

Planned cesarean myomectomy at term for huge intramural fibroids coexisting with pregnancy: A case report

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ABSTRACT

With about 2–11% of pregnancy co-existing with fibroids, one in 10 women will have complications related to myoma in pregnancy. The procedure of cesarean myomectomy has been much discouraged and the need to perform inevitable myomectomy during the cesarean section (CS) when fibroids obstruct wound closure has been presented. A case of a primigravida with huge uterine fibroids displacing the fetus into a persistent oblique lie and causing maternal discomfort is presented. A planned cesarean myomectomy was performed. Hemorrhage was controlled with tourniquet using Foley catheter, misoprostol, and high dose oxytocin infusion. The mother and baby had a satisfactory outcome. Elective cesarean myomectomy is safe but should only be done by an experienced surgeon and in centers equipped with facilities for comprehensive emergency obstetric care.

Key words: Cesarean myomectomy; cesarean section; fibroids.

Introduction

Fibroids coexist with pregnancy in about 2–11% of pregnant women,^[1,2] and maybe an indication for or contributor to cesarean delivery.^[2,3] A frequent request by patients with previously diagnosed myoma is usually its simultaneous removal during the time of the cesarean section (CS). Although the first case of cesarean myomectomy was reported about a century ago by Bonney,^[4] it has been a controversial procedure because of the increased risk of associated morbidities such as hemorrhage with increased risk of blood transfusion, hysterectomy, postoperative febrile morbidities, and increased analgesic requirement. Evidences are however accruing of its safety in well-selected patients.^[5,6] Most of cesarean myomectomies done are for fibroid nodules that are small in size (1–13 cm), pedunculated, subserosal, or those inevitably located in the line of uterine incision to deliver the baby.^[3,7,8] We present the case of a woman with five giant

intramural fibroids (largest measuring 36 × 26 × 22 cm) who underwent a planned cesarean myomectomy.

Case Report

A 35-year-old unbooked primigravida was seen at the obstetric unit at an estimated gestational age (EGA) of 34 weeks with complaints of huge coexisting uterine fibroids with her pregnancy causing her discomfort. She had been diagnosed with uterine fibroid about 2 years earlier following evaluation for infertility and was arranging for its removal when she spontaneously conceived this pregnancy and had cervical cerclage done at EGA of 17 weeks at a private hospital where

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she was initially managed. The fibroid masses were noticed to be increasing in size as the pregnancy progressed with associated increasing discomfort but there was no abdominal pain. On examination, she was not pale, not dehydrated but had bilateral pitting pedal edema up to the lower third of her legs. Her vital signs were within normal limits. The abdomen was grossly distended, irregular and shiny. She was unable to lie down in both supine and left lateral positions, the uterine limits could not be delineated and the other intraabdominal organs could not be assessed. The largest fibroid was huge measuring about 36 × 28 cm continuous with the uterus, not mobile nor tender. In addition, there were 4 smaller fibroids left superolateral border of the uterus. The fetus was observed to be in an oblique lie in the right hypochondrium oriented along the plane of the subcostal angle with fetal heart rate (FHR) of 136 bpm. She was admitted and nursed propped up in bed. Results of full blood count, renal and liver function tests, clotting profile were all within normal limits. Ultrasound scan measured the fibroid mass to be 18.56 cm × 13.49 cm pushing the fetus to the right of the maternal abdomen. She was managed expectantly, thromboembolic prophylaxis measures put in place, had four units of blood crossmatched for her, and was counseled for elective cesarean myomectomy at term.

She had cesarean myomectomy done under general anesthesia with endotracheal intubation at EGA 37 weeks. A midline incision with supraumbilical extension was made and about 300 mls of straw-colored ascitic fluid was drained from the peritoneal cavity. A live male baby weighing 3.2 Kg was delivered together with the placenta via a lower segment uterine incision. Intravenous oxytocin 40 iu in 500 mls of normal saline was infused and tourniquet using a size 24Fr Foley catheter was then applied to occlude both uterine and ovarian arteries as shown in Figure 1. A fibroid nodule with cystic degeneration measuring 32 × 26 cm and weighing 5.5 kg was enucleated from the anterior myometrium and four fibroid others nodules ranging



Figure 1: Applying tourniquet after delivery of the baby

from 5–12 cm in diameter were removed. The tourniquet was removed after the dead spaces and hysterotomy sites were closed up [Figure 2] and uterotonics were administered. The procedure lasted about 3 hours with an estimated blood loss of 1L, and she was transfused with 3 units of blood and one fresh frozen plasma both intra and postoperatively. She also had postoperative analgesia with pentazocine interspersed with diclofenac. For antibiotic coverage, she had cefuroxime and metronidazole for 1 week. She had an unremarkable postoperative period and was discharged home on the 6th postoperative day.

Discussion

Myomectomy during CS remains a controversial topic. However, recent studies have shown no difference in the mean hemoglobin change, the incidence of postoperative fever, and the length of hospital stay between patients with fibromyomas who underwent a myomectomy during a CS delivery and those with or without fibromyomas that underwent CS deliveries.^[5,9,10] A huge fibroid has been defined as a fibroid with a diameter of 5 cm and has been implicated as a risk factor for complications.^[11-13] Cesarean myomectomy is less frequently performed in cases of intramural and multiple myomas. However, more often performed in patients affected by pedunculated and subserosal myoma^[14] As large as a 30 cm × 25 cm × 25 cm subserosal fibroid weighing 5290 g has been removed with an estimated blood loss of 1L and the procedure lasting 4 hours.^[15] Our patient had a huge intramural fibroid measuring 36 cm × 26 cm × 22 cm and the estimated blood loss was comparable but with shorter duration of surgery. The trans-endometrial approach as opposed to the trans-serosal approach has been proposed and is said to be safe, feasible, and with less intraoperative blood loss, and has the potential to diminish the risk of abdominal adhesion formation.^[16] However, the size of this fibroid precluded the use of this approach.



Figure 2: The uterus after removing the fibroids and closure of the cavities

Several surgical techniques have been developed to reduce hemorrhage associated with cesarean myomectomy, including bilateral ligation of ascending arteries, application of a tourniquet, selective uterine devascularization, and the administration of intravenous oxytocin. Lee and Cho described the use of purse-string sutures around the myoma before enucleation to reduce blood loss.^[17] Increasingly, more of these procedures are done under spinal or combined spinal-epidural anesthesia mainly due to the small sizes of the fibroid. However, because of the huge size of this fibroid, general anesthesia was used. Cesarean myomectomy increases the risk of perioperative blood transfusion and the patient had three units of blood transfused which is expected for the size of the fibroid.^[14,15] However, there was no febrile morbidity.

It is noteworthy to point out that at our center (Obafemi Awolowo University Teaching Hospitals Complex, Ile-ife, Nigeria), in 2016, a cross-sectional study was carried out on the correlates between uterine fibroids and estrogen receptor α (ER α) and progesterone receptor (PR). The tumor diameter correlated negatively with the immunoscores of both receptors irrespective of age, parity, and body mass index but this was only significant for PR ($\beta = -0.44, P \leq 0.001$). Downregulation of PR on uterine fibroids occurred at a diameter of 11 cm. It was concluded that uterine fibroids seemed to depend on a steroid but only during the early tumor development. This could have implications for the selection of patients for medical management, especially with steroid receptor modulators.^[18] It was summarized that fibroids that have grown to huge proportions such as this case may not be amenable to medical management with steroid receptor modulators. Consequently, surgical intervention might be the only feasible option.

This case is unique because of its giant nature, intramural location, a planned procedure, and successful removal with uneventful postoperative recovery.

Conclusions

The possibility of safely performing myomectomy during CS is appealing in the low-resource settings of sub-Saharan Africa where fibroids are common and it saves costs by obviating subsequent interval myomectomy. Elective cesarean myomectomy is safe but should only be done by an experienced surgeon and in centers equipped with facilities for comprehensive emergency obstetric care as in this case.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients

understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

References

- Omar SZ, Sivanesaratnam V, Damodaran P. Large lower segment myoma--myomectomy at lower segment cesarean section--a report of two cases. *Singapore Med J* 1999;40:109-10.
- Chauhan AR. Cesarean myomectomy: Necessity or opportunity? *J Obstet Gynaecol India* 2018;68:432-6.
- Gbadebo AA, Charles AA, Austin O. Myomectomy at cesarean section: Descriptive study of clinical outcome in a tropical setting. *J Ayub Med Coll Abbottabad* 2009;21:7-9.
- Bonney V. "Cesarean myomectomy"; Remarks on the operation. *Proc R Soc Med* 1914;7:121-3.
- Owolabi AT, Kuti O, Loto OM, Makinde ON, Adeyemi AB. Cesarean myomectomy-a safe procedure: A retrospective case controlled study. *N J Obstet Gynaecol* 2007;2:59-62.
- Akbas M, Mihmanli V, Bulut B, Temel Yuksel I, Karahisar G, Demirayak G. Myomectomy for intramural fibroids during cesarean section: A therapeutic dilemma. *J Obstet Gynaecol* 2017;37:141-5.
- Igwegbe AO, Nwosu BO, Ugboaja JO, Monago EN. Inevitable cesarean myomectomy. *Niger J Med* 2010;19:233-5.
- Abasiattai AM, Bassey EA, Essien EU, Utuk NM. Inevitable myomectomy during cesarean section: A case report. *Niger J Clin Pract* 2009;12:99-100.
- Kanthi JM, Sumathy S, Sreedhar S, Rajammal B, Usha MG, Sheejamol VS. Comparative study of cesarean myomectomy with abdominal myomectomy in terms of blood loss in single fibroid. *J Obstet Gynaecol India* 2016;66:287-91.
- Tinelli A, Malvasi A, Mynbaev OA, Barbera A, Perrone E, Guido M, *et al.* The surgical outcome of intracapsular cesarean myomectomy. A match control study. *J Matern Fetal Neonatal Med* 2014;27:66-71.
- Dedes I, Schaffer L, Zimmermann R, Burkhardt T, Haslinger C. Outcome and risk factors of cesarean delivery with and without cesarean myomectomy in women with uterine myomas. *Arch Gynecol Obstet* 2017;295:27-32.
- Kim YS, Choi SD, Bae DH. Risk factors for complications in patients undergoing myomectomy at the time of cesarean section. *J Obstet Gynaecol Res* 2010;36:550-4.
- Awoleke JO. Myomectomy during cesarean birth in fibroid-endemic, low-resource settings. *Obstet Gynecol Int* 2013;2013:520834.
- Sparic R, Malvasi A, Tinelli A. Analysis of clinical, biological and obstetric factors influencing the decision to perform cesarean myomectomy. *Ginekol Pol* 2015;86:40-5.
- Huang YP, Hsu MC, Lee CN, Fan SZ, Chen LK. Myomectomy of a massive uterine myoma during cesarean section under regional anesthesia. *Taiwan J Obstet Gynecol* 2015;54:196-7.
- Hatirnaz S, Guler O, Basaranoglu S, Tokgoz C, Kilic GS. Endometrial myomectomy: A novel surgical method during cesarean section. *J Matern Fetal Neonatal Med* 2018;31:433-8.
- Lee JH, Cho DH. Myomectomy using purse-string suture during cesarean section. *Arch Gynecol Obstet* 2011;283(Suppl 1):35-7.
- Awowole IO, Makinde ON, Badejoko OO, Omoniyi-Esan GO, Tijani AM, Ajenifuja KO, *et al.* Clinical correlates of leiomyoma estrogen and progesterone receptors among Nigerian women. *Int J Gynecol Obstet* 2016;135:314-8.