

Pyomyoma after dilatation and curettage for missed abortion

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Summary

Infection of a leiomyoma is a very rare clinical entity called pyomyoma. Pathology may be encountered during the reproductive period, pregnancy, and even postmenopausal period. In this report, we present a case of pyomyoma which developed after dilatation and curettage managed by broad spectrum antibiotics and myomectomy to preserve the fertility in a 31-year-old patient.

Key words: Pyomyoma; Leiomyoma; Dilatation and curettage; Abortion.

Introduction

Pyomyoma is a rare complication of leiomyomas characterized by infarction and secondary infection of a leiomyoma. Most cases occur during pregnancy or postmenopause and in the literature, only one case has been reported after uterine instrumentation [1, 2].

A case of pyomyoma that developed after dilatation and curettage (D&C) for missed abortion is presented and the course and treatment of a 31-year-old patient are discussed.

Case Report

A 31-year-old primiparous woman was admitted to our outpatient clinic with fever, vaginal discharge, and abdominal pain. She had an intramural leiomyoma and D&C was performed for missed abortion at the ninth gestational week which was three days before. She had a fever (38.5°C) and tachycardia (110 beats/min). Pelvic examination revealed purulent vaginal discharge and uterine tenderness. On transvaginal sonography (TVS), the endometrium was 17 mm thick and there was a 70 x 76 x 80 mm intramural leiomyoma located at the fundus including patchy anechoic zones. White blood cell count (WBC) and C-reactive-protein (CRP) were 23000/μl and 345 mg/dl, respectively. Magnetic-resonance-imaging (MRI) revealed necrotic foci inside the leiomyoma (Figure 1a, b). Cultures were obtained and the patient was started on 900 mg of clindamycin tid and of gentamicin 120 mg/day. The signs, symptoms and laboratory findings did not regress and the endometrial thickness on TVS increased to 20 mm on the 3rd day of therapy. To rule out retained gestational material, D&C was repeated; however, minimal material was obtained and sent for culture. No clinical improvement could be observed until the 5th day and the culture of D&C material revealed *Enterococcus faecalis*. The antibiotic regimen was adjusted accordingly and 500 mg of imipenem/cilastatin qid and 500 mg of azithromycin bid were started. The patient underwent computed tomography (CT) examination, which revealed abscess loci inside the leiomyoma (Figure 2).

Surgical treatment was decided and the patient was informed about the procedure in details. A Pfannenstiel incision was performed with general anesthesia. There were dense adhesions between the uterus and abdominal viscera. Adhesions were dis-

sected free and an 8 cm intramural leiomyoma located in the fundus was detected. Myomectomy was performed. The leiomyoma was necrotic, and purulent material and debris spilled out (Figure 3). The endometrial cavity was accessed and a drain was inserted from the myomectomy locus transvaginally. An abdominal drain was also inserted.

The operative and postoperative courses were uneventful. Fever, WBC count, and CRP regressed dramatically. Histopathologic examination indicated an abscess formation inside the leiomyoma and cultures revealed *Enterococcus faecalis*. The patient was discharged on the fifth postoperative day with oral antibiotics. Gynecologic examination at the first-month control with TVS revealed normal-sized uterus and normal endometrium lining. The patient reported having regular menses at follow-up and has been symptom-free for more than eight months.

Discussion

The primary pathophysiology in the development of a pyomyoma is inadequate vascularization followed by secondary infection. Leiomyomas can be infected by bacterial seeding of necrotic foci in case of vascular insufficiency (diabetes, hypertension, atherosclerosis) or pregnancy due to hemorrhage and necrosis [2]. The pathogenic organisms are diverse and include both aerobic and anaerobic bacteria such as *Clostridium* species, *Staphylococcus aureus*, *Streptococcus hemolyticus*, *Proteus* species, *Enterococcus faecalis*, and *S. agalactiae* [3]. In our patient, *Enterococcus faecalis* was cultured.

The most frequent symptoms in case of pyomyoma are fever and abdominal tenderness. However, the condition may be fatal and present with pelvic peritonitis, sepsis, and endocarditis [3-5]. Diagnosis is difficult and imaging methods such as TVS, MRI, CT aid in the diagnosis. The main findings would be heterogeneous echo patterns and cystic spaces inside the leiomyoma [4].

Standard treatment is broad spectrum antibiotics and surgery. When preservation of fertility is intended, simple myomectomy is performed; otherwise hysterectomy needs to be considered [4].

In conclusion, pyomyoma following D&C is a very rare condition. With advanced imaging tools, the pathology can be diagnosed and treated promptly, otherwise the course may be detrimental.

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Fig. 1A



Fig. 1B



Figure 1. — Magnetic resonance imaging revealed necrotic foci inside the leiomyoma (a, axial view; b, lateral view).

Fig. 2



Figure 2. — Computerized tomography revealed abscess loci inside the leiomyoma.

Figure 3. — Appearance of the excised infected leiomyoma material.

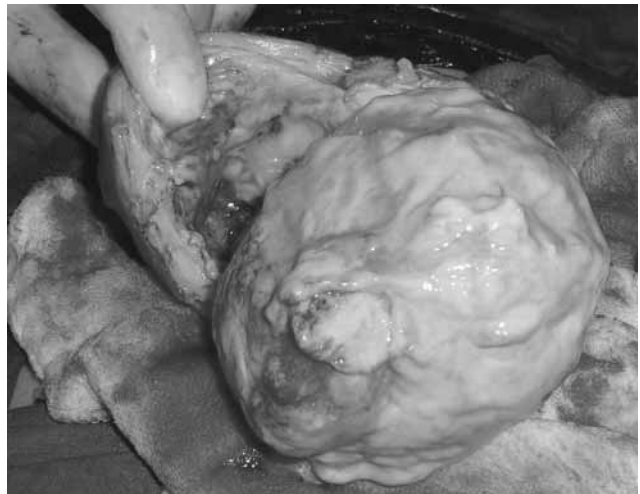


Fig. 3

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