Translation
The University of Toledo Journal of Medical Sciences

ISSN: 2469-6706 Vol. 5 2018

Chronic Uterine Dehiscence Secondary to Genitourinary Tuberculosis: A Case Report

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Genitourinary tuberculosis (GU TB) most commonly presents as infertility, pelvic pain, or menstrual irregularities in patients from countries where the disease continues to be endemic. Case: A 27 year-old G1P1001 from western Asia presented to our institution´s urogynecology office for management of pelvic pain secondary to known uterine dehiscence. The patient underwent a laparotomy for repair of the dehiscence. During the procedure she was noted to have a large, white mass within the uterine dehiscence that was later determined to likely be GU TB. The patient was referred to the Health Department where she received one year of anti-TB treatment. Conclusion: GU TB should be considered in the differential diagnosis of uterine dehiscence in patients from countries where the disease remains endemic.

genitourinary | tuberculosis | uterine dehiscence

Tuberculosis (TB) presents as genitourinary (GU) TB in 1 to 2% of cases, making it the second most common form of extra-pulmonary TB (1−3). GU TB can present in multiple ways. One study examining the presenting complaints of 44 Sudanese women with pelvic TB found that 80% of affected women complained of chronic pelvic and lower abdominal pain, 48% of dyspareunia, 40% of infertility, 28% of menstrual dysfunction, and 20% of dysmenorrhea (1). Additionally, GU TB has been known to act as a "mimicker" of ovarian or even cervical cancer (3−5). Interestingly, only 20−30% of patients with GU TB have a history of a pulmonary TB infection (6). We report a case of pelvic pain caused by uterine dehiscence secondary to a pelvic tuberculoma in a patient with no known history of TB.

Case report

Patient information. Age: 27, gender: female, ethnicity: West Asian, related medical problems: pelvic pain, fatigue, menorrhagia.

Objective for case reporting. Genitourinary TB should be considered in the differential diagnosis of pelvic pain or masses in patients from countries where the disease remains endemic.

Introduction. Tuberculosis (TB) presents as genitourinary (GU) TB in 1−2% of cases, making it the second most common form of extra-pulmonary TB (1−3). GU TB can present in multiple ways. One study examining the presenting complaints of 44 Sudanese women with pelvic TB found that 80% of affected women complained of chronic pelvic and lower abdominal pain, 48% of dyspareunia, 40% of infertility, 28% of menstrual dysfunction, and 20% of dysmenorrhea (1). Additionally, GU TB has been known to act as a "mimicker" of ovarian or even cervical cancer (3−5). Interestingly, only 20−30% of patients with GU TB have a history of a pulmonary TB infection (6). We report a case of pelvic pain caused by uterine dehiscence secondary to a pelvic tuberculoma in a patient with no known history of TB.

Case. A 27 year-old G1P1 with a history significant for an emergent cesarean section (CS) in western Asia presented to our institution´s urogynecology office for evaluation and management of a known uterine dehiscence causing sharp lower abdominal pain/burning, fatigue, and menorrhagia. Imaging obtained prior to consultation included a pelvic ultrasound (US) and a pelvic magnetic resonance image, both of which noted a 2 x 3 x 5 cm midline mass protruding from a uterine dehiscence (Figure 1, Figure 2; Consent to publish these images was obtained from the patient). Of note, her CS had been complicated by postoperative wound infection, but no details of her wound infection were able to be obtained.

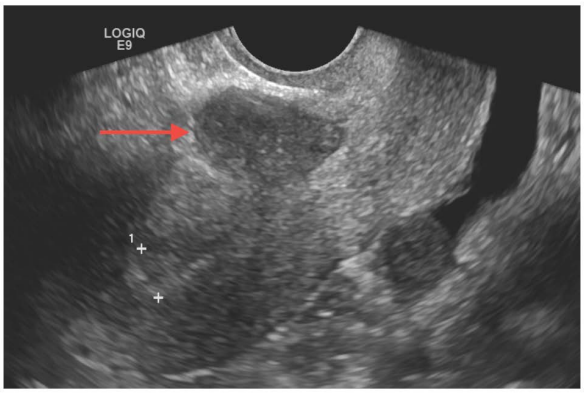

Figure 1. Pelvic Ultrasound Demonstrating Tuberculoma in a Uterine Dehiscence.

Given the patient´s symptoms and imaging findings, the decision was made to proceed with a laparotomy for repair of the uterine dehiscence. Laparotomy was selected as the route of surgery due to surgeon preference. At the time of her exploratory laparotomy, the patient was noted to have clubbing of the distal ends of bilateral

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The authors declare no conflict of interest. Submitted: June/19/2018, published: August/25//2018.

Freely available online through the UTJMS open access option

fallopian tubes as well as dense adhesions between the omentum, small bowel, anterior uterine wall, and bladder. Additionally, an 8 x 5 x 4 cm white, spongy-appearing, self-contained mass was noted to be protruding from the chronic uterine dehiscence. The mass was excised and was sent for final pathology, which ultimately demonstrated " tissue showing extensive areas of necrosis with surrounding associated acute, chronic, and granulomatous inflammation. Rare acid fast bacilli (AFB) identified within necrotic areas of AFB stain. (The exact subtype of acid fast bacilli cannot be further classified by AFB stain). No fungal organisms are identified on the Grocott´s Methenamine Silver (GMS) stain."

Figure 2. Pelvic Magnetic Resonance Imaging Demonstrating Tuberculoma in a Uterine Dehiscence.

Because of this report, the Infectious Diseases (ID) team was consulted and recommended moving the patient to a negative pressure room, performing a chest x-ray (CXR), sending the specimen for M. Tuberculosis PCR testing and performing a TB quantiferon. During interview by the ID team, the patient did admit to a history of a positive TB quantiferon, but stated that her most recent CXR was negative. Of note, she also reported a history of Bacillus Calmette-Guerin (BCG) vaccination as a child. Ultimately, the patient had a normal CXR, a negative PCR for TB, and a positive TB quantiferon. Given the patient´s positive TB quantiferon and recent immigration status, she was evaluated at the Health Department´s TB clinic, and was treated empirically for TB with a nine-month course of isoniazid, rifampin and pyridoxine. With the exception of very mild abdominal pain, her symptoms completely resolved following this treatment. Her clinical response to this regimen highly supported the diagnosis of GU TB.

Approximately two years following surgery, the patient stated that she was interested in future fertility. She therefore met with a Maternal Fetal Medicine physician, who stated that it was reasonable for her to attempt another pregnancy, but with the plan for a scheduled repeat cesarean delivery at 36 weeks of gestation. At the time of publication of this case report, the patient was in the process of trying to get pregnant.

Discussion. In reporting this unexpected case of likely GU TB, we hope to have highlighted the importance of keeping the disease on the differential for cases that present similarly. Having a high index of suspicion for GU TB is important as early diagnosis can save patients from a prolongation of symptoms as well as unnecessary procedures (2, 7). Had this patient been diagnosed with GU TB earlier, she may not have suffered from chronic pain for so long. Further research needs to be performed on the pathogenesis of GU TB. While sexual transmission of TB is the likely mechanism of action for most GU TB infections, one review reported that hematogenous dissemination from a pulmonary source may cause $10\%-20\%$ of GU involvement (6). Another hypothesis is that multiple proinflammatory mediators present during menstruation, particularly in patients with a history of endometriosis, cause proliferation of GU TB (8). In the patient reported here, it is possible that her wound may have been infected with TB, and that the TB was then transferred from the superficial wound to her uterus.

Ultimately, although much improved symptomatically, the patient does still suffer from mild, intermittent pelvic pain. Additionally, the patient is currently trying to get pregnant. Hopefully, after having been treated with anti-tubercular medications, she will be able to conceive. Fortunately, several case reports have demonstrated that treatment with anti-tubercular agents heralds a positive prognosis with complete or near complete resolution of the presenting complaints, including infertility (2−5, 7, 9).

Conclusion. Genitourinary TB should be considered in the differential diagnosis of pelvic pain or masses in patients from countries where the disease remains endemic.

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