small round anechogenic masses 2-5 mm in diameter in a zone of increased echogenicity, as well as fluid cavities of different shapes and sizes, containing fine-dispersed suspension, and sometimes compact inclusions of small echogenicity. Grade 3 adenomyosis was diagnosed when the following changes were detected on ultrasound examination: 1) enlargement of the uterus, mainly of anteroposterior size; 2) predominant increase in the thickness of one of the uterine walls; 3) presence of a zone of increased heterogeneous echogenicity occupying more than half of the uterine wall thickness in the myometrium; 4) detection of anechogenic inclusions 2-6 mm in diameter or liquid cavities of different shapes and sizes, containing a finely dispersed suspension in the echogenic zone; 5) appearance of multiple medium and low echogenic bands in the location of a pathological mass, oriented perpendicularly to a scanning plane; 6) detection of a zone of increased echogenicity and anechogenic in the area of a far front of a scan. Endometrioid cysts were diagnosed when persistent ovarian cystic inclusions of more than 1 ml in volume with a thickened to 2-4 mm capsule of echoplasmic structure, with the presence of a homogeneous internal content of medium or reduced echogenicity, without papillary inclusions, avascular content, with moderate blood flow in the capsule structure as few vessels with a low rate and high resistance to arterial blood flow were detected for over 3 months. External genital endometriosis in transvaginal scanning was diagnosed by detecting focal masses of various shapes and structures on the surface of organs and adjacent structures (ligaments, septa, fibrous tissue, etc.), with obligatory assessment of three linear sizes, with measurement of invasion depth in the lesion site, with assessment of involvement of adjacent structures in adhesive and/or infiltrative process.

CONCLUSIONS

Thus, to divide into superficial and deep infiltrative forms of endometriosis we used Koninckx P.R. criteria, according to which in deep infiltrative endometriosis the depth of invasion into the organ wall exceeds 5 mm with obligatory involvement of smooth muscle elements. Identification of each endometriosis focus was supplemented by investigation of signs of adhesion of adjacent or adjacent organs by determining the symptom of sliding - traction by a transvaginal transducer with simultaneous manual compression by a free hand through the anterior abdominal wall (bimanual examination). Small forms of NGE (stage 1-2 according to rAFS) were detected by visualization of focal masses on the surface of organs and/or peritoneum less than 5 mm in size and/or also by detection of positive pleating symptom. It was considered positive if adhesion (adhesion) between the surface of a given organ and a nearby adjoining structure or neighboring organ (ligament, etc.) was detected

during traction of the transvaginal transducer with pushing movements. The main ultrasound sign of an endometrioid infiltrate was the visualization of an irregularly shaped, solid or solid-cystic mass in the posterior or anterior compartment (compartment), of medium or reduced echogenicity, usually tightly adjoining the uterine surface, its ligament apparatus or adjacent organs (urinary bladder, vaginal vaults, pelvic walls, etc.). The presence of such an infiltrate on ultrasound examination corresponded to stages 3 and 4 of IUF according to the revised American Fertility Society (rAFS) classification. Patients diagnosed with grade 3 and 4 external genital endometriosis underwent ultrasonography of both kidneys to rule out pyeloectasia. If pyelo- and ureteroectasia were detected above the projection of the endometrioid infiltrate in the pelvis, the diagnosis of ureteric stenosis was made, which required appropriate surgical treatment.

REFERENCES

1. Azimov M. I., Shomurodov K.E. A technique for Cleft Palate Repair. Journal of research in health science. Vol. 1, No. 2, 2018, pp. 56-5
2. Kamalova M. I., Islamov Sh. E., Khaydarov N.K.// MORPHOLOGICAL CHANGES IN BRAIN VESSELS IN ISCHEMIC STROKE. Journal of Biomedicine and Practice 2020, vol. 6, issue 5, pp.280-284
3. KamalovaMalika, IslamovShavkat. MORPHOLOGICAL FEATURES OF ISCHEMIC AND HEMORRHAGIC BRAIN STROKES.JCR. 2020; 7(19): 7906-7910. doi:10.31838/jcr.07.19.898
4. Musaev U.Y., Rizaev J.A., Shomurodov K.E. New views on the problem of dysemryogenesis stigmas of dento-mandibular and facial system from the position of their formation in the disability of the population // Central Asian Scientific and Practical Journal "Stomatologiya "2017.-#3-(68).-P.9-12.
5. Shomurodov. K.E. Features of cytokine balance in gingival fluid at odontogenic phlegmon of maxillofacial area. // Doctor-aspirant 2010.-42 Vol.-No.5.1.-P.187-192;
6. Tillyashaykhov M. N., Rakhimov N. M. Khasanov Sh. T., Features of Clinical Manifestation of the bladder cancer in young people// Doctor Bulletin. - Samarkand, 2019. - №2. - P. 108-113
7. Ilkhomovna, K. M., Eriyigitovich, I. S., & Kadyrovich, K. N. (2020). Morphological Features Of Microvascular Tissue Of The Brain At Hemorrhagic Stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 2(10), 53-59. <https://doi.org/10.37547/TAJMSPR/Volume02Issue10-08>
8. S Ziyadullaev, O Elmamatov, N Raximov, F Raufov //Cytogenetic and immunological alterations of recurrent bladder cancer. European Journal of Molecular & Clinical Medicine ISSN 2515-8260 Volume 7, Issue 2, 2020
9. G. M. HODJIMATOV, KhabibulloKhamdamovichHamdamov. DIAGNOSTICS AND TREATMENT OF CHOLEDOCHOLITIASIS IN ELDERLY AND SENILE AGE PATIENTS // European Journal of Research Development and Sustainability (EJRDS) Available Online at: <https://www.scholarzest.com> Vol. 2 No. 3, March 2021, ISSN: 2660-5570

10. Shomurodov. K.E. Features of cytokine balance in gingival fluid at odontogenicphlegmon of maxillofacial area. // Doctor-aspirant 2010.-42 Vol.-No.5.1.- P.187-192
11. Ilkhomovna, K. M., Eriyigitovich, I. S., &Kadyrovich, K. N. (2020). Morphological Features OfMicrovascular Tissue Of The Brain At Hemorrhagic Stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 2(10), 53-59. <https://doi.org/10.37547/TAJMSPR/Volume02Issue10-08>

