

# Incidental detection of Genital Tuberculosis in an atrophic Uterus with Utero vaginal prolapse: Case report of a patient with a history of treated pulmonary tuberculosis.

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**Abstract**— Tuberculosis is regarded as one of the major health problem in India. Female genital tuberculosis is infection of the female reproductive tract by mycobacterium tuberculosis. Disease usually incidentally detected during infertility work up. Bacteria can spread from lung into the reproductive organs through lymphatic channels or hematogenous route. Other category of patients present with symptoms that mimic other gynecological symptoms. We present a case of 57 female presented with stage III utero vaginal prolapse with cystocele, enterocele and rectocele. She is a known case of chronic obstructive pulmonary disease and had a past history of pulmonary tuberculosis.

**Key words**— Genital Tuberculosis, Mycobacterium, Infertility, Cystocele, Enterocoele, Rectocele, Chronic obstructive pulmonary disease.

## INTRODUCTION

Tuberculosis is a disease with its prevalence increases with increase in human population and poor sanitation and unfavorable socio economic status. India is a developing country with high prevalence of tuberculosis. Genital tuberculosis is another common form of extra pulmonary tuberculosis<sup>1</sup>. Genital tuberculosis is secondary to pulmonary tuberculosis spreads via hematogenous or lymphatic route. It can spreads to extra pulmonary sites like urinary tract, genital tract and bone.

Fallopian tubes are the most common site affected by extra pulmonary tuberculosis in female genital tract<sup>2</sup>. In almost 100 % cases fallopian tubes are affected. Followed by endometrium in 50%, ovaries in 20%, 5% in vulva, and 1% in vagina<sup>2</sup>. Genital tuberculosis occurs in patients with past history of pulmonary tuberculosis. Infection is seen commonly in reproductive age group with infertility as the predominant complaint. Other features include menstrual irregularities, chronic pelvic pain, amenorrhea, oligomenorrhea, and tubo ovarian mass and vaginal discharge.

## Case report:

57 year old female, known case of chronic obstructive pulmonary disease, now complaints of mass descending per vaginum for 2 months. Descent increased during walking and bending forward. Also noticed loss of weight and loss of appetite for the past two months. She had a history of pulmonary tuberculosis in the past treated and cured. No past history of bleeding from vaginum.

Per vaginal examination revealed third degree utero vaginal prolapse with cystocele and rectocele. Cervix

appeared hypertrophied, congested and elongated. No ulceration was seen. Per abdominal examination was within normal limits. Ultrasound examination revealed mild descent of uterus with atrophic changes. Endometrial thickness was 0.2 to 0.3 cm. Cervix appears normal. Both ovaries appear atrophic and moderate free fluid in peritoneal cavity with echogenic particle. Mild right hydroureteronephrosis, mild diffuse urinary bladder wall thickening. Proceeded with vaginal hysterectomy and pelvic floor repair. Specimens send for histopathology examination. Gross examination showed hysterectomy specimen with uterus and cervix, Uterus atrophic, Cervix hypertrophied and eroded. Endometrial thickness 0.2 cm. Outer surface of the uterus shows multiple tiny grey white nodules of sizes ranging from 0.1-0.3 cm. Microscopic examination showed multiple granulomas composed of epithelioid histiocytes and multinucleated Langhan type giant cells with minimal caseous necrosis. Acid fast stain was negative for bacilli. Molecular analysis of the tissue specimen came out as negative in this case.

### **Discussion:**

Genital tuberculosis occurs in any age group, the vast majority cases are in the reproductive age group. Postmenopausal women constitute 7-11%<sup>3</sup>.

Genital tuberculosis can be asymptomatic and majority cases are detected during investigating for infertility / other gynecological diseases<sup>4</sup>. Constitutional symptoms like weight loss, night sweats can mimic classical pelvic inflammatory disease. Atypical mycobacteria can be detected as causative organism secondary to mycobacterium Tuberculosis. Genital TB is an indolent infection, whose common symptoms include pelvic pain, vaginal bleeding, amenorrhea, vaginal discharge, and infertility<sup>7</sup>. Rare presentations are abdominal mass, ascites, and ischio-rectal abscess. Genital tuberculosis is mainly encountered in the fallopian tubes and endometrium, leading to infertility as the most common outcome<sup>7</sup>. If the infection is not detected and treated early, destruction of these organs could result in permanent inability for the woman to conceive<sup>7</sup>.

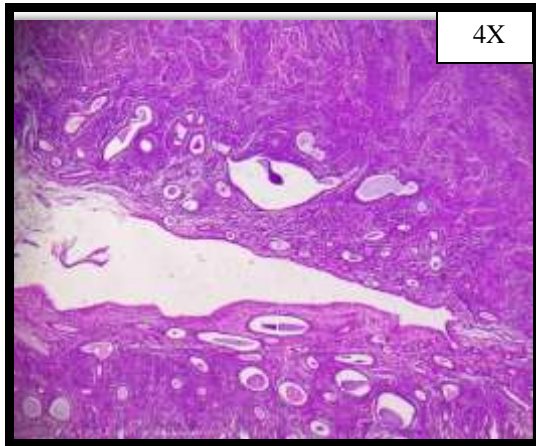
Infection of the uterus is very rare. Two main routes of transmission are possible in this setting. Hematological transmission from a primary site from lung or Kidney. Other possible transmission can be through sexual route presenting as local lesions.



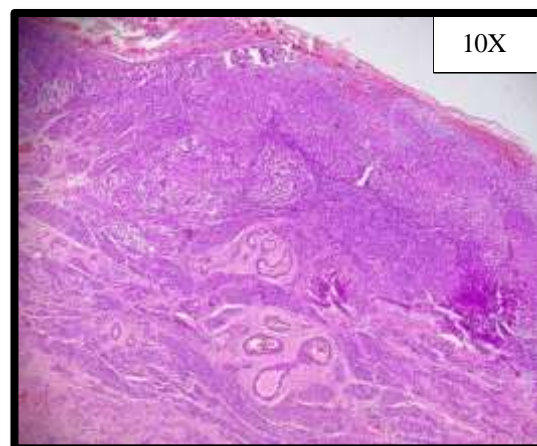
**Fig. 1-Gross picture of vaginal hysterectomy specimen .**



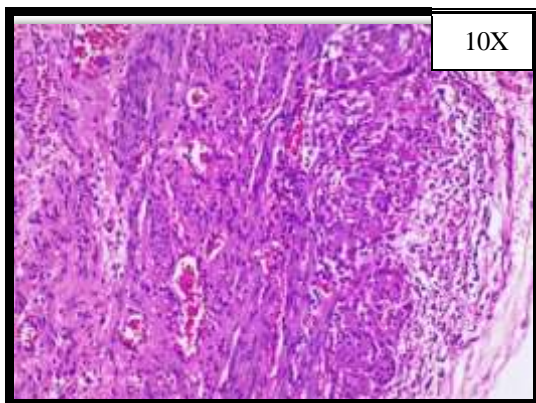
**Fig. 2- multiple tiny nodules of sizes 0.1 -0.3 cm on the fundus.**



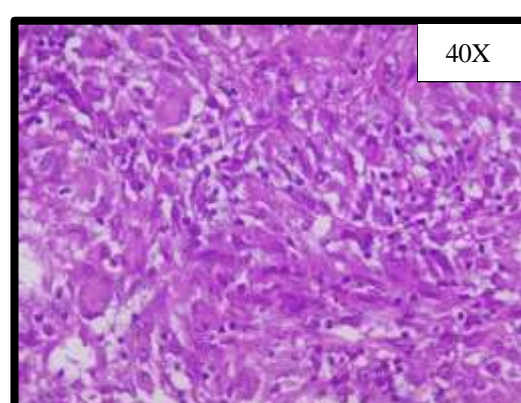
**Fig. 3-Uterus showing cystic atrophic endometrial glands.**



**Fig.4- Serosal surface shows multiple granulomas.**



**Fig. 5- Low power shows multiple granulomas composed of epithelioid histiocytes.**



**Fig. 6- Higher power view shows multinucleated giant cells.**

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