

Successful elective cesarean myomectomy in a resource poor setting: A case report

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ABSTRACT

Introduction: Leiomyoma, the most common pelvic tumor of females especially among the Negroid race often complicates pregnancies. This is more in native African women. In spite of the numerous complications they can cause during pregnancy, surgical removal of myomas during cesarean sections is traditionally discouraged and very controversial because of fear of complications especially hemorrhage. Despite these controversies and fears, some reports have shown that myomectomy during cesarean delivery can be safe. **Case Report:** We present a case of a 30-year-old primigravid who presented with huge multiple myomas coexisting with pregnancy and had successful elective cesarean myomectomy at term. **Conclusion:** There is a need for well-controlled randomized trials to establish the safety or otherwise of cesarean myomectomy as this will be of immense benefit to our women in our mostly resource poor areas of practice.

Keywords: Cesarean myomectomy, Resource-poor setting, Successful

How to cite this article

Esike COU, Anozie OB, Ogah OE, Onoh RC, Ewah R, Obarezi H. Successful elective cesarean myomectomy in a resource poor setting: A case report. J Case Rep Images Gynecol Obstet 2016;2:53–56.

Article ID: 100019Z08CU2016

doi:10.5348/Z08-2016-19-CR-12

INTRODUCTION

Leiomyoma uteri are the most common pelvic tumor of females especially among the Negroes [1–3]. Leiomyomas complicating pregnancy is a common presentation to obstetricians practicing in Africa. A prevalence of leiomyoma during pregnancy has been reported to be 0.3–3% [4–7]. In spite of the fact that myomas can cause numerous complications during pregnancy like red degeneration, increased frequency of spontaneous abortion, preterm labor, premature rupture of fetal membranes, antepartum hemorrhage, mal-presentation obstructed labor, cesarean section and post-partum hemorrhage [4, 8, 9], surgical removal of myomas during cesarean section is traditionally discouraged and very controversial because of the significantly increased risk of hemorrhage and postoperative morbidity of myomectomy from the increased vascularized gravid uterus. Despite these controversies and fears, some reports have shown that myomectomy during cesarean delivery can be safe. We present a case report of a successful elective cesarean myomectomy done for huge multiple myomas of various sizes on our patient at term [8, 10–16].

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Received: 23 May 2016

Accepted: 13 July 2016

Published: 30 July 2016

CASE REPORT

A 30-year-old primiparous came to our clinic at 29th week gestation. Before booking her pregnancy was uneventful except for the complaint of bilateral leg swelling of about two weeks duration.

Examination revealed a calm young lady in no obvious distress who was afebrile, anicteric and not pale. There was mild bilateral pitting pedal edema. The pulse rate was 76 beats per minute and blood pressure 120/70 mmHg. Heart sounds I and II were heard and normal. There were no cardiac murmurs. The chest was clinically clear.

The abdomen was gravidly enlarged with irregular contour lines. The liver and spleen were not palpably enlarged and the kidneys were not ballotable. The symphysio-fundal height was 38 cm corresponding to 38 weeks gestation and much larger than her gestational age of 29 weeks. The outline was irregular, nodular and harbored a singleton fetus in breech presentation in right sacro-anterior position and five-fifths palpable per abdomen. The fetal heart sound was heard and regular. She was sent for an ultrasound scan which revealed a single viable fetus at 30th week gestation, oblique lie with the placenta being mid-uterine and posterior. The liquor volume was adequate for gestational age. There were multiple solid intramural masses. The largest in the fundal region measured 126x52 mm and another one in the posterior-fundal region measured 11x68 mm. Both showed red degeneration. The mid-anterior and antero-fundal regions equally harbored myomas measuring 11x100 mm and 80x72 mm respectively. The adnexa and pouch of Douglas were free. Her retroviral, HbsAg and VDRL tests were negative. Her blood group was A rhesus positive, genotype AA and packed cell volume 32%.

The rest of her antenatal care was essentially uneventful except that the fundal height was consistently larger than the gestational age and the lie of the fetus kept changing. The presentation was breech at term with the fetus in right sacro-anterior position. The pedal edema progressed from mild to moderate.

At 36th week and 6 days, the fundal height was 43 cm. She was counseled on cesarean section as the mode of her delivery. She accepted but requested if she could have myomectomy done at the same time of the cesarean section. She was counseled on the dangers of cesarean myomectomy but she still wanted the surgery if she manages to get money for the cesarean section. She was asked to discuss with her husband and was given a one week appointment. She defaulted on her appointment and was subsequently seen again at the antenatal clinic at 38th week and 6 days. She came with her husband and they still expressed the desire for cesarean myomectomy. Her fetus was still in right sacro-anterior position. She was admitted for elective cesarean section and elective cesarean myomectomy. Hemoglobin of the patient was 12 g/dl, urinalysis revealed nil protein or glucose. Four units of blood were grouped and cross matched for her.

She was taken to the theatre the following morning.

After scrubbing and draping a lower segment cesarean section was done through a mid-line sub umbilical incision under spinal anesthesia. We closed the lower segment cesarean section incision, started high dose oxytocin infusion by adding 40 IU of oxytocin to one liter of normal saline. The anesthesia was converted to general anesthesia and we commenced the myomectomy with an upward extension of the mid-line sub umbilical incision to about 5 cm to the xiphisternum. We exteriorized a very irregularly-shaped, nodular and lobulated uterus, tied a size 18 Foleys catheter tightly at the base, secured it by further clamping the already tied catheter with Kocher's forceps and commenced enucleation of the myomas from the uterus and meticulously closing the myoma beds in layers with vicryl 2 sutures. The largest myoma which was fundally- located was removed with part of the over-stretched uterine tissue.

We untied the tourniquet intermittently and re-tied it till we finished before finally untying it and checking for bleeding. We observed the uterus for some time. There was no bleeding. We then replaced the uterus back into the peritoneal cavity and completed the surgery. Two units of blood were transfused intraoperatively.

Intraoperative findings

A clean peritoneal cavity and well-formed lower segment were found. A breech presenting 3.2 kg female baby with Apgar scores of 8 and 10 in one and five minutes respectively. The placenta weighed 0.5 kg and was fundally located. Tubes and ovaries were normal. An enlarged irregularly shaped upper half of the uterus with a huge fundally-located subserosal myoma measuring about 33x28 cm was occupying the upper two-fifths of the uterus. It weighed 3 kg. Six other myomas of various sizes were enucleated - one anterior subserosal myoma measuring 15x10 cm, another intramural one measuring 12x8 cm was located in the upper half of the anterior wall, another tiny thumb-sized seedling, two orange-sized intramural myomas were located in the upper half of the posterior uterine wall. All the myomas weighed 3.6 kg, estimated blood loss was 400 ml during the cesarean section and one liter during the myomectomy.

Immediate postoperative condition was satisfactory. Patient was returned to the postnatal ward from the recovery room. Her post-partum packed cell volume on the third postoperative day was 21%. She was transfused with two more units of blood. She did well with her baby. Uterine involution and lochia drainage were satisfactory. The alternate stitches were removed on the seventh postoperative day and the remaining ones on the eighth postoperative day. Her packed cell volume was 28%. She was discharged home on the eight postoperative day with a six weeks appointment to the post natal clinic.

Postnatal visit of the patient was satisfactory and she had no complaint. Her blood pressure was 110/80 mmHg. The abdominal examination was satisfactory with the wound healing well and no masses felt. Abdominal

examination revealed an eight-week sized anteverted fairly mobile and smooth uterus. The adnexa were free. Her packed cell volume was 32%. She was discharged from the postnatal clinic and referred to the family planning clinic.

DISCUSSION

Myomectomy at the time of cesarean delivery is traditionally discouraged because of the risk of hemorrhage [10] but a number of authorities have found cesarean myomectomy to be safe in well selected and prepared cases and in experienced hands [8, 12–15]. Since leiomyoma is prevalent in Africa with her resource poor countries and the women because of the Negroid ancestry of most of them are bound to have myoma coexisting and complicating some of their pregnancies. Leiomyoma in pregnancy is, therefore, bound to be encountered by obstetricians practicing in Africa and other places populated by the Negros women. Against this background, Obstetricians practicing in these areas are naturally going to be continuously facing the dilemma of whether to carry out cesarean myomectomies in their pregnant patients with co-existing fibroids or not. Fibroids are found more commonly in primigravidas of advanced age just like our patient who is of black race, a primigravida and 30 years of age.

Traditionally, the management of fibroids in pregnancy is conservative but sometimes myomectomy may be necessary when complications occur. Some authors are of the opinion that all uterine fibroids in the way of incisions should be routinely removed should cesarean section be the mode of delivery.

In our case, we did cesarean myomectomy electively, successfully removing both subserosal and intramural myomas and those that were anteriorly and posteriorly located.

Myomectomy is a very bloody operation especially if done on a gravid uterus. Combining high dose oxytocin with Foley's catheter tourniquet applied to the base of the uterus as we did will successfully help in reduction of blood loss as also reported by another authors [1, 3, 17, 18].

One of the most feared complications of cesarean myomectomy is hemorrhage. Many workers had however not found significant difference in blood loss between cesarean sections alone and cesarean section with concomitant myomectomy [1, 10, 18]. Estimated blood loss in our case was 1.4 liters and there was minimal bleeding both as the myomas were enucleated and the myomas beds closed in layers and also after the tourniquet was removed.

This did not seem to be borne out by a postoperative packed cell volume of 21% in our patients despite intraoperative transfusion of two units of blood. However, we think the low postoperative packed cell volume in our patient must have been due to the blood trapped in the

upper part of the uterus that harbored the myomas being lost with the removal of the myomas and some of the redundant uterine tissues of the gravid uterus. This type of blood loss is bound to be more, when the tourniquet is tied and untied a number of times. We think this should be an important take home for any Obstetrician who will like to perform cesarean myomectomy to take note of this form of blood loss and prepare for it adequately especially if the myomas are big and multiple.

Though cesarean myomectomy ought to and should still be handled with caution, there is increasing evidence of its safety especially in well-selected cases and in experienced hands. It is heartening that elective cesarean myomectomy can be performed safely in resource poor environment like ours where the need is more using low technology techniques. Most of our women fear surgeries until it becomes inevitable. Anesthesia and surgeries are still not as safe in our area of practice as is found in other more developed climes. These coupled with poverty, lack of social security safenets make the option of cesarean myomectomy desirable in our environment if it can be proven to be safe [19–22].

CONCLUSION

There is therefore a need for well-controlled randomized trials to establish the safety or otherwise of cesarean myomectomy as this will be of immense benefit to our women in our mostly resource poor areas of practice.

Author Contributions

Chidi O.U. Esike – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Okechukwu B. Anozie – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Onwe E. Ogah – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Robinson C. Onoh – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Richard Ewah – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Henry Obarezi – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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