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RESEARCH ARTICLE
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A CASE SERIES ON FIBROID UTERUS WITH ATYPICAL PRESENTATIONS

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Abstract:
Uterine fibroids (leiomyomas) are common benign tumors in women of late reproductive age and perimenopausal years. This case series presents unusual fibroid presentations, emphasizing the diagnostic challenges and surgical complexities associated with fibroids.
Case Presentations: Case 1 describes 45-year-old multiparous woman with a broad ligament fibroid (20×11.8 cm) causing abdominal distension and pelvic discomfort, confirmed on imaging. Case 2 involves a 49-year-old multiparous woman with fibroid uterus, gallstones, and umbilical hernia, complicating surgical management. The largest fibroid measured 8×6.5 cm and intraoperative findings revealed bladder adhesions and endometriotic spots, requiring careful dissection. Case 3 presents a 48-year-old multiparous woman with urinary symptoms and mild bilateral hydronephrosis due to bladder compression from a 12×12 cm anterior fibroid. Surgical intervention required meticulous bladder dissection to prevent injury. Case 4 features 40-year-old multiparous women with intraoperative finding of false broad ligament fibroid extending upto the pelvic side wall. The ureter anatomy was completely distorted due to adhesions. Proper delineation of pelvic anatomy was required to avoid surgical complications. Case 5 reports a 43 year old, multiparous woman with atypical history of chronic constipation, rectal tenesmus and chronic pelvic pain. Examination revealed irregularly enlarged uterus with 12.8x11.5x9.6 cm fibroid in posterior wall. Intraoperatively bulky fibroid found occupying pouch of douglas and compressing the rectum.
Conclusion: Atypical fibroid presentations require early recognition, precise imaging, and tailored surgical strategies for optimal patient outcomes. This case series underscores the need for greater awareness of fibroid-related complications beyond gynecological symptoms, ensuring timely intervention and reducing morbidity.

Introduction:
Uterine fibroids (leiomyomas) are benign tumors occurring commonly in women of late reproductive age and perimenopausal years. Many fibroids are asymptomatic while others are associated with more expected symptoms such as menorrhagia, discomfort in the pelvis, and pressure symptoms. However, the rather odd symptomatology results in special challenges for diagnosis and treatment. Pseudo-Meigs' syndrome (1), uterine rupture secondary to degenerating fibroid (2) as well as large fibroids which cause diagnostic confusion (3) all emphasize the importance of being cognizant of the unusual symptoms of fibroids.

Also, recent case series have reported surgical difficulties arising from abnormal fibroid presentation. Sowjanya et al. (2022) examined intricate positioning of certain fibroids that, in turn, complicated the surgeries' approach.(4) Kalyankar et al. (2023) also stressed the importance of appropriate preparation for the surgery, especially where the complications of urinary or gastrointestinal systems stemming from fibroid existence are present.(5) Singh and Gupta highlight diagnostic issues in unusual cases of fibroids and the need for use of different types of imaging .(6)

The pathophysiology of these atypical presentations remains complex, often linked to factors such as hormonal influence, ischemic degeneration, and compression of adjacent organs. Given the potential for misdiagnosis and unnecessary interventions, a comprehensive diagnostic workup, including imaging modalities like MRI and contrast-enhanced CT, is essential for optimal patient outcomes. This case series presents different spectrum of atypical uterine fibroid cases encountered in a tertiary care setting, underscoring the diagnostic dilemmas, therapeutic strategies, and surgical challenges encountered in their management.

Case description:
Case 1: Distorted pelvic anatomy:
A 45-year-old, P2L2 presented with abnormal uterine bleeding, pelvic discomfort, progressive abdominal distension with no menstrual irregularity. Clinical examination revealed an irregularly enlarged uterus measuring approximately 24–26 weeks in size. Imaging confirmed a 20×11.8 cm pedunculated fibroid arising from the posterior uterine wall, extending laterally, compressing adjacent organs with left hydronephrosis. The patient underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH + BSO) after delineating the course of ureter. Intraoperatively transverse colon adhesions to posterior surface of fibroid was noted and adhesiolysis was done. Histopathology revealed a broad ligament fibroid with degenerative changes. Prophylactic presence of urologist on table is needed if distorted anatomy mandates retrograde ureteric catheterisation. The surgery was uneventful, and the patient recovered well postoperatively. This case highlights the diagnostic complexities of broad ligament fibroids and the importance of preoperative imaging to prevent complications.

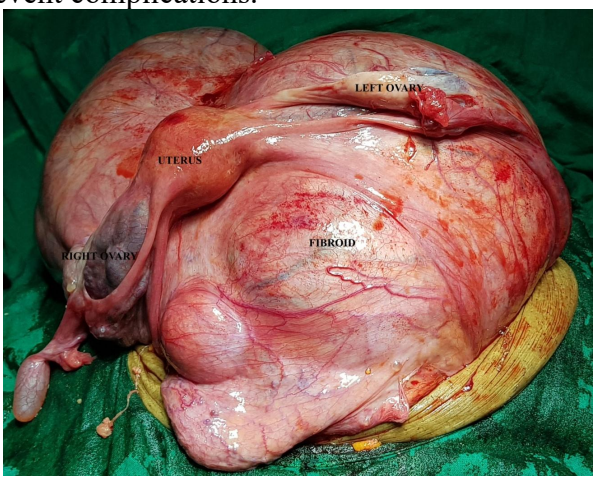

Figure 1:

Case 2: Fibroid Uterus with Umbilical Hernia and Cholelithiasis:
A 49-year-old, P2L2 with previous 2 LSCS had a history of gallstones, and a small umbilical hernia. She presented with progressive abdominal distension, chronic pelvic pain, and heavy menstrual bleeding with dysmenorrhoea, with a history of two prior lower-segment cesarean sections (LSCS). Clinical examination revealed an irregularly enlarged uterus measuring approximately 16 weeks in size. Imaging revealed an enlarged uterus with multiple fibroids, the largest measuring 8×6.5 cm in the right lateral uterine wall, as well as small gallbladder calculi and umbilical hernia (5mm). Given the presence of multiple comorbidities, a TAH + BSO was performed. Intraoperative findings included dense bladder adhesions due to prior caesarean sections and endometriotic spots over the broad ligament. Histopathology confirmed disordered proliferative endometrium with multiple fibroids and focal adenomyosis. The patient's post operative recovery was uneventful. This case underscores the complexity of managing fibroid uterus in patients with previous surgeries and additional conditions such as cholelithiasis endometriosis and hernia.

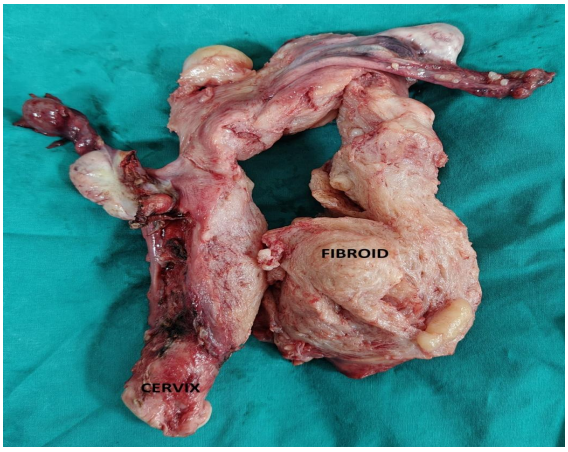

Figure 2:

Case 3: Fibroid Uterus with Bladder Compression and Hydronephrosis:
A 48-year-old, P2L2 presented with progressive abdominal distension, urinary symptoms and chronic pelvic pain. She reported heavy menstrual bleeding over the past year. Examination revealed an irregularly enlarged uterus measuring approximately 22 weeks in size and imaging confirmed an enlarged uterus with multiple fibroids, the largest measuring 18.5×9.8 cm. The fibroids caused posterior bladder compression and mild bilateral hydronephrosis. She underwent TAH + BSO, with intraoperative findings revealing multiple fibroids with largest anterior lower segment fibroid (12×12 cm) adherent to the bladder. The bladder was drawn up due to fibroid compression, necessitating meticulous dissection to avoid injury. The surgery was uneventful, and the patient showed significant postoperative improvement. Histopathological analysis revealed multiple fibroids with degenerative changes and disordered proliferative endometrium. This case highlights the impact of fibroids on urinary function and the necessity of preoperative urological assessment and careful intraoperative dissection to minimize complications.

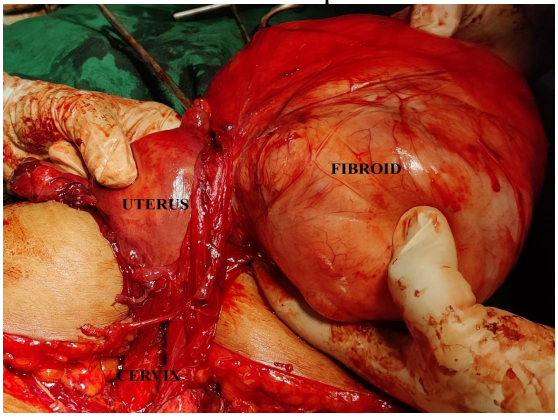

Figure 3:

Case 4: Difficult surgical operability:

A 40 year old, P2L2 presented with complaints of heavy menstrual bleeding and severe dysmenorrhoea for past 5 years not responding to medical management. On Clinical examination an irregularly enlarged uterus approximately 16 weeks in size with restricted mobility was found out. Imaging revealed a fibroid of 10x8 cm arising from posterior wall of uterus with left lateral extension. Patient underwent total abdominal hysterectomy due to failed medical management. Intraoperatively it was found to be a false broad ligament fibroid extending upto the pelvic side wall. The ureter anatomy was completely distorted due to adhesions. Hysterectomy was done after meticulous dissection of ureter. There were no intraoperative or postoperative complications. Histopathology revealed polypoidal endometrium with multiple intramural leiomyoma, with largest posterior wall leiomyoma with degenerative changes. This case highlights the importance of delineating proper pelvic anatomy to avoid surgical complications.

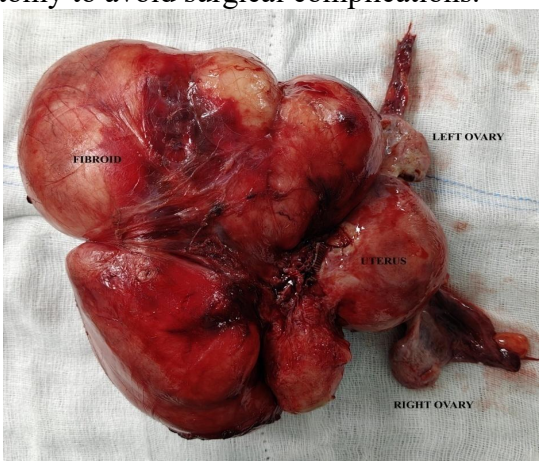

Figure 4:

Case 5: Atypical Presentation of Fibroid Uterus:

A 43 year old, P3L3 presented with history of chronic constipation, rectal tenesmus, chronic pelvic pain and no menstrual irregularity. On Clinical examination an irregularly enlarged uterus approximately 22 weeks in size was noted. Imaging studies revealed a huge 12.8x11.5x9.6 cm fibroid in posterior wall with bilateral mild hydronephrosis. Treatment possibilities such as myomectomy and hysterectomy were discussed with the patient. Patient opted for hysterectomy and hence proceeded with laparoscopic assisted vaginal hysterectomy. Intraoperatively bulky fibroid found occupying pouch of douglas and compressing the rectum. The total weight of the excised specimen was 2500 grams. Histopathology confirmed proliferative endometrium with multiple fibroids. Patient postoperative period was uneventful and was discharged. This case highlights the importance of clinical examination in an atypical presentation.

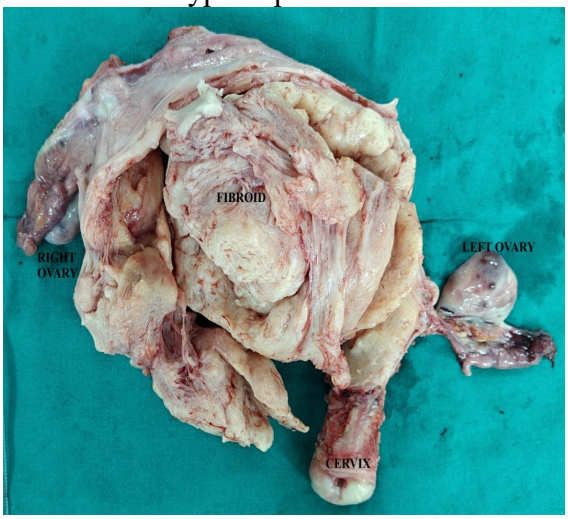

Figure 5:

Discussion:

Uterine fibroids, though common, can present atypically, leading to diagnostic dilemmas and challenges in management. This case series highlights the complexity of atypical presentations. Reviewing the literature, several case studies and systematic reviews have examined similar unusual cases, providing valuable insights into the diagnosis and management of atypically presenting fibroids.

Atypical fibroids can mimic other gynecological and non-gynecological conditions. In a case series by Singh & Gupta (2020), atypical fibroids posed significant diagnostic challenges due to unusual ultrasound and MRI findings, often leading to misinterpretation as malignant or inflammatory masses.(6) Similarly, Sule-Odu et al. (2018) described a case where a subserous fibroid presented with features mimicking pseudo-Meigs' syndrome, further complicating diagnosis.(1) These findings emphasize the need for high clinical suspicion and comprehensive imaging studies to avoid misdiagnosis and unnecessary interventions.

Fibroids can also present with mechanical complications, particularly in large tumors. Iwo-Amah et al. (2023) reported a case of a huge fibroid coexisting with an umbilical hernia, leading to intestinal obstruction.(7) Similarly, Ghosh (2017) described an emergency laparotomy for a strangulated umbilical hernia caused by a large subserous fibroid, necessitating bowel resection.(8) In case 2, the patient presented with a combination of fibroid uterus, cholelithiasis, and umbilical hernia, further complicating the surgical approach.

Another significant issue is fibroid-related bladder compression, which can lead to urinary retention and hydronephrosis. Bano et al. (2021) highlighted that in cases where fibroids grow large enough to impinge on the urinary tract, careful preoperative planning and intraoperative dissection are critical.(9) In case 3, the patient demonstrated this complication, requiring careful intraoperative bladder mobilization to prevent urinary tract injuries.

Surgical management remains the mainstay of treatment for symptomatic fibroids, but the choice between hysterectomy and myomectomy depends on various factors, including fertility preservation and severity of symptoms. In a review by Ekine et al. (2015), abdominal myomectomy was found to be the preferred option in women seeking fertility, while hysterectomy was more common in perimenopausal patients.(10) In this case series, all the patients underwent hysterectomy due to extensive fibroid involvement and age-related considerations. For all cases urologist and surgeon were on standby to tackle any intraoperative complications.

The literature also highlights the need for long-term follow-up and histopathological confirmation. A study by Tojichen (2024) on massively enlarged fibroids emphasized that delayed diagnosis and lack of gynecological follow-up contribute to increased surgical morbidity.(11) In this series, histopathology played a key role in confirming the benign nature of fibroids and ruling out malignancy.

Conclusion:

This case series highlights **atypical fibroid presentations**, including **broad ligament involvement, fibroid-associated hernia, and bladder compression leading to hydronephrosis.** These uncommon manifestations often mimic other conditions, delaying diagnosis and treatment. The findings emphasize the need for **early imaging, careful surgical planning, and awareness of fibroid-related complications beyond gynecological symptoms** to ensure optimal patient outcomes.

Clinical Significance:

The diagnosis and surgical approaches to atypical uterine fibroids are exhausting because they closely reflect other gynecological and non-gynecological conditions. This highlights the need for early and extensive imaging such as an MRI or a contrast enhanced CT check, which are crucial for accurate diagnosis and surgery preparation. Furthermore, surgeons need to ensure that they are careful about geometric distortion that can lead to complications like bladder compression or broad ligament suffocation. Moreover, correct identification of these atypical cases can lead to early

intervention, which will significantly decrease factors that worsen the patient's condition and enhance the overall patient health results.

Authors' contribution.

1. Dr. Sangeetha Karunanithi- Conceptualized the study and manuscript writing
2. Dr. Sindhu G- Contributed to writing the original draft
3. Dr. Vaithiyalingam- Provided expert advice
4. Dr. Sankareswari R- Supervised the research activity

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