



Standard Treatment Workflow (STW) for the Management of **FEMALE GENITAL TUBERCULOSIS** ICD-10-A18.17

WHEN TO SUSPECT?



SUSPECT

Consider following symptoms in history :

- H/O infertility (primary or secondary)
- Chronic lower abdominal or pelvic pain
- Amenorrhoea or other menstrual disturbances
- Abnormal vaginal discharge
- Constitutional symptoms of TB (low grade fever, weight loss etc.)
- Other symptoms related to extra-genital TB (abdominal, CNS, bone and lymph nodes etc.)

In addition, standard investigations for TB to be carried out

Clinical Examination

- General Physical Examination
- Pelvic Examination (cervical growth, uterine size and mobility, adnexal tenderness & mass)

Abdominal and Pelvic USG (TVS)

- Uterus, adnexa & pelvis to be evaluated preferably by transvaginal scan
- Endometrial cavity & vascularity to be looked carefully with colour Doppler

Specific Investigations

- Endometrial sampling or biopsy with Pipelle device or Karman cannula (4 mm) for microbiological & histopathological examination
- Endoscopy :
 - › Hysteroscopy & laparoscopy to evaluate uterus, adnexa & other pelvic organs along with lower abdomen
 - › Laparoscopic biopsy from peritoneum or abdominal/pelvic lesions
- MTB diagnosis from biopsy specimen (endometrium & other tissues) by
 - › Smear microscopy (AFB smear) & culture
 - › Gene Xpert or other NAAT
 - › HPE of biopsy specimen

DIAGNOSIS

SUGGESTIVE FINDINGS IN FG TB

Imaging and Radiological

- HSG : to be avoided in acute phase
Findings : blocked fallopian tubes, usually cornual; tobacco pouch appearance of the tubes; beaded tubes; filling defect in the uterine cavity (Asherman syndrome)
- USG : cogwheel appearance of tubes; uterine cavity may show thin diffuse endometrium with irregular borders
- CT/MRI : can be used for tubo-ovarian mass

Endoscopy

- **Hysteroscopy** : To look for tubercles, pale endometrium & endometrial adhesions
- **Laparoscopy** : Direct visualization of tubercle like lesions on the uterus, tubes and other pelvic organs including peritoneum, & caseous nodules

FEMALE GENITAL TB (STEPWISE DECISION)

- Clinical history
- General physical and pelvic examination
- Pelvic ultrasound
- HSP as indicated in infertility HSG

Definite FG TB needing ATT if any of the following tests are positive

- AFB microscopy positive
- AFB culture positive
- Gene Xpert or other NAAT +ve
- Histopathological demonstration of epithelioid granuloma

Probable FG TB needing ATT if any of following positive

- Clinical findings/suspicion of TB with tubo-ovarian masses on imaging studies
- Clinical findings/suspicion of TB with laparoscopic findings of beaded tubes, caseous nodules, tubercles, adhesions, hydrosalpinx & pyosalpinx etc.
- Clinical findings/suspicion of TB with hysteroscopic findings of tubercles, caseous nodules, pale endometrium, intrauterine adhesions etc.

Negative FG TB : No ATT

- No microbiological, histological, radiological, laparoscopic & hysteroscopic evidence of FG TB

Menstrual blood should not be used for NAAT.

MANAGEMENT

TREATMENT

- Treatment of FG TB should be as per NTEP
- Patients requiring specific treatment such as infertility, Asherman syndrome & tubo-ovarian mass etc. should be referred to higher centres

FOLLOW UP

Follow-up of the patient should be flexible depending on the clinical presentation and response to ATT

- 1 month : Clinical Evaluation (General & Gynaecological)
- 3 months : Clinical Evaluation (General & Gynaecological)
- 6 months : Clinical Evaluation & Investigations (endometrial biopsy, hystero-laparoscopy & USG as needed)

ABBREVIATION

AFB: Acid-Fast Bacilli

FGTB: Female Genital TB

MRI - Magnetic Resonance Imaging

PCR: Polymerase Chain Reaction

ATT: Anti-Tuberculosis Therapy

FNAC: Fine-needle Aspiration Cytology

MTB: Mycobacterium Tuberculosis

TB: Tuberculosis

CNS: Central Nervous System

HSE: Histopathology Examination

NAAT: Nucleic Acid Amplification Test

TVS: Transvaginal Scan

CT: Computed Tomography

HSG: Hysterosalpingography

NTEP: National Tuberculosis Elimination Programme

USG: Ultrasonography

REFERENCES

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3. Sharma JB, Sharma E, Sharma S, Dharmendra S. Recent advances in diagnosis and management of female genital tuberculosis. *J Obstet Gynaecol India.* 2021;71:1-12.