



## UTERINE FIBROIDS BEYOND THE USUAL: A CASE SERIES OF DIAGNOSTIC DILEMMAS AND SURGICAL CHALLENGES

### Obstetrics & Gynaecology

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### ABSTRACT

**Background:** Uterine leiomyomas are common benign tumors, but atypical presentations may pose diagnostic and therapeutic challenges. **Objectives:** To highlight varied clinical presentations of uterine fibroids and their surgical management. **Methods:** This case series includes three patients with atypical presentations of fibroids evaluated by clinical examination and imaging and managed surgically at a tertiary care center. **Results:** A postmenopausal woman presented with bleeding due to a cervical fibroid causing hematometra and underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. A second patient with heavy menstrual bleeding and a mass per vaginum, initially diagnosed as a cervical fibroid on imaging, was clinically identified as a fibroid polyp and treated with vaginal myomectomy. The third case involved a giant fibroid with myxoid degeneration mimicking malignancy, requiring exploratory laparotomy. Histopathology confirmed benign leiomyoma in all cases, and postoperative outcomes were favorable. **Conclusion:** Fibroids may present atypically and mimic other pathologies. Clinical correlation with imaging is essential and management should be individualized.

### KEYWORDS

Uterine fibroid, Cervical fibroid, Fibroid polyp, Myxoid degeneration

### INTRODUCTION

Uterine leiomyomas are the most common benign tumors in women of reproductive age, with an estimated prevalence of 20–40%.(1) Although many fibroids remain asymptomatic, they may present with a wide spectrum of clinical manifestations including abnormal uterine bleeding, pelvic pain and pressure symptoms.

Cervical fibroids are rare, accounting for only 1–2% of all leiomyomas, and may pose diagnostic and surgical challenges due to their proximity to adjacent pelvic structures.(2) Similarly, fibroid polyps may mimic other cervical pathologies and degenerative changes in large fibroids can resemble malignant tumors on imaging. This case series highlights three patients with distinct and atypical presentations of uterine fibroids, emphasizing the importance of clinical correlation, imaging and individualized surgical management.

### CASE SERIES

#### Case 1: Postmenopausal Bleeding Due to Cervical Fibroid with Hematometra

A 54-year-old postmenopausal female presented with intermittent bleeding per vaginum for 6 months, associated with passage of clots and lower abdominal discomfort. She had attained menopause 15 years prior. On examination, a firm abdominopelvic mass corresponding to 18–20 weeks size was noted. Per speculum examination revealed a hypertrophied cervix with anteriorly deviated os, with no visible growth. Per vaginal examination suggested a bulky, irregular uterus with shallow fornices. Ultrasonography showed a large cervical fibroid (~12 × 8.5 cm) with a cystic component suggestive of degeneration. MRI pelvis revealed a large posterior cervical fibroid causing compression of the endocervical canal with associated hematometra, indicating outflow obstruction. The patient underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. Intraoperatively, a large (~11 × 10 cm) posterior cervical fibroid causing distortion of the cervical canal and uterine enlargement with hematometra was noted. Significant distortion of pelvic anatomy was encountered due to the large cervical fibroid. The bladder was displaced superiorly and anteriorly, while the ureters were stretched and displaced laterally, increasing the risk of injury. Identification and separation of uterovesical fold, Identification of uterine vessels and clamping of the cardinal ligaments were

technically challenging. The uterus had limited mobility due to the bulk of the cervical mass, further complicating surgical access. There was an increased risk of hemorrhage throughout the procedure.

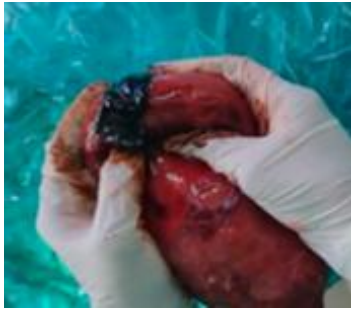
To overcome these challenges, careful stepwise dissection with early identification of ureters was undertaken. Gradual devascularization was performed prior to attempting uterine mobilization which facilitated safe completion of the hysterectomy. The postoperative period was uneventful. Histopathology confirmed benign leiomyoma with no evidence of malignancy.



**Figure 1: MRI pelvis showing large posterior cervical fibroid with hematometra**



**Figure 2: Intraoperative image showing posterior cervical fibroid with upward displacement of uterus**



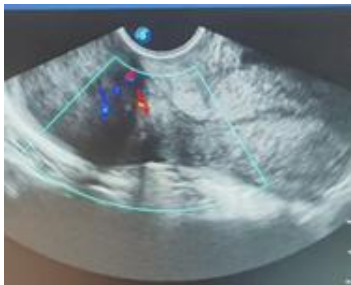
**Figure 3: Specimen showing uterus with cervical fibroid and drained hematometra**

**Case 2: Fibroid Polyp Mimicking Cervical Fibroid on Imaging**

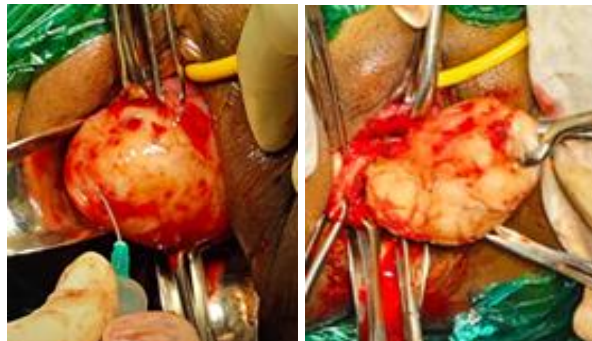
A 40-year-old multiparous female presented with complaints of heavy menstrual bleeding and a sensation of something coming out per vaginum for the past few months. There were no associated complaints of abdominal pain, abnormal vaginal discharge, or urinary or bowel disturbances. Her menstrual cycles were regular but associated with increased flow and passage of clots. On abdominal examination, no significant mass was palpable. On per speculum examination, a polypoidal mass measuring around 5 × 5 cm was seen protruding through the cervical os into the vaginal canal. Ultrasonography of the pelvis suggested a lateral wall cervical fibroid measuring approximately 5 × 5 cm. However, The mass was smooth, firm in consistency and non-ulcerated, suggestive of a fibroid polyp. Based on clinical findings, a diagnosis of fibroid polyp was made. The patient was taken up for Myomectomy through Vaginal route. On per speculum and intraoperative assessment, the fibroid polyp was noted to be arising from the cervical canal with the cervical tissue appearing thinned out and stretched over the polyp, particularly at 1 'O'clock position, giving an impression of merging with the lesion.

Hydrodissection was performed, which facilitated separation of the thinned cervical rim from the fibroid polyp. The polyp was found to have a long pedicle, which was clamped, cut, and ligated. The fibroid was removed vaginally. Hemostasis was secured by placing sutures at the base of the pedicle. The postoperative period was uneventful, and the patient experienced significant symptomatic relief.

Histopathological examination confirmed fibroid polyp with no evidence of malignancy.



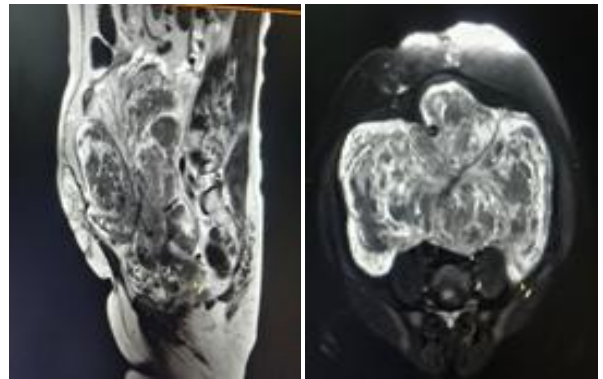
**Figure 4: Ultrasonography image suggestive of cervical fibroid**



**Figure 5: Intraoperative Per speculum image showing fibroid polyp**

**Case 3: Giant Uterine Fibroid with Myxoid Degeneration Mimicking Malignancy**

A 40-year-old multiparous female with a history of two previous cesarean sections presented with abdominal pain for 2 months with no menstrual irregularities. On examination a large abdominopelvic mass was palpable. Ultrasonography revealed a large pelvico-abdominal lobulated mass (~14 × 18 × 22 cm), with uterus and ovaries not visualized separately, raising suspicion of a neoplastic lesion. MRI showed a large (8.4 × 23.9 × 13.9 cm) lobulated lesion involving the uterus and cervix, with heterogeneous signal intensity, areas of cystic degeneration and restricted diffusion. Imaging features were suggestive of a fibroid with myxoid degeneration, though sarcomatous transformation was considered due to size and atypical appearance. The patient underwent exploratory laparotomy with total abdominal hysterectomy and bilateral salpingo-oophorectomy. Intraoperatively, a giant fibroid with predominant extra-uterine component and significant distortion of pelvic anatomy was noted. The large size of the mass and associated adhesions resulted in significant distortion of pelvic anatomy, making identification of anatomical landmarks difficult. Adhesions to the sigmoid colon and omentum increased the complexity of dissection and risk of bowel injury. Suspicion of malignancy necessitated cautious handling to avoid tumor spillage. Additionally, the vascular nature of the mass posed an increased risk of hemorrhage. These challenges were addressed by involving a surgical team, performing careful adhesiolysis, and adopting a meticulous, stepwise approach with gradual devascularization. This enabled safe dissection and removal of the mass while preserving adjacent structures. The postoperative course was uneventful. Histopathology confirmed leiomyoma with myxoid degeneration, with no evidence of malignancy



**Figure 6: MRI Pelvis showing giant uterine fibroid with myxoid degeneration**



**Figure 7: Intraoperative image of large pelvico-abdominal fibroid mass**



**Figure 8: Surgical specimen showing giant fibroid**

## DISCUSSION

Uterine fibroids can present with a wide spectrum of clinical manifestations depending on their size, location and associated degenerative changes. This case series highlights the diagnostic variability and the need for individualized surgical management.

Cervical fibroids are rare, accounting for only 1–2% of leiomyomas, and are associated with distortion of pelvic anatomy.—(3) In Case 1, the cervical fibroid led to outflow obstruction and hematometra, presenting as postmenopausal bleeding—a clinical scenario that warrants exclusion of malignancy. Such cases pose intraoperative challenges due to displacement of adjacent structures, particularly the bladder and ureters. Meticulous surgical technique and adherence to anatomical principles were crucial in preventing intraoperative complications

In Case 2, a fibroid polyp presented with classical symptoms of heavy menstrual bleeding and a mass per vaginum. However, it was initially misdiagnosed as a cervical fibroid on imaging, highlighting the limitations of imaging alone and the importance of thorough clinical examination. Myomectomy through vaginal route provided definitive and minimally invasive management. Care was taken to preserve the cervical integrity while ensuring complete excision.

Case 3 demonstrated a giant fibroid with myxoid degeneration mimicking a malignant pelvic mass. Imaging features such as large size, heterogeneous enhancement and restricted diffusion raised suspicion for sarcoma. Uterine leiomyosarcoma represents approximately 1–2% of uterine malignancies(4). It is a rare but aggressive malignant tumor, with an estimated incidence of approximately 0.1–0.3% among women undergoing surgery for presumed fibroids. —(5) Differentiating leiomyosarcoma from benign leiomyoma preoperatively remains challenging, as imaging findings such as large size, heterogeneous enhancement, and areas of degeneration may overlap. In the present case, the large size, extra-uterine component, and atypical imaging features raised suspicion of malignancy. However, the absence of definitive features such as overt necrosis, hemorrhage, vascular invasion, and normal tumor markers favored a benign etiology. Histopathological examination remains the gold standard for diagnosis.

Overall, this series emphasizes that uterine fibroids may present atypically and mimic other gynecological pathologies. A combination of clinical assessment and imaging is crucial for accurate diagnosis, and management should be tailored to the individual patient.

## CONCLUSIONS

Uterine fibroids can present with diverse and atypical clinical manifestations, ranging from asymptomatic masses to conditions mimicking malignancy. Accurate diagnosis requires a combination of clinical evaluation and imaging. Surgical management should be individualized based on the presentation and intraoperative findings. Awareness of such varied presentations can aid in timely diagnosis and appropriate management.

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