

CASE REPORT

Gynecology

## A giant pedunculated sub-serosal uterine leiomyoma with hypertrophied vessels attached to the small and large intestines: A case report

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### Abstract

**Background:** Giant leiomyomas are rare; however, they can cause significant morbidity to the surrounding organs if left untreated. Early treatment is essential to reduce the associated morbidity.

**Case presentation:** A 38-year-old nulliparous woman presented to the emergency gynecologic unit at the Kenyatta National Hospital. She gave a history of abnormal uterine bleeding for eight years, progressive abdominal swelling for six years, and a one-year history of poor feeding and weight loss. Her abdomen was grossly distended. Abdomino-pelvic ultrasound and Computed Tomography (CT) scan revealed a large heterogeneous solid mass with a pedicular attachment to the uterus. She was scheduled for an

open myomectomy, and resection anastomosis of the small intestine was done.

**Conclusion:** There is a need to exclude malignancy in atypical giant leiomyomas, and a thorough preoperative workup and multidisciplinary management are essential to a successful outcome.

**Keywords:** Giant uterine leiomyoma, anastomosis, hypertrophied omental vessels, open myomectomy

**Conflict of Interest:** None

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### Introduction

Uterine leiomyoma is the most common solid benign tumor in women of reproductive age, with approximately between 70-80 % of women likely be diagnosed with uterine leiomyoma before age 50 (1). Risk factors associated with leiomyomas include nulliparity, obesity, family history of leiomyomas, black race, and hypertension (2). Most cases are asymptomatic. However, some may be symptomatic and may present with heavy menstrual bleeding, intermenstrual bleeding, dysmenorrhea, pelvic pain, dyspareunia, infertility, bowel and bladder pressure symptoms (3). The diagnosis of uterine leiomyoma is based on the medical history, physical examination, and

imaging studies: pelvic ultrasound, Magnetic Resonance Imaging (MRI), and Computed Tomography (CT) (4). Giant leiomyomas pose a management challenge, and the lack of recent reports encountered in the literature reflects their rarity (5-8).

This is a case of a 38-year-old diagnosed with giant pedunculated sub-serosal uterine leiomyoma with hypertrophied omental vessels attached to the intestines that was surgically managed.

### Case presentation

A 38-year-old nulliparous woman presented to the emergency gynecology unit at the Kenyatta National Hospital (KNH) with a history of

abnormal uterine bleeding for eight years, progressive abdominal swelling for six years, and a one-year history of poor feeding and weight loss. The symptoms started with inter-menstrual bleeding for three years with occasional post-coital bleeding, followed by heavy menstrual bleeding lasting six days for five years. She later noted progressive, painless abdominal swelling over six years, which interfered with her work and feeding habits due to the heaviness. She had occasional headaches but no dizziness or palpitations. She could not conceive, although she had a stable partner and had no history of contraception use. She developed early satiety one year before presentation with gradual weight loss from 65 - 55 kilograms (kgs) with no bladder or bowel symptoms. Her menses later became regular, light flow lasting four days with no dysmenorrhea. She had stopped working when the abdominal swelling worsened but did not seek medical care due to financial constraints.

Clinical examination revealed a wasted lady with a grossly distended abdomen. She had an umbilical hernia measuring 6 x 4 cm and a huge, firm, non-tender pelvic mass extending to the epigastrium (Figure 1). The vaginal examination was unremarkable. Her hemoglobin level was 12.0 g/dl, platelet count  $546 \times 10^9$  g/L, and creatinine 1.7 mmol/l. Abdomino-pelvic ultrasound and CT scan revealed a large heterogeneous solid mass with a pedicular attachment to the uterus that measured 30.4 x 21.7 x 37.4 cm and mild ascites. Doppler ultrasound of the lower limbs, electrocardiogram (ECG), and echocardiogram were normal. The patient was scheduled for an elective total abdominal hysterectomy or myomectomy. However, she was not considered for pelvic artery embolization due to financial constraints.

The patient underwent bowel preparation a day before the surgery. A preoperative anesthetic review was done, and a stat dose of antibiotics was administered. Laparotomy was through an extended vertical midline incision. A giant pedunculated uterine leiomyoma was noted. It was a hard, bosselated, degenerated mass measuring 30 x 30 x 18 cm attached by a 3 cm thick vascular pedicle to the uterine's fundus (Figure 2). It was attached to the infra-colic omentum, the appendix, jejunum, and transverse colon.

The giant leiomyoma had hypertrophied vessels. Myomectomy was performed by ligating the pedicle and releasing all adhesions (Figure 3). The large intestines were released. A general surgeon performed appendectomy, resection, and anastomosis of the jejunum. There was moderate ascitic fluid, which was collected for cytology. Approximately ten smaller leiomyomas, the largest

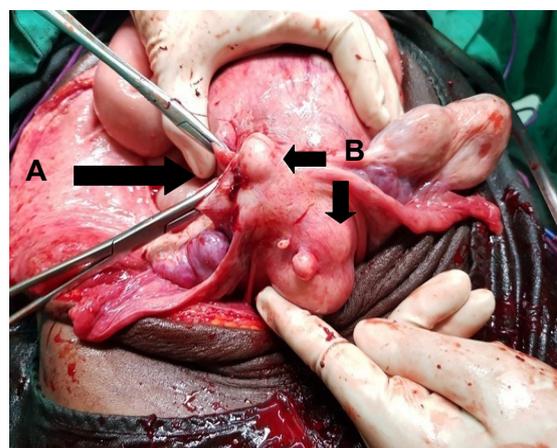
measuring 10 x 8 cm, were excised. The huge mass weighed 11.5 kgs and was sent for histological diagnosis (Figure 4).



**Figure 1:** Preoperative appearance of the abdomen



**Figure 2:** Intraoperative appearance of the leiomyoma with hypertrophied omental vessels



**Figure 3:** A: Intraoperative appearance of the uterus after resection of the giant leiomyoma; B: the remaining intramural leiomyoma still in place



**Figure 4:** Postoperative appearance of the giant leiomyoma

The blood loss was 2.5L, necessitating blood transfusion. Postoperatively, her hemoglobin was 8.5 g/dl. The histological examination of the mass reported features consistent with uterine leiomyoma. The patient was taken to the gynecological ward and was nil per oral for three days, after which she was started on gradual feeds. She received thrombo-prophylaxis and physiotherapy. Her recovery was uneventful. She was discharged after five days on analgesics and hematinics.

## Discussion

Uterine leiomyomas are the most common benign pelvic tumor in women. They can grow to extremely large sizes; the largest reported in history weighed 63.3 kgs. Both estrogen and progesterone are involved in their development (5). During the reproductive years, uterine leiomyoma grows slowly at an average rate of 9% over six months (9). Due to the abdominal wall's plasticity, these tumors may grow to a large size before causing significant pressure effect on surrounding organs. It was recently discovered that a mutation in the Mediator complex subunit 12 (MED12) gene is commonly found in smaller-sized leiomyomas (10). Treatment modalities (medical or surgical)

aim to control symptoms, taking into account fertility wishes. Surgery and uterine artery embolization are the mainstay treatment protocols, and the decision on the preferred method is dependent on the severity of symptoms. Surgery through myomectomy or hysterectomy is the most preferred for giant leiomyomas (3). Laparotomy was opted for in the presented case because of the size of the mass, and the possibility of a myomectomy was assessed during surgery and found feasible.

Cases of giant leiomyoma in the literature reported surgical challenges and were managed by total abdominal hysterectomy and/or bilateral salpingo-oophorectomy on suspicion of malignancy or adnexal involvement. Complications included intraoperative and postoperative hemorrhage, hemorrhagic shock requiring re-exploration, and Disseminated Intravascular Coagulation (DIC) requiring massive transfusion (6,7). These cases illustrate the high morbidity and technical difficulties in surgical excision of giant uterine leiomyoma. Hence, careful perioperative and postoperative care is essential in ensuring good management outcomes. The presented case had a successful myomectomy of a giant uterine leiomyoma attached to the appendix, small and large intestines with vascular supply from hypertrophied omental vessels.

## Conclusion

Giant uterine leiomyomas are rare. There is a need to exclude malignancy in atypical giant leiomyomas, and a thorough preoperative workup and multidisciplinary management are essential to a successful outcome. Myomectomy can be an acceptable choice of surgery in premenopausal women with a desire for fertility.

## Consent

Written informed consent was obtained from the patient for publication of this case report.

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