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Case Report

Caesarean myomectomy in case of anterior wall lower uterine segment myoma: a case report

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ABSTRACT

Uterine fibroids are common benign tumor among women of the reproductive age group. Pregnancy with uterine myomas is considered high risk due to inherent fetal and maternal complications. Caesarean myomectomy is a safe and economical treatment, particularly when executed by a proficient surgeon in carefully chosen circumstances. We report the case of a 37-year-old G2P1L1 woman at 38+3 weeks of gestation. Ultrasound revealed a singleton live intrauterine pregnancy with an intramural fibroid measuring 5.4×4.7 cm located in the anterior wall, along the lower uterine segment, near the internal os. The patient underwent an elective cesarean section with concurrent myomectomy. A healthy baby was delivered, and the myomectomy was successfully performed. The patient was discharged on postoperative day nine without any complications. The case adds to growing evidence that performing myomectomy during cesarean section, particularly when the surgeon is experienced, is safe and economical for the patient.

Keywords: Caesarean myomectomy, Leimyoma, Anterior wall uterine fibroid

INTRODUCTION

Uterine fibroids, or leiomyomas/myomas, are non-malignant smooth muscle neoplasms arising from the myometrium. Fibroids are the extremely common in the reproductive age group women. Studies have shown an incidence of 11.6% to 40% among reproductive aged women.[1-4] Fibroids' diverse clinical manifestations and health implications greatly impair women's quality of life. Heavy menstrual bleeding, pelvic discomfort, bladder and gut pressure sensations, infertility, and repeated pregnancy loss are among the symptoms.[5] Fibroid location affects clinical presentation and treatment.

Fibroid during pregnancy is not so common as fibroids are usually linked with infertility. The estimated incidence during pregnancy is 0.1-3.9%.[6,7] Leiomyoma size and location are the most important pregnancy morbidity predictors. Abortion, intra uterine growth retardation (IUGR), antepartum hemorrhage (APH), and post-partum hemorrhage (PPH) can result from placenta implantation over or near the fibroid.[8,9] However, a cervix or lower uterine tumour may impede labour. Breech appearances are frequent, and leiomyoma size and positioning may predict risk.[10]

Myomectomy is usually done, prior to the pregnancy in case of infertility or recurrent pregnancy losses.[11] Surgery to address fibroids in the early half of pregnancy is unusual. However, if needed antepartum myomectomy may be safely done in the second trimesters.[12,13] Myomectomy during caesarean delivery is avoided due to the well-established risk of severe haemorrhage requiring blood transfusion, uterine artery ligation, and/or puerperal hysterectomy.[14,15] Only if necessary to safely deliver the fetus or close the hysterotomy may myomectomy be performed during caesarean birth. Pedunculated subserosal fibroids can be removed safely during caesarean birth without bleeding.[16] In recent years, research has shown that caesarean myomectomy may be successfully performed on most myomas without severe

complications under skilled hands. Myomas vary in size and location, therefore patients should be informed of the risks, which are comparable to CS surgery.[17]

CASE REPORT

Here, we present the successful case of caesarean myomectomy, undertaken at tertiary care hospital in central India on 37-year-old G2P1L1, at 38+3 weeks of gestation with elective caesarean delivery. The patient did not have any significant history of medical illness. The first child was born 12 years back and had full term normal vaginal delivery. During the antenatal period, patients visited at gestational age of 31+3 weeks, wherein anterior wall fibroid of size 4×2.8 cm was noted along lower uterine segment in proximity of internal os. After the first visit, the patient was followed every 1-2 weeks.

At the gestational age of 38+3 weeks, the patient was admitted with intermittent lower abdominal discomfort spreading to her back. No per vaginal leakage or bleeding was reported. On admission, the patient had pulse of 104/min, blood pressure -120/70 mm Hg, and mild pallor. Abdominal examination revealed a term size uterus with cephalic presentation. On auscultation, fetal heart rate was 140 beats/minute. Other systemic findings were within normal limits.

The ultrasonography, after admission, confirmed a live intrauterine gestation with cephalic presentation alongside an anterior wall, intramural fibroid measuring 5.4×4.7 cm near the lower uterine segment, close to the internal os. The location of fibroid raised concerns about its potential to complicate labour.

Preoperative considerations

Prevaginal examination showed 2 cm of cervical dilatation with the presenting part at -3 station and membranes still intact. The progress of the labour was monitored. However, in view of persistent category II cardiotocography, the patient was planned for emergency caesarean section combined with a myomectomy to prevent potential complications such as uterine rupture or obstructed labour. The preoperative lab results showed a hemoglobin level of 11.6 gm%, total leucocyte count at 11400, platelets at 2.09 lakh, and a blood group of 0+. Blood products were prepared in advance, and the patient and her family were thoroughly informed about the risks of significant bleeding, the potential need for blood transfusion, and the possibility of a peripartum hysterectomy before obtaining written consent.

Surgical procedure and intraoperative care

A lower section caesarean section was initiated under spinal anesthesia. During surgery, the skin opened by Pfannenstiel incision. Abdomen opened layer by layer till peritoneum. Intramural 5×5 cm fibroid seen over lower uterine incision (Figure 1). Loose utero-vaginal fold identified and after pushing down the bladder, incision given over the fibroid, till the substance of fibroids. Myoma removed with the help of myoma screw (Figure 2). Transverse curvilinear incision given over the uterus. Amniotomy done, liquor clear and adequate. Baby delivered by vertex. The baby cried immediately after birth. Cord clamped and cut. A healthy female baby of 2.46 kg was delivered without complications. Placenta and membranes delivered completely. The uterus closed in double layer. Multiple homeostatic sutures given over the lower uterine segment. Bilateral Uterine artery ligation done. Injection carboprost 0.25 IM given. One packed red cell (PRC) given intra-operatively.

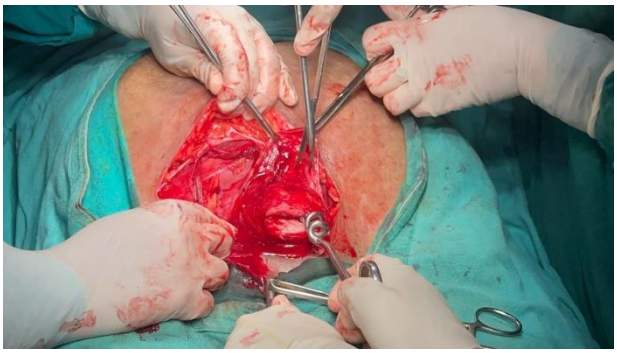

Figure 1: Anterior wall myoma of size 5×5 cm, near lower uterine segment.

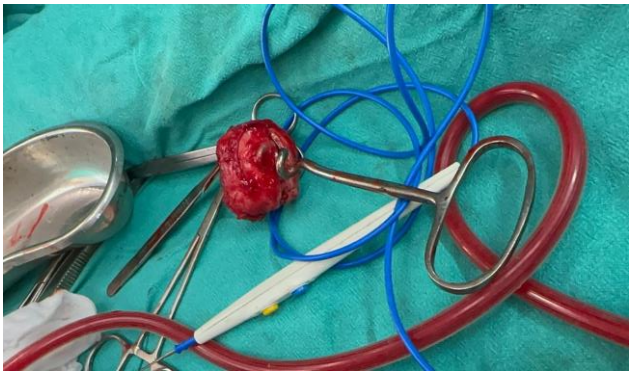

Figure 2: Enucleated myoma of size 5×5 cm.

Postoperative course

Both the cesarean section and the myomectomy were completed without complications. Hemostasis was effectively achieved. The baby was kept along the mother in the general ward. The patient recovered well and was discharged on the 9th postoperative day. No immediate complications were noted.

DISCUSSION

Fibroid-complicated pregnancy is risky. Despite most instances being asymptomatic or minor, 10–40% of pregnancies may have difficulties. Pregnancy loss, fibroid degeneration, malpresentation, placental abruption, premature labor, and surgical deliveries are possible.[9,18,19]

Conservative management is often advised throughout gestation. In some circumstances, such as twisted sub-serosal fibroids or significant fibroid growth leading to problems, myomectomy may be required. Notwithstanding its increasing popularity, doing a myomectomy during a caesarean section continues to be contentious.

Kwawukume et al performed caesarean myomectomies on 12 patients, observing that the fibroid excision was significantly facilitated during pregnancy due to the enhanced pliability of the tissue.[20] A retrospective case-control study comparing 40 women with fibroids who underwent caesarean myomectomy to 80 women with fibroids in the control group who had merely a caesarean section revealed no significant difference in bleeding rates between the two groups (12.5% versus 11.3%).[21] No significant changes were seen in haemoglobin levels, the necessity for blood transfusions, or the incidence of postoperative fever. Anita et al documented nine cases of caesarean section myomectomy and observed no significant differences with the mean surgical duration, volume of blood loss, postoperative pain, and mean length of hospital stay.[17]

Vaidya et al presented a case series of 10 cases.[22] Out of which, 6 patients undergone elective LSCS, while emergency LSCS was done in remaining cases. The predominant location was anterior, except for one instance that was posterior, and the prevalent kind is intramural. Notwithstanding preventative interventions, two individuals experienced postpartum haemorrhage of 2000 ml and 700 ml, respectively, with one requiring a blood transfusion. No instances of hysterectomy, neonatal morbidity, or death were observed in these patients.

In a prospective study conducted at Romanian tertiary care centre, wherein, single anterior uterine fibroids of 3-16 cm are seen in most cases.[23] CS is utilized by 85.96% of women and vaginal delivery by 7%. CS myomectomy rate for fibroids is 24.48. Hb levels did not differ significantly between myomectomy and non-myomectomy groups. CS patients with myomectomy had double the operating time. 7% of patients have abortions, 9.43% have early deliveries, and 90.57% have term babies.

In the present case, caesarean section was unavoidable due to category II cardiotocography (CTG). The decision of myomectomy was undertaken to avoid two surgeries for the patient. No significant blood loss was noted in the case. A crucial step in reducing complications in these cases was controlling blood loss. Bilateral ligation of the uterine arteries immediately after fetal delivery significantly reduced both intraoperative and postoperative bleeding, as well as the risk of requiring a hysterectomy. In our case, above approach helped prevent complications, with the postpartum uterus naturally adapting to control bleeding.

While some of the clinicians advocate the delivery of the baby first, followed by enucleation of myomas. We first enucleated the myoma followed by delivery of the birth. The decision was taken as the myoma was located at the lower uterine segment and the fetus was apparently safe.

CONCLUSION

The 37-year-old patient's caesarean myomectomy demonstrates that with a skilled surgical team, the treatment may be safe and successful. It supports previous research showing that caesarean myomectomy may be an option for women with fibroids that might compromise future pregnancies or births.

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