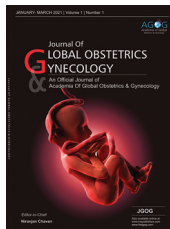


Case Report



A Massive Uterine Fibroid: When Benign Turns Bizarre

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ABSTRACT

Uterine leiomyomas (fibroids) are the most common benign tumors in women of reproductive age, often asymptomatic but occasionally causing significant morbidity. Their presentation can vary based on size, number, and location. Symptomatic cases may lead to abnormal uterine bleeding, pelvic pressure, and infertility. Management must be individualized, particularly in complex patients with comorbidities. We present a rare case of a 34-year-old nulligravida woman with a 9-year history of HIV Type I infection on antiretroviral therapy (TLE regimen), who presented with severe abnormal uterine bleeding, pelvic pain, and a progressively enlarging abdominal mass. Imaging revealed a giant uterine fibroid measuring up to 30 cm along with additional subserosal and cervical fibroids. Given the size and symptoms, she underwent a total abdominal hysterectomy with bilateral salpingectomy after appropriate pre-operative preparation, including bilateral DJ stenting. The resected specimen weighed approximately 3.7 kg. The post-operative period was uneventful, and the patient recovered well. This case highlights the diagnostic and management challenges posed by giant uterine fibroids, especially in patients with underlying immunocompromised states, such as HIV. A tailored, multidisciplinary approach is essential. Early diagnosis, comprehensive counseling, and timely surgical intervention can result in favorable outcomes even in complex clinical scenarios.

Key words: Abnormal uterine bleeding, Giant fibroid, HIV, Hysterectomy, Leiomyoma, Retroviral disease, Uterine fibroid

INTRODUCTION

Leiomyoma, also known as fibroid are characteristic benign tumors that usually arise in the uterus. They are structurally made of the smooth muscle fibers of the uterine wall and are firm, well-demarcated shows whorled pattern. Incidence increases during the reproductive age and decreases after menopause. The presentation and clinical features of uterine fibroids depend on the size and location. The majority of women diagnosed with leiomyoma will be asymptomatic and will not require treatment. In symptomatic cases, abnormal uterine bleeding is the most frequent complaint and the most common is heavy menstrual bleeding. Other symptoms include dysmenorrhea, abdominal pain, pressure effect, spontaneous miscarriage, and infertility.

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CASE REPORT

A 34-year-old married since 15 years, nulligravida with HIV type I positive since 9 years on treatment with clinical features of Pain in the abdomen and abnormal uterine bleeding with heavy menstrual bleeding since 1 year. She had irregular bleeding 15–20 days cycle with soakage of 8 pads/day with passage of large clots associated with pain in the abdomen. The duration of bleeding disturbs her day-to-day activities. There was no history of bleeding from other parts of her body, no easy bruising, and no history of intermenstrual bleeding. There is a history of parenteral iron administration for anemia. She has been HIV type I positive since 9 years and under TLE regime. There is no significant family history. Her past menstrual cycles were regular.

Her general physical examination was normal apart from a mild pallor. Systemic examination was normal. Abdominal examination revealed no organomegaly. A 30-week-sized pelvic mass was noted, smooth, firm, regular, and mobile. No evidence of free fluid. Per speculum examination cervix was pulled up, and spotting was present. Per vaginal examination uterus size of 30 weeks, firm and mass not felt separately from the uterus, and the bilateral fornix free and non-tender.

Investigation: Complete blood count - 13.4/9900/245,000. Her renal function and liver function were within normal limits.

Thyroid-stimulating hormone 1.36 Uiu/mL, Blood sugars were within normal limits. Ca 125, carcinoembryonic antigen, Alpha-fetoprotein, CA 19.9 within normal limits.

Radiological Investigation: Pelvis Ultrasonography [Figure 1] suggestive of- Extremely bulky uterus and replaced by a large well-defined heteroechoic mass showing whorled appearance seen in the subserosal plane at the uterine fundus. It is inseparable from uterus and extending from pelvis to the level of umbilicus, measuring $10.4 \times 18.4 \times 30$ cm. Another exophytic lesion of $5.8 \times 8.4 \times 8.4$ cm is noted in the subserosal plane along the anterosuperior uterine wall.

Computed tomography scan Abdomen + pelvis suggestive of Uterus $15 \times 18 \times 21$ cm sized heterogeneous attenuation mass lesion is seen in pelvis with another round heterogeneous lesion arising from anterior margin measuring 6×5.8 cm. These lesions show heterogeneous enhancement on post-contrast study. Bilateral ovaries are normal.

Magnetic resonance imaging (MRI) pelvis suggestive of Uterus $28.5 \times 13.6 \times 19$ cm junctional zone normal, ET 7.5 mm, large lesion $22.3 \times 13.6 \times 19.3$ cm seen in the posterior and right lateral wall.

The patient along with her husband was counseled on different management options and opted for open abdominal hysterectomy. Patient was counseled regarding the procedure and related complications. Pre-operative work-up and bilateral DJ stenting were done to prevent ureteric injury during surgery. Informed consent was taken.

Intraoperative findings of 30 weeks uterus with an intramural fibroid measuring $30 \times 20 \times 15$ cm in size, another $7 \times 5 \times 4$ cm cervical fibroid, and another 5×4 cm subserosal fibroid.

Total abdominal Hysterectomy [Figure 2] with bilateral salpingectomy was done and the specimen weighing around 3.7 kg. An Estimated Blood loss of 1000 mL and intraoperatively, 2 pints of whole blood transfusion was done.

Her immediate post-operative period was uneventful and clinically stable. Her post-operative hemoglobin was 10.1 g/dL. Her post-operative recovery was uneventful and the patient was discharged on the 12th post-operative day. At her first follow-up visit was uneventful and the surgical site was well healed.

DISCUSSION

Leiomyomas, also known as uterine fibroids, are the most common benign smooth muscle tumors of the uterus, affecting up to 70–80% of women by the age of 50, particularly those of reproductive age.^[1] They are monoclonal tumors arising from the smooth muscle cells of the myometrium and are estrogen- and progesterone-dependent for their growth.^[2] While most fibroids are monoclonal, 25–40% display cytogenetic abnormalities, including translocation t(12;14), trisomy 12, and deletion of chromosome 7.^[3]

Fibroids can vary widely in size, number, and location within the uterus and are commonly classified as subserosal, intramural, or submucosal. While many are asymptomatic, symptomatic leiomyomas can lead to abnormal uterine bleeding, pelvic pain or pressure, bulk-related symptoms, infertility, and complications during pregnancy.^[4,5]

Imaging, especially transvaginal ultrasonography, remains the first-line modality for diagnosis, with high sensitivity and specificity for detecting fibroids.^[6] In complex cases or when precise mapping is required (e.g., for surgical planning), MRI provides better delineation of the size, location, and vascularity of fibroids.^[7]

Management depends on various factors, including the severity of symptoms, desire for fertility preservation, size and number of fibroids, and age of the patient. Symptomatic treatment includes anemia correction, tranexamic acid, combined oral contraceptives, and levonorgestrel-releasing intrauterine devices for menorrhagia management.^[8] Myomectomy remains the standard of care



Figure 1: Ultrasound showing leiomyoma features

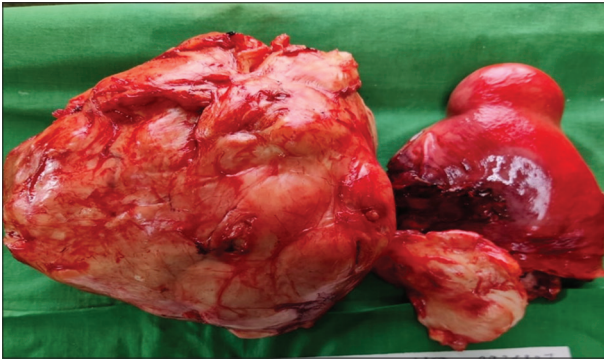


Figure 2: Total abdominal hysterectomy with bilateral salpingectomy

for women desiring fertility, whereas hysterectomy provides a definitive cure for women who have completed childbearing.^[9]

Medical options, such as GnRH analogs, selective progesterone receptor modulators (e.g., ulipristal acetate), and tranexamic acid may offer temporary relief of symptoms but are often limited by side effects and the recurrence of symptoms once therapy is discontinued.^[10] Uterine artery embolization and MRI-guided focused ultrasound are other minimally invasive alternatives, though their role in fertility preservation remains controversial.^[11]

In rare cases, leiomyomas may undergo degenerative changes (e.g., hyaline, cystic, red, or calcific degeneration), especially in large or rapidly growing tumors. Malignant transformation into leiomyosarcoma is extremely rare, with an estimated incidence of <0.1%.^[12]

This case emphasizes the importance of individualized treatment planning in fibroid management. While medical therapies offer temporary symptomatic relief, surgical options provide long-term benefit, especially in large or symptomatic fibroids. Close follow-up and patient counseling regarding recurrence, fertility, and treatment expectations are crucial.

CONCLUSION

This was a case of a nullipara with retroviral disease patient with multiple uterine fibroids. Uterine fibroids should be in the differential diagnosis list when evaluating women who present with a pelvic mass, abnormal uterine bleeding, and abdominal pain. This

group of women should be adequately counseled on the different options for management with the ultimate goal of preserving their future reproductive career.

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