



## A RARE CASE REPORT ON CERVICAL TUBERCULOSIS

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## ABSTRACT

Female genital tuberculosis is one of the type of extrapulmonary tuberculosis which often goes unnoticed because of its non specific symptoms[1]. So most of the time incidence of the disease is often underestimated , specially in developing countries like India where the disease awareness is also less and hence focus to be made on the basis of high risk patients and on high suspicion as occurred in the present case and treated successfully with Anti Tubercular therapy(ATT) for 9 months.

**KEYWORDS :** Genital tuberculosis, ATT, mycobacterium tuberculosis, Acid fast bacilli

## INTRODUCTION

Tuberculosis is the infection caused by mycobacterium tuberculosis, an acid fast bacilli. though the disease is present across the globe, the incidence is more in developing countries<sup>[2][5]</sup>, because of poor sanitation, malnutrition, immune compromised health status and HIV ,over crowded living areas, diabetes, illicit drug use<sup>[1]</sup>, and most importantly lack of awareness and treatment seeking nature.

The incidence of FGTB greatly varies geographically. incidence among infertility cases, being 1% of in USA, 1.4% in Sweden, 4.2% in Saudi Arabia and 1-19% in various parts of India<sup>[3]</sup>. this data suggests that FGTB is not uncommon in India. the disease is more common In reproductive age group females<sup>[3]</sup>. the incidence is particularly high in females who are undergoing artificial reproductive techniques(24.5%)<sup>[3]</sup>, may be because they are diagnosed as a part of evaluation of cause of infertility. Though rare, it can also occur in post menopausal females, which is our present case.

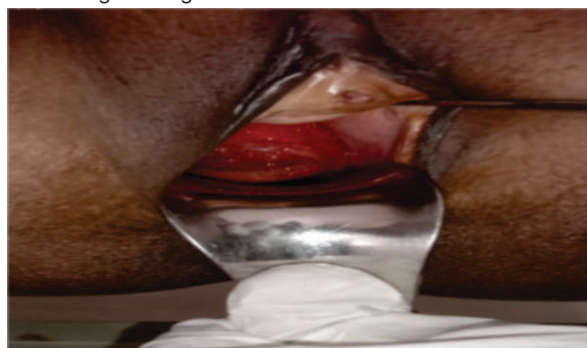
FGTB presents with non specific symptoms, like menstrual irregularities, chronic pelvic pain, vaginal discharge, pain abdomen, post menopausal bleeding and associated constitutional symptoms. but most importantly it can present as asymptomatic.

## Case Report

A 69 year old female ,who is para 10, living 10, attained menopause 20 years back, presented to Gynecology OPD Navodaya Medical College , Raichur with complaints of post menopausal bleeding and white discharge per vagina since 1 year. there was no history of cough, fever, chills, night sweats ,mass per vagina ,loss of appetite ,or weight loss. no history of any comorbidities. her previous cycles before attaining menopause were regular and normal. no history of tuberculosis in her or in family. patient is moderately built and nourished, on general physical examination no pallor, icterus, cyanosis, clubbing or lymphadenopathy. Vitals- stable.

On per speculum examination (picture-1) multiple papulonodular growths(2mm) and an ulcer (3\*3cm) on upper and lower lip of cervix were noted, which bled on touch. with patient particulars like her age ,parity and correlating complaints like post menopausal bleeding with white discharge per vagina ,the suspicion was more rising towards malignancy. basic investigations like complete hemogram is done, Hb-9.9gm, Platelet-2.4lakh, WBC-9,900cells , Urine routine and microscopy-normal, Serology-negative .ESR was raised 50mm/hr, which is non specific but suggestive of infection. USG-abdomen and pelvis-no sonographic abnormalities detected. Pap smear-few dysplastic cells with dense inflammatory background., tumor markers are tested

for malignancy, CEA-1.67ng/ml, CA-125-21.15, CA19-9-13.43, which are within normal limits. Cervical biopsy-features suggestive of granulomatous inflammatory lesions- s/o tuberculosis. Mantoux test came positive. Endometrial biopsy showed nothing significant, senile endometrium post menopausal status. Further evaluation is done in search of source of the disease. like ,sputum for AFB and culture was done ,which came negative for tuberculosis. Chest X-ray was normal .urine for culture sensitivity-no growth. Finally cervical secretions for CBNAAT detected positive for tuberculosis confirming the diagnosis of cervical tuberculosis.



Picture-1. An ulcer of 3\*3 cm on both upper and lower lip of cervix ,with multiple papulonodular growth

## Management

- On admission her general condition was improved first with high protein diet. Local ulcer was treated with betadine dressing.
- Case was registered in RNTCP, and ATT started for a duration of 9 months.(From 15 march 2021) Advise regarding side effects of the drugs and review instructions were given. Regular follow up done.
- After 9 months of ATT, symptoms resolved and lesions disappeared .and CBNAAT for cervical secretions are tested negative and treatment was successful. and the patients general condition was improved.(picture-2)

## DISCUSSION

Tuberculosis is the communicable disease caused by mycobacterium complex which includes mycobacterium tuberculosis (most common), mycobacterium bovis ,mycobacterium microti. until corona virus (covid-19) pandemic, TB was leading cause of death from single infectious agent, which is more than HIV/AIDS<sup>[5]</sup>.

FGTB first detected by Morgagni in 1744 on the autopsy of a young women who died of tubercular peritonitis<sup>[1][3]</sup>. genital TB most commonly spreads from the lungs or any other primary

foci usually by hematogenous or lymphatic route<sup>(4)</sup> .but direct spread also can occur from abdomen and lymph nodes, bowel or bladder as occurs in genitourinary tuberculosis .this can also occur as direct spread from the tuberculosis positive partner via sexual intercourse.



**Picture-2.**After completing treatment with ATT, ulcer is completely healed and papulonodular growth is completely resolved.

FGTB affects fallopian tubes invariably in most of the times(>90%)<sup>(3)</sup>, then uterus(50-80%), ovaries(20-30%), cervix(5-15%), vagina and vulva(1-2%). fallopian tube is involved bilateral most of the time. forms flimsy adhesions followed by beaded tubes with calcification, tubal blockade and formation of tubo-ovarian mass, hydrosalpinx, pyosalpinx and the development of synechie. In Uterus-destruction of endometrium may occur forming synechie leading to ASHERMAN'S SYNDROME. In Ovaries-There may be tubercles, adhesions, caseation, tubo-ovarian mass or cyst formation. functional reserve may be affected.

Cervix-May be involved in upto 5% of the cases. can occur as the downward extension of the endometrial TB ,or can occur as primary cervical tuberculosis, which is our case. this can occur from the male partner via intercourse, but in our case this occurred in sexually inactive ,postmenopausal case which is rare. Husband evaluated negative for TB. as it may usually present with a polypoidal growth ,to differentiate it from malignancy biopsy may be necessary. Vagina and Vulva are rarely involved. biopsy is needed to confirm the diagnosis. Usually, microscopy shows tubercular granuloma with or without caseation, epitheloid cells or langerhans cells may be seen.

### Management-

Managing a case of FGTB depends on the various factors like organ of involvement, associated comorbidities ,age , parity, infertility etc. but ultimately ANTI TUBERCULAR TREATMENT ,remains the mainstay treatment<sup>(1),(3),(5)</sup> . Index tb guidelines for EPTB including FGTB have been developed by ministry of health and family welfare, government of India has formulated the guidelines for the management of genital TB.

After thorough history taking, general physical examination, systemic examination, all the basic investigations including CBC, serology(history of HIV positivity is of particular importance), specific investigations are carried out.

Mantoux test, chest x ray, imaging techniques like ultrasonography , computerized tomography, MRI to identify the primary site of infection. endometrial biopsy ,culture and sensitivity using Lowenstein -Jensen media, though accurate it will take weeks for the results .PCR(1-2days) and Gene X pert or CBNAAT (this will also detect rifampicin resistance) will give early results. apart from this hysteroscopy and laparoscopy can be done where we can directly visualize the lesion.

### Treatment

As already mentioned ATT is the main stay treatment which includes intensive phase(H-isoniazid, R-rifampicin, Z-pyrazinamide, E -Ethambutol ) and continuation phase(HRE) with supplementation of pyridoxine(To prevent peripheral neuropathy).all these drugs are given according to body weight and under supervision by DOTS under NIKSHAY ,a web based notification system maintained by ministry of health and family welfare, govt of India.

surgical treatment is usually difficult and hazardous as observed in many surgical interventions <sup>(1)</sup> .hence it is always important to diagnose early and treat early.

### CONCLUSION

Our case presented as suspicious of malignancy because of the postmenopausal bleeding and local growth, but high index of suspicion is always required for FGTB specially in developing countries and to be confirmed by biopsy.

Despite of many advances in the diagnosis, treatment modalities and national programmes, tuberculosis including FGTB remains disease burden and poses challenge to the health care officials. Because of its non specific symptoms, the incidence of the disease still remains underestimated. as the duration of treatment is also long ,proper counselling about adequate treatment and disease awareness plays important role.

### Abbreviations-

- 1) EPTB -Extra pulmonary tuberculosis
- 2) FGTB -Female genital tuberculosis
- 3) TB -Tuberculosis
- 4) ATT -Anti tubercular therapy

### REFERENCES

- 1) Indian journal of medical research, Sharma JB, Sharma E, Sharma S, Dharmendra S. Female genital tuberculosis: Revisited. Indian J Med Res. 2018 Dec;148(Suppl):S71-S83. doi: 10.4103/ijmr.IJMR\_648\_18. PMID: 30964083; PMCID: PMC6469382.
- 2) World Health Organization. WHO global tuberculosis report 2018. Geneva: WHO; 2018.
- 3) principles and practice of assisted reproductive technology ;vol-1;pg-419
- 4) Grace GA, Devaleenal DB, Natrajan M. Genital tuberculosis in females. Indian J Med Res. 2017 Apr;145(4):425-436. doi: 10.4103/ijmr.IJMR\_1550\_15. PMID: 28862174; PMCID: PMC5663156.
- 5) Global tuberculosis report 2021. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.
- 6) National tuberculosis elimination programme(NTEP)
- 7) Centers for disease control and prevention2021 -TUBERCULOSIS
- 8) Guidance document on community engagement under National tuberculosis elimination programme-2021
- 9) INDEX TB GUIDELINES;Ministry of health and family welfare, Government Of India.