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Case Report

Caesarean myomectomy in a patient with multiple maternal and fetal comorbidities: a rare interesting case report

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ABSTRACT

Caesarean myomectomy has been traditionally discouraged due to the fear of complications like intractable haemorrhage, peripartum hysterectomy, and increased postoperative morbidity. Recently, a number of authors in their studies have shown that myomectomy during caesarean section does not increase the risk of haemorrhage or postoperative morbidity, if adequate haemostatic methods are used and done by skilled surgical hands. Caesarean myomectomy was performed in a case of elderly primigravida with 36-week gestation with chronic hypertension with polyhydramnios with anterior wall pedunculated fibroid of 8.6×7.2×8 cm and multiple small fibroids in the anterior wall, fundus and subserosal plane. Caesarean myomectomy is a safe and effective procedure in a tertiary care centre at hands of an experienced surgeon.

Keywords: Fibroid, Pregnancy, Myomectomy, Caesarean section, Mumbai, India

INTRODUCTION

Caesarean myomectomy has been traditionally discouraged due to the fear of complications like intractable haemorrhage, peripartum hysterectomy, and increased postoperative morbidity. Recently, a number of authors in their studies have shown that myomectomy during caesarean section does not increase risk of haemorrhage/post operative morbidity, if adequate haemostatic methods are used and done by skilled surgical hands.

The common indications for removal of uterine fibroids during caesarean section include fibroids obstructing lower uterine segment causing difficulty in baby delivery, fibroids causing difficulty in uterine closure and thus causing increased blood loss, prevention of necrobiosis, unusual intra-operative appearance and with pedunculated and anterior wall uterine fibroids.¹⁻⁵

CASE REPORT

A 38-year old, elderly patient with a second marriage, married for 1 year, came to our outpatient department with abdominal mass. General examination was unremarkable. Per abdominal examination revealed a 16-18 week size mass arising from the pelvis. The mass was firm to touch and mobile. On per vaginal examination, uterus was 16-18-week size, firm and mobile. Bilateral adnexa were free. Patient was advised ultrasonography and MRI pelvis.

Ultrasonography was suggestive of a bulky uterus with multiple small intramural fibroids in anterior and posterior wall and a large anterior subserosal fibroid of 5.7×5.1 cm. MRI findings were consistent with ultrasonography and incidentally intra-uterine solid cystic area representing G-sac of 3.2×2.9 cm was noted.

Ultrasound done at 9-week gestation confirmed the viability of single intrauterine gestation. As 3 tesla MRI

was done, the risk of exposure to the foetus was explained. The patient chose to continue pregnancy despite knowing the risks as it was a case of primary infertility. Nuchal Translucency scan at 11-week gestation and within anomaly scan at 19-week gestation was within normal limit.

Patient was newly diagnosed with hypertension at 14-week gestation and started on tablet labetalol 100 mg BD and tablet ecosprin 150 mg HS. Routine ANC investigations and PIH profile was within normal limits. Electrocardiogram, 2D ECHO, ultrasound of kidney and urinary bladder and renal artery doppler were within normal limits. Retinoscopy showed no evidence of hypertensive changes. Home blood pressure monitoring was advised.

Patient was admitted in second trimester in view of pain in abdomen. Torsion and red degeneration of fibroid was ruled out. Oral glucose tolerance test done at 24 weeks was within normal limit. Gross polyhydramnios with largest pocket 14.5 cm and normal Doppler was noted at 32 weeks.

Patient admitted at 32-week gestation for safe confinement. Corticosteroid cover with injection betamethasone 12 mg IM 24 hours apart was given at 32 weeks. Weekly doppler and PIH profile was within normal limit. Blood sugars and blood pressure monitoring was normal.

Elective LSCS was done at 36-week gestation due to development of respiratory distress in mother due to severe polyhydramnios. A male baby of 2.3 kg with APGAR 8/10 was delivered. Caesarean myomectomy was done for the anterior wall sub-serosal pedunculated fibroid (Figure 1).

Intra-operatively, anterior wall sub-serosal pedunculated fibroid of 7×6 cm was seen. Vasopressin diluted in 1:200 dilution was injected in the fibroid till blanching was seen, while keeping a watch on pulse rate. Serosa was dissected and the fibroid was separated out from the myometrium. The defect was sutured in double layers from below upwards (Figure 2 and 3).

Haemostatic measures like bilateral uterine artery ligation, injection oxytocin 20 IU IV infusion, injection carboprost (PGF2-alpha) 250 microgram intra- myometrial, 2 doses were given 15 minutes apart, injection tranexamic acid 1 gm IM were used. Raw area compressed with hot mop for 10 mins. Haemostasis was thus achieved.

Pre-operative haemoglobin was 11.6 gm/dl. Estimated blood loss was 1.2 litres. Intra-operatively, 1 unit PRC was given and patient was shifted to the ward. Post-operative haemoglobin was 11.3 gm/dl. Patient withstood the procedure and anaesthesia well.

The baby was diagnosed with tracheo-oesophageal fistula for which the baby was operated on day 5 of life. The

congenital anomaly was responsible for the gross polyhydramnios.



Figure 1: Anterior wall subserosal fibroid.



Figure 2: Haemostasis achieved.



Figure 3: Specimen of fibroid.

DISCUSSION

Uterine fibroids are benign tumours that grow slowly and arise from the uterus' smooth muscle cells.⁶ Fibroids with menorrhagia, anaemia, and a lump in the abdomen with pain account for one-third of gynecology admissions.⁷ Because leiomyoma growth is reliant on oestrogen production, particularly sustained oestrogen release during pregnancy and breastfeeding, it is regarded to be the most essential risk factor for myomatous fibroid formation.⁷ Fibroids affect 20-40% of women throughout their reproductive years, and 11-19% of women in their perimenopausal years.⁷ The site-size figures differ from one woman to the next. Fibroids of various sizes, both microscopic and enormous, have been recorded in the literature.

Fibroid symptoms are most common in people between the ages of 35 and 55. Women with menorrhagia, metrorrhagia, discomfort, and multiple sub mucous fibroids, which deform the myometrial cavity, were on average 40 years old. Women who presented to the gynecology OPD with strong gushing blood, extended menses, and a high number of hospital visits had symptomatic fibroids that were 14-16 weeks old and required medical/surgical care.⁸ These women had significant anaemia as well as pain from degenerative changes.⁸ As women age, fibroids get larger and create pressure sensations, necessitating surgical treatments such as hysterectomy or myomectomy for the majority of them.^{6,7,9}

Munusamy et al found a prevalence rate of 37.65% with 24% in Bombay, 78% in Peshwar, Pakistan and 29.3% in Nigeria.⁸⁻¹¹ In terms of geographic and ethnic composition, there is a large disparity in the sociodemographic profile of uterine fibroids.

If myomectomy could be performed successfully during caesarean deliveries in the future, it would avoid the additional morbidity of a separate treatment (laparotomy to remove fibroids, anaesthesia, and its potential consequences) in the future, supporting the approach's cost effectiveness.¹² In resource-constrained contexts, this would be a considerable benefit of the procedure. Other known consequences of fibroids, such as menorrhagia, anaemia, and discomfort (e.g., from torsion or "red" degeneration during a subsequent pregnancy), could also be reduced during puerperal uterine sub-involution.¹³ Furthermore, because fibroids can be found in the lower uterine section, if they are not removed, the surgeon is left with only one option: a "traditional" uterine incision with all of its difficulties.

Apart from the benefits already mentioned, another advantage of caesarean myomectomy is that it increases the likelihood of vaginal delivery in subsequent pregnancies when the lower uterine portion is removed.¹⁴ When measured with serial ultrasound scan in subsequent pregnancies and during subsequent caesarean sections,

scar integrity following caesarean myomectomy was found to be better than that following interval myomectomy.^{10,15}

According to the findings of the evaluated research, caesarean myomectomy is safe and poses no greater danger to the patient than a caesarean section alone. The majority of these surgeries have been conducted on pedunculated and anterior fibroids that are less than 6 cm in diameter and are impeding the lower uterine segment or wound closure after the baby has been removed. However, if it is done as an emergency operation while the patient is already in labour or the foetal membranes have ruptured, there is a higher risk of sepsis.⁹

Blood loss, haemoglobin level change, need for blood transfusion, mean operative time, post-surgical fever, and hospital stay duration were compared between lower segment caesarean section and caesarean myomectomy. According to studies by Roman and Tabsh and Brown et al peri-operative blood loss is comparable between caesarean section and caesarean myomectomy, and the p-value is not significant. In addition, Roman et al, Brown et al and Kwawukume found that the change in pre-operative and post-operative haemoglobin as well as the need for blood transfusion, were similar in cases of caesarean myomectomy and caesarean section alone. In addition, these investigations found that the average operating time, post-surgical fever, and hospital stay were equivalent between lower segment caesarean section and caesarean myomectomy and p value was not significant.^{2,12,13}

Large multicenter randomised trials are recommended to determine the optimum practise for myomectomy during caesarean delivery. These will help to determine acceptable selection criteria, surgical procedures, and haemostatic choices, as well as improve the procedure's overall outcome. Other haemostatic techniques used on non-gravid uteri, such as vaginal misoprostol, bupivacaine-epinephrine injection, and enucleation of the myomata by morcellation, should be evaluated in meta-analyses to see if they are helpful during caesarean myomectomy.¹⁶ Longitudinal studies were also needed to assess the long-term obstetric effects and the risk of uterine rupture in subsequent pregnancies.

CONCLUSION

Elective myomectomy after caesarean birth should be approached with caution, and may possibly be limited to individuals with pedunculated fibroids or situations in which the lower segment incision (for retrieving the baby) cannot be closed without removal of the fibroid(s). In order for caesarean myomectomy to be performed on a regular basis, blood banks must be sufficiently staffed and equipped, and their methods must match international standards. Caesarean myomectomy is a safe and effective procedure in a tertiary care centre at hands of an experienced surgeon.

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