

## Vulvar Tuberculosis in a Virgin Girl: A Rare Case Report

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### Abstract

Primary tuberculosis (TB) of the vulva is very rare. The authors reported here a case of primary ulcerative vulvar TB in a 14 -year- old virgin girl. The diagnosis was based on the pathological finding on tissue biopsy, followed by anti tuberculosis therapy; the vulvar ulcer was completely healed. Vulvar TB must be considered when a persistent vulvar ulcer fails to respond to ordinary treatment.

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**Keywords:** Tuberculosis, Vulva, Ulcer

### Background

TB in female most frequently affects the upper genital tract. The prevalence varies from 1-19% depending on the countries<sup>[1]</sup> and occurs in 10% of patients with pulmonary TB<sup>[2]</sup>. A peak age frequency ranges between 21-31 Years<sup>[3]</sup>. External genital TB involvement is very rare<sup>[4]</sup> specially, primary vulvar TB<sup>[5]</sup>. There were only 10 reported cases of vulvar TB in the literature<sup>[6]</sup>. This is a very rare case report of primary painful ulcerative vulvar TB in a 14 -year- old virgin girl.

### Case Report

A 14 -year- old virgin girl from a rural background, complaining of a 2-month- history of painful, itching ulcer at vulva, admitted to the gynecology ward in Kermanshah, Iran. In spite of receiving several courses of antibiotic and antifungal therapy, the ulcer remained. She had no

underlying disease and no history of fever, cough, sputum, anorexia, night sweating, unusual vaginal discharge, abnormal vaginal bleeding, and abdominal pain. On genital examination, an ulcer on the right side of labia major (2 x 3 x 1 cm), with an irregular border, indurated margin, slight central necrosis and without discharge, was notified (Fig. 1).

Routine laboratory investigations were normal. ESR was 15mm in first hour. VDRL and anti HIV was negative. Chest X-ray, abdominal and pelvic ultrasonography suggested normal finding. Mantoux test showed a reaction with 8 mm erythema and induration. Tissue biopsy of ulcer was performed and acid - fast staining (Ziehl Neelsen stain) reveals scattered bacilli like structures. The histological report confirmed a "Caseating Granulomatous Inflammation and *Langhans' giant cells* Compatible with Tuberculosis" (Fig.2). Sputum, urine samples for acid fast bacilli and mycobacterium culture were negative.

According to pathology report, we reviewed her family and past medical history, which showed no close contact with an indexed case of pulmonary tuberculosis and had no signs of other organ involvement. The Mantoux test, Chest X-ray, direct smear from Sputum and history of TB in her family were unremarkable.

Anti tuberculosis quadruple therapy was initiated. After two months of therapy the ulcer gradually was completely healed. In the 7-year follow-up, there was no evidence of any recurrence.

## Discussion

Female genital tuberculosis is rare <sup>[7]</sup> and usually is secondary to the other organ involvement sites of body such as lungs, kidney, lymph nodes, urinary tract, bones, joints and bowels <sup>[2]</sup>. Genital TB spreads by different routes. In the majority, it spreads hematogenously, in a minority, direct extension from the lesion in the upper genital tract or exogenously from excretion of tubercle bacilli in stool, urine, sputum or sexual contact <sup>[8,9]</sup>. The highest incidence is seen in young and childbearing women of rural province <sup>[10]</sup>. The common symptoms of female genital tuberculosis are abnormal vaginal bleeding, chronic pelvic pain, infertility, and constitutional symptoms <sup>[11-13]</sup>.

Genital TB involvement mainly affected fallopian tube and endometrium. Vulvar and vaginal involvement are very rare with a distributed of 0.07% to 0.2% <sup>[6, 14]</sup>. External genital Tuberculosis occurs in the labia and vestibular mucosa and primary infection of TB in vulva is very rare <sup>[5]</sup> with quiet variable Presentation <sup>[6, 7]</sup>. Vulvar TB lesions can be either ulcerative or hypertrophic <sup>[7, 8]</sup>.

We reported here a case of primary painful ulcerative vulvar TB in a virgin girl which was different from another case reports. Reported cases of genital TB are most commonly observed in married women with either history of sputum lubricant use <sup>[11]</sup> or other relative TB involvement <sup>[4, 15, 16]</sup> and venereal transmission <sup>[5, 7]</sup>, which in our case, no history was observed and the origin of infection was not discovered.

Vulvar TB ulcer should be considered in the differential diagnosis of sexual transmitted disease <sup>[6]</sup> or genital cancer <sup>[17]</sup>. The gold standard for diagnosis is Isolation of mycobacterium bacilli which is rarely found in female genital tract, even by fluorescent techniques <sup>[14]</sup>. In the Ten – year

clinicopathological survey of female genital TB, no case of vulvar and vaginal TB was reported, caseation and acid fast bacilli were observed in only 13.23% and 5.88% respectively<sup>[2]</sup>. Most authors agree that histological examination of biopsy specimen is a useful means for vulvar TB diagnosis<sup>[8]</sup>. The presence of granulomata reaction on microscopy exam has been emphasized as a way of TB documentation<sup>[15]</sup> as was in our case.

In conclusion, we suggest that TB should be kept in mind in differential diagnosis of unresponsive chronic ulcerative vulvar TB which can be diagnosed by the presence of granulomata reaction in microscopy examination, so it may be prevented from the unnecessary and ineffective interventions.

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## References

- 1- Varma TR. Genital tuberculosis and subsequent fertility. *Int J Gynecol Obstet*. 1991; 35(1):1-11
- 2- Mondal SK, Dutta TK. A ten - year Clinicopathological Study of Female Genital Tuberculosis and Impact on Fertility. *JNMA*.2009; 48(1): 52
- 3- Nwachokor FN, Thomas JO. Tuberculosis in Ibadan, Nigeria – a 30 year review. *Cent Afr J Med*.2000; 46:287-92
- 4- Buppasiri P, Temtanakitpaisan T, Somboonporn W. Tuberculosis at Vulva and Vagina. *J Med Assoc Thai*.2010; 93(5): 613
- 5- Millar JW, Holt S, Gilmour HM, Robertson DH. Vulvar tuberculosis. *Tubercle*. 1979; 60(3):173-6
- 6- Lam SK, Chan KS, Chin R. A rare case of vulvar tuberculosis. *Hong Kong J Gynaecol Obstet Midwifery*.2007; 7(1): 56
- 7- Akther R, Mohiuddin G, Afroj H, Atypical presentation of vulvar tuberculosis, *Bangladesh Medical Journal*, 2009, 38(2)
- 8- Tiwari P, Pal DK, Moulik DH, Choudhury MK. Hypertrophic tuberculosis of vulva –a rare presentation of tuberculosis. *Indian J Tuberc*; 2010; 57: 95-97
- 9- Schaefer G. Female genital tuberculosis. *Clin Obstet Gynecol*. 1976; 19 : ( 1):223-39
- 10- Sfar E, Ouarda C, Kharouf M. Female genital tuberculosis in Tunisia. Apropos of 118 cases at the Rabta Neonatology and Maternity Center in Tunis (January 1984-December 1988). *Rev Fr Gynecol Obstet*. 1990; 85(6):359-63
- 11- Chowdhury NN. Overview of tuberculosis of female genital tract. *J Indian Med Assoc*. 1996; 94(9):345-6, 361
- 12- Richards MJ, Angus D. Possible sexual transmission of genitourinary tuberculosis. *Int J Tuberc Lung Dis*. 1998; 2(5):439
- 13- Sinha R, gupta D, Tuli N. Genital tract tuberculosis with myometrial involvment. *Int J Gynaecol Obstet*. 1997; 57(2):191-2
- 14- Agarwal J, Gupta JK. Female genital tuberculosis-a retrospective clinico-pathologic study of 501 cases. *indian J Pathol Microbiol*. 1993; 36(4):389-97
- 15- Sardana K, Koranne RV, Sharma RC, Mahajan S. Tuberculosis of the vulva masquerading as a sexually transmitted disease. *J Dermatol*. 2001; 28(9):505-7

- 16- Akhlaghi F, Hamed AB. Postmenopausal Tuberculosis of the Cervix, Vagina and Vulva, the Internet Journal of Gynecology and Obstetrics. 2004; 3 (1) <http://www.ispub.com/ostia/>. Modified 13 Feb 09.
- 17- Botha MH, Van der Merwe FH. Female genital tuberculosis. SA Fam Pract. 2008; 50(5):12-16



Fig. 1: An ulcer on the right side of vulva

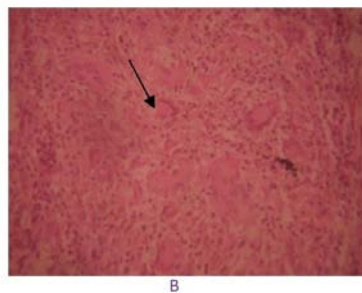
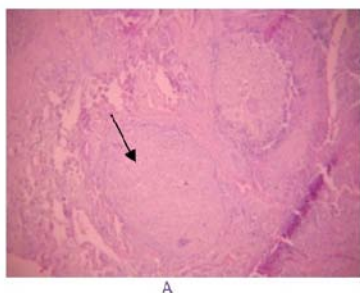


Fig. 2-A: photomicrograph showing a *Caseating Granulomatous*, -B: *Langhans' giant cells & central necrosis of granulomata*