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RESEARCH ARTICLE

FALLACIOUS CASE OF OVARIAN TUMOUR TURNED INTO GENITAL TUBERCULOSIS

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ABSTRACT

Female genital tract tuberculosis is one of the leading causes of infertility in developing countries like India. The crux is identifying the symptoms, timely investigations and proper management. It mimics ovarian tumours in many cases as described below. Different diagnostic modalities with clinical co relation may help in appropriate diagnosis; however definitive treatment is debatable.

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INTRODUCTION

Tuberculosis is a major worldwide public health problem despite a declining trend in mortality, with effective diagnosis & treatment. In 2015 nearly 500,000 women died from TB & among them, 28% had human immunodeficiency virus co infection (WHO, 2017). Genital infertility in females is well recognized factor of infertility in high prevalence TB countries. Genitourinary TB is a common form of extrapulmonary TB (EPTB) worldwide (27%) with genital TB alone accounting for 9 per cent of all EPTB cases (Golden and Vikram, 2005). However, the burden of genital TB in females is underestimated as most of the patients are asymptomatic and usually diagnosed during evaluation for infertility. However, the burden of genital TB in females is underestimated as most of the patients are asymptomatic and usually diagnosed during evaluation for infertility. A study on FGTB among patients with infertility from India has shown an incidence of 3-16 percent (Sharma, 2015). The genital organs affected by *Mycobacterium tuberculosis* (in descending order of frequency) are as follows: fallopian tubes (95-100%), uterine endometrium (50-60%), ovaries (20-30%), cervix (5-15%), uterine myometrium (2.5%) and vagina/vulva (1%) (Das *et al*., 2008). The morphology of genital organs infected with TB varies widely. The organs appear normal in the early stages. The ampullary region of the fallopian tubes shows the earliest changes and the fimbrial processes become swollen later. TB endometritis is often focal, and pathological changes such as ulceration, caseous necrosis and haemorrhage are seen in advanced endometrial TB. In later stages, adhesions may occur between ovaries and adjacent pelvic organs resulting in adnexal mass. Intrauterine adhesions if occur can result in partial obliteration of the uterine cavity. Cervix, vulva and vagina are rarely affected (Rajamaheswari, 2008).

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Case report

21yr unmarried girl presented with irregular menses since 2 months, pain in abdomen, chest pain & loss of weight since 6 months. She attended menarche at 13yrs. Menstrual history-6days/60-90days/1-2ppd/moderate flow/painful. She did not have any past history or family history of tuberculosis. On examination general condition was moderate, averagely nourished. No pallor, icterus, lymphadenopathy. Her BMI was 18kg/m^2. Pulse-84/min BP 110/70mmHg. CVS/RS was normal. On per abdomen- soft no GTR.All baseline investigations were done along with ESR- 42, TSH 2.1, RBS-100. USG s/o Uterus 8.3x3.9x4.6cm.Small heterogeneous hyperechoic lesion with hypoechoic rim of size 9.4x6.6mm in posterior myometrium. Multiple heterogeneous lobulated hyperechoic lesions with cystic areas in both adnexa with multiple septations. CT scan–large heterogeneous solid cystic lesion of about 7.2x3.6cm in right side and 6.4x2.6cm in left side abutting the uterus. Both ovaries not seen separately s/o ovarian neoplastic etiology. Diffuse omental nodular thickening & fat stranding with para aortic lymphadenectomy (1.1x0.8cm). Small deposits on Right lower lobe lung s/o? neoplastic deposits (1.6x2.6cm).CA125-216U/ml, BHCG-0.1uIU/ml, LDH-171U/L, AFP-0.62ng/dl. USG guided FNAC from omental deposits was done s/o Tuberculous granu

lomatous lesion. Laproscopic assisted Ovarian biopsy was taken along with omental deposits & sent for CB NAAT and peritoneal fluid for cytology was sent. CB NAAT s/oMDR TB. HPR s/o Granulomas with multiple giant cells and lymphocytes. Patient was started on ATT.

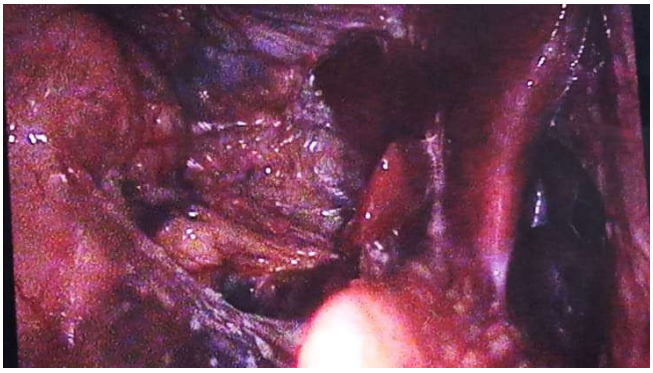

Figure 1. Multiple tubercles on tubo ovarian surface

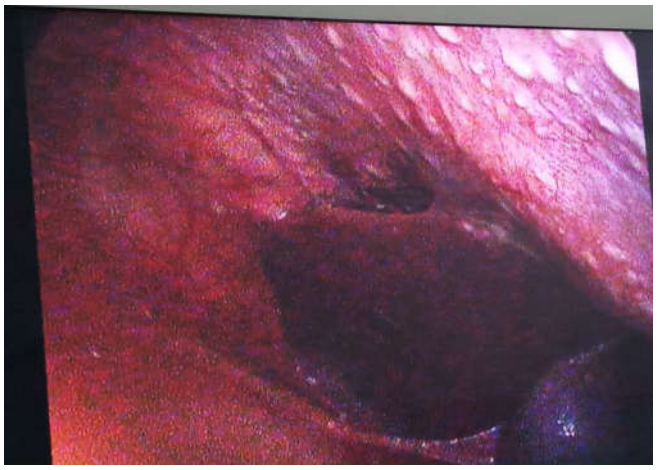

Figure 2. Multiple tubercles on liver surface
Laproscopic image of Genital tuberculosis

DISCUSSION

M. tuberculosis affects the female genital organs, especially the fallopian tubes, and thereby causes infertility. It can occur in any age group, but women in the reproductive age group (15-45 yr) are the most affected (Rajamaheswari, 2008). In most cases, the disease is asymptomatic or can present with a few symptoms among which infertility is the most common. Other symptoms reported are menstrual irregularities such as oligomenorrhoea,hypomenorrhoea, amenorrhoea, menorrhagia, dysmenorrhoea, metrorrhagia, pelvic pain and abnormal vaginal discharge. In postmenopausal women, genital TB presents with symptoms resembling endometrial malignancy, such as postmenopausal bleeding, persistent leucorrhoea and pyometra (Sharma, 2015). Genital TB can mimic or coexist with other gynaecological and abdominal pathologies such as genital carcinomas, acute appendicitis, ovarian cysts, PID, or ectopic pregnancy. Despite availability of various diagnostic techniques, diagnostic dilemma still exists, especially for genital TB. Hence, FGTB needs a thorough systematic clinical examination with high degree of suspicion and use of intensive investigations (Bhanothu *et al*., 2014). The possibility of FGTB should be considered in patients with chronic PID not responding to standard antibiotic treatment, unexplained infertility or in women with irregular menstrual cycle or postmenopausal bleeding and persistent vaginal discharge where genital neoplasias have been excluded (Varma, 2016). Risk factors include contact with a smear-positive pulmonary TB patient, past history of TB infection, residence in or recent travel to endemic areas, low socio-economic background, people living with HIV and drug abuse (Chowdhury, 1996). There is no single diagnostic test available to confirm the diagnosis of FGTB. High degree of clinical suspicion, elaborate history taking, systemic examination, battery of tests to document *M. tuberculosis* as well as imaging methodologies for characteristic structural changes are essential for the diagnosis (Bose, 2011). As per the WHO definition of EPTB, diagnosis of EPTB should be made on the basis of 'one culture-positive specimen, or positive histology or strong clinical evidence consistent with active EPTB' (WHO, 2016).

The two imaging techniques useful in the diagnosis of FGTB are hysterosalpingography (HSG) and ultrasonography (USG). USG findings may vary from a normal scan to abnormalities such as thin or thickened endometrium, cornual obliteration, alteration in the endometrial vascularity during midcycle in stimulated menstrual cycles, calcification of the sub endometrium, variation in the uterine artery flow during midcycle, tubal fluid, free and loculated peritoneal fluid, heterogeneous enlargement of ovaries and adnexal fixation. The laparoscopic findings suggestive ofgenital TB may vary from normal appearance to tubercles on the surface, fimbrialblock, fimbrialphimosis, tubal beading, peritubal adhesions, periovarian adhesions, tubo-ovarian mass, hydrosalpinx and rigid tubes (Baxi *et al*., 2011). In HSG, presentation of tubal TB varies from non-specific changes such as tubal dilatation, tubal occlusion, irregular contour, diverticular outpouching (salpingitis is thmicanodosa), hydrosalpinx to specific patternsuch as 'cotton wool plug', 'pipestem tube', 'golf club tube', 'cobblestone tube', 'beaded tube', 'leopard skin tube', tubal occlusion and adhesions in the peritubalregion which may present as straight spill, corkscrew appearance and peritubal halo (Ahmadi *et al*., 2014). HPE of the specimens shows typical features of TB infection in the form of granulomatous caseous lesions. The WHO treatment guidelines for TB (2010) recommend that patients newly diagnosed with TB should receive a regimen containing rifampicin (R) for six months:intensive phase with isoniazid (H), R, ethambutol (E) and pyrazinamide (Z) for a duration of two monthsfollowed by continuation phase with HR for four months (WHO, 2010).

Conclusion

Genital TB is a major cause of infertility in women, and prevalence is generally underestimated because of the asymptomatic nature of the infection and diagnostic challenges Primary prevention of TB includes strategies to minimize the risk of exposure to mycobacteria. The spontaneous conception rate may vary from 31 to 59 per cent among patients treated with ATT for FGTB with better rates in patients diagnosed and treated earlier. It is, therefore, essential to educate patients of pulmonary TB to follow respiratory hygiene at home and in public places and adhere to standard treatment. Specific to genital TB, adopting safe sexual practices may decrease the chances of acquiring genital infection. In countries with high TB burden like India, BCG immunization is used as a preventive strategy. The BCG vaccine is up to 80 per cent effective in preventing the development of severe forms of TB, but its protective effect varies widely in the population. Most

of the patients present in advanced stage with scarring, severe fibrosis and adhesions and treatment outcomes, especially with regard to infertility, are poor. Hence, early diagnosis and correct treatment is vital to avoid complications and to restore fertility.

REFERENCES

Ahmadi, F., Zafarani, F. and Shahrzad, G. 2014. Hysterosalpingographicappearances of female genital tract tuberculosis: Part I. Fallopian tube. *Int J Fertil Steril.,* 7: 245-52.

Baxi, A., Neema, H., Kaushal, M., Sahu, P. and Baxi, D. 2011. Genital tuberculosis in infertile women: Assessment of endometrial TB PCR results with laparoscopic and hysteroscopic features. *J ObstetGynecol India.,* 61: 301-6.

Bhanothu, V., Theophilus, JP. and Rozati, R. 2014. Use of endo-ovarian tissue biopsy and pelvic aspirated fluid for the diagnosis of female genital tuberculosis by conventional versus molecular methods. *PLoS One*, 9: e98005.

Bose, M. 2011. Female genital tract tuberculosis: How long will it elude diagnosis? *Indian J Med Res*., 134 : 13-4.

Chowdhury, NN. 1996. Overview of tuberculosis of the female genital tract. *J Indian Med Assoc.,* 94: 345-6, 361.

Das, P., Ahuja, A. and Gupta, SD. 2008. Incidence, etiopathogenesis and pathological aspects of genitourinary tuberculosis in India: A journey revisited. *Indian J Urol.,* 24: 356-61.

Golden, MP. and Vikram, HR. 2005. Extrapulmonary tuberculosis: An overview. *Am FamPhysician.,* 72: 1761-8.

Rajamaheswari, N. 2008. Pelvic tuberculosis. *Int J Microbiol*., 27 : 361-3.

Sharma, JB. 2015. Current diagnosis and management of female genital tuberculosis. *J Obstet Gynaecol India*., 65: 362-71.

Sharma, JB. 2015. Current diagnosis and management of female genital tuberculosis. *J Obstet Gynaecol India*., 65: 362-71.

Varma, TR. 2008. Tuberculosis of the female genital tract. GlobLibr Women's Med, Available from: http://www.glowmcom/section_view/heading/Tuberculosis%20of%20the%20Female%20Genital%20Tract/item/34, accessed on March 18, 2016.

WHO, 2010. Guidelines for treatment of tuberculosis. Geneva: WHO.

WHO, 2017. WHO global tuberculosis report 2016. Available from:http://www.who.int/tb/publications/global_report/en/, accessed on April 27.

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