Case Report

An Uncommon Cause of Postmenopausal Bleeding

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Abstract

A 65-year-old multiparous female was evaluated for postmenopausal bleeding. Imaging was strongly suggestive of malignancy. However, hysteroscopic-guided endometrial biopsy revealed tuberculous endometritis. The patient responded to antitubercular therapy and recovered completely. Genital tuberculosis is typically considered a disease of young women presenting with infertility. However, tuberculous endometritis should be considered in a patient of postmenopausal bleeding, particularly in developing countries. It is a rare, but curable cause of postmenopausal bleeding.

Keywords: *Endometrial carcinoma, postmenopausal bleeding, tuberculous endometritis*

Introduction

Postmenopausal bleeding represents one of the most common reasons for referral to gynecological services, largely due to the suspicion of an underlying malignancy. Although, in most instances, the bleeding comes from a benign source, endometrial carcinoma is present in approximately 10% of women referred with postmenopausal bleeding. We present a case of postmenopausal bleeding in which imaging was suggestive of malignancy, but histology revealed a rare but curable etiology.

Case Report

A 65-year-old multiparous female presented to the outpatient department with complaints of intermittent bleeding and foul-smelling discharge per vaginum for the past 1 year. She had no pain abdomen, fever, loss of weight, or prior postcoital bleeding. She had no personal or family history of gynecological or other malignancy. Endometrial sampling done 2 months ago in another clinic revealed endometrial abscess on histopathological examination. However, she did not respond to the antibiotic treatment and was referred to our institute. General physical and systemic examination was unremarkable. Per speculum examination showed healthy vagina and cervix. On per vaginum examination, uterus was small, atrophic with no palpable adnexal mass. Transvaginal pelvic ultrasound revealed variegated echo pattern of endometrial cavity with ill-defined hypoechoic focus in the upper part of endometrial cavity. Magnetic resonance imaging of pelvis revealed T2 hyperintense, irregular marginated lesion measuring 20 mm × 13 mm involving the mid-body of endometrium with extension into/compression of junction zone, suggestive of malignancy. Cervix and bilateral ovaries were normal. The patient underwent hysteroscopy-guided endometrial biopsy. On hysteroscopy, uterine cavity appeared shaggy with presence of a small necrotic polypoidal growth. Curetting was obtained from the surface of uterine growth. Histology of the curetting showed epithelioid cell granulomas with Langhan's giant cells, consistent with tuberculous endometritis [Figure 1]. However, Ziehl–Neelsen staining for acid-fast bacilli was negative [Figure 2]. The patient received multidrug antitubercular therapy for 6 months. After the completion of therapy, no tissue could be obtained on repeat endometrial biopsy. At subsequent follow-up visits, the patient is doing well and is asymptomatic for 9 months.

Discussion

Genitourinary tuberculosis is a common form of extrapulmonary tuberculosis, accounting for 9% of all cases.[1] The female genital organs affected by

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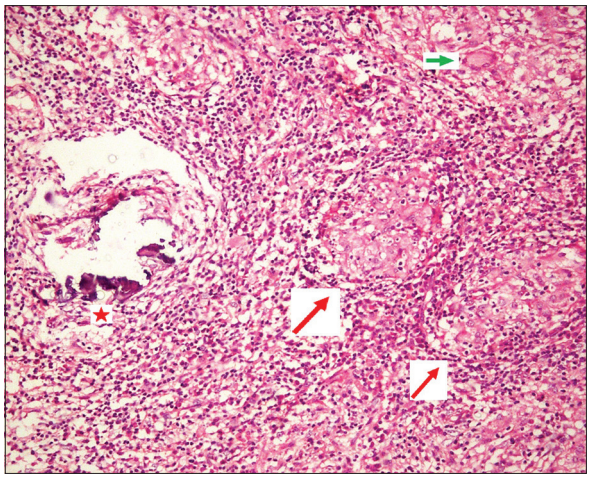

Figure 1: Low-power photomicrograph showing epithelioid cell granulomas (red arrow), Langhan's type of giant cells (green arrow) and foci of calcification (asterisk) (H and E, ×100)

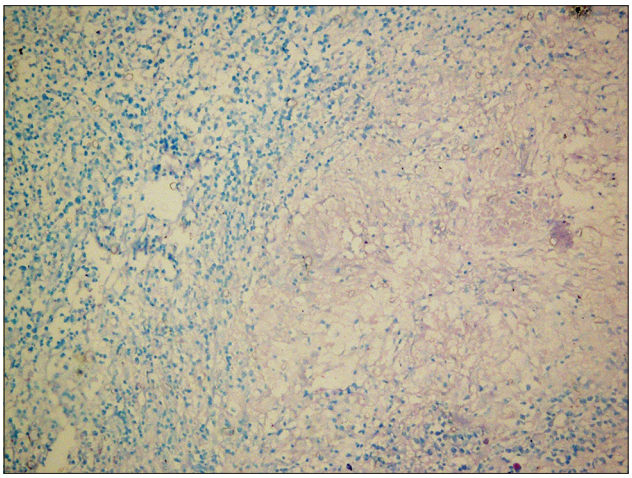

Figure 2: Low-power photomicrograph showing negative Ziehl–Neelsen staining for acid-fast bacilli (ZN, ×400)

Mycobacterium tuberculosis (in descending order of frequency) are fallopian tubes (95%–100%), uterine endometrium (50%–60%), ovaries (20%–30%), cervix (5%–15%), uterine myometrium (2.5%), and vagina/vulva (1%).[2] It usually occurs secondary to tuberculosis at other sites (primarily the lungs). The spread occurs through hematogenous or lymphatic routes.[3] It can occur in any age group, but women in the reproductive age group (15–45 years) are the most affected.[4] In most cases, the disease is asymptomatic or present with minimal symptoms, among which infertility is the most common. Other reported symptoms include menstrual irregularities, pelvic pain, and abnormal vaginal discharge. Tuberculous endometritis in postmenopausal females is very rare, as atrophic endometrium offers a poor milieu for the growth of *Mycobacterium*.[5] Postmenopausal bleeding is the presenting manifestation in 1%–1.6% of Indian patients with genital tuberculosis.[6] In postmenopausal women, tuberculous endometritis presents with symptoms resembling endometrial malignancy, such as postmenopausal bleeding, persistent leukorrhea, and pyometra.[7] The diagnosis of genital tuberculosis requires a high index of suspicion, thorough clinical assessment, and the use of appropriate investigations. Baseline investigations such as chest radiograph, Mantoux test, and erythrocyte sedimentation rate are nonspecific. In a study of 72 patients of genital tuberculosis, 43% had no abnormality on pelvic examination, while 23.6% presented with adnexal mass and myoma-like lesions each, 4.2% had adnexal tenderness, and 1.4% each had irregular uterus or uterine prolapse or cervical polyp.[8] They also reported normal chest radiograph in 81% of patients.[8] Mantoux test has a sensitivity and specificity of 55% and 80%, respectively.[9] The imaging modalities that are useful in the diagnosis of genital tuberculosis include hysterosalpingography (HSG) and ultrasonography (USG). HSG evaluates the internal structure of the female genital tract and tubal patency, whereas USG allows simultaneous evaluation of ovarian, uterine, and extrapelvic involvement.[10] Histopathological evidence in the biopsy of premenstrual endometrial tissue or demonstration of tubercle bacilli in culture of menstrual blood or endometrial curetting only can provide a definite diagnosis of tubercular endometritis. Being a paucibacillary disease, demonstration of *M. tuberculosis* is not possible in all cases. The typical lesions on histopathology are epithelioid cell granulomas with or without Langhan's giant cells. Caseation necrosis is rare and develops late in the course of the disease.[8] Treatment of genital tuberculosis consists of 6 months of antitubercular therapy. Majority of the patients respond to medical management. Total abdominal hysterectomy with bilateral salpingo-oophorectomy is required in case of persistence of pelvic mass or recurrence of pain or bleeding after 9 months of treatment. To reduce the risk of perioperative complications, surgery should be performed at least 6 weeks after initiation of antitubercular therapy.[11] In the index case, the characteristic histopathology and the response to antitubercular therapy confirmed the diagnosis of tubercular endometritis. Culture of the endometrial tissue was not done as grossly the endometrium appeared neoplastic.

Conclusion

Tuberculous endometritis is a rare, but curable cause of postmenopausal bleeding. It is imperative to consider this possibility in a patient of postmenopausal bleeding, particularly in developing countries, to facilitate early diagnosis and treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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