# Active Pulmonary Tuberculosis presenting as Post-Menopausal Bleeding: a Case Report

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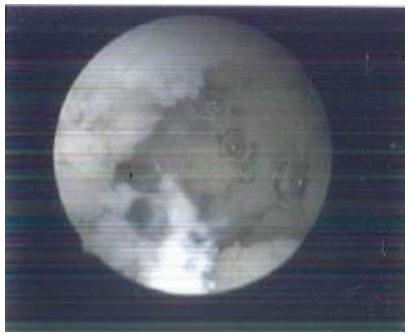
**Background**
Vulvovaginal atrophy is the most common cause of post-menopausal bleeding whilst endometrial carcinoma accounts for 10% of cases. We report on an unusual cause for post-menopausal bleeding in a patient with immunosuppression.

**Case**

The patient is a 57 year old Australian woman of Filipino heritage who was referred with a single episode of postmenopausal bleeding and a 3mm endometrial thickness on pelvic ultrasound. She was seen in the outpatient hysteroscopy clinic of a tertiary hospital.

Her past medical history is significant of a renal transplant 17 years ago for chronic glomerulonephritis, for which is takes sirolimus and mycophenolate, with baseline Creat 76umol/L. She has diabetes mellitus with HbA1c 5.9%, hyperlipidaemia and BMI 27. She had no history of tuberculosis (TB) on routine arrival screening including negative serology for infections.

She underwent an awake hysteroscopy which identified an unusual but non-sinister appearance to the endometrium. Histopathology of pipelle biopsy showed necrotising granulomatous endometritis (NGE) although no organisms were isolated and there were no AFB on microscopy Cervical cytology did not detect high risk HPV with possible low grade changes. Tuberculosis PCR was negative.



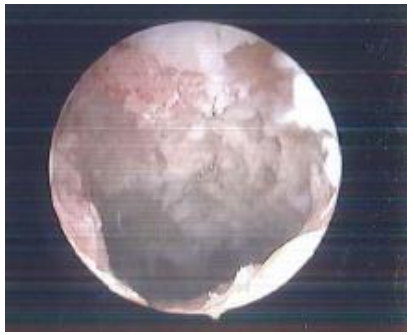


Figure 1-2: Findings at outpatient hysteroscopy

A microbiology and pathology opinion supported an infective cause. The patient was recalled for repeat endometrial and cervical biopsy for repeat culture, PCR and histology.

Histopathology showed NGE affecting the endocervical mucosa and endometrium.

Ziehl Nielsen and PASD special stains for acid fast bacilli and fungal organisms were negative. Nucleic Acid Detection was equivocal for M. tuberculosis complex DNA.

Initial culture did no demonstrate any organisms, however prolonged culture isolated non-resistant Mycobacterium tuberculosis after three weeks.

The patient was referred to a specialist tuberculosis treatment clinic. A chest X-ray detected a lesion consistent with pulmonary tuberculosis. Sputum microscopy showed AFB.

She successfully completed six month treatment for tuberculosis and has not had further episodes of per vaginal bleeding.

**Discussion**

- Tuberculosis is rare in Australia with an incidence of 6.9 per 100 000 Cases are usually limited to patients from high prevalent areas, returned travellers from such areas or those with immune compromise.
- The genitourinary tract accounts for 5-6% of extrapulmonary TB and has a higher prevalence in men and those under 45 years. In women it can lead to infertility, pelvic pain and can mimic pelvic malignancy.
- Other conditions responsible for necrotising granulomatous inflammation include sarcoidosis, fungi, CMV and EBV.
- This case demonstrates the need for a multidisciplinary approach when an unexpected result is identified, which enabled the patient to have a significant infection identified and treated.

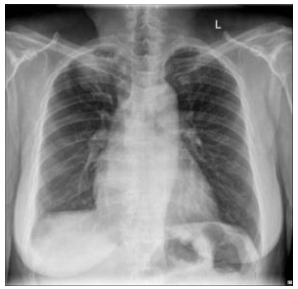


Figure 3: CXR at time of diagnosis. Irregular mass within right apex, pleural effusion.

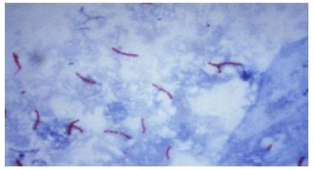


Figure 4: Ziehl Nelsen staining for Acid Fast Bacilli. Image microbeonline.org

**References**
1. WHO 2021, Tuberculosis Profile. Available from https://www-who-int/global-tuberculosis-programme/data.
2. DynaMed [Internet]. Ipswich (MA): EBSCO Information Services. 1995 - . Record No. *T909302*, *Genitourinary tuberculosis*; dynamed-com

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