

# Postmenopausal Tuberculosis Of The Cervix, Vagina And Vulva

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## Abstract

Tuberculosis of the female external genitalia is unusual and primary infection are rare. We report here a 73 year old patient who attended a gynecology clinic, and was found to have vulvovaginal and cervical tuberculosis.

## INTRODUCTION

Tuberculosis (TB) of the vulva and vagina is very rare and it is seen in only 1 to 2% of genital tract TB. Tuberculosis of cervix accounts for 0.1 to 0.65% of all cases of TB and 5 to 24% of genital tract TB.<sup>1,2,3,4,5,6,7,8</sup> Tuberculosis more frequently affects the upper genital tract, namely the fallopian tubes and endometrium. It usually occurs in women of childbearing age.<sup>5,6,9</sup>

## CASE REPORT

A 73 year old woman without an active sexual life attended a gynecology clinic of Zeinab hospital in Mashad of Iran, complaining of a one year history of painful ulcers in the labia major and labia minor. In spite of medication with antibiotics, her ulcers persisted. She denied any fever, cough, or abdominal pain. She had not been in close contact with an index case of pulmonary tuberculosis in past year. Antibody tests for HIV and VDRL infection were negative. On examination the meatus was reddish and swollen and painful ulcers were seen at the labia majora and labia minora. The cervix was abnormal with ulceration, bleeding and a friable papillary growth covering almost the entire ectocervix and she had bilateral inguinal lymphadenopathies. She had an abnormal cervical smear which was class 2 Papanicolaou. A chest radiograph was normal. On cystoscopy, the bladder mucosa was normal. Drip infusion pyelography and urethrocytography showed no evidence of tuberculosis. Ultrasonography revealed that the uterus was small and endometrial line was not visualised and bilateral adnexae was without a mass or cyst. Sputum, urine and cervical secretion samples were negative for acid-fast bacilli and failed to culture mycobacterium. A full blood count showed

leukopenia and ESR at 2 hours was 55. Skin tuberculin test (5<sup>U</sup> PPD) was negative. A vulval and cervical biopsy was taken. Histological examination showed ulcerated fragments of vulva and cervix with severe chronic active inflammation with caseous necrosis. There were no malignant cells seen and stains for mycobacterium was negative. Despite the negative stain and cultures, in view of the caseous necrosis on histological examination, tuberculosis was considered as the most probable diagnosis. Anti tuberculous quadruple therapy was initiated. Complete healing of the vulval ulcers, with rapid relief of symptoms followed 4 weeks antituberculosis chemotherapy. Cervix had an almost normal macroscopic and colposcopic appearance and urinary symptoms disappeared. At 6 months, after completion of TB treatment, there was complete response to standard therapy .

## DISCUSSION

Tuberculosis is one of the oldest diseases known to affect humans.<sup>15</sup> Female genital TB is a rare disease in some developed countries , but it is a frequent cause of chronic pelvic inflammatory disease (PID) and infertility in other parts of the world.<sup>16</sup> Symptomatic genital tract TB usually presents with abnormal vaginal bleeding, menstrual irregularities, abdominal pain, and constitutional symptom.<sup>5,6,9,10,11</sup>

Pelvic organs are infected from a primary focus, usually the chest, by haematogenous spread.<sup>2,4,5, 10,12</sup> The cervix is infected as part of this process, by lymphatic spread or by direct extension. The vagina and vulva are rarely involved. The primary lesion is often healed by the time of presentation.<sup>5,6,7,8,9,10,11,12, 13</sup> Some authors suggest the

existence of primary genital tuberculosis which may be spread by venereal transmission. These lesions are extremely rare and usually present as isolated chronic ulcerative lesions of the external genitalia in the absence of TB of the upper urogenital system<sup>17</sup>. In rare cases, cervical TB may be a primary infection,<sup>2,4,5,10,13</sup> introduced by a partner with tuberculous epididymitis or other genitourinary disease. Chwdhury <sup>5</sup> has suggested that sputum, used as a sexual lubricant, may also be a route of transmission. It is uncommon for tuberculosis to involve the vulva and vagina. The gross appearance may be ulcerative with multiple sinuses, it may be hypertrophic with elephantiasis, or it may be similar to that of carcinoma. There may be hormone dependence of infection <sup>2,5</sup> given that 80% of cases occur in the reproductive age.

The macroscopic findings of cervical TB were illustrated by this case. There may be papillary or vegetative growths, a miliary appearance, and or ulceration present thus simulating invasive cervical cancer. <sup>2,3,6,9</sup>

Microscopically, there are caseating granulomata. These are not diagnostic. The differential diagnosis for granulomatous disease of the cervix include amoebiasis, schistosomiasis, brucellosis, tularaemia, 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.<sup>3,9,12</sup> Staining for acid fast bacilli was not found to be very useful in making the diagnosis.<sup>14</sup> The detection of granulomata on cervical cytology specimens <sup>9,12</sup> 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, vagina or vulva provides a marker to assess response to therapy. Histological examination of serial biopsy specimens can similarly

confirm a therapeutic response.

The incidence of TB has increased recently and is partly attributable to the HIV pandemic. There should be high index of suspicion of tuberculosis in women, with an abnormal cervical appearance, specially from areas where HIV and TB are prevalent.

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