

Case Report

Uterine Fibroid Causing Acute Abdomen Due to Ischemic Gangrene: A Case Report

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Abstract

Our case report discusses the importance of a rare presentation (twisted fibroid) causing severe abdominal pain and the diagnostic dilemma, which may result in ischemic gangrene, increasing morbidity and mortality.

Again, it highlights the correlation between clinical picture and radiological findings, the important technical points when doing ultrasound for pelvic mass and its impact on management plan. The collaboration between the gynecologist and radiologist, along with timely intervention, leads to better outcomes.

Introduction

Uterine fibroids are common tumors in women in reproductive age. They are commonly found asymptomatic, but can cause heavy periods, heaviness, pressure symptoms, infertility, and rarely emergency conditions like in our case.

Acute abdomen related to uterine fibroid is rare, but failure to diagnose the condition can lead to serious complications such as ischemic gangrene and peritonitis.

Our case sheds light on the difficulty to diagnose ischemic gangrene of pedunculated uterine fibroid as the radiological findings are non-specific. Degeneration of uterine fibroid is known to occur during pregnancy, after Uterine Artery Embolization (UAE), and during menopause.

Degeneration of uterine fibroid occurs secondary to a loss of blood supply and is usually attributed to rapid growth associated with pregnancy. Pain is the most frequent sign of uterine leiomyoma degeneration [1] but it's not specific in nature to degeneration of leiomyoma and this may lead to confusion in diagnoses and so delay the management.

The incidence of cystic degeneration of uterine fibroid is 4% and is more in post-menopausal women and fibroids of interstitial type [2]. This fact explains why such condition can be misdiagnosed in clinical practice.

More Information

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Submitted: April 03, 2025

Approved: April 09, 2025

Published: April 10, 2025

How to cite this article: Babbiker IM, Elimam AMA, Medani IE, Omar AI. Uterine Fibroid Causing Acute Abdomen Due to Ischemic Gangrene: A Case Report. Arch Case Rep. 2025; 9(4): 140-141. Available from: <https://dx.doi.org/10.29328/journal.acr.1001135>

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Keywords: Uterine fibroids; Pedunculated fibroid; Ischemic gangrene; Acute abdomen



Case scenario

22-year-old single woman suffering from recurrent abdominal pain and tenderness. Evaluated and treated at local clinic many times with no response. She came to Emergency Room (ER) with nausea, vomiting, and severe abdominal pain.

The patient was stabilized and an Ultrasound (USS) performed by the radiology department reported a twisted ovarian cyst. Patient went for laparotomy; intraoperative finding was large gangrenous pedunculated uterine fibroid and normal healthy ovaries (Pictures 1,2). The diagnosis confirmed by histopathology report.



Picture 1: Very twisted fibroid pedicle causing ischemic gangrene.



Picture 2: The gangrenous fibroid with healthy both ovaries.

Discussion

There is special challenge for management of acute abdomen due to uterine fibroid. In order to overcome this problem clinicians need to use combination of clinical sense, radiological methods, and laboratory investigations.

Severe abdominal pain in fibroid is due to: degeneration, torsion or hemorrhage. Torsion is due to complete twisting of the pedicle leading to necrosis and gangrene presenting with severe pain, infection and peritonitis [3]. In general, ischemic pain due to torsion tends to be intermittent in nature, but at the end it become constant.

Ultrasonography remains the primary modality for evaluating uterine fibroids. In General, on sonography, fibroids typically appear as a hypoechoic or heterogeneous mass depending on the ratio of connective tissue to smooth muscle and this also affected by whether there is degeneration or not [2].

There are important technical points when doing ultrasound for pelvic mass; firstly, obtaining a panoramic view is essential and secondly the uterus and ovaries should be seen in clear manner to avoid diagnostic confusion between

a fibroid and ovarian mass (which was missed in our case) specially if degenerative changes take place. It is important to remember that Doppler ultrasound typically demonstrates circumferential vascularity, but fibroids that are necrotic or have undergone torsion will show no flow [4].

Magnetic resonance imaging (MRI) offers better assessment in the case of inconclusive sonographic results, an MRI examination can be performed to determine the origin of the adnexal mass [2].

Conclusion

Ischemic gangrene related to uterine fibroid is rare.

Late diagnosis of ischemic gangrene in uterine fibroid can lead to increased morbidity and mortality.

Radiologists need to be aware of imaging findings suggestive of uterine fibroid torsion.

Declarations

Ethical consideration: Written informed consent was obtained from the patient for publication.

Data availability: All available information is included in the manuscript.

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