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Bilateral Tuboovarian Abscess Resulting from Pelvic Tuberculosis: A Diagnostic Dilemma

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Background

Extrapulmonary tuberculosis is an infection caused by *Mycobacterium tuberculosis* that affects organs other than the lungs. Pelvic tuberculosis, although rare, can lead to bilateral tuboovarian abscesses. It should be considered in patients with a history of tuberculosis exposure, recent visits to endemic areas or infertility.

Case

A 42-year-old multiparous female presented with nausea, vomiting, and fevers after recent travel to India. Due to a history of urinary tract infections, a CT scan was performed for suspected pyelonephritis; however, it revealed bilateral tuboovarian abscesses measuring 59 × 41 × 35 mm in the right and 60 × 45 × 47 mm in the left adnexa. She denied a history of tuberculosis and was immunocompetent.

Management

The patient clinically deteriorated despite broad-spectrum antibiotics. Interventional radiology was consulted, but percutaneous drainage was deemed high risk for bowel perforation. Septic screen included a normal chest X ray, chlamydia/gonorrhea swabs, blood cultures, respiratory swabs and urine microscopy. She ultimately underwent laparoscopic bilateral tuboovarian abscess drainage. Intraoperative findings included distended bilateral fallopian tubes and sigmoid colon in addition to intraabdominal adhesions. The abscesses were drained, revealing granulomatous material. Intraoperatively swabs were sent for bacterial, fungal, mycobacterial and tuberculosis PCR. Peritoneal fluid tested positive for *Mycobacterium tuberculosis* on PCR. The patient had a negative induced sputum sample, but her Interferon Gamma Release Assay (IGRA) was positive for tuberculosis. Antibiotics were ceased post diagnosis and she commenced on a BPaLM (bedaquiline, pretomanid, linezolid, moxifloxacin) regimen for 6 months with chest clinic follow up. She did not have pulmonary manifestations of tuberculosis.

Discussion

Ovarian involvement in extrapulmonary pelvic tuberculosis is rare, occurring in less than 10% of cases, and diagnosis is often delayed due to a lack of clinical suspicion.Tuberculosis in females generally occurs through haematological spread through lungs and less commonly through lymphatic spread from other abdominal organs. Majority of cases about 90% affect the fallopian tubes, usually bilaterally and predominantly in the ampulla due to increased vascularity. Ovarian involvement occurs as a sequelae of bilateral tubal involvement often manifesting as tuboovarian abscess. Infertility can develop due to tubal obstruction and adhesions[1].

Pelvic tuberculosis can be diagnosed by endometrial or fallopian tube biopsy or menstrual fluid swabs can be sent for acid fast bacilli stain and mycobacterial culture[2]. The treatment for pelvic tuberculosis the same as pulmonary tuberculosis and often involves infectious disease specialists and a long-term treatment regimen .

References

1. Abbara A, Davidson RN, Medscape. Etiology and management of genitourinary tuberculosis. Nat Rev Urol 2011; 8:678
2. Aliyu MH, Aliyu SH, Salihu HM. Female genital tuberculosis: a global review. Int J Fertil Womens Med 2004; 49:123.