



CASE STUDY

TUBERCULAR CERVICITIS MIMICKING CERVICAL MALIGNANCY: A CASE REPORT

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ABSTRACT

Cervical tuberculosis is very rare disease, accounts for 0.1- 0.65 % of all cases of tuberculosis. We are reporting case of 23 year old nulligravida lady presented with 4 years history of primary infertility, infrequent menstrual cycles and post coital bleeding. On examination, external genital was normal on inspection. On speculum examination cervix was replaced by irregular fungating growth which bled on touch. Bimanual examination showed normal sized anteverted and mobile uterus. There was slight thickening of left fornix with no palpable adnexal mass or tenderness. Punch biopsy was taken in view of suspected cervical malignancy. Histopathology of cervical biopsy was suggestive of tubercular cervicitis with diffuse areas of ulceration of lining epithelium with acute inflammatory granulation tissue. Deeper sub epithelium showed presence of ill-defined collection of epithelioid cells with occasional langhans type of giant cells. Stain for acid fast bacilli was positive. Anti-tuberculin therapy was given for 9 months.

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INTRODUCTION

Cervical tuberculosis accounts for 0.1- 0.65 % of all cases of tuberculosis and 5-24% of genital tract tuberculosis (Carter, 1990). Tuberculosis of female genital tract is secondary to extragenital tuberculosis in almost all cases and spreads by hematogenous or lymphatic dissemination or direct extension. Genital tuberculosis commonly affects young women of childbearing age, presenting as infertility, menstrual disorders, tubo-ovarian mass or pelvic inflammatory disease. Cervical tuberculosis is rare, it is usually not suspected clinically but in advanced cases it can mimic cervical malignancy (Sinha et al., 2002). The presentation may be in form of – exophytic growth, ulcerative lesions or interstitial form (Sinha et al., 2002; Singhal, 2011; Nabi, 2012). We present this case as cervical tuberculosis is rare and can be easily misinterpreted as cervical cancer on clinical examination.

CASE

23 year old nulligravida lady presented to outpatient clinic with 4 years history of primary infertility with history of infrequent menstrual cycles and post coital bleeding. She was referred from a peripheral center with report of CIN-1 on Pap smear. There was no history of fever, chronic cough, bladder or bowel complaints or significant weight loss. There was no history of personal or family exposure of tuberculosis. She had no significant past medical or surgical history. There was no family history of genital malignancy. On examination, there was no significant lymphadenopathy and bilateral chest was clear. Abdominal examination revealed no significant findings. External genital was normal on inspection. On speculum examination cervix was replaced by irregular fungating growth which bled on touch (Figure 1). Bimanual examination showed normal sized anteverted and mobile uterus. There was slight thickening of left fornix with no palpable adnexal mass or tenderness. Punch biopsy was taken in view of suspected cervical malignancy. Histopathology of cervical biopsy (figure 2) was suggestive of tubercular cervicitis with diffuse areas of ulceration of lining epithelium with acute inflammatory granulation tissue.

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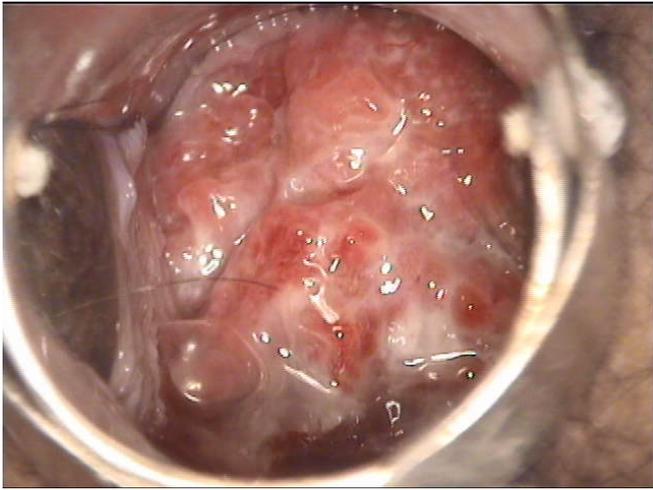


Figure 1: Per speculum examination of cervix tuberculosis

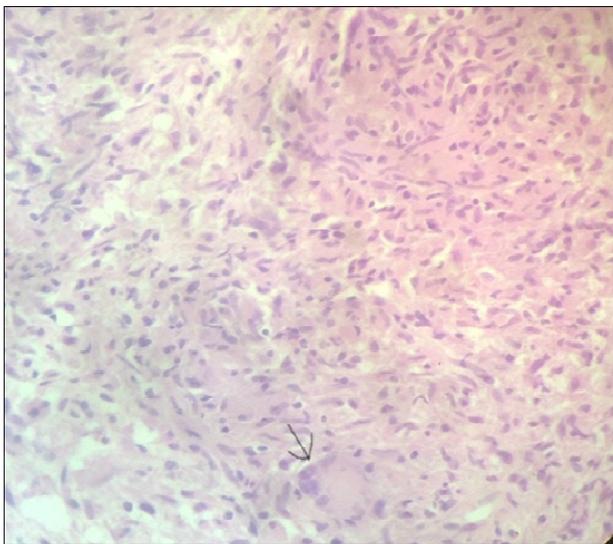


Figure 2: Microscopic examination of endocervical tissue showing moderate to dense inflammatory infiltrate comprising of scattered epithelioid cells, plasma cells and histiocytes and neutrophils and ill formed granulomas with a giant cell (arrow). Hemataoxilin & Eosin, 200 X



Figure 3: Colposcopy examination of the same patient, after 6 months of ATT

Deeper sub epithelium showed presence of ill-defined collection of epithelioid cells with occasional langhans type of giant cells. Stain for acid fast bacilli was positive. Tuberculin skin test was positive (20 mm) but chest x ray and sputum analysis were negative.

Pap smear showed inflammation and benign cellular changes with no evidence of malignancy. Ultrasonography revealed normal sized uterus with a 2x2 cm adnexal mass on right side. She was started on antitubercular treatment in view of genital tuberculosis. After 6 months of treatment she underwent reassessment (Figure 3). On gross examination, the cervical mass had regressed significantly but not completely and ATT was continued for 3 more months. After completing 9 months of anti-tubercular treatment repeat pap smear and colposcopy revealed normal findings. She was asymptomatic for next 6 months with regular menstrual cycles. After 6 months, she revisited the clinic with complaints of pain lower abdomen with history of low grade fever with evening rise of temperature. There was no history of cough /jaundice/ bowel complaints / menstrual complaints or discharge per vaginum. General physical examination and abdominal examination were unremarkable. Speculum examination showed normal looking cervix and vagina with no recurrence of growth. On bimanual examination uterus was normal sized anteverted and mobile. A 4x4 cm adnexal mass was palpable in right fornix with diffuse tenderness and restricted mobility. Left fornix was free. USG revealed right sided tubo-ovarian mass. Tumor markers were within normal limits. Colposcopy examination was normal. Endometrial biopsy was done which showed secretory endometrium with no acid-fast bacilli seen. Repeat cervical biopsy showed fibro-collagenous tissue with marked congestion but no granulomas. No acid-fast bacilli were seen. Patient underwent laparoscopic adhesiolysis with chromopertubation. Dense adhesions were present between anterior abdominal wall and peritoneum. Right sided 4x5 cm tubo-ovarian mass was seen densely adherent to bowel loops. Tubercles were present throughout the peritoneal surface and fallopian tubes. Bilateral fallopian tubes were tortuous and on chromotubation, free spill was present from both the tubes. Patient was started again on ATT for 6 months.

DISCUSSION

Tuberculosis though being uncommon in the western world, is still endemic in developing countries. The incidence of tuberculosis is still high in India especially in areas where HIV is prevalent. The true incidence of genital tuberculosis is not known due to its subtle presentation but it mainly presents in reproductive age group females with history of infertility. Other presentations include menstrual disorders like scanty menstruation and amenorrhea, pelvic pain etc. along with constitutional symptoms. Genital tuberculosis occurs mostly secondary to pulmonary tuberculosis by hematogenous spread or lymphatic dissemination or by direct extension. Fallopian tubes are affected in almost 100% cases followed by endometrium and ovaries. Cervical tuberculosis or tuberculosis affecting vagina and vulva is still rarer. Cervix is relatively resistant to tubercular infection due to the presence of stratified squamous epithelium of the ectocervix which makes bacterial colonization difficult. Cervical tuberculosis grossly presents as ulcerative form, exophytic growth, interstitial or miliary form. It may resemble invasive cervical carcinoma on gross examination as well as on colposcopy. On histopathology caseating granulomatous inflammation with langhans giant cell and sometimes marked atypia with hyperplastic mucosal changes is seen. Staining for acid fast bacilli has not been found to be very useful. Confirmation of diagnosis is by isolation of mycobacterium (gold standard) but 1/3rd cases are culture negative therefore strong clinical suspicion along with typical caseating granulomas on histopathology are sufficient for diagnosis if other causes of granulomatous cervicitis are

excluded. Differential diagnosis includes other granulomatous diseases of cervix like sarcoidosis, leprosy, actinomycosis, foreign body reaction, syphilis etc, but they are much rarer in incidence compared to tuberculosis in endemic areas. Therefore, judicious use of available diagnostic techniques and clinical correlation is required for management. Prompt initiation and adequate duration of antitubercular treatment along with surgical intervention if required helps in cure of the disease, improved fertility outcomes and reduced complications associated with advancing disease. Cervical tuberculosis may clinically mimic cervical carcinoma and should be included in differential diagnosis especially in endemic countries like India with high index of suspicion.

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