

## **CAESAREAN HYSTERECTOMY IN A NULLIPARA WITH MULTIPLE UTERINE FIBROIDS.**

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### **ABSTRACT**

**Background:-**There are various reports in literature of successful surgical intervention of leiomyoma in pregnancy mainly, in the second trimester, with a few in the first trimester. These surgeries were undertaken when conservative management of leiomyoma symptoms failed. Almost all reported cases were carefully selected pendunculated leiomyoma masses. Early pregnancy termination with interval myomectomy is an alternative option explored by both surgeons and patients. Caesarean hysterectomy in a first pregnancy is not a frequently reported case.

**CaseReport:-**A 35-year-old primigravida was referred by a private health facility with huge uterine fibroid co-existing with pregnancy of 12 weeks. The largest mass measured 17.7cm. There were several others distributed throughout the uterus. She declined second trimester myomectomy. Worsening symptoms unresponsive to conservative measures resulted in caesarean delivery at 32 weeks of gestation. She had subtotal hysterectomy because of life threatening haemorrhage.

**Conclusion:-**Adequate counselling on all available options of management of symptomatic leiomyoma co-existing with pregnancy need to be provided by the surgeon in an unbiased manner. The final decision should be clearly documented as this may reduce litigation arising from interventions in the management of the pregnancy.

**Keywords:** Leiomyoma, Primary postpartum haemorrhage, Caesarean Hysterectomy.

### **INTRODUCTION**

There are several reports in journals of surgical interventions in case of leiomyoma complicating pregnancy.<sup>1,3</sup>The most commonly performed is second trimester myomectomy<sup>2</sup> and less frequently, first trimester myomectomy<sup>2,3</sup> Caesarean hysterectomy in an elderly nullipara due to uncontrollable haemorrhage is rare. The case in review captures the dilemma involved in managing such a patient in our setting.

### **CASE REPORT**

Mrs O. G, a 35 year old primigravida, presented via a referral from a private hospital with an ultrasound

diagnosis of a 17.7cm subserous uterine leiomyoma co-existing with a pregnancy of 12 weeks. There were other subserous leiomyoma masses (3.0cm to 8.5cm) all over the body and fundus of the uterus. The patient was symptom free at presentation. In view of the huge subserous leiomyoma mass, she was counselled on the need to have a second

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trimester myomectomy. She declined and defaulted from follow up.

She however returned at 26 weeks of gestation because of severe abdominal pains, constipation and early satiety. She was admitted and placed on intravenous fluids and analgesics. She did well and was discharged home after 4 days on tocolytic; salbutamol 4mg tds. At 32 weeks of gestation, she re-presented with worsening abdominal pains and tenderness over the leiomyoma masses. In addition, she was fast losing weight as she could hardly take enough food orally because of the pressure of leiomyoma and the gravid uterus on the stomach. She was counselled on caesarean delivery when conservative management was unsuccessful. Measures included intravenous fluid, intravenous tramadol 100mg 8 hourly alternating with 450mg parenteral paracetamol, and salbutamol 500µg titrated against contraction. In view of leukocytosis on full blood count, intravenous Amoxiclavulnic Acid 1.2gm 8 hourly was added. Ultrasound scan done at 32 weeks estimated the foetus' weight at 1.6kg. She was started on a course of steroid, intramuscular dexamethasone 12mg 12 hourly. She received 2 doses. Pre-operative packed cell volume was 28%. Four units of blood was grouped and crossmatched for her.

The peritoneal cavity was accessed through a midline skin incision that was extended upward because of the need to visualize the entire uterus and the leiomyoma masses. There were extensive fibrinous adhesions on the uterus (*see fig 1c below*). The omentum was attached to the two fundal large pedunculated leiomyoma. One of the masses was discharging yellowish fluid into the peritoneal cavity. A transverse lower uterine segment Caesarean section was carried out and a 1.7kg male neonate was delivered with good Apgar scores. The uterus was closed in two layers with Vicryl-2. A tourniquet was applied at the lower uterine segment with G-20

Foley's catheter for haemostasis and the 2 fundal pedunculated leiomyoma masses were excised and repair effected with Vicryl-1. The tourniquet was subsequently removed. The uterus was flabby and markedly hypotonic during surgery and unresponsive to uterotonics given: intravenous ergot 0.5mg, intravenous oxytocin made up of 40IU into 500mls of normal saline, intramyometrial ergot and rectal misoprostol 600µg. Additional unsuccessful measures instituted included bilateral uterine artery ligation and bimanual compression of the uterus. The decision for subtotal hysterectomy was taken intra-operatively and performed after due consultation and consent from the spouse, in view of the significant blood loss and worsening cardiovascular state: blood pressure of 80/30mmHg and pulse rate of 140 beats/minute. She was transfused with 6 units of whole blood. Total blood loss was estimated to be 2.5L.

Post operatively, she remained stable. Skin sutures were removed on the 8<sup>th</sup> day after surgery. Post transfusion Packed cell volume was 30%. Baby was discharged on the 14<sup>th</sup> day after delivery from the neonatal unit with a weight of 1.75kg.



Fig. 1a: Uterus with fundal uterine leiomyoma with applied Foley catheter tourniquet at lower Uterine Segment



Fig1b: The two pedunculated leiomyoma shown



Fig. 1c. Clamp placed across one of the pedunculated leiomyoma

## DISCUSSION

From ultrasonographic scans, Leiomyomas are present in about 4% of pregnancies.<sup>4-6</sup> The appropriate management of uterine fibroid in pregnancy is the subject of various case reviews in literatures. While a large proportion of leiomyomas during pregnancy may exist without significant incidence, it is however true that in few cases, the presence of this tumor

coexisting with pregnancy can take a particular morbid turn that endangers the life of the woman. Some of the more serious complications include acute renal failure, disseminated intravascular coagulation, spontaneous haemoperitoneum, uterine inversion and uterine incarceration.<sup>7-</sup>

<sup>10</sup>Although, myomectomy has been performed safely in pregnancy during the first and second trimester, this modality of care is usually reserved for women who have subserous or pedunculated fibroid with pain that is unresponsive to rest, intravenous fluids, NSAID and narcotics<sup>5,11</sup>

Isabu Pet al<sup>1</sup> reported a second trimester myomectomy for a 28 year primigravida due to worsening symptoms. She subsequently had elective Caesarean Section at term. First trimester myomectomy documented in literature include the removal of a huge uterine fibroid in late first trimester with a live birth at term by Aziken ME et al.<sup>2</sup> Leach k et al<sup>3</sup> also reported a first trimester myomectomy in a 30 year old primigravida with a 14cm diameter leiomyoma. She carried the pregnancy to term and was delivered of a healthy infant at term.

Our client was an elderly primigravida who declined a second trimester myomectomy. While surgery would have reduced the leiomyoma load, she rejected the prospect of losing her pregnancy or having a hysterectomy in the event of haemorrhage. The other option would have been a pregnancy termination in the first trimester and interval myomectomy. Implicit in this second option is the risk of tubal factor infertility from pelvic adhesions. However, for this elderly nullipara, this option was totally unacceptable to her. Patients that develop tubal adhesions become pregnant with assisted reproductive technology (ART). ART is only acceptable to those without religious or ethical reservations and of course those who can afford the relative high cost of ART.

Our patient in addition to the large pedunculated fibroid had multiple intramural leiomyoma masses. These were the likely cause of the uterine atony. Conventional methods of controlling primary post partumhaemorrhage (PPH) like the use of parenteral, intramyometrial and rectal uterotonics was ineffective. Bimanual compression of the uterus intra-operatively did not control the bleeding, thus discouraging the application of Brace Sutures. Uterine artery ligation was unsuccessful in reducing the haemorrhage. Other established procedures and intervention like bilateral internal iliac ligation<sup>12</sup> and uterine artery embolisation<sup>13</sup> could not be performed as the resources and requisite skill were not available. The use of activated factor VII has recently been quoted in the literature for the control of PPH.<sup>14</sup> This is not available in our facility. The psychological and cultural implication of hysterectomy on a nullipara were seriously considered. However, faced with the clear risk of mortality in this patient, this difficult decision was taken following discussion and consent from the spouse.

The dilemma in managing a pregnant woman who presents with large multiple uterine fibroid in the first or second trimester does not present an easy solution. Whether to terminate the pregnancy with subsequent interval myomectomy, or carry out either a first or second trimester myomectomy or allow pregnancy to continue to as close as possible to foetal viability within the limit of tolerance of symptoms of ischaemic leiomyoma changes, depends on individual circumstances. The role of the Physician is to provide all the information that will enable the patient reach an informed consent. This must be carefully documented. This is now more compelling in an increasing environment of medical litigation.

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