

Successful Removal of Forty- Two Number Fibroid Masses during Caesarean Section in A Primigravid Woman in a Private Facility in a Low Resource Area: A Case Report

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ABSTRACT

Uterine fibroid is the most common pelvic tumour in women of reproductive age. It has an incidence of 0.05 – 5%. Its prevalence peaks between 30 – 39 years. It is seven times (7x) more common among blacks than Caucasians [1]. Here, we present a 30-year-old primigravid woman who had caesarean myomectomy in which 42 number of variously sized fibroid masses were enucleated in a private specialist hospital. This case report suggests that caesarean myomectomy does not appear to increase the risk of immediate or short term post-partum morbidity. It also shows that it is feasible to remove all the visible and palpable fibroid nodules during caesarean myomectomy with relative safety.

Keywords

Caesarean section, Fibroid, Pregnancy, Private clinic, Primigravida

Introduction

Uterine fibroid is the most common pelvic benign tumour in women of reproductive age with an overall incidence of 40% to 60% by age 35 and 70% to 80% by age 50 [2]. Uterine fibroid is more common among blacks than Caucasians. The precise aetiology of uterine fibroids remains uncertain [2].

The incidence of fibroid in pregnancy has been increasing lately in our environment probably due to recent increases in maternal age at onset of pregnancy. Given the increasing maternal age at commencement of pregnancy in our environment which is probably due to carrier pursuit, poor socioeconomic situation, rising youth unemployment etc. there is the likelihood that the incidence of fibroid in pregnancy will increase. This, therefore presupposes that the obstetrician and gynaecologists will encounter more of such cases; consequently, therefore there may be an increased need for surgical treatment of fibroid in pregnancy or during delivery due to its associated complications. There is also much need to resolve the dilemma in the management of fibroid in pregnancy.

Uterine leiomyoma is the most common tumour and or associated findings in pregnancy and during caesarean delivery. Recently myomectomy has been documented as the commonest surgery carried out during caesarean section [3] and it has been quoted to account for about 0.89% of all cesarean sections [4].

For decades now, medical students and obstetrician and gynaecologists alike have been taught that caesarean myomectomy should be avoided due to the risk of excessive blood loss, increased risk of unwanted hysterectomy and post-operative sepsis. The type of fibroid which is generally accepted to be removed during caesarean section is pedunculated fibroid.

Here, we present a case of caesarean myomectomy in which 42 numbers of variously sized fibroid masses were enucleated.

Case Report

A 30-year-old primigravid woman was referred to Life gate Clinics Limited Owerri, Imo state, Nigeria with severe excruciating lower abdominal pain in pregnancy at 15 weeks gestation on the 28th of April 2018. Her last menstrual period was seventh of January 2018 and her expected date of date of delivery was sixteenth of

October 2018. She was diagnosed to have multiple fibroid some years prior to the onset of pregnancy. During which she suffered from heavy menstrual flow (menorrhagia), recurrent abdominal pain and frequent passage of urine. She was then offered myomectomy which she declined to due to the fear of surgery and worries about the impact of surgery on her reproductive life. In addition, she never wanted any scare on her body since she was then single and not yet married.

Physical examination revealed a woman in painful distress and sweating. Her pulse was 120bpm, blood pressure BP – 100/60mmHg, respiratory rate – 40bpm and temperature – 36.30 C (degree centigrade). Her height was 155cm and weight was 60kg. The symphysiofundal height (SFH) was 28cm.

Booking ultrasound scan revealed viable singleton at 14 weeks 5 days. The myometrium harboured multiple variously sized fibroids. The two largest fibroid masses measured 60mm x 70mm and 62mm x 65mm. Her booking packed cell volume (PCV) was 24%. Human immunodeficiency virus (HIV), venereal disease research laboratory (VDRL), hepatitis B surface antigen (HBsAg), hepatitis C virus (HCV) screening tests were all non-reactive. Her blood group was A Rhesus D positive while her genotype is AA.

She was admitted and resuscitated with intravenous fluids, parenteral and oral analgesics. The pregnancy was monitored during the antenatal period with repeated ultrasound scans as neither the fetal growth nor the fetal heart and wellbeing could be properly assessed abdominally with tape measurement, pinard fetoscope or sonicaid. The fibroid masses increased markedly in size during the ante natal period as revealed by ultrasound scan.

She received haematinic supplements throughout the pregnancy. She was also assisted to improve on her nutrition. She could not afford erythropoietin injection. Her PCV remained below thirty percent throughout the prenatal period. At 39 weeks gestation ultrasound scan revealed a 70mm x 50mm sized cervical fibroid preventing the descent of the presenting part thereby indicating an elective caesarean section. She strongly requested for the fibroid masses to be removed during the caesarean section.

After consultation with both the anaesthesiologist and neonatologist elective lower segment caesarean section and caesarean myomectomy were done. The peritoneal cavity was accessed through an extended subumbilical midline incision. She was delivered of a live 3.2kg female baby with APGAR score of 8/1 and 10/5.

About 42 numbers of variously sized fibroid masses were enucleated. The blood loss was less than 1000mls. The surgery stated at about 8.15am and ended 10: 50 am. There was no blood transfused. She received four and half (41/2) litres of fluid intra operatively.

The surgery was done with combined spinal and epidural anaesthesia. Foleys catheter was used as a tourniquet to reduce

blood loss during the myomectomy. Intravenous oxytocin infusion and rectal misoprostol were used to maintain adequate uterine contraction intra operatively and within the first 24hrs after surgery. She was discharged on the 3th day post operation. At the time of discharge uterine involution has commenced and no post-surgery morbidity was noted.

Her puerperal period was uneventful. She made clinic visits 2nd week, 4th week 6th week and 12th week post-partum. At 6 weeks visit the packed cell volume (PCV) has increased to 31%. She was continued on haematinics and discharged from the obstetrics clinic. Ultrasound scan done at the 12th week visit did not reveal any fibroid mass.

Discussion

Uterine leiomyoma (fibroid) is a common benign uterine tumour affecting women of reproductive age. It is about seven times (7×) more common in Blacks than Caucasians [1]. The incidence of fibroid in pregnancy is quoted to be about 2.7% to 12.6% [5].

Uterine fibroids are usually asymptomatic both in pregnant and non-pregnant women. The mainstay of the diagnosis of fibroids is ultrasound scan. Ultrasound scan is reliable, readily available, cheap and easy to interpret. The routine use of ultrasonography in prenatal assessment of pregnancy has improved detection and diagnosis of myomas of various sizes during pregnancy and this has helped increase the knowledge of myomas in pregnancy [6].

There are lots of controversies surrounding the effect of fibroid on pregnancy and also the effect of pregnancy on fibroid. Fibroid in pregnancy may not have any effect on the pregnancy or pregnancy outcome and verse versa. However, in some cases fibroid in pregnancy may be associated with anaemia in pregnancy due to menorrhagia before the onset of pregnancy, spontaneous miscarriage, abnormal lie and presentation, preterm delivery, mal-presentation, pains which may be severe and excruciating due to necrobiosis or torsion of the pedunculated types, uterine inertia/hypotonia occasioned by the fibroid masses, increased risk of caesarean section, post-partum haemorrhage, and endometritis,. Fibroid in pregnancy has also been reported as a rare cause of retained placenta [8].

The complications noted in this patient include menorrhagia leading to severe aneamia in pregnancy, urinary frequency, massive increase in the sizes of the fibroid masses during the index pregnancy, severe excruciating abdominal pains from degenerative changes, grossly enlarged abdomen, and caesarean section due to cervical fibroid detected by ultrasound scan at term [5].

The diagnosis of multiple fibroids was made before the onset of her index pregnancy. She however suffered most of the known complications of fibroid prior to onset of pregnancy for which she was offered myomectomy. The fear of surgery itself and the possible effects of the surgery on her overall reproductive health/

function made her to decline myomectomy which was offered to her initially before the onset of the index pregnancy. The fear of surgery among African women has been corroborated in other reports [7]. Symptomatic fibroids are better managed before onset of pregnancy with a view to improving fertility potential and pregnancy outcome.

Conservative medical management is generally accepted as first line of management of symptomatic and asymptomatic fibroid in pregnancy. She responded well to conservative medical management. On very rare occasions where the symptoms remain intractable and the conservative/medical management is deemed to have failed myomectomy during pregnancy can be done [9,10]. The success of this surgical procedure has been documented by various gynaecologist [9,10].

Pregnancy preserving myomectomy is potentially risky due to the risk of miscarriage/ pregnancy loss, haemorrhage, increased risk of massive blood transfusion and hysterectomy [9]. More so patients with severe intractable symptoms have also been offered elective termination of pregnancy and interval myomectomy [9].

The treatment of fibroid during caesarean section has been controversial and possess a dilemma to the obstetrician. The traditional teaching and widely held opinion is to avoid myomectomy during caesarean section due to presumed possibility of massive haemorrhage associated with it and increased operative time. Pedunculated fibroid is the type of fibroid which traditionally is widely accepted to be removed during caesarean section. Pedunculated myomas can easily be removed and hemostasis can be easily achieved at the same time without endangering the mother's life or significantly increase the operation time.

This reported case had 45 number fibroid masses successful removed during caesarean section. Although several recent literatures have corroborated the success of the caesarean myomectomy [3,12-16], but none has reported such numbers of variously sized fibroid nodules being removed during a single caesarean myomectomy operation.

The various types of fibroid – (subserous, submucous, intramural, intracavitary and pedunculated fibroids) were noted. All the visible and palpable fibroid nodules were removed during the surgery. The enucleation of the fibroid masses was technically easy, owing to the greater looseness of the capsule as has been corroborated by other researchers [12]. Although we could not immediately claim for sure to have removed all the fibroid nodules due to the hypertrophy and hyperplasia of the myometrium in pregnancy which may make proper palpation for fibroid nodules difficult but ultrasound scan done six (6) months later did not dictate any fibroid nodule.

This case shows/ suggests that where the decision to carry out myomectomy during caesarean is taken, the target should be to possibly enucleate all the fibroid nodules.

The decision to carry out myomectomy during caesarean section should not be taken lightly. It should sort to solve an identified/ identifiable problem(s). The decision to carry out myomectomy during caesarean section should depend on the patient's desire, pre-surgical condition of the patient, locations and size(s) of the fibroid, presence of fibroid complications before and or during pregnancy, skill of the surgeon and the availability good anaesthetic support. Other documented indications for caesarean myomectomy include intraoperative appearance of the tumour, fibroid obstructing the lower segment, fibroid causing difficulty and interfering with the closure of caesarean section wound which may predispose to poor haemostatic control [16].

Safe conduct of caesarean myomectomy helps avoid interval surgery or second surgery with its associated morbidity, repeated exposure to anaesthesia, elimination of multiple surgery and minimizing intraperitoneal adhesion. Caesarean myomectomy may be more cost effective in that it reduces the exorbitant cost of two major operative procedures into one. The hospital stay is reduced and the period of dislocation from family routine and work is also reduced. It also prevents the risk of myoma-related complications in subsequent pregnancies [9] accelerates puerperal involution and reduces fibroid-related complications which can develop in later life, such as menorrhagia, anemia and pain [12].

She suffered most of the aforementioned complications both before the onset of pregnancy and during the prenatal period. She also strongly desired and requested that the fibroid masses be removed to save her from the ordeals which she has been going through.

Foley's catheter was used as a uterine tourniquet to reduce blood loss during the myomectomy after the delivery of the baby. Syntocinon infusion was given over 24hours to sustain uterine contractions. Other measures that could be used to minimize blood loss include the use of vasopressin, balloon catheter, uterotonic drugs – misoprostol, ergometrin, uterine artery ligation and stepwise devascularization of the uterus [17].

Careful patient selection, adequate experience in myomectomy, skill/dexterity of the surgeon, efficient haemostatic measures, reliable and readily available blood transfusion services and superb anaesthetic services are important prerequisites for successful caesarean myomectomy. Adequate and appropriate staff and facilities are very essential for the practice of caesarean myomectomy. With the above prerequisite being in place we strongly believe that the practice of caesarean myomectomy will not be associated with more complications than the usual routine caesarean section or myomectomy.

Most researchers have similarly posited that the complications and morbidities following caesarean myomectomy do not significantly differ from those occurring during caesarean section or myomectomy alone. Also, fertility is not usually compromised by this surgical procedure [18,19].

Adequate counselling of women requesting for myomectomy during caesarean section is very important. Counselling however can pose a very big challenge since there is neither consensus nor randomized controlled trial on which to base the counselling. We believe that it is high time a large randomized trial is conducted to serve as a guide to decision making when faced with such condition/challenge. The outcome of the trial will also help to standardize the practice of myomectomy during caesarean section. However, for the meantime, the various reported outcomes can temporarily form a near realistic basis for counselling.

In summary, this case report like similar recent reports suggests that caesarean myomectomy does not appear to increase the risk of immediate or short term post-partum morbidity. It also shows that it is possible/feasible to remove all the visible and palpable fibroid nodules during caesarean myomectomy with relative safety. Patient selection, adequate counselling, skill and dexterity of the surgeon is very important and fundamental for the success of this practice. Well trained supporting staff, experienced anaesthetist, blood transfusion services are also essential prerequisite.

Figure 1: The posterior aspect of the uterus after extraction of the baby and delivery of the uterus through the wound.



Figure 2: Showing the anterior aspect of uterus after delivery of the baby and delivering the womb through the wound.



Figure 3: Various sized Fibroid masses enucleate during the surgery



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