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PRIMARY TUBERCULOSIS OF CERVIX MIMICKING CERVICAL CARCINOMA : A RARE CASE REPORT

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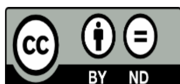
ABSTRACT

Primary tuberculosis of the cervix is a very rare case and its prevalence is only about 0.1-0.65 % of all tuberculosis cases. Lesions in cervical tuberculosis can resemble lesions in cervical carcinoma with similar complaints such as foul-smelling vaginal discharge, abnormal bleeding, and symptoms of malaise. However, the diagnosis can be made by isolating the acid-fast bacillus on microscopy or histopathology. We report a rare case of primary tuberculosis of the cervix, which was suspected as carcinoma cervix on clinical examination but turned out to be a case of cervical tuberculosis based on the histopathological result. At nine months, the cervix had an almost normal appearance, and complaints from the patient were lessened.



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1. Introduction

Primary tuberculosis of the cervix is a very rare case and its prevalence is only about 0.1-0.65 % of all tuberculosis cases [1]. Although Indonesia is the second country with the most cases of tuberculosis [2]. Spread to the cervix by hematogenous, lymphatic, or by direct local extension. Lesions in cervical tuberculosis can resemble lesions in cervical carcinoma with similar complaints such as foul-smelling vaginal discharge, abnormal bleeding, and symptoms of malaise [3]. However, the diagnosis can be made by isolating the acid-fast bacillus on microscopy or histopathology [4]. Improvement of the condition will be seen after the administration of anti-tuberculosis drug therapy [5]. We report a rare case of primary tuberculosis of the cervix, which was suspected as carcinoma cervix on clinical examination but turned out to be a case of cervical tuberculosis based on the histopathological report.

2. Case Report

Mrs. N, a 36-year-old Indonesian woman, para 2, abortus 1, with 2 living children, housewife by occupation, presented to the gynecological outpatient clinic with abnormal vaginal discharge 6 months ago. The abnormal discharge was yellow-white colored, itchy, foamy, and fishy smelling discharge. She had a history of post-coital bleeding, dyspareunia, and significant weight loss over the last 10 months. She had a history of unprotected sex with three different male partners and had been in close contact with a relative

who had pulmonary tuberculosis which she did not know before. She denied any cough, fever, or abdominal pain. There was no history of any bladder and menstrual disturbance. She has no history of genitourinary malignancy or tuberculosis in the past or the family. The patient was a non-smoker, non-alcoholic, and did not have any other significant medical or surgical illness in the past.

On examination, the patient was found to be thinly built and poorly nourished. Her weight was 39 kg and her height was 150 cm. Her general and systemic examinations were within normal limits. On bimanual examination, the uterus was anteverted, normal in size and bilateral fornixes were free. The speculum examination revealed an unhealthy bulging/bumpy cervix which friable and bled on touch. (Figure 1) Per rectal examination did not reveal any abnormalities. Laboratory examinations and chest x-ray within normal limits. Pap smear showed superficial, intermediate, a parabasal squamous epithelial cell with the background of very dense PMN leukocytes, *Lactobacillus vaginalis*, and erythrocytes that indicates non-specific chronic cervicitis. Cervical biopsy revealed acute exacerbations of chronic inflammation suggesting a granulomatous inflammation caused by a specific tuberculosis process. (Figure 2)

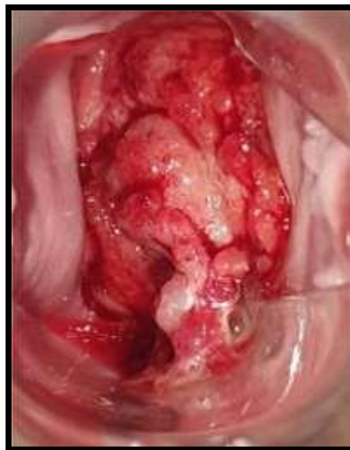

Figure 1. Cervical appearance on speculum examination before treatment

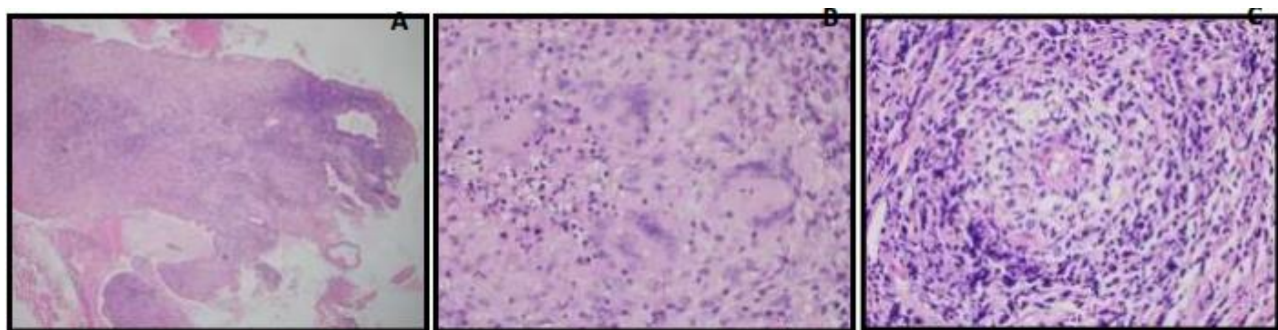

Figure 2. HPE of cervical biopsy showing caseating granulomas and Langhan's giant cells. (A. H&E stain 40x; B. & C. H&E stain 400x)

The conclusion of cervical tuberculosis was made. Anti-bacillary quadruple antibiotic therapy combining Rifampicin, Isoniazid, Pyrazinamide, and Ethambutol was conducted for 9 months. At nine months, the cervix had an almost normal appearance, and complains from the patient were lessened. (Figure 3)

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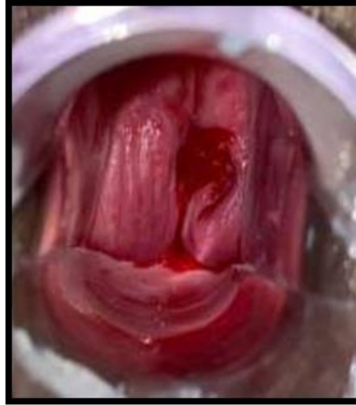

Figure 3. Cervical appearance on speculum examination after treatment

3. Discussion

Primary tuberculosis of the cervix is part of female genitalia tuberculosis, with a prevalence 5-24%, the fallopian tube is the most common genital tuberculosis (>95%), followed by the endometrium (50-60%), and the ovary (20-30%) [6]. Mostly genital tuberculosis is usually secondary to pulmonary focus. The infection of the cervix is spread either by hematogenous, lymphatic route or direct local extension from endometritis or tubercular salpingitis. In rare cases, cervical tuberculosis may occur by sexual contact with a partner who is affected by genitalia tuberculosis. Primary cervical tuberculosis may occur in extremely rare cases if a person sits on infected sputum [7]. In this case report, there is no personal history of tuberculosis and her partner also didn't have any obvious urogenital manifestation. Primary tuberculosis of the cervix is a very rare case and presented with vary symptoms that arenot specific to this disease and often diagnosed with cervical carcinoma because the symptoms are similar or even the same [3]. The symptoms that patients often complain about are amenorrhea, abnormal menstruation, infertility, vaginal discharges, post-coital bleeding, and postmenopausal bleeding.

The diagnosis of cervical tuberculosis is difficult clinically as the symptoms and physical examination always mimic malignancy. In the clinical presentation, it may be papillary, endophytic, exophytic, or ulcerative growth which may simulate cervical carcinoma [8]. In the present case, the patient with abnormal vaginal discharge and a history of post-coital bleeding, dyspareunia, and weight loss. The diagnosis of cervical tuberculosis is often established by histopathological examination of cervical biopsy specimens as happened in the present case. The presence of epitheloid cells and multinucleated Langhan's giant cells on the cervical cytology can suggest the tubercular etiology. Although the culture of mycobacterium is considered the gold standard for diagnosis, but in 30% of cases, the culture may be negative [8], [9]. Cervical tuberculosis usually responds to 6 months of standard anti-tuberculosis therapy.

This case emphasizes that though uncommon, tuberculosis is an important alternative in the differential diagnosis of carcinoma cervix. A high index of suspicion is required for a successful diagnosis of cervical tuberculosis, especially in developing countries.

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Statement of Ethics

Written informed consent was obtained from the patient for publication of this case report and any

accompanying images

Data Availability
The authors confirm that the data supporting the findings of this case report are available within the article.

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Author's Contribution
Andi Sitti Halija Diawanti as the corresponding author, collected data, analyzed data, and wrote. Nugraha Utama Pelupessy and Rina Previana collected data, analyzed data, and wrote.

4. REFERENCES

[1] Lamba, H., Byrne, M., Goldin, R., & Jenkins, C. (2002). Tuberculosis of the cervix: case presentation and a review of the literature. Sexually transmitted infections, 78(1), 62–63. https://doi.org/10.1136/sti.78.1.62

[2] National tuberculosis prevalence surveys, 2007–2016. Geneva: World Health Organization; 2021 (https://www.who.int/publications/i/item/9789240022430).

[3] Gupta A, Gupta MM, Mankatala U, Khurana N. (2014). Primary tuberculosis of cervix mimicking carcinoma: A rare case. J Midlife Health, 5(2):95-97. https://doi.org/10.4103/0976-7800.133999

[4] Kalyani, R., Sheela, S.R. and Rajini, M. (2012). Cytological Diagnosis of Tuberculous Cervicitis: A Case Report with Review of Literature. Journal of Cytology, 29, 86-88. http://dx.doi.org/10.4103/0970-9371.93242

[5] Turkmen, I.C., Bassullu, N., Comunoglu, C., Bagci, P., Aydin, O., Comunoglu, N., Gezer, A., Calay, Z. and Livan, S. (2012). Female Genital System Tuberculosis: A Retrospective Clinicopathological Study of 1548 Cases in Turkish Women. Archives of Gynecology and Obstetrics, 286, 379-384. http://dx.doi.org/10.1007/s00404-012-2281-y

[6] Sharma, N., Singh, A. S., Khonglah, Y., & Mishra, J. (2016). Primary Tuberculosis of Cervix: A Coincidental Finding. Journal of reproduction & infertility, 17(4), 247–249.

[7] Barmon, D., Kataki, A. C., Sharma, J. D., & Gharpholia, D. (2013). A case of cervical tuberculosis mimicking cervical carcinoma. Journal of obstetrics and gynaecology of India, 63(4), 285–287. https://doi.org/10.1007/s13224-012-0184-2

[8] Sabita, S., Sharmila, V., Arun Babu, T., Sinhasan, S. P., & Darendra, S. (2013). A Rare Case of Cervical Tuberculosis which Simulated Carcinoma of the Cervix. Journal of clinical and diagnostic research: JCDR, 7(6), 1189–1190. https://doi.org/10.7860/JCDR/2013/5460.3077

[9] Seth, A., Kudesia, M., Gupta, K., Pant, L., & Mathur, A. (2011). Cytodiagnosis and pitfalls of genital tuberculosis: A report of two cases. Journal of cytology, 28(3), 141–143. https://doi.org/10.4103/0970-9371.83477