

Case Report

Cervical Tuberculosis Simulating Carcinoma Cervix: Series of 4 Cases**Dr. Sonia Singh¹, Dr. Meenu Gill², Dr. Ritika³, Dr. Deepika Jain⁴**¹Assistant Professor, Adesh Medical College and Hospital, Kurukshetra, Haryana.²Professor, Pt.B.D.Sharma, PGIMS, Rohtak³Junior Resident, Pt.B.D.Sharma, PGIMS, Rohtak⁴Junior Resident, Pt.B.D.Sharma, PGIMS, Rohtak***Corresponding author**

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Abstract: Cervical tuberculosis accounts for 0.1-0.65% of all cases of tuberculosis (TB). Tuberculosis more frequently affects the upper genital tract-namely, the fallopian tubes and endometrium. TB of the cervix is present in about 5% of the cases: we present case series of 4 cases of cervical tuberculosis which clinically presented as malignancy. The patients were of different age groups and presented with various chief complaints and of different duration of time. The diagnosis was made on histopathological examination of cervical biopsies in these cases. Rare cases of cervical tuberculosis, which were referred to the author as cancer cervix, are presented. These cases emphasize that though uncommon, tuberculosis is an important alternative in the differential diagnosis of a malignant appearing lesion of the cervix. This is especially true in our country with high prevalence of tuberculosis and, therefore, a high index of suspicion is warranted. Tuberculosis is not uncommon in the developing country. Four patients who attended at gynecological clinic in a period of two years were found to have cervical tuberculosis. We present these cases due to the rarity of this condition and that it clinically mimics carcinoma of cervix so it is important to rule out cervical tuberculosis in such cases.**Keywords:** tuberculosis, cervical.

INTRODUCTION

Cervical tuberculosis accounts for 0.1-0.65% of all cases of tuberculosis (TB) [1]. Tuberculosis more frequently affects the upper genital tract, commonly the fallopian tubes and endometrium [2]. TB of the cervix is present in about 5% of the cases [3]. We present these cases due to the rarity of this condition and that it clinically mimics carcinoma of cervix.

CASE-1

A 36-year-old P2L2 Indian lady, housewife by occupation, presented with chief complaints of pain abdomen, irregular bleeding and discharge per vaginum for two years. She had history of post-coital bleeding, inter-menstrual bleeding and significant weight loss over the last two years. There was no history of genitourinary malignancy or tuberculosis in the past or in the family. The patient was a non-smoker, non-

alcoholic and did not have any other significant medical or surgical illness in the past. General physical examination was essentially normal with no palpable lymph nodes. Systemic examination did not reveal any abnormality. On per speculum examination, cervix was replaced by an irregular friable growth, which was bleeding on touch. On bimanual examination, same growth was felt. Uterus was anteverted, normal in size and bilateral fornices were free. Per rectal examination did not reveal any induration or nodularity of parametria and rectal mucosa was smooth and freely mobile. Colposcopic examination showed increased vascularity without any acetowhite or iodine negative areas. In view of suspicious cervix a fractional curettage and cervical biopsy was performed. The endometrial and endocervical tissue was negative for tubercle bacilli. The histopathology revealed epithelioid cell granulomas with occasional necrosis seen distributed in

the entire thickness of endometrial tissue. Similarly, the ecto and endocervical curettings also had large number of epithelioid granuloma with few showing giant cells and caseating necrosis compatible with tuberculous inflammation. Complete healing with rapid relief of symptoms followed 4 weeks antituberculosis chemotherapy. Cervix had an almost normal macroscopic and colposcopic appearance. At 6 months, after completion of TB treatment, there was complete response to standard therapy.

CASE 2

A 20 year old female reported at primary amenorrhea and postcoital bleeding since two months. She was having normal height, weighed 55kg, secondary sexual characters were well developed, there was no galactorrhoea and thyroid was not palpable. Abdomen was soft, per speculum examination revealed an abnormal cervix, which exhibited marked contact bleeding; the anterior lip of cervix was an irregular with exophytic fleshy lesion of 1 cm × 0.8 cm. On paravaginal examination uterus and adnexa were normal. Complete blood count, montoux test, erythrocyte sedimentation rate (ESR), Chest-X-ray, thyroid hormone levels, Luteinizing hormone (LH), follicle-stimulating hormone (FSH) and prolactin were within normal limits. General physical examination was essentially normal with no palpable lymph nodes. Systemic examination did not reveal any abnormality. Biopsy taken from the cervical growth revealed granulomatous inflammation with caseous necrosis. Smear from cervix was found positive for acid-fast bacilli. Endometrial biopsy was normal with no AFB. A chest radiograph was normal. Sputum and urine samples were negative for AFB and failed to culture mycobacterium. The patient was put on antituberculous therapy (ATT) for six months

CASE 3

A 29 years old lady had lost 5 kg in weight over the previous 6 months. She denied any fever, cough, or abdominal pain. On examination she had an abnormal cervix, with ulceration, bleeding, and a friable papillary

growth covering almost the entire ectocervix. A hormone profile was normal. The patient was referred for investigation to exclude carcinoma. A cervical punch biopsy was taken. Histological examination showed ulcerated fragments of cervix with severe chronic active inflammation with granuloma formation and numerous giant cells. The repeat cytology confirmed the presence of koilocytes and mild dyskaryosis. There were no malignant cells seen and stains for mycobacteria and fungi were negative. Despite the negative auramine stain, tuberculosis was considered the most probable diagnosis. A wedge biopsy was taken for further histological evaluation and to provide specimens for culture. The original histological appearance was confirmed. A chest radiograph was normal. Patient was taken over an antitubercular therapy and continued for nine months after which patient was completely relieved of her symptoms and cervix was free of growth.

CASE 4

A 40 years old lady presented with irregular bleeding and foul smelling discharge per vagina for one year. There was history of recent weight loss. There was no history of genital malignancy in the past or in the family. Patient did not have any other significant medical or surgical illness in the past. General physical examination was essentially normal and there was no lymphadenopathy. Per speculum examination revealed an unhealthy looking cervix which was grossly erythematous, congested and bled on touch. On bimanual examination, uterus was anteverted and normal in size. Fornices were free. Per rectal examination was normal. A bulky, necrotic cervix with parametrial thickening often elicits an initial diagnostic impression of carcinoma of the cervix. A case is presented in which such a lesion proved to be tuberculosis of the cervix with combined genitourinary tuberculosis. Based on this diagnosis patient was put on four drugs anti tubercular therapy according to Directly Observed Treatment Schedule. Patient remained under regular follow up and was compliant with her treatment.

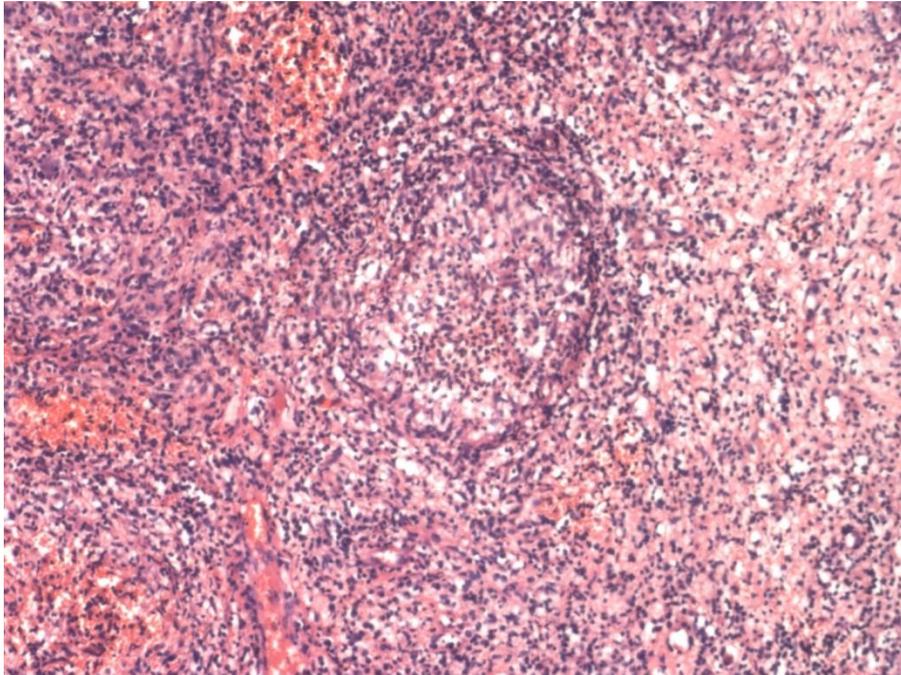


Fig-1: H & E stained section showing granulomatous reaction in cervical stroma.

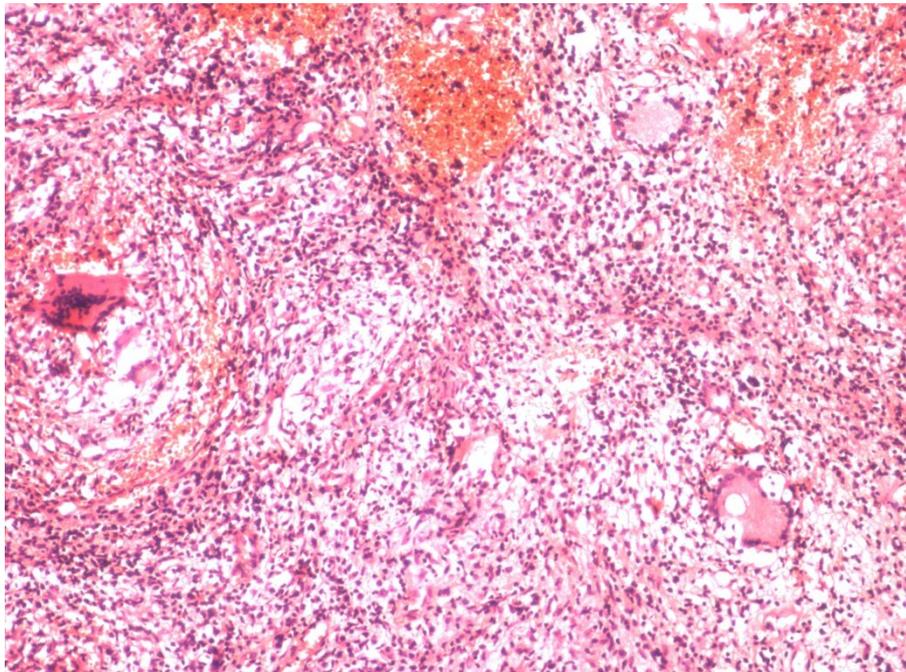


Fig-2: H & E stained section revealing giant cells (Langhans type) in cervical stroma.

DISCUSSION

Tuberculosis of the upper genital tract is a rare disease. Genital tuberculosis is common in 20-40 years of age group in developing countries. Genital organs most frequently affected include fallopian tubes (95-100%), endometrium (50-60%), and ovaries (20-30%) [4]. Tuberculosis of the cervix is rare and accounts for 0.1-0.65% of all cases of tuberculosis (TB) and 5-24% of genital tract TB [1,2]. Pelvic tuberculosis is produced primarily by *Mycobacterium tuberculosis* or *Mycobacterium bovis*. Pelvic organs are infected from a primary focus, usually the chest, by hematogenous spread. The cervix is infected as part of this process, by lymphatic spread or by direct extension. In rare cases, cervical TB may be a primary infection, introduced by a partner with tuberculosis epididymitis or other genitourinary disease. Sputum, used as a sexual lubricant, may also be a route of transmission [3]. Symptomatic genital tuberculosis can present with abnormal vaginal bleeding, menstrual irregularities, abdominal pain, and constitutional symptoms [5].

The macroscopic findings of cervical TB were illustrated by these cases. There may be papillary or vegetative growths, a miliary appearance, and or ulceration present thus simulating invasive cervical cancer [6]. Microscopically, there are caseating granulomata. These are not diagnostic. The differential diagnosis for granulomatous disease of the cervix include amoebiasis, schistosomiasis, brucellosis, tularemia, sarcoidosis, and foreign body reaction. The diagnosis of the cervical and vulvovaginal TB is usually made by histological examination of cervical and vulvovaginal biopsy specimen. Staining for acid fast bacilli was not found to be very useful in making the diagnosis. The detection of granulomata on cervical cytology specimens has been documented. Isolation of the mycobacterium is the gold standard for diagnosis. A third of cases are culture-negative. Therefore, the presence of typical granulomata is sufficient for diagnosis if other causes of granulomatous cervicitis are excluded or primary focus identified. The lesion should respond to 6 months of standard therapy. A lesion on the cervix provides a marker to assess response to therapy. Histological examination of serial biopsy specimens can similarly confirm a therapeutic response [7].

CONCLUSION

This case series emphasizes that though uncommon, tuberculosis is an important alternative in

the differential diagnosis of a malignant appearing lesion of the cervix. There should be a high index of suspicion of tuberculosis in women with an abnormal cervical appearance and tuberculosis should be ruled out in such cases.

REFERENCES

1. Lamba H, Byrne M, Goldin R, Jenkins C. Tuberculosis of the cervix: Case presentation and a review of the literature. *SexTransmInf.* 2002; 78: 63-6.
2. Chowdhury NNR. Overview of tuberculosis of the female genital tract. *J Indian Med Assoc.* 1996; 94: 345-61.
3. Rock JA, Jones HW, editors. *TeLinde's Operative Gynaecology.* 9th ed. Lippincot Williams &Wilkins, 2003; 697-8.
4. Agrawal S, Madan M, Leekha N, Raghunandan C. A rare case of cervical tuberculosis simulating carcinoma cervix: a case report. *Cases journal.* 2009 Oct 20;2(1):161.
5. Chakraborty P, Roy A, Bhattacharya S, Addhya S, Mukherjee S. Tuberculous cervicitis: a clinicopathological and bacteriological study. *Journal of the Indian Medical Association.* 1995 May;93(5):167-8.
6. Sakhare AP, Mahale AR, Dumne LT. Cervical tuberculosis: an important differential diagnosis of cancer cervix. *Indian Journal of Tuberculosis.* 2003;50 (4):219-20.
7. Sachan R, Gupta P, Patel ML, Verma A, Maurya M. Cervical tuberculosis masquerading as cancer cervix: a report of three cases. *Indian J Tuberc.* 2013 Jan;60(1):46-9.