

The Role Of Ultrasound In Diagnosing Uterine Scar Failure In Pregnant Women After Cesarean Section

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Annotation. The significant frequency of caesarean sections, which in recent years has amounted to 15-30% or more, leads to an urgent problem - an increase in the number of women of reproductive age who have a scar on the uterus. The postulate "once a caesarean section is always a caesarean section", which is dominant in the management of this contingent of women, should become a thing of the past. According to the authors, the incidence of conservative delivery of women with a scar on the uterus after caesarean section ranges from 30 to 70%. Choice of management tactics Childbirth in such women mainly depends on the condition of the scar on the uterus. Difficulties in assessing the condition of the uterine scar during pregnancy are due to the lack of clinical symptoms and restrictions on the use of objective research methods. According to the authors, such a clinically significant symptom as local tenderness on palpation in the lower abdomen is detected only in 18.3% of cases with scar failure. Methods for examining the condition of the scar on the uterus during pregnancy are very limited, and ultrasound scanning (ultrasound) is practically the only one.

Key words: uterine scar, niche, istmocele, ultrasound.

In a normal pregnancy, ultrasound in women with a scar on the uterus should be carried out at least three times (at the time of registration, at 20-24 weeks of pregnancy and at 30-32 weeks). It is advisable to carry out ultrasound of the uterine scar at 34-36 weeks of pregnancy with the formed lower uterine segment, it is then that ultrasound examination has the greatest informative value and practical significance

Indications for the first caesarean section were distributed as follows: non-medication-correctable abnormalities of labor — 15 women (38.5%), clinically narrow pelvis — 8 (20.5%), breech presentation of the fetus — 8 (20.5%), increasing severity of chronic fetal hypoxia — 3 (7.7%), premature placental abruption — 2 (5.1%), large fetus — 2 (5.1%), severe gestosis — 1 woman (2.6%). Clinically, signs of scar failure in the form of discomfort, pain in the lower segment of the uterus, local tenderness in the lower abdomen were detected in 6 pregnant women (15.3%). In these cases, the clinical findings coincided with the echographic picture of scar failure.

Ultrasound examination of the myometrium in the area of the lower segment of the uterus carefully assessed the scar for the following features: measurement of total thickness, uniformity of the scar, the presence of areas of thinning, the structure of the scar, the presence of acoustically dense areas that indicate connective tissue degeneration of the scar area, the contours of the scar and its echogenicity. A homogeneous scar with a thickness of 4-5 mm, uniform in thickness along the entire length, with clear even contours, without thinning areas, acoustic seals, with normal echogenicity of the lower segment, similar to that in other parts of the uterus, was considered to be valid during ultrasound examination.

A substantial scar was diagnosed in 25 pregnant women (64.2%). Of this group, 3 pregnant women (12%) were delivered through the vaginal birth canal, 22 pregnant women were reoperated on a planned basis for various obstetric indications. Of these, 9 women (40.9%) had a clinically narrow pelvis, 3 (13.6%) had a breech presentation of the fetus, 5 (22.7%) had a large fetus, 4 (18.2%) had a severe form of gestosis, and 1 pregnant woman (4.6%) had a placenta located in the scar area.

An untenable scar was diagnosed by ultrasound in 10 pregnant women (25.6%), of which 9 women were operated on an emergency basis and one on a planned basis. During the repeated elective caesarean section, in 7 pregnant women the scar on the uterus was untenable, in 3 women there were false positive results, scar failure during the operation was not confirmed.

Thus, as a result of the study of the scar area during surgery in 14 women with a doubtful or inadequate scar on ultrasound, it was found that the coincidence of the echographic assessment and the actual state of the

scar on the uterus was confirmed during the operation in 9 out of 14 pregnant women (64.3%). In 4 cases out of 25 (16%) there was a false negative result. A false positive result was detected in 5 out of 14 cases (35.7%). According to our data, the coincidence of echographic and intraoperative results was 64.3% (false positive — 35.7%, false negative — 16%). The table shows the results of comparing the echographic picture and the actual state of the uterine scar during surgery. The authors assess the informative value of the ultrasound method for studying the scar on the uterus in different ways. Authors who use transvaginal probes and a combination of B-mode ultrasound with color Doppler mapping (DDC) to assess the condition of the uterine scar have a higher rate of coincidence (57.5% to 76%) and a lower false-positive rate (21.3% to 7%).

"Scar failure", "defective uterine scar", "niche", "istmocele", "uteroperitoneal fistula", "scar defect after CS", "thinning of the postoperative scar" are the most common definitions of this condition found in the literature. To date, there is no single generally accepted term to describe this pathological condition outside of pregnancy. In our opinion, the terms "defect" or "thinning" of the scar on the uterus most accurately describe the essence of changes in the scar area outside pregnancy, which in some cases can be supplemented by the morphological characteristics of the type of scar - with the formation of a niche (or without it). The niche refers to the hypoechoic zone on the inner surface of the uterus in the scar area after CS, which is an asymmetrical myometrial defect.

The incidence of uterine scar defects after CS varies significantly and ranges from 24 to 70% [5-7]. At the same time, according to O. Osseer et al., the true prevalence of this condition may be as high as 61% after the first CS and 100% after three CS. The vast majority of cases of scar thinning after CS, even with the formation of a niche, are asymptomatic and are detected incidentally by ultrasound (ultrasound). The clinical picture with significant defects of the uterine scar is most often characterized by postmenstrual bleeding from the genital tract (15.2-82.0%), menorrhagia (12-38%), pelvic pain, the onset of which is associated with CS surgery (4.5-11.0%), dyspareunia (3.4-9.6%). Most patients are characterized by a combination of symptoms. According to the literature, the risk of developing secondary infertility after CS can be 4-19%, while the negative factor is considered to be the accumulation of mucus or blood in the area of the defect or niche, which leads to the accumulation of fluid in the uterine cavity and impaired sperm function and the implantation process.

References

1. Robson SJ, de Costa CM. Thirty years of the World Health Organization's target caesarean section rate: time to move on. *Med J Aust* 2017; 206:181-5.
2. Krasnopolsky V.I., Buyanova S.N., Shchukina NA, Logutova L.S. Failure of the suture (scar) on the uterus after CS: problems and solutions (editorial). *Grew up. Vestn. obstetrician-gynecologist*. 2015; 3:4-8. [Krasnopol'skii VI, Buianova SN, Shchukina NA, Logutova L.S. Nesostoia-tel'nost' shva (rubtsa) na matke posle KS: problem i resheniia (redaktsionnaia stat'ia). *Ros. vestn. akushera-ginekologa*. 2015; 3:4-8 (in Russian).
3. Arakelyan A.S., Martynov S.A., Khoroshun ND. Diagnostics and surgical correction of uterine scar failure after CS using laparoscopy and hysteroscopy. In: Sukhikh G.T., Adamyan L.V. (eds.). *Proceedings of the XXIX Congress "New Technologies in the Diagnosis and Treatment of Gynecological Diseases"*, Moscow, June 7-10, 2016, Moscow, 2016; P. 179-80.