

## Huge Lower Segment Myoma and Pregnancy: A Case Report and Review of Literature

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### Article History

Received: 05.07.2018

Accepted: 15.07.2018

Published: 30.07.2018

### DOI:

10.36347/sjmcr.2018.v06i07.009



**Abstract:** Different complications have been reported in pregnancy with fibroids whether in antepartum, during labor or in postpartum period. During pregnancy, uterine myomas are habitually asymptomatic and surgical removal is generally avoided except in a few selected cases. However, myomectomy during caesarean section seems to be feasible according to some authors, but this subject is still controversial view the risk of hemorrhage and hysterectomy. Therefore, we present here a case of a leiomyoma located in the uterine isthmus revealed by ultrasound assessment since 12 weeks of gestation, and a review of the literature to focus on complications of fibroids during pregnancy and to clarify the management modalities.

**Keywords:** Myoma, pregnancy, isthmus, myomectomy

### INTRODUCTION

Myomas or fibroids are benign tumors of the uterine smooth muscle, affecting approximately 20–60% of women in procreation age [1], although, the incidence in pregnancy varies from 0.1 to 10.7% of all pregnancies [2]. Effectively, fibroids predispose to pregnancy complications like early miscarriage, preterm labor, antepartum and postpartum hemorrhage, placenta previa, placental abruption, intrauterine growth restriction, fetal malposition, labor dysfunctions, and higher caesarean rate. myoma, pregnancy, isthmus, myomectomy.

Management can be performed by myomectomy, but this option should be reserved for symptomatic fibroids especially in cases of necrosis and torsion of pedunculated myomas. With this case and through a review of literature, we will try to assess the effect of leiomyomas on pregnancy and make an approach on management pathways.

### CASE PRESENTATION

A 32 year old woman, primigravida, with no history of medical or surgical illness, seen in our unit at 12 weeks of gestation, vaginal examination noticed a palpable mass on uterine isthmus, the sonographic assessment revealed a myoma of 7x5 cm in the lower segment on the uterine anterior wall, and another interstitial fibroid on the right wall measuring 4 cm, after she having regular antenatal checkups. She presented occasional pain of uterus treated with antispasmodics and a therapy with natural progesterone was prescribed upto 24 weeks.

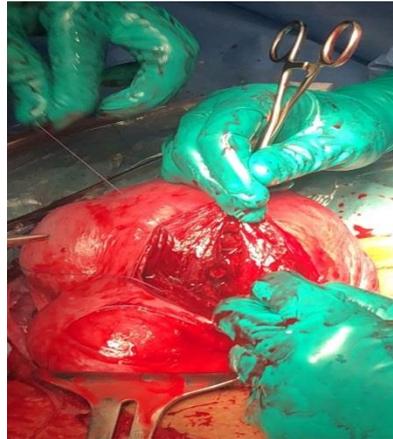
At 28 weeks she was admitted in emergency room for preterm labor, at the time of admission her vitals were normal, blood pressure was 110/80 mmHg, her pulse rate of 85 beats per minute, afebrile, vaginal and urine cultures were negative, Ultra sound

examination showed good fetal variables, vaginal ultrasound assessment revealed a reduction of cervical length (20 mm), hospitalization with bed rest and tocolytics were indicated, seven days later she was discharged and put on regular follow-up.

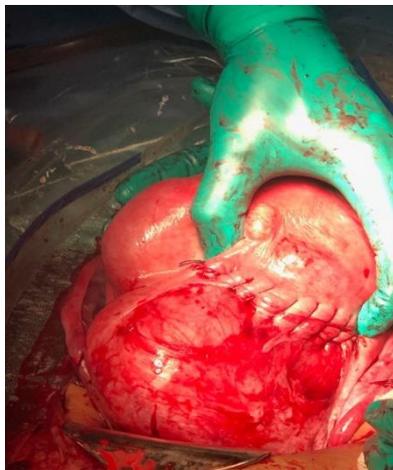
The second admission was in the high risk pregnancy unit at 36 weeks of gestation for adequate contractions, on vaginal touch cervix was 2 cm dilated, 60% effaced and membranes were intact, the myoma was palpable making hurdle previa. Ultrasound examination showed a single live fetus in caudal presentation, biometry corresponding to term, amniotic fluid was normal and placental insertion was in fundus, the maximum diameter of the fibroid located in uterine isthmus has increased to 11 cm. In view of this clinical and sonographic diagnosis, the decision of medical staff was prophylactic caesarean section.

Under spinal anesthesia, surgical findings revealed a fibroid of 11X8 cm seen in the lower segment on right side (figure1), uterine incision was made above the leiomyoma and delivered a healthy female baby of 2500 g with good Apgar score, uterus closed in two layers ( figure 2). There was no hemorrhage in postpartum, after five days the patient

was discharged home without any maternal or fetal complications.



**Fig-1: Caesarean section up close of the myoma**



**Fig-2: Myoma situated in the anterior aspect of the uterine lower segment**

## DISCUSSION

Fibroids expose pregnancy to a higher risk of obstetric complications, these latter were found in 10% - 40% during prepartum [3], most studies report that myomas are more frequent in multigravida women compared to primigravida[4]. Ultrasound is very efficient in detecting location, evaluating size, number and position relative to placenta.

Commonly, it was thought that myomas grew constantly during antepartum period under effect of progesterone level; many studies noted that only 20% of fibroids increased in size throughout the pregnancy [5]. Size and site of myomas are the most significant determining factors of morbidity [6]; on the other hand their number seems to have no effect on the occurrence of adverse events. Many problems was described in literature like spontaneous abortion, preterm labor, placental abruption, retention of placenta, fetal malposition's, dysfunctional labor and postpartum hemorrhage, not to mention the high rate of caesarean delivery.

Early miscarriage rate ranges from 4% to 18%, very common with submucous leiomyomas responsible of disturbances in blood flow, endometrial alterations reducing chances of placental development [7]. Preterm labor incidence varies from 8, 5% to 17% according to Lopes and *et al.* [8], this risk increase with multiple myomas, and in myomas larger than 5 cm based on the study of Rice and *et al.* [9]. In our case the myoma was measuring 11 cm and provokes a preterm labor at 28 weeks of gestation. Concerning placental abruption studies refers this complication to retro placental myoma; it was seen in 7, 5% of cases as compared to 0, 9% in pregnancies without leiomyomas relying on the series of Shikha and *et al.* [5].

Fibroids may cause mechanical constraints leading to fetal malpresentation and labor dysfunction, especially with large intramural and submucosa leiomyomas deforming the uterine cavity, Shikha and *et al.* observed 12, 6 % of breech presentation and the risk increasing with leiomyoma located in the lower uterine segment [5] as well in our case the fetus was in breech position.

Performing myomectomy during caesarean section is still controversial subject, we always knew that myomectomy in intrapartum period is challenging procedure for obstetricians; on the contrary recent studies demonstrated the possibility to attempt enucleation of myoma during caesarean, for quote, Shikha et al achieve myomectomy during caesarean delivery in 50% of cases in their series [5]. Despite this, it seems unreasonable to aim myomectomy for fibroids depending on the lower segment of uterus because of associated vascularity of procedure [6]. Here we opted to leave the myoma alone seen the position in lower segment of uterus and the parity of our patient.

The incidence of postpartum hemorrhage is high in the study of Lopes and al with a rate of 7, 3% among women with myomas against 1, 8 % in those without myomas [8]. More than that, Navid *et al.* reported massive hemorrhage that requires hysterectomy in 12, 5 of cases [10]. In literature we found that Incidence of caesarean section ranges from 38 to 72, 7% [11], in the study by Navid *et al.* rate of 70, 3% amongst which 6, 6% fibroids alone justified caesarean delivery [10].

## CONCLUSION

Although most of myomas are asymptomatic, they may adversely disrupt the course of pregnancy and labor, complications are related to their size and location. Regular follow-up for pregnant women is necessary to detect leiomyomas. Surgical removal is a possible procedure during pregnancy and during caesarean section with careful selection of patients and effective hemostasis measures. It is not yet a universal recommendation; therefore Obstetricians should optimize management to achieve good maternal and neonatal outcomes.

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