



Giant Uterine Leiomyoma: Case Report

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Abstract

Giant uterine tumors, defined as those weighing 11.4 kg or more. Despite the giant leiomyoma being a rare entity, it should be a differential diagnosis for other pelvic masses such as huge ovarian mass. Huge leiomyoma can be responsible for respiratory failure, distention and abdominal pain, bowel and urinary complaints, deep vein thrombosis and umbilical hernia, etcetera. The excision is associated with high mortality and morbidity due to massive bleeding loss, distortion of the adjacent structures and inadvertent ureteric, bladder injury or bowel injury. Preoperative optimization of the patient is critical, and careful evaluation of the cardiorespiratory and renal function is recommended. 4

We report a case of a young black woman with poor socioeconomic status and no prior medical history. The patient presented with abdominal distension, dyspnea, and constipation. The MRI imaging revealed a giant leiomyoma. We performed a myomectomy via laparotomy. The surgery was uneventful. The patient was discharged on the postoperative day 3.

Introduction

Giant uterine tumors, defined as those weighing 11.4 kg or more, are uncommon and may reach incredible size without producing appreciable symptoms. Lower-limb thrombosis, respiratory failure, and bleeding are potential complications before and after surgical treatment. [1]

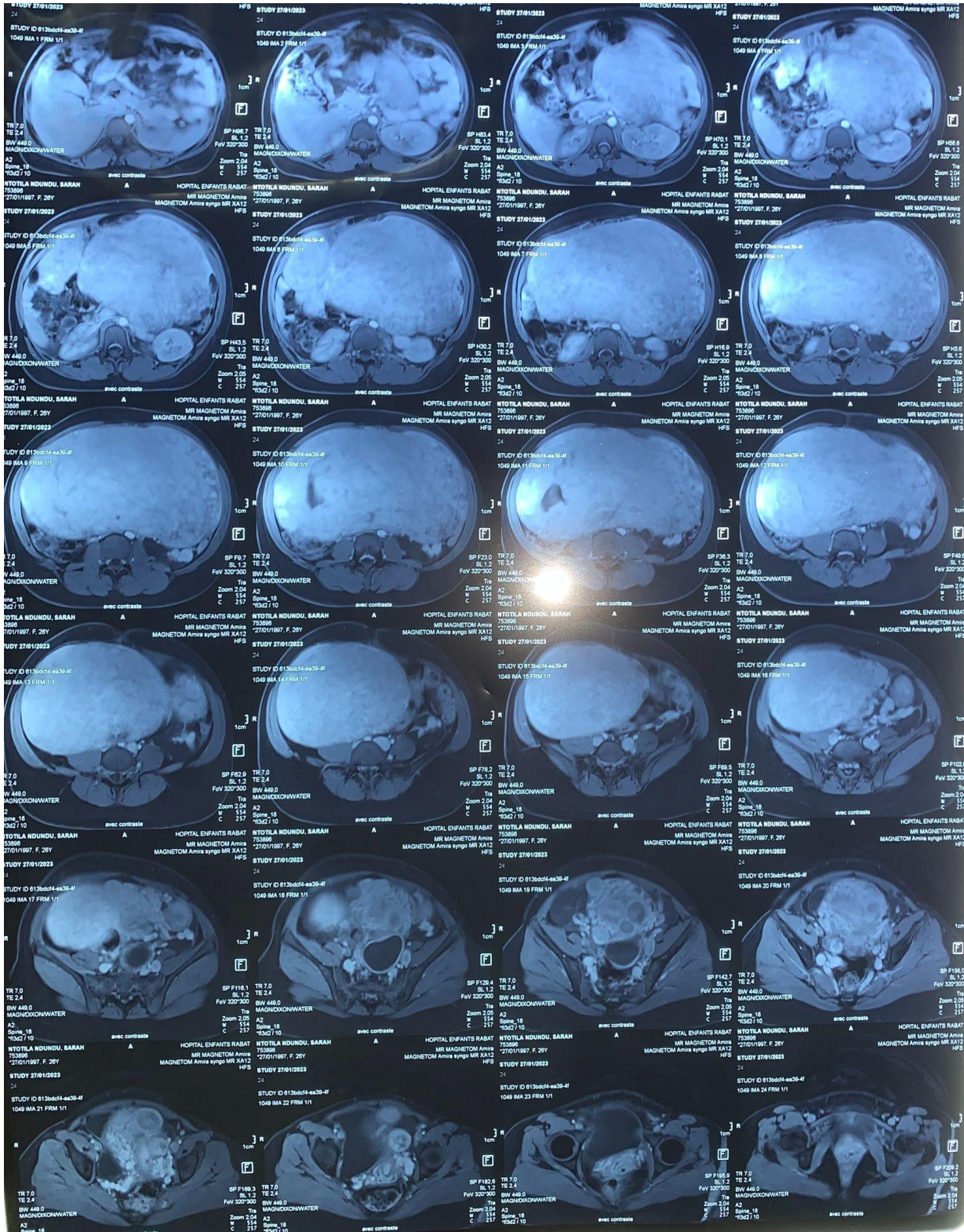
Uterine fibroids grow into large tumours without producing any symptoms due to their slow rate of growth, elasticity of the abdominal wall and large capacity of the abdominal wall. [2]

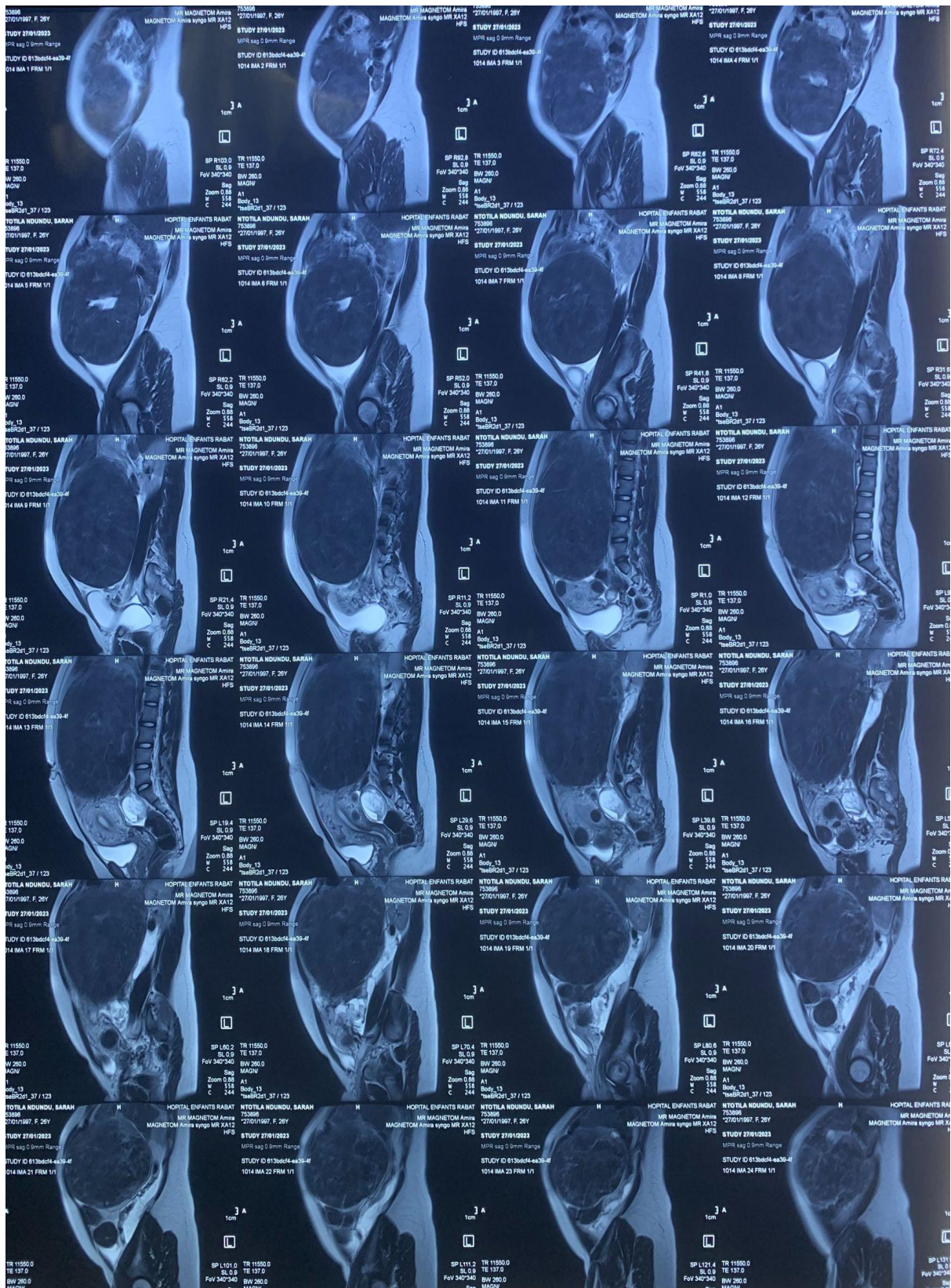
We hereby present the case of a giant uterine leiomyoma in a 26 years old patient.

Case Report

A 26 years old nulliparous patient, with no medical history, was referred to our hospital for abdominal distension, difficulty breathing and constipation with regular periods. In the clinical examination, there was a large abdominopelvic mass. The ultrasonography revealed an enlarged uterus containing multiple fibroids and a large fundal fibroid, the margins of the leiomyoma were not well visualised.

The MRI showed a bulky anteverted uterus measuring 137* 60*95 mm with multiple fibroids and a large fundal subserosal leiomyoma measuring 215*132*131 mm. A subserosal pedunculated leiomyoma measuring 37*42*42 mm. Two posterior corporeal intramural leiomyoma measuring 28*26*27 mm and 20* 18*22 mm. Two anterior corporeal intramural leiomyoma measuring 27* 27 mm and 29* 30 mm. We performed an abdominal myomectomy.





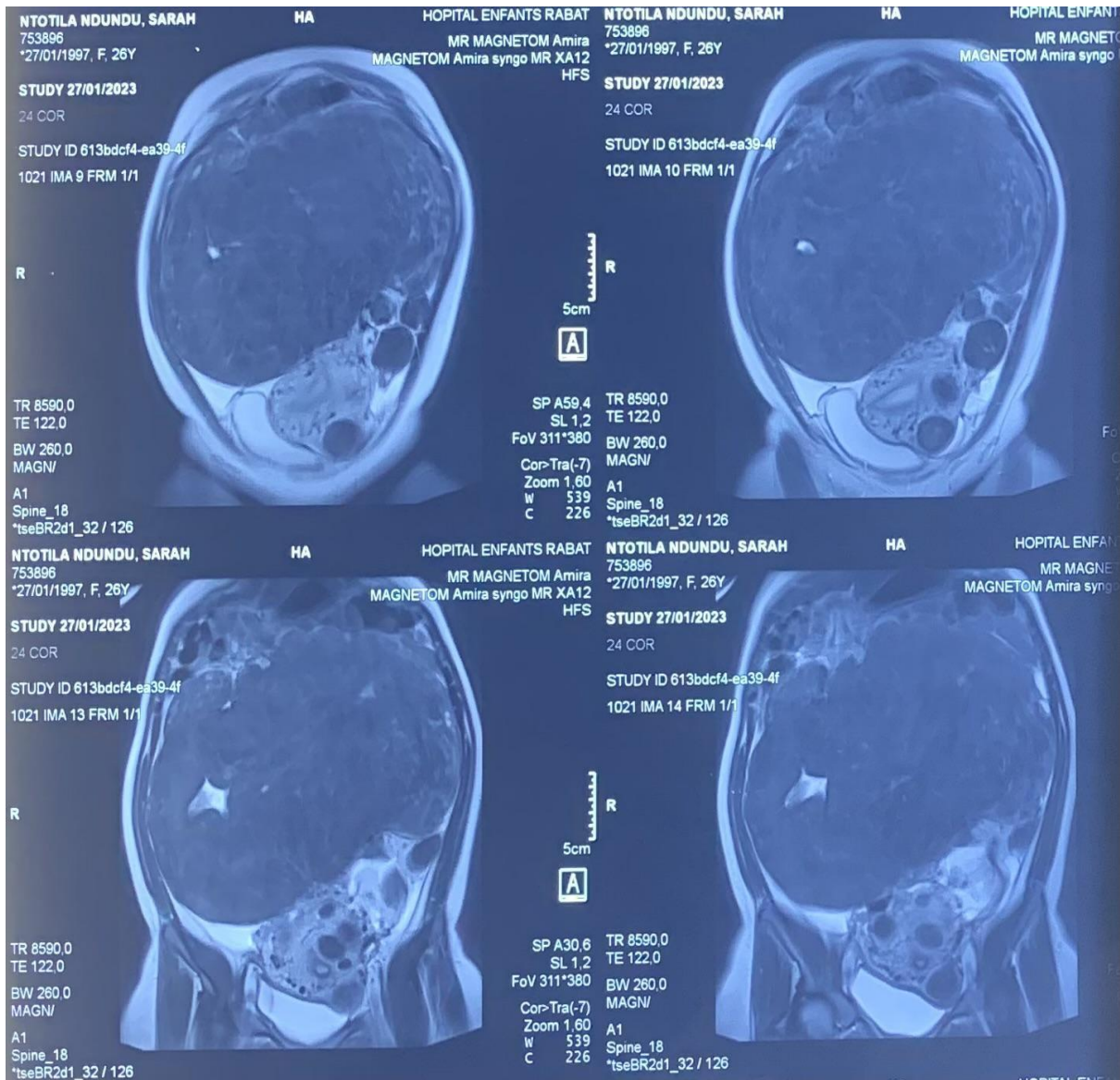


Figure 1: MRI images of the abdominopelvic mass



Figure 2 : excised specimen

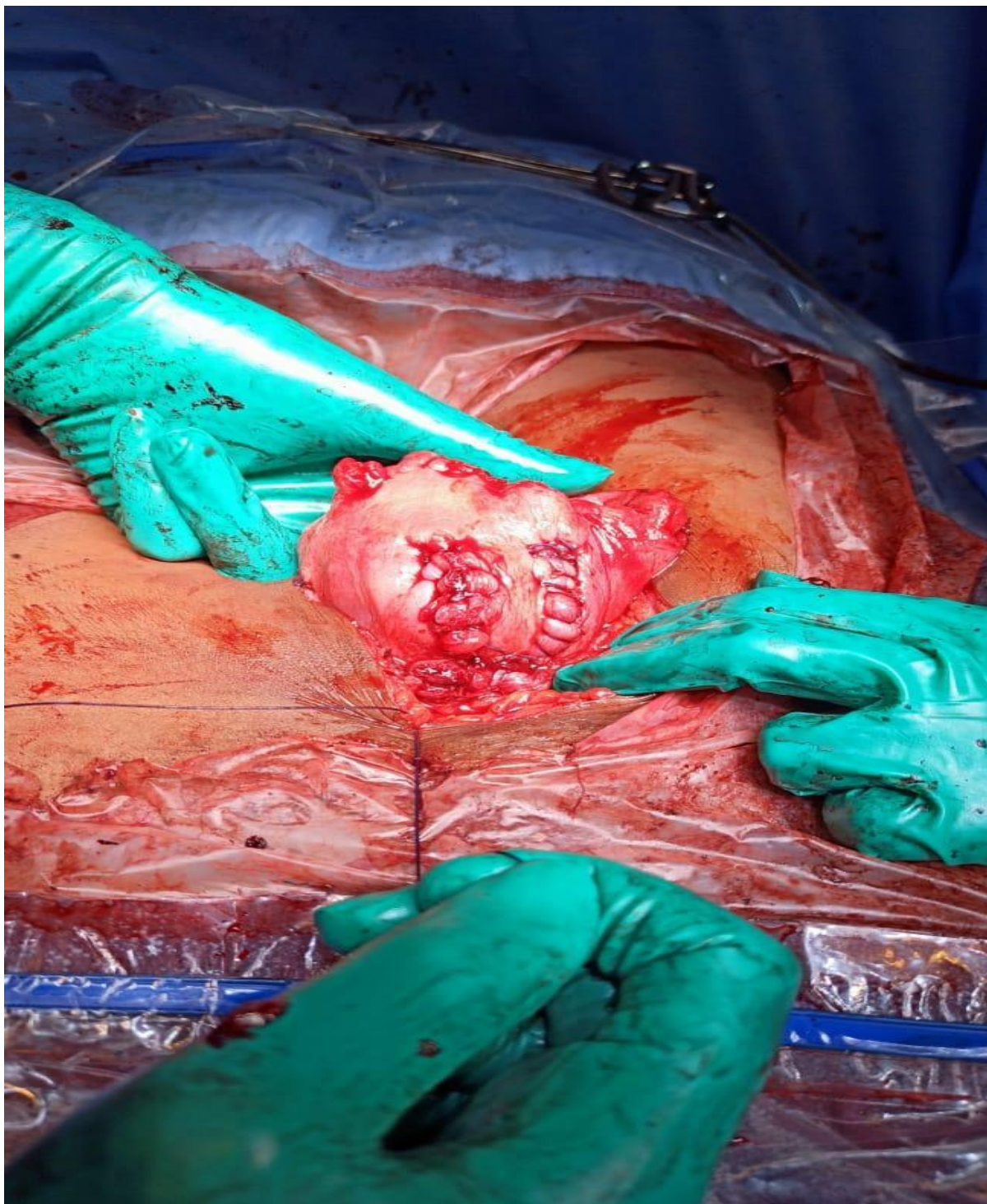


Figure 3 : Uterus after Myomectomy

Discussion

The excision of a giant uterine leiomyoma is associated with high morbidity and technical difficulties in surgical excision of giant uterine leiomyoma.

The patient should be positioned so that the compression of the vena cava is avoided and ventilation not impaired. In the majority of cases, a longitudinal abdominal incision is advisable. A uterine artery embolisation helps decrease the amount of blood loss. Pelvic anatomical distortion secondary to the huge abdominopelvic mass increases the risk of injury of the adjacent structures. Careful dissection and visualisation of the ureters is advised. [3]

Lim et al. reported a case of a 53 years old postmenopausal woman with massive abdominal mass complicated by orthopnoea, exertional dyspnoea and limitation of mobility. The mass was measuring 47.4 cm in craniocaudal length. A total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed. A hand-held vessel sealing device was used to ligate the dense vascular supply. Difficulty was encountered on dissecting the mass from the surrounding structures. Despite careful dissection and attentive haemostasis, the intraoperative blood loss was 7 L, requiring three activations of the hospital's massive transfusion protocol. Excised specimen weighed 27.8 kg. [4]

Gayathre et al. reported the case of a 42 years old nulliparous woman. She presented with a huge abdominopelvic mass, vague abdominal pain, amenorrhea, constipation and umbilical hernia. The tumour was 26.1×36×34 cm. The patient was planned for staging laparotomy with the probability of an ovarian neoplasm in mind. Intraoperatively, a giant abdominopelvic mass was found arising from the uterus and a total abdominal hysterectomy with bilateral salpingo oophorectomy was performed. The pathology revealed leiomyoma with cystic degeneration. A Hysterectomy specimen that weighed nearly 22 kgs was removed. [5]

Yamamoto et al. reported a case of a 58-year-old Japanese woman with a giant uterine leiomyoma and history of deep vein thrombosis. The tumour was 46 × 35 × 27 cm. Anticoagulant therapy was switched from warfarin to heparin and was discontinued 9 h before surgery. A three-dimensional CT imaging depicted the tumor feeding vessels. A blocking balloon catheter was placed in the abdominal aorta to prevent massive bleeding, and a filter was placed in the inferior vena cava to prevent pulmonary thromboembolism. Then, it was performed a selective ligation of the ovarian arteries and veins and the uterine arteries. The total amount of bleeding was 1130 g. The weight of the excised tissue was 22.6 kg. [6]

Viva et al. reported the case of a caucasian woman with massive abdominopelvic mass with no bowel or urinary complaints. The mass measured 32 × 27 × 34 cm. A total abdominal hysterectomy en bloc with bilateral salpingectomy was performed, no adhesions to the intestinal organs were observed. Intraoperative blood loss was 400 ml. [7]

Mongan et al. reported the case of a 45-year-old woman with abdominal distention and pain with umbilical hernia. CT scan with contrast revealed a regular cystic mass with multiple solid components and thick septa, probably from the adnexa. The intraoperative findings were enlargement of the uterus with cystic degeneration of the leiomyoma. A total abdominal hysterectomy and bilateral salpingo-oophorectomy were performed. The mass measured 57 × 51 cm in size and 26 kg in weight. [8]

As reported in these cases, the main complications of a giant leiomyoma are dyspnea in exertion, respiratory failure, abdominal pain, limitation of mobility, amenorrhea, constipation, umbilical hernia and deep vein thrombosis. In our case the patient was complaining of difficulty in breathing, fatigue and constipation.

The low socioeconomic status of the patient is a risk of the development of a giant leiomyoma and delay of surgical management for Viva et al. and Gayathre et al. 's case report. It was also the case for our patient.

The age of the women reported in the last 20 years ranges between 31 and 54 years old. 7 In our case, we report the youngest patient to have a giant leiomyoma, in the last 20 years at least.

The origin of the mass can be missed on a CT imaging. MRI can be more precise in determining the origin of the mass but it wasn't the case for Yamamoto et al. case report. A 3D CT was also performed to detect the feeding vessels.

The complications reported in these cases during the surgical management are the adherences to adjacent structures, difficulties of identification of the important structures such as ureters and the massive blood loss. Massive transfusion protocols, feeding vessels of leiomyoma clamped, uterine and ovarian arterial ligation and finally uterine embolisation were performed to reduce and overcome fluid and blood loss. Deep vein thrombosis is the main concern of the giant leiomyoma, so anticoagulation therapy was initiated, a filter was also placed in a patient's inferior vena cava to prevent embolism.

Abdominal hysterectomy with salpingo oophorectomy was performed in these cases.

Lee et al. reported a case report of a woman with huge uterine leiomyoma sized about 26 * 23cm. They performed a successful robotic-assisted single port supracervical hysterectomy with bilateral salpingectomy using the da Vinci SP surgical system. [10]

Conclusion

Giant leiomyoma is a rare entity. The diagnosis and the surgical management are challenging. There must be adequate preparation and postoperative care for the patient in order to reduce the mortality and morbidity. Low socioeconomic status, poor educational level are a risk of developing a huge myoma due to delayed diagnosis.

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