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Case Report

Pyomyoma uterus: a case report

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ABSTRACT

Pyomyoma of uterus is rare usually misdiagnosed as degeneration of fibroid. Delay in diagnosis can lead to significant increase morbidity and mortality. Here we present a case of 34-year-old woman presented with complaints of lower abdominal pain, low backache, and gradually developed fever, which progressed to sepsis. Clinical evaluation and imaging revealed a large uterine fibroid with infarction. She was treated with intravenous antibiotics and required blood transfusions. Since her condition worsened, planned for hysterectomy. She became asymptomatic after surgery. This case emphasized the importance of considering pyomyoma in the differential diagnosis of sepsis in women with uterine fibroids, especially when there is pain and sepsis.

Keywords: Leiomyoma, Pyomyoma, Sepsis

INTRODUCTION

Pyomyoma, also known as suppurative leiomyoma, is a rare but potentially life-threatening complication of uterine fibroids, characterized by the infarction and infection, subsequent abscess formation within a fibroid.[1] The condition often presents with nonspecific symptoms such as abdominal pain, fever, and signs of sepsis, making early diagnosis challenging. A pyomyoma is rarely reported and can be a lethal complication of a uterine leiomyoma.[2] If a classic triad of symptoms that includes abdominal pain, sepsis without an obvious source, and a history of leiomyoma, pyomyoma can be suspected. In majority of cases, total abdominal hysterectomy is required to avoid severe morbidity and potential mortality.[1] Due to its rarity, pyomyoma can be easily overlooked, delaying appropriate treatment. Usually, it occurs after uterine artery embolization or postpartum. A strong clinical suspicion, early diagnosis, and appropriate management should be done to save the patient. This case report presents a rare occurrence of pyomyoma in a young woman, without any predisposing factors and discuss the clinical management and outcomes.

CASE REPORT

A 34-year-old female presented to the Gynaecology emergency department with complaints of lower abdominal pain and low backache that had persisted for several days. She reported the gradual onset of fever over the past week, which had not responded to over-the-counter antipyretics. She also complaints of foul-smelling vaginal discharge. On examination, the patient appeared acutely ill, with a temperature of 39°C, tachycardia, and hypotension, suggestive of sepsis. Abdominal palpation revealed a palpable mass of size of a 26-week gravid uterus with tenderness, which had been asymptomatic until the recent onset of symptoms. Per vaginal examination showed necrotic foul-smelling tissue from cavity, removed and send for Histopathological examination and pus send for culture and sensitivity.

Laboratory investigations revealed leucocytosis (15960 cells/cu.mm), moderate anaemia (Hb-7.5 g/dl), and elevated inflammatory markers (CRP-250 mg/litre). Contrast MRI of the abdomen and pelvis demonstrated a large, degenerating uterine fibroid of size 10×14×13 cm

with areas of infarction and signs of infection with prolapsed submucosal component in the endocervical canal. Blood cultures were taken, and the patient was immediately started on broad-spectrum intravenous antibiotics. Due to the severity of her anaemia, blood transfusions were also administered. Histopathology report of the vaginal tissue came as infarcted leiomyoma, and culture and sensitivity of the pus was sterile. CBNAAT of the cervical discharge also came as negative.

In spite of sterile pus culture and blood culture report, the fever did not subside even after hiking the IV antibiotics to Meropenem. Hence planned for Total abdominal hysterectomy. Intraoperatively uterus was regularly enlarged to 26 weeks size with a large fibroid with soft consistency. Cut section of the uterus revealed foul smelling pus with necrotic areas in the myoma.

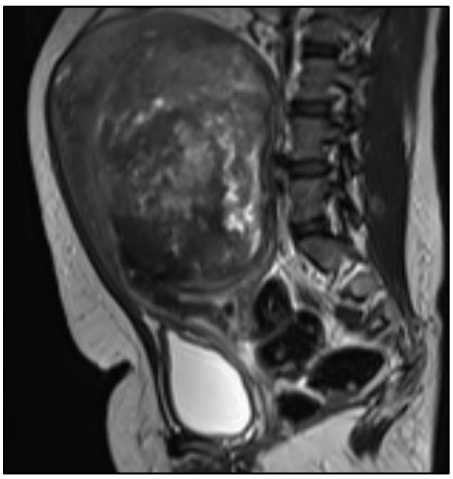

Figure 1: MRI image with a large atypical uterine fibroid showing cystic and degenerative changes, with prolapsed submucosal component in the endocervical canal.

Figure 2: Intraoperative finding -cut section of enlarged uterus and fibroid with necrotic material.

Her postoperative period was uneventful. She was later discharged with a course of oral antibiotics.
Histopathology report came as Infarcted Leiomyoma.

DISCUSSION

Pyomyoma is a rare complication of uterine fibroids, typically occurring in postmenopausal women and those with immunosuppressive conditions. Usually, postmenopausal cases were caused by ischemia due to hypertension, diabetes, or atherosclerosis3. However, it can also present in premenopausal women, as seen in this case. It is thought that the pathophysiology of pyomyoma is associated with the change in blood flow to a leiomyoma. Most reported cases are related to pregnancy, postmenopausal period, and gynecologic procedures such as uterine artery embolization.[3] Consequently ischemia of the leiomyoma occurs and then it leads to bacterial infection, often secondary to hematogenous spread, direct extension from adjacent structures, or iatrogenic introduction during procedures. The condition can rapidly progress to sepsis if not promptly recognized and treated.

The diagnosis of pyomyoma is often challenging due to its nonspecific presentation. Imaging, particularly CT or MRI, plays a crucial role in identifying the characteristic features of infarction and infection within a fibroid. Management typically includes broad-spectrum antibiotics to cover common pathogens, such as anaerobes and Gram-negative organisms. Since conservative management alone is not sufficient surgical intervention may be necessary in cases where there is failure to respond to medical management, presence of an abscess, or significant necrosis.[4] It can be managed with hysterectomy or myomectomy, depending on the location of the pyomyoma and the severity of the patient's condition.[4]

In this case, the early initiation of antibiotics and supportive care, including blood transfusions, were critical in managing the patient's sepsis and stabilizing her condition. The decision to proceed with surgery would depend on the patient's response to conservative treatment and the evolution of the infection.

CONCLUSION

This case underscores the importance of considering pyomyoma in the differential diagnosis of acute abdomen and sepsis in women with known uterine fibroids. Prompt recognition and treatment are vital to prevent severe complications, including septic shock and death. Multidisciplinary management involving gynecologists, radiologists, and infectious disease specialists is essential for optimal outcomes. Further studies are needed to better understand the pathogenesis and best treatment approaches for pyomyoma.

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