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SUMMARY

Caesarean myomectomy is a controversial topic in our set up. This is a case report of a 29-year-old primigravida who was scheduled to undergo caesarean section due to a large lower uterine segment fibroid at term. Intra-operatively, the uterine fibroid interfered with closure of the uterus after extraction of the infant. A caesarean myomectomy was successfully carried out and hysterectomy avoided. The decision to carry out caesarean myomectomy should be individualized to the patient, presentation, surgeon's experience and available resources.

INTRODUCTION

Caesarean myomectomies are seldom done in the Kenyan set up, with many preferring to carry out a secondary operation in future to remove the offending uterine fibroid. While it is safe to avoid the uterine fibroid, and schedule an operation for a later date, sometimes the leiomyoma may require emergent removal. Caesarean myomectomy may be performed safely in such cases thus preserving fertility and avoiding repeat surgeries.

CASE REPORT

We present the case of a 29-year-old primigravida who was presented at Nazareth Hospital at term. Her preferred mode of delivery was an elective caesarian section as she had been found to have multiple uterine fibroids during antenatal clinic attendance. The patient had started her antenatal clinic visits at 10 weeks' gestation. During her first antenatal visit, the fundal height was noted to be greater than the gestation by dates. She did not have any complaints at this stage. She had a 2D obstetric ultrasound scan which showed multiple intramural fibroids and a single intrauterine pregnancy. She attended antenatal clinic five times in total, and during each visit, her fundal height was noted to be larger than gestation by dates. Prior to conceiving, the patient had regular menses. Her menarche was at the age of 11, and she had regular menses every 28 days lasting 3 days. She did not have history of heavy or prolonged menstrual flow. She had no prior history of contraceptive use. During admission, she was noted to be in good general condition and not pale. Her haemoglobin level was 12.2g/dl. An obstetric ultrasound done showed a lower uterine segment intramural fibroid measuring 6cm by 3cm by 4cm and a fundal intramural fibroid measuring 10cm by 8cm by 6cm, amongst many other fibroids. Intraoperatively, Pfannenstiel incision was made and on visualizing the uterus, a large intramural fibroid was noted on the lower uterine segment, necessitating the transverse incision to be made through it. The fibroid measured approximately 7cm by 7cm. A live male infant, weighing 2700 grams, was delivered with difficulty but scored well. After manual delivery of the placenta, closure of the uterus was attempted, but haemostasis could not be achieved due to the fibroid (Figure 1).

Figure 1
Intramural fibroid at caesarean incision

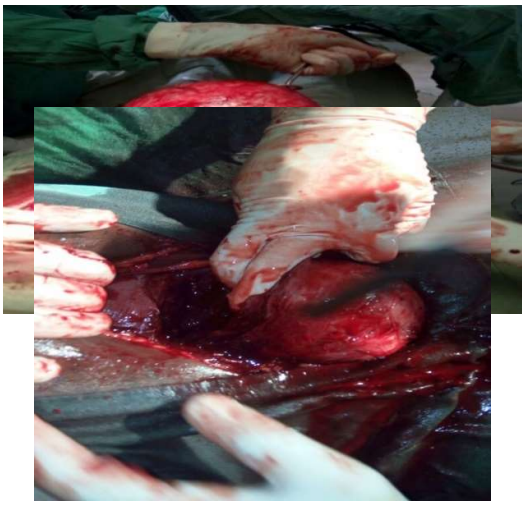
Site. *Infant already extracted*

A decision to perform a caesarian myomectomy was reached to save the patient's uterus, as this was her first pregnancy, and the procedure carried out expeditiously. No other fibroid was removed. The myometrial defect (Figure 2) was closed in 3 layers using absorbable suture, and the uterus repaired in two layers. The uterus was noted to have multiple other fibroids that were left untouched (Figure 3). Estimated blood loss was 1500 milliliters. The patient was transfused with one unit of whole blood post operatively and was discharged in a stable condition on the third post-operative day. Haemoglobin level at discharge was 13.4g/dl.

At discharge, the patient was advised on post-natal clinic attendance, and a follow up plan for the remaining fibroids was made. She was advised on contraception and an inter-pregnancy interval of not less than 18 months.

Figure 2
Uterine defect after myomectomy prior to repair

Figure 3
Intramural fibroid at caesarean incision site. Note the posterior uterine fibroids that were left untouched



DISCUSSION

Fibroids may be encountered in pregnancies in varying degrees amongst different populations. The incidence of fibroids in pregnancy varies from 0.1% to 3.9%(1) and in most cases they arise prior to the pregnancy. Fibroids in pregnancy are associated with many risks, mainly premature delivery, painful degeneration and haemorrhage at delivery (2).

However, despite painful degeneration being one of the more common effects, most pregnancies progress uneventfully despite the presence of fibroids (3). Pregnant women with fibroids have a higher caesarean section rate than those without fibroids (4). This has been found to be due to distortion of the uterus and presence of lower uterine segment fibroids.

These fibroids either lead to abnormal labour, or block the passageway for the baby. Due to this, fibroids in pregnancy are associated with a higher risk of bleeding at delivery and a higher rate of caesarean delivery(5). When found during caesarean delivery, fibroids are usually avoided and a classical incision preferred (6).

This has traditionally been done to avoid uncontrollable haemorrhage from either transecting an encountered fibroid, or myomectomy during the caesarean section. Caesarean myomectomy has remained a controversial topic due to its association with haemorrhage and post-operative morbidity (7).

The procedure may be difficult in the hands of an inexperienced surgeon, or in cases where the fibroids are large or require multiple incisions leading to massive haemorrhage (8). For these reasons, caesarean myomectomy is avoided. However, it has been found that the amount of haemorrhage is determined by the size of the defect and the speed of closing it (9).

Caesarean myomectomy has been found to be a safe procedure in the hands of a competent surgeon. Like in this case study, caesarean myomectomy may be the only option available at the time of delivery due to lower uterine segment fibroids. It offers the added advantage of not only avoiding a repeat operation in future to remove the fibroids (10), but also the benefit of avoiding hysterectomy and preserving ability to conceive in future (7).

Despite its safety, caesarean myomectomy has been associated with increased surgery time and more need for transfusions compared to performing the caesarean section alone (11). In conclusion, it is up to the surgeon to individualize each case having in mind the safety of caesarean myomectomy and the risks involved. The patient in this study benefited twofold: avoiding a repeat surgery for the myomectomy, and preservation of the uterus, giving her a chance at conceiving in future.

REFERENCES

1. Vitale SG, Tropea A, Rossetti D, Carnelli M, Cianci A. Management of uterine leiomyomas in pregnancy: review of literature. Updates Surg [Internet]. 2013 Sep 30 [cited 2016 Dec 21];65(3):17982.Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/23361218
2. Doğan S, Özyüncü Ö, Atak Z. Fibroids During Pregnancy: Effects on Pregnancy and Neonatal Outcomes. J Reprod Med [Internet]. [cited 2016 Dec20];61(12):527.Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/26995889
3. EZZEDINE D, NORWITZ ER. Are Women with Uterine Fibroids at Increased Risk for Adverse Pregnancy Outcome? Clin Obstet Gynecol [Internet]. 2016 Mar [cited 2016 Dec 20];59(1):119–27. Available from: http://www.ncbi.nlm.nih.gov/pubmed/26670833
4. Levast F, Legendre G, Bouet P-E, Sentilhes L. Prise en charge des myomes utérins durant la grossesse. Gynécologie Obs Fertil [Internet]. 2016 Jun [cited 2016 Dec 20];44(6):350–4. Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/27216952
5. Martin J, Ulrich N, Duplantis S, Williams F, Luo Q, Moore R. Obstetrical Outcomes of Ultrasound Identified Uterine Fibroids in Pregnancy. Am J Perinatol [Internet]. 2016 Sep 15 [cited 2016 Dec 20];33(12):121822.Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/27631601
6. Hasan F, Arumugam K, Sivanesaratnam V, Michalas S, Oreopoulou F, Papageorgiou J, et al. Uterine leiomyomata in pregnancy. Int J Gynecol Obstet [Internet]. 1991 Jan [cited 2016 Dec 20];34(1):45–8.Availablefrom: http://linkinghub.elsevier.com/retrieve/pii/002072929190537F
7. Machado LS, Gowri V, Al-Riyami N, Al-Kharusi L. Caesarean Myomectomy: Feasibility and safety. Sultan Qaboos Univ Med J [Internet]. 2012 May [cited 2016 Dec 20];12(2):190–6. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22548138
8. Akbas M, Mihmanli V, Bulut B, Temel Yuksel I, Karahisar G, Demirayak G. Myomectomy for intramural fibroids during caesarean section: A therapeutic dilemma. J Obstet Gynaecol (Lahore) [Internet]. 2016 Dec 7 [cited 2016 Dec 20];1–5. Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/27924663 Spariç R. Intraoperative hemorrhage as a complication of cesarean myomectomy:
9. analysis of risk factors. Vojnosanit Pregl [Internet]. 2016 May [cited 2016 Dec 20];73(5):415–21.Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/27430104

10. Anita K, Seema M, Richa P, Kant A. Cesarean myomectomy The Journal of Obstetrics and Gynecology of India. J Obs Gynecol India. 57(2):128–30.
11. Kumar R R, Patil M, Sa S. The Utility of Caesarean Myomectomy as a Safe Procedure:A Retrospective Analysis of 21 Cases with Review of Literature. J Clin DIAGNOSTIC Res [Internet]. 2014 Sep [cited 2016 Dec 20];8(9):OC05-8. Availablefrom:http://www.ncbi.nlm.nih.gov/pubmed/25386485