

**CASE REPORT**

# Massive Retroperitoneal Tumour Complicating Advanced Pregnancy: A Surgical Challenge

Shalini Rajaram, Namita Grover, Neerja Goel, Sumita Mehta

## Abstract

Leiomyomas or fibroids are most common uterine tumours and are often associated with pregnancy. There is a common belief that uterine growths increase in size during pregnancy. Giant uterine leiomyoma going retroperitoneally concomitant with pregnancy, is a rare clinical entity, a diagnostic dilemma and a great surgical challenge. We hereby, describe a case of giant retroperitoneal tumour complicating the pregnancy. A massive tumor of approximately 40cm x 35 cm, unencapsulated, fleshy and 'sarcomatoid' in consistency with increased vascularity occupying entire retroperitoneum was seen. Retroperitoneally tumour was dissected from bilateral ureters, inferior vena cava, aorta and bilateral iliac vessels. Uterus, both ovaries and cervix along with tumour mass was removed. The tumour mass weighed 8 kg and on histopathology a degenerated leiomyoma was diagnosed.

## Key Words

Retroperitoneal Tumour, Pregnancy, Leiomyoma

## Introduction

Giant uterine leiomyoma concomitant with pregnancy, is a rare clinical entity, a diagnostic dilemma and a great surgical challenge (1-4). Major complications of myoma often relate to location of myoma and its contact with the placenta. An interesting case of giant fibroid uterus extending to the retroperitoneum with advanced pregnancy is discussed.

## Case Report

An unbooked G2P1L1 at 34 weeks period of gestation presented with bleeding per vaginam. On examination marked pallor and tachycardia were noted, however blood pressure was within normal limits. Obstetric examination revealed an overdistended, tense uterus; fetal parts not distinctly palpable and fetal heart sounds were absent.

Local examination showed bleeding from vagina which was bright red and large in amount. Urgent ultrasonography showed a single intrauterine gestation with fetal demise. Liquor was reduced and the placenta was seen on the right lateral wall covering os. A large hyperchoic mass was seen extending from the pelvis to the xiphisternum and laterally into the flanks with mixed echogenicity and areas of haemorrhage. Haemoglobin was 6 gm%, platelet count 86,000/mm<sup>3</sup>, PT/PTTK, liver

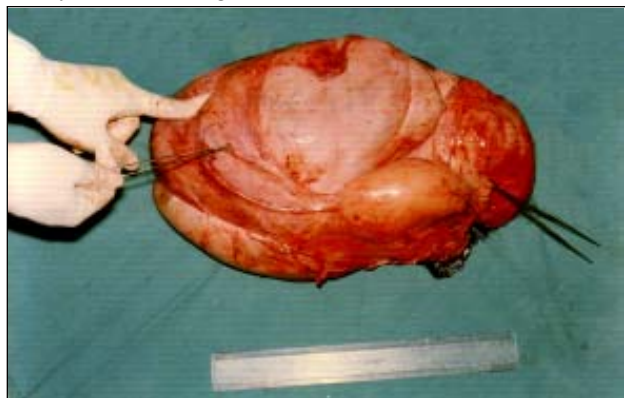
function tests, renal function tests and serum electrolytes were in normal range.

Patient was taken up for emergency laparotomy. Abdomen was opened, LSCS done and a still born male fetus delivered followed by delivery of placenta. A massive tumor of approximately 40cm x 35 cm, unencapsulated, fleshy and 'sarcomatoid' in consistency with increased vascularity occupying entire retroperitoneum was seen. The extent was upwards till the epigastrium, deep down into the pelvis behind the uterus and laterally into the flanks. Bowel loops were pushed high up in the epigastric region. Bilateral tubes and ovaries were stretched and incorporated into the tumour (*Fig 1*). Posteriorly, the tumour was fixed to posterior surface of uterus and appeared to arise from the uterosacral ligaments. Retroperitoneally tumour was dissected from bilateral ureters, inferior vena cava, aorta and bilateral iliac vessels. Uterus, both ovaries and cervix along with tumour mass was removed enbloc and retroperitoneal space drained (*Fig 2*). Surprisingly despite the aggressive looking mass it could be effortlessly dissected from underlying retroperitoneal structures. Patient was shifted to intensive care where 8 units blood and 6 units fresh frozen plasma

From the Department of Obstetrics and Gynaecology, UCMS and GTB Hospital, Dilshad Garden, Delhi-110095-India

Correspondence to: Dr Namita Grover, 27, Shakti Vihar Near Rani Bagh Delhi -110034 (India).

were transfused. She was extubated 24 hours after surgery. Stitch removal was done on postoperative day 9 and discharged the subsequent day. The tumour mass weighed 8 kg and on histopathology a degenerated leiomyoma was diagnosed



**Fig. 1 Uterus Incorporated into the Large Retroperitoneal Tumour. Forceps Indicate Bilateral Ovarie**



**Fig. 2 Cut Section of Uterus Showing Placental Bed Posteriorly with Tumour Mass**

### Discussion

Uterine leiomyomata are the most common benign solid pelvic tumors encountered during pregnancy. Their reported incidence ranges from 0.3-2.6 per 100 births depending on the age and race of the population studies (1). However the true frequency is probably underreported as majority of leiomyomas are asymptomatic in pregnancy and not all pregnant patients get a prior antenatal scan done. Leiomyomas in pregnancy can cause premature labour, abruptio placentae, malpresentation, labour dystocia, intrauterine growth retardation and pelvic pain (2). A marked increase in the occurrence of abruptio placentae was observed in subjects with myomas >200 cm<sup>3</sup> in volume, a submucosal location and superimposition of placenta (3). Huge tumors as seen in this patient pose a great surgical challenge. Combined preoperative and

postoperative mortality rates of 14-16% were seen in giant fibroids in nonpregnant patients (4). However to date to the best of our knowledge, no report exists on management of tumours of this magnitude in pregnancy. Although, a isolated report where, retroperitoneal cyst, an extremely rare complication of pregnancy and because of the difficulty in surgery due to gravid uterus and close proximity to major organs and blood vessels was reported and managed by percutaneous aspiration (5). Patient must be positioned so that the ventilation is not impaired during the procedure. Supine hypotension of vena caval compression must be avoided. The incision should be adequate in length to allow optimal exposure for maneuvering and excising such large masses originating in the pelvis and extending to xiphisternum and laterally into the flanks. Adequate blood and optimal hydration status should be ensured preoperatively. Surgeon must be prepared to deal with the extent of tumour which involves not only hysterectomy and oophorectomy but also management of bowel or ureteric involvement or injury. Attempt should be made to remove these tumours intact because the blood loss is reduced, dissection planes are preserved and in the event of a malignant lesion the risk of metastasis is minimized. Postoperatively fluid and electrolyte balance, cardiovascular dynamics and pulmonary functions should be carefully monitored. Early ambulation is encouraged.

### Conclusion

Paucity of literature regarding colossal sized fibroids with pregnancy reflect the rarity of our case. Although rare, emergency encounters with such masses continue to be the surgeon's nightmare.

### References

1. Muram D, Gillieson M, Walters JH. Myomas of the uterus in pregnancy: Ultrasonographic follow-up. *Am J Obstet Gynecol* 1980;138:16-19
2. James PR, Helen H K, Barry SM. The clinical significance of leiomyomas in pregnancy. *Am J Obstet Gynecol* 1989; 160:1212-16
3. Singhabandu B, Akin JT Jr, Ridley JH *et al.* Giant leiomyoma of the uterus. *Am Surg* 1973; 39: 391.
4. Exacoustos C, Ro sati P. Ultrasound diagnosis of uterine myomas and complications in pregnancy. *Obstet Gynecol* 1993; 82:97-101.
5. Mastsoo K, Eno ML, Walker T *et al.* Massive Retroperitoneal cyst during pregnancy : Case report managed conservatively by percutaneous aspiration and review of literature. *Am J Perinatol* 2009;26(3):215-09