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Successful myomectomy during pregnancy: Case report.

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ABSTRACT:

BACKGROUND: The medical literature in the past decade has reported an increase in the number of cases of myomectomy during caesarean section. However, myomectomy performed during pregnancy remains a rarity. The management of uterine fibroids during pregnancy is usually expectant and surgical removal is generally delayed until after delivery. We present a case of a large, symptomatic uterine fibroid diagnosed during pregnancy which was successfully managed by antepartum myomectomy.

CASE PRESENTATION: A 30 year old woman presented with a one year history of abdominal swelling, amenorrhoea and severe epigastric discomfort of 19 weeks duration. The abdomen was grossly distended and tense. A sonographic diagnosis of ovarian tumor in pregnancy was made. Laparotomy revealed a 32cm degenerating subserosal uterine fibroid co-existing with an intrauterine pregnancy. Myomectomy was successfully performed. The subsequent antenatal period was uneventful with a spontaneous vaginal delivery of a female baby at 38 weeks.

CONCLUSION: This report supports other studies and case series that have demonstrated the safety of myomectomy during pregnancy in selected circumstances.
BACKGROUND:
The prevalence of leiomyoma during pregnancy is reported as 2% [1]. During pregnancy, uterine leiomyomas are usually asymptomatic but may be occasionally complicated by red degeneration and an increased frequency of spontaneous abortion, preterm labor, premature rupture of fetal membranes, antepartum hemorrhage, malpresentations, obstructed labour, cesarean section and postpartum hemorrhage [1-3]. The management of uterine leiomyoma during pregnancy is largely expectant and its surgical removal is generally delayed until after delivery [4 - 7]. Because of the increased vascularity of the uterus during pregnancy, women are at increased risk of bleeding and postoperative morbidity during myomectomy [2,5,6,8,9]. Some reports have shown that myomectomy during cesarean delivery can be safe [7,10,11,12,13,14,15]. Controversy persists among reports of myomectomy being performed during pregnancy [1], with some case series having reported the safety of antepartum myomectomy in carefully selected patients [1,16]. We present a case of a large symptomatic fibroid diagnosed during pregnancy which was successfully managed by antepartum myomectomy.
CASE PRESENTATION

History, examination and management

A 30-year old gravida 1 presented to our center on 17, October 2003 with a history of abdominal swelling for one year duration and amenorrhoea of 19 weeks duration. The abdominal swelling started as a small lump but markedly increased in size in the preceding 3 months. It was associated with pain, severe epigastric discomfort, constipation, weakness and swelling of the legs.

The patient was ill-looking, clinically pale and had bilateral pitting pedal edema. The pulse rate was 80 beats per minute and the blood pressure was 120/80mmHg. The respiratory rate was 24 cycles per minute. The abdomen was grossly distended and tense. There was a massive central abdomino-pelvic mass which was firm and irregular, measuring 40cm from the symphysis pubis. Free fluid was present in the peritoneal cavity.

Abdominal sonography showed an intra-uterine viable singleton fetus of 20 weeks gestation. It also showed a multi-loculated cystic tumor with a thick capsule located at the right posterior-superior aspect of the uterus, measuring 30cm in diameter. A sonographic diagnosis of ovarian tumor in pregnancy was made.
The hematocrit was 22% and the malaria smear was positive. The blood group was 0 Rhesus positive and the hemoglobin genotype was AA. Serum electrolytes, urea and creatinine were normal and a urine culture was negative. The malaria was treated and anaemia was corrected with two units of sedimented cells. She was counseled for laparotomy due to her symptoms and sonographic findings suspicious for malignancy. Her pre-operative hematocrit was 32% and three more units of blood were cross-matched. Exploratory laparotomy was performed under general anaesthesia with endotracheal intubation. Operative findings included ascites, normal liver, spleen, kidneys, diaphragm, ovaries and fallopian tubes. The uterus was 20 weeks size and soft. Fetal movements were visible. A cystic subserosal fibroid of about 32cm in diameter was situated at the right posterior superior aspect of the uterus. [Fig1]
Fig. 1. *Uterus with massive subserosal fibroid.*

The subserosal fibroid was adherent to the omentum and the anterior abdominal wall. It was removed and the myoma bed was quickly closed with 2-0 polyglactin suture and hemostasis was easily achieved. The estimated blood loss was 600mls and 2 units of whole blood were transfused intra-operatively. The tumor weighing 7.7kg was sent for histology.

Her post-operative period was uneventful. Intravenous magnesium sulphate was administered as a prophylactic tocolytic. The post-operative hematocrit
was 30% and she was discharged home on the 10\textsuperscript{th} post-operative day. The histology report showed sections of interlacing bundles of smooth muscles with areas of hyaline degeneration with no evidence of malignancy. At her follow up visit 4 weeks later, she was advised to book for antenatal care and repeat sonography showed a normally growing fetus. The remainder of the antenatal period was uneventful. The patient went into spontaneous labor at 38 weeks gestation and delivered vaginally a female baby weighing 3.5kg with Apgar scores of 8 and 10 at one and five minutes respectively. Two days post partum the hematocrit was 30% and she was discharged home. The 6 weeks post-natal visit was unremarkable.

\textbf{Discussion}

To the best of our knowledge this is the first report of antepartum myomectomy from Nigeria. The decision to remove the fibroid was justified by its size and the patient’s symptoms. The benefit was the relief of symptoms and a tissue diagnosis of a very large, suspicious abdominal mass. Its subserosal location may have contributed to easy enucleation and
closure of the myoma bed. Hypercoagulability in pregnancy might have contributed to the ease in achieving hemostasis. The ease with which the fibroid was removed and the minimal measures used to obtain hemostasis contributed to the safety of the procedure. This case illustrates that myomectomy during pregnancy can be safely performed in carefully selected cases.

Antepartum myomectomy associated with reversal of fetal complications such as oligohydramnios, fetal postural deformity and intrauterine growth restriction has been reported [17].

This case also illustrates that cystic degeneration of a subserosal uterine fibroid is a differential diagnosis of ovarian tumor in pregnancy [18]. Sonography may be useful in evaluating the size, number, position, location, relationship to the placenta and echogenic structure [18] but it can be difficult to differentiate a complex ovarian mass from a degenerating fibroid.

**Conclusions**

A degenerating uterine fibroid may mimic an ovarian tumor in pregnancy and obstetricians should be aware of the differential diagnosis. Although most cases of uterine fibroids in pregnancy can be managed conservatively, antepartum myomectomy may be necessary in selected cases.
Competing Interest

The authors declare that they have no competing interest.

Authors’ contributions

CU performed the surgery and conceived of the study. PFW did the literature search. Both authors collaborated in the preparation of the manuscript, read and approved the final manuscript.

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Written consent was obtained from the patient for publication of study.

REFERENCES


