



Genital Tuberculosis Masquerading As Malignancy: Taking Toll On Female Fertility

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Introduction

Genital tuberculosis (GTB) accounts for 15–20% of extrapulmonary TB (1). GTB most frequently affects fallopian tubes (95–100%), followed by endometrium (50–60%) and ovaries (20–30%) (2,3). Most of the females with GTB are in reproductive age group and are either overlooked due to asymptomatic and subtle clinical presentations or often mislead as the disease entity clinically mimics malignancy. Hence, this case report highlights the fact that the first step in diagnosis of GTB is clinical suspicion of the disease itself.

Case Report :

We report a case of 40 years old married female P0+0, resident of Dehradun, Hindu by religion presenting to Surgical OPD with complaints of Amenorrhoea for past 1 year followed by Polymenorrhagia since last 6 months associated with lower abdominal pain. There was no history of fever, cough, vomiting, weight or appetite loss. She is a known case of arthritis and infertility along with a significant past history of recurrent abortions which was attributed to the presence of multiple fibroids diagnosed on ultrasound for which she got operated an year back.

In the present visit, on general examination she was found to be pale. Systemic examination was within normal limits. Laboratory investigations done from outside revealed low haemoglobin of 6.0 gm/dl with low MCV (65.77fl) and MCH (18.7pg). ESR was

significantly raised (120 mm/1st hr). Viral markers were Non- reactive. CA-125 was markedly raised (more than 1000 units/ml). Radiological investigations (MRI whole abdomen) is suggestive of a large intramural fibroid uterus with a complex left ovarian mass [Figure 1]

A provisional diagnosis of Uterine/ ?ovarian malignancy was kept. Patient underwent Total abdominal hysterectomy with bilateral salphingoophorectomy which was sent for histopathological examination.

We received a panhysterectomy specimen with grossly enlarged and bulky uterus with cervix measuring approximately 14x 13x 10 cm. On probing, endocervical canal was patent. On cutting open, endomyometrial differentiation could not be made and endometrial cavity was partially obliterated by cheesy white growth. Myometrial thickness varied from 3- 7cm and shows presence of trabeculations [Figure 2] Separately received are right and left ovaries with ?? adhered fallopian tubes [Figure 3] along with omentum and left iliac lymph nodes. Microscopic examination showed endomyometrium with abundant Epithelioid cell granulomas, Langhans Giant cells and caseous necrosis. Endometrium is in proliferative phase with myometrium showing extensive adenomyosis [Figure 4(a) Low power view, 4(b) High power view] Cervix exhibits presence of nabothian cysts and chronic cervicitis with presence of occasional stromal epithelioid cell

granulomas. Right and Left tubo-ovarian masses shows corpus luteum, cystic follicles with extensive areas of caseation and many scattered epithelioid cell granulomas [Figure 5] Omentum [Figure 6] and left iliac lymph nodes [Figure 7] were also found to be involved by granulomatous inflammation. Ziehl-Neelsen stain did not reveal Acid Fast Bacilli. However in view of suspicious clinical history and strong histological evidence a diagnosis of Genital Tuberculosis was rendered. Currently patient is on Anti-Tubercular therapy and doing well.

Discussion :

GTB is an infection of reproductive age and seen in 80% of females aged 20–40 years [4] The most common presenting symptoms of GTB are infertility, menstrual irregularities and pelvic pain (5)

Our case is a 40 year old female, presenting with similar complaints. Her past history with radiological evidence suggestive of uterine fibroids probably misled the cause of infertility. To add on to the dilemma, CA 125 levels turned up to be significantly raised. As a diagnostic tumor marker, CA125 level is elevated in most of the epithelial ovarian malignancies, however this increase can also be seen in abdomino-pelvic TB.(6)

Imaging techniques can be used as a supporting tool in the diagnosis of GTB but are not specific.

As in the present case, Ziehl-Neelsen stain may not demonstrate Acid Fast Bacilli, because unfortunately GTB lesions are usually pauci-bacillary (7). Culture of *M. tuberculosis* is the gold standard for the diagnosis of TB (8). But, culture is a slow process requiring 6-8 weeks approximately. Many automated systems that are faster and accurate like the BACTEC 9000, mycobacteria growth indicator tube (MGIT) and polymerase chain reaction (PCR) have high operational cost (9).

Keeping in view, easy availability and affordability, histopathological examination along with a strong

suspicious history remains the mainstay for diagnosis of GTB.

Conclusion :

While dealing with case of Uterine lesions associated with infertility, a differential diagnosis of Tuberculosis should always be kept in priority. Early diagnosis with prompt treatment may be able to work miracles.

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Fig. 1 MRI whole abdomen suggestive of a large intramural fibroid uterus with a complex left ovarian mass

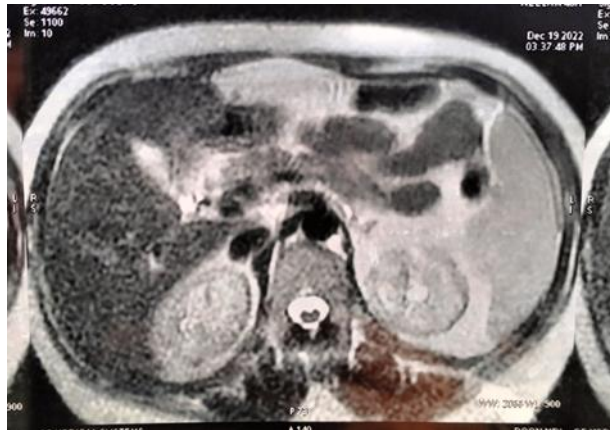


Fig. 2 Grossly enlarged Uterus with cervix (Cheesy white growth in myometrium obliterating the endometrium)



Fig.3 Bilateral Tubo-ovarian masses



Fig.4(a) Low power view (b) High power view Endomyometrium involved by caseating necrosis and epithelioid cell granulomas (H&E)

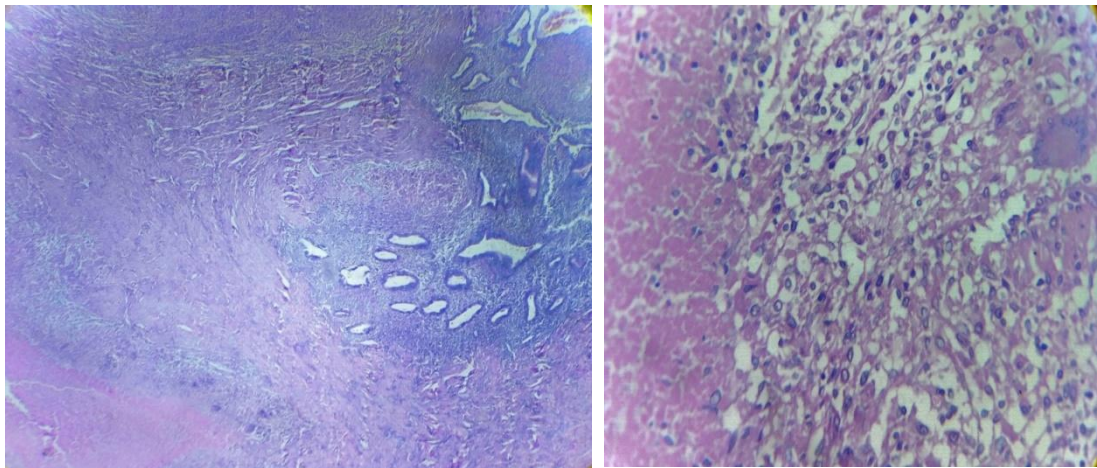


Fig.5 Tubo-ovarian tissue showing Granulomas and Langhans giant cells (H&E)

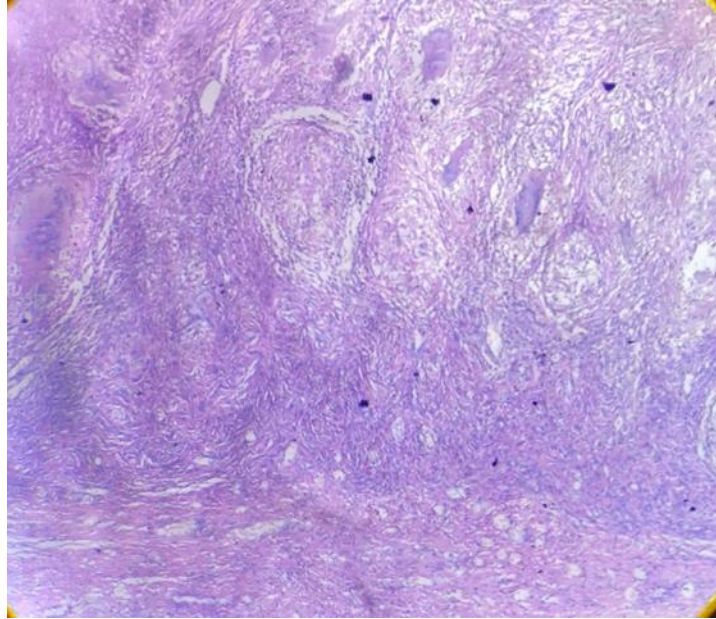


Fig. 6 Omentum and **Fig.7** Lymph node involved by granulomatous inflammation

