

SIMULTANEOUS MYOMECTIONY DURING SURGICAL DELIVERY

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Abstract

Uterine myoma is the most common benign neoplasm of the reproductive organs in women. The prevalence of this pathology at different ages ranges from 20% to 77%.

The aim of the study was to evaluate clinical cases of myomectomy performed during surgical delivery. The study was performed on the basis of Odessa Regional Perinatal Center in 2015-2018. The mean age of the examined patients was 32.5 ± 1.1 years. The total number of clinical cases included in the study was 55 women who had surgical delivery in accordance with the Order of the Ministry of Health of Ukraine No. 977 dated 27.12.2011 who were performed myomectomy during the cesarean section. The authors evaluated intraoperative blood loss and the postoperative course. As a result of the study, it was concluded that it is advisable to perform simultaneous myomectomy during the cesarean section, provided thorough consideration is given to myomectomy.

Key words: cesarean section, myomectomy, simultaneous surgical interventions.

Uterine myoma is the most common benign neoplasm of the reproductive organs in women. The prevalence of this pathology at different ages ranges from 20% to 77% [1, 2]. In addition, if myoma was most often considered to be a disease that affects women after 40

years, at the moment, this pathology is diagnosed in young patients. It is believed that the main role in the occurrence and growth of uterine fibroids belongs to synergistic effects on the myometrium of estrogen, growth factors and immunoreactive insulin [3]. The frequency of combination of myoma with pregnancy increases in women who delayed the implementation of the childbearing function and ranged from 0.5% to 4% [4]. According to the observations of some experts in pregnancy growth of myomatous nodes in women with uterine myoma is possible during the first trimester, whereas in the second and third trimester the size of nodes is practically unchanged [5].

The data on the course of pregnancy in combination with the uterine myoma are diverse and contradictory, but it should be remembered that pregnant women in this category constitute a risk group for the development of various complications of pregnancy and childbirth, namely: the threat of abortion in different gestational periods, fetoplacental insufficiency, syndrome of the delayed fetal growth, placental detachment (especially in those cases where it is located in the area of the myomatous node), fetal malposition and presentation, rapid tumor growth, malnutrition and necrosis of the myomatous node [6, 7]; premature amniorrhea, anomalies of contractile activity of the uterus, fetal distress, anomalies of the placenta attachment, hypotonic bleedings, uterine subinvolution in the postpartum period, etc.) [8].

The peculiarities of the course of pregnancy and childbirth in women with uterine myoma determine the need for surgical interventions and the use of obstetric care [9, 10].

There may be absolute and relative indications for the cesarean section in uterine myoma [5].

The absolute indications of pregnant women with uterine myoma to operation of the cesarean section, first of all, include the presence of the myomatous nodes, the localization of which impedes childbirth through natural parturient canal. This is possible in the location of a large node below the presentation part of the fetus, also in large nodes, the appearance of which is accompanied by severe dysfunction of the adjacent organs. Considerable attention should be paid to the presence of uterine fibroids in women who have already had cesarean section, or myomectomy, or had iatrogenic perforation of the uterus after previous interventions. The cesarean section is also performed in large myomas (more than 10 cm in diameter).

Relative indications for the cesarean section in uterus myoma include the following indications:

1. Multiplicity of myoma (more than two nodes).

2. Occurrence of placental dysfunction in pregnant women with uterine myoma.

3. Burdened obstetric and gynecological history (infertility, fetal loss syndrome, use of ART, complications in previous pregnancies).

4. Myoma in combination with malformation of the uterus.

The caesarean section in the presence of uterine fibroids often requires expansion of the scope of surgical intervention (myomectomy, removal of the uterus) [11, 12, 13].

Indications for myometectomy during the cesarean section [14]:

- subserous nodes on a thin peduncle in any available localization;
- subserous nodes on a broad basis (except for the lower segment);
- large (> 10 cm) nodes of not more than 5;
- located intramurally or with centripetal growth of the myoma node > 10 cm (not > 1 node);
- good access to the site of any localization, except intramural with a size < 5 cm.

Indications for extirpation of the uterus [14]:

- multiple myoma with a low location of nodes (cervical, pericervical);
- malignancy of the node, confirmed histologically during the operation;
- need for simultaneous removal of the appendages of the uterus (tumors of the ovary, tubo-vascular formations).

Discussion on the choice of the scope of surgical intervention in childbirth by the cesarean section surgery in parturient women with a myoma is still not completed.

The aim of the study was to evaluate the results of myomectomy performed during surgical delivery.

Material and methods

The study was performed on the basis of Odessa Regional Perinatal Center in 2015-2018. The mean age of the examined patients was 32.5 ± 1.1 .

The total number of clinical cases included in the study was 55 women who had surgical delivery in accordance with the Order of the Ministry of Health of Ukraine No. 977 dated 27.12.2011 who were performed myomectomy during the cesarean section.

Of them:

1. 45.4% (25 women) – the cesarean section was performed on obstetric grounds not related to the uterine myoma, including 14.6% of cases (8 women) of primiparous at the age over 35 years without burdened gynecological history.

2. 30.9% (17 women) – the cesarean section was performed due to extragenital pathology.

3. 14.6% (8 women) gave birth by the cesarean section, to which uterine myoma was absolute or relative indication.

4. 9.1% (5 women) – the cesarean section was performed due to fetus indications.

The size of the removed myomatous nodes was determined by the formula

$$V = \pi \frac{abc}{6}$$

where a - is the anterior-posterior diameter, b - is the vertical dimension, c - is the transverse size of the node.

The cesarean section was performed by a transverse incision in the lower segment. The technique for removing myomatous nodes depended on their number and location. A linear section was made in the projection of the myomatous node, the node was removed from the capsule and the wound was sutured with vicril# 0. In localization of the nodes in the lower segment the embryonic branch of the uterine artery was ligated for a more reliable hemostasis. After the restoration of the anatomical integrity of the uterus, the postoperative wound was sutured, leaving a tubular drainage in the Douglas cavity. All pregnant women were given 20 U of oxytocin intravenously in the first 24 hours after surgery. In the postoperative period, control of clinical and laboratory parameters, body temperature was made. The statistical analysis was conducted using the software Statistica 13.0 (Dell Inc., USA).

Results

Most often, in 69.0% (38 cases), the intramural localization of the myomatous nodes was recorded; in 20% of cases the subserous localization was determined, in 11% - there was multiple localization. Further analysis showed that in 43.6% (24 women) of cases, the myomatous nodes were located on the anterior wall of the uterus, in 20.0% (11 women) - in the uterine region, in 14.5% (8 women) - in the area of the body and the bottom of the uterus, in 10.9% (6 women) - in the posterior, in 3.6% (2 pregnant women) - in the area of the isthmus.

The average size of the removed nodes was $379 \pm 13 \text{ cm}^3$, however, in some patients the size of the tumor exceeded 500 cm^3 .

The average hemoglobin content was $118.9 \pm 5.9 \text{ g / l}$ before surgery and $103.6 \pm 6.4 \text{ g / l}$ - after the cesarean section with myomectomy. Blood loss was estimated by the Libob method and was up to 500 ml. Only two cases required transfusion of the blood products in

the postoperative period, due to an increase in intraoperative blood loss and a decrease in hemoglobin levels below 75 g / l.

The average duration of the surgical intervention was 55.9 ± 2.8 minutes.

There was no fever during the period of the follow up of the patients in the postoperative period. Puerperas were discharged on the $4.3^{\text{rd}} \pm 0.2^{\text{nd}}$ day.

Conclusions

1. Myoma of the uterus belongs to the most common benign tumor of the genital organs of women, which is one of the first places in the list of pathology of the reproductive system.

2. Pregnant women with uterine myoma constitute a risk group for the development of various complications of pregnancy and childbirth.

3. A guarantee of clinical success in performing simultaneous surgical interventions in uterine myoma is taking into account the indications for myomectomy in the caesarean section.

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