



FEMALE GENITAL TUBERCULOSIS WITH VARIABLE PRESENTATIONS: A SERIES OF CASE REPORTS

Obstetrics & Gynaecology

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ABSTRACT

Female genital tuberculosis (FG-TB) causes significant morbidity like infertility, amenorrhoea, abnormal vaginal bleeding and chronic pelvic pain. FG-TB is rare in developed nations but it is still a significant disease in developing countries like India. However it is usually an incidental diagnosis as its presentation is subtle and most cases are overlooked. The confirmatory diagnosis of FG-TB is by histopathological or microbiological examination. Though the bacteriological test gives a faster diagnosis, it is usually overlooked. So the first step in the diagnosis of FG-TB is a high degree of suspicion and sending the tissue for microbiological examination in all cases.

KEYWORDS

INTRODUCTION

Morgagni first described genital tuberculosis in the mid eighteenth century and the tuberculous bacillus was discovered in 1882 by Koch¹. Genital tuberculosis in females occurs secondary to primary disease in the lung, lymph nodes, urinary tract, bones, joints, and bowel. The spread is usually by the hematogenous or lymphatic route. Clinically, female genital tuberculosis (FGTB) usually presents with chronic pelvic inflammatory disease, menstrual abnormalities and infertility². Although other common symptoms are abnormal vaginal bleeding and chronic lower abdominal/pelvic pain, 25%-35% of FG-TB present with no complaint. Therefore, due to its subtle presentation, many cases are overlooked and diagnosed incidentally. Accordingly, the actual incidence of FG-TB is unknown^{3,4}. Here we report three cases of female genital TB incidentally diagnosed.

Case Report 1

A 34 year old patient came with the chief complaint of secondary amenorrhoea of 5 years duration. She was treated for the same at a local hospital and was given progesterone tablets for withdrawal bleeding but there was no result. She was then given combined oral contraceptive pills for 21 days but again she did not have any bleeding. She was married for three years and was anxious to conceive as well. There was no any significant past medical or surgical or family history. On questioning, she complained a comparative loss of appetite over the last two years. Her past menstrual cycles were said to be regular with moderate flow. She was moderately built and nourished. Mild pallor was present. Her systemic examination was normal. Cervix and vagina appeared healthy. Uterus was normal in size, anteverted. Bilateral fornices were free and non tender.

Her routine blood and urine examination were normal. ESR was normal. Chest X ray and ECG were also normal. Her abdomino pelvic sonography revealed that the uterus was 4.3x3.0x8.3 cms, normal in size and showed a 13.8x10.2 mm calcified lesion in the anterior myometrium extending upto the endometrial surface with surrounding hyperechoic foci suggestive of ? old endometritis/? Calcified degenerative fibroid. An MRI confirmed the same findings with also right ovary being multicystic and loss of fat planes between the ovaries and uterine fundus suggesting pelvic adhesions, ? pelvic endometriosis. Her FSH & LH levels were normal and CBNAAT of sputum done 3 months back was negative.

An endometrial biopsy was planned and the patient was posted for the same in the OT as an attempt with a pipelle in the OPD failed as it could not be negotiated into the uterus. In the OT, under IV sedation also, the

cervix could not be adequately dilated to do a curettage with endometrial biopsy curette but the sample could be obtained with a pipelle. The sample was sent for CBNAAT in normal saline and also for histopathological examination in formalin. The CBNAAT of endometrium showed the presence of mycobacterium tuberculosis bacilli and the patient was referred to the chest physician for the initiation of anti tubercular medications.

Case Report 2

A 30 year old patient came with complaint of pain abdomen since 15 days and white discharge per vagina since 3-4 months. The pain was mainly in the lower abdomen and the white discharge was curdy in nature, foul smelling and associated with itching. She was married for 15 years and gave a history of two abortions. The first abortion was at 6 months of amenorrhoea at home. It was a male fetus and it happened 12 years back and the patient could not give any more details. The second abortion was at 4 months of amenorrhoea 7 years back following which she had undergone a check curettage. Her previous menstrual cycles were regular with moderate flow but for the past one year, she had irregular cycles once in 2-3 months with a moderate flow for 8 days. Her LMP was three months back and she had mild bleeding per vagina for the last 15 days. She had visited a local doctor and a pelvic USG was done which revealed retained products of conception. There was no any significant past medical or surgical or family history. On examination, mild pallor was present. Her systemic examination was normal. On speculum examination, cervix and vagina appeared normal with brownish discharge through the os. The uterus was bulky in size and retroverted. Bilateral fornices were free and non tender.

Her investigations were normal and a repeat sonography in our hospital also revealed retained products of conception. Her urine pregnancy test was negative. She had one old sonography report done 3 months back for similar complaints which had showed RPOCs. She was given some medications, Misoprostal tablets for the same and patient had not gone for follow up.

With this background, patient was posted for a suction & evacuation with check curettage. On curettage, an abnormal cheesy material was obtained and so along with histopathological examination, the sample was also sent for CBNAAT. The HPR came as granulomatous endometrium and CBNAAT came positive for Mycobacterium tuberculosis. Patient was referred to the pulmonology department and was started on anti tubercular treatment.

Case Report 3

A 42 year old patient came with a chief complaint of two months of amenorrhea with pain abdomen also for the last two months. She was a multiparous woman with the obstetric score of P4L3 with the first delivery being LSCS and the rest being vaginal deliveries. Her last child birth was 18 years ago and she was sterilized. She was a known case of hyperthyroidism since 12 years and was on antithyroid medications. She also gave history of weight loss for the last one year. There was no any other significant past medical or surgical history. Her previous menstrual cycles were regular with moderate flow and this was the first episode of amenorrhea. On examination, there was mild pallor and a 5x4 cms sized thyroid nodule which was firm to hard in consistency. Her systemic examination was normal. Cervix and vagina were healthy on speculum examination and a pap smear was taken. On per vaginal examination, the uterus was around 10 weeks size with a fibroid of about 4x5 cms in the posterior wall. There was mild uterine tenderness. Left forniceal fullness was present.

Her routine blood and urine investigations were normal. Her TSH was raised and was 14.3mIU/ml. FNAC of the thyroid nodule showed colloid goiter with Hurthle cell changes and lymphocytic thyroiditis. On abdomino pelvic scan, the uterus was bulky with adenomyotic changes and subserosal uterine fibroids, largest measuring 5.2x3.7x5.0 cms in the posterior myometrium. Endometrial thickness was 11.4 mms. Right adnexal complex cystic lesion of 7.6x3.7x4.3 cms ? endometrioma/?? TO Mass was also reported.

In view of these findings, patient was planned for a hysterectomy and as a pre operative work up, an endometrial biopsy was done and sent for HPE. The HPR came as granulomatous endometrium with epithelioid giant cells. So a repeat biopsy was done with pipelle and sent for CBNAAT. Mycobacterium tuberculosis was seen on CBNAAT and hence the patient was referred to the pulmonology department and was started on anti tubercular treatment.

DISCUSSION

Female genital tuberculosis is primarily seen in reproductive age group and it is seen in about 80% of patients 20-40 years of age⁵. this age group is the most risky time to get infected by genital tuberculosis. In a study by Chattopadhyay et al, the reported mean age was 24.8 years⁶. the fallopian tubes and the endometrium are commonly involved but it can also affect other sites including the cervix and the ovary⁷.

The most common clinical presentation in FG TB is infertility seen in about 50% of patients followed by lower abdominal pain in 25-50% and menstrual irregularity in 10-40% of cases^{8,9}. in our study, two were in the reproductive age and one patient was in the perimenopausal age group. In the reproductive age group patients, one patient presented with secondary amenorrhea and primary infertility and the other actually came with AUB and USG showing RPOCs. The patient in the perimenopausal age group did not have any significant complaints related to TB except for mild pain abdomen. In most studies, in about 50% of cases, the physical examination was normal^{9,10}. It was the same in all our cases. Around 20% of the patients with FG-TB have a family history of TB¹¹. In our study, however all the cases were negative for family history of TB.

Though microbiological tests like CBNAAT can give us early results, in our study, the diagnosis was confirmed by both microbiological and histopathological examination of the specimen unlike in a study from Turkey where microbiological confirmation was lacking in cases of FG-TB.

CONCLUSION

Most often, FG-TB is asymptomatic or has a very subtle clinical presentation. So it is not easily diagnosed unless we have a high degree of suspicion and also as there is no specific laboratory or imaging evaluation to differentiate FG-TB from other diseases. So it is advisable to send tissue biopsy for not only histopathology but also for microbiological investigations especially in developing countries like India.

REFERENCES

1. Chow TW, Lim BK, Vallipuram S: The masquerades of female pelvic tuberculosis: Case reports and review of literature on clinical presentations and diagnosis. *J Obstet Gynaecol Res* 2002; 28:203-210
2. Neelam B, Mohanlal S, Namita K. Genital tuberculosis and its consequences on subsequent fertility. *J Obstet Gynecol India*. 2005;55(6):534-7
3. Goldin AG, Baker WT. Tuberculosis of the female genital tract. *J Ky Med Assoc* 1985;83:75-6.
4. Burne JC. The age of onset of genital tuberculosis in women. *J Obstet Gynaecol Br Emp* 1956;63:96-9

5. Schaefer G. Female genital tuberculosis. *Clin Obstet Gynecol* 1976;19:223-39.
6. Chattopadhyay SK, Sengupta BS, Edrees YB, Al-Meshari AA. The pattern of female genital tuberculosis in Riyadh, Saudi Arabia. *Br J Obs Gynecol* 1986;93:367-71.
7. Agarwal J, Gupta JK. Female genital tuberculosis – A retrospective clinico-pathologic study of 501 cases. *Indian J Pathol Microbiol* 1993;36:389-97.
8. Sutherland AM. Tuberculosis: Gynaecological tuberculosis. *Br J Hosp Med* 1979;22:569-76.
9. Falk V, Ludviksson K, Agren G. Genital tuberculosis in women. Analysis of 187 newly diagnosed cases from 47 Swedish hospitals during the ten-year period 1968-1977. *Am J Obstet Gynecol* 1980;138:974-977.
10. Saracoglu OF, Mungan T, Tanzer F. Pelvic tuberculosis. *Int J Gynaecol Obstet* 1992;37:115-20.
11. Türkmen IC, Başsallı N, Comunoglu C, Bağcı P, Aydın O, Comunoglu N, et al. Female genital system tuberculosis: A retrospective clinicopathological study of 1,548 cases in Turkish women. *Arch Gynecol Obstet* 2012;286:379-84.
12. Aboulfalah A, Fakhir B, Benkaddour YA, Fichtali K, Abbassi H. Clinical and anatomic features of female genital tuberculosis in 28 patients. *Int J Gynaecol Obstet* 2012;117:85-6.
13. Kocher C, Weber R, Friedl A. A case study of female genital tuberculosis in a Western European setting. *Infection* 2011;39:59-63.
14. Ghosh K, Ghosh K, Chowdhury JR. Tuberculosis and female reproductive health. *J Postgrad Med* 2011;57:307-13.
15. Neonakis IK, Spandidos DA, Petinaki E. Female genital tuberculosis: A review. *Scand J Infect Dis* 2011;43:564-72.