A Case Report; Tuberculosis of the Vulva

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Abstract: Genital tract tuberculosis is usually secondary to haematogenous spreading from pulmonary or other nongenital tract foci. The most frequent sites of tuberculous involvement in the female genital tract are the fallopian tubes and endometrium, although the cervix and ovary also can be affected. The vagina and vulva are rarely involved. In this report, the authors present a case of chronic ulcerative lesion at the introitus. The patient was treated with various antibiotics, but the ulcer persisted. Tissue biopsy showed typical (classical) tuberculous granuloma and positive acid fast bacilli, which confirmed the diagnosis. Chest x-rays showed infiltration of the right upper lobe. It was planned to treat the patient with antituberculous drugs for 6 months. The result was very good after 6 weeks. In conclusion, this is an example of a rare form of genital tuberculosis, which had good response to antituberculous drugs after long-standing treatment of various antibiotics. Chiang Mai Medical Journal 2011;50(4):123-128.

Keywords: genital tract tuberculosis, tuberculosis of the vulva, antituberculous drug

As one of the oldest diseases known to affect humans, tuberculosis is caused by bacteria belonging to the Mycobacterium tuberculosis complex. The disease is usually classified as pulmonary or extrapulmonary. Genitourinary tuberculosis which accounts for about 15% of all extrapulmonary cases, may involve any portion of the genitourinary tract, and is usually due to haematogenous seeding following primary infection. Genital tuberculosis is diagnosed more commonly in females than males. In females, both fallopian tubes are involved in almost all patients with genital tuberculosis. About one half of patients with tuberculous salpingitis have tuberculous endometritis. Tuberculosis of the cervix is present in 5% of cases. It is uncommon for tuberculosis to involve the vulva and vagina, and is seen in only 2% of patients with genital tuberculosis. In this report, the authors present a case of chronic ulcerative lesion at the introitus or vaginal openings caused by Mycobacterium tuberculosis.
CASE REPORT

A 27 year old woman (gravid 4, para 4-0-0-4) came to a provincial hospital complaining of a chronic painful ulcer at the external genitalia over the previous 4 months. She had mucopurulent discharge from the vagina and dysuria. Her menstrual cycle was normal and she had no history of weight loss, chronic cough or infertility. She had suffered from pulmonary tuberculosis, but had been cured completely for 10 years. On general examination, she was afebrile, with no lymphadenopathy or other abnormalities. Pelvic examination revealed a large, indurated painful ulcer of 2x3x1 cm diameter at the introitus or vaginal openings, 4-6 o’clock (Fig. 1).

The ulcer had a granulating base and dirty yellow exudate. Minimal white discharge was seen in the vagina. The cervix looked normal, with a normal sized uterus, and there was no abnormality at either adnexae. Chest x-ray revealed a normal heart size, right upper lung fibropatchy infiltration, and no hydropneumothorax (Fig. 2).

VDRL and anti-HIV were negative. Fasting Blood Sugar was 109 mg/dL. Transabdominal and transvaginal ultrasonography were performed. The study revealed normal size of the uterus, no abnormal echoic density in either adnexae and no free fluid in the cul-de-sac. The patient was treated with various kinds of antibiotics such as doxycycline, ofloxacin etc., but the ulcer persisted.

Tissue biopsy at the ulcer showed focus of granuloma without necrosis (non-caseating granulomatous inflammation), with Langhans type giant cells, and many nuclei arranged in a horseshoe-like pattern around the periphery of the granulomatous foci, consisting of lymphocytes, histiocytes and epithelioid cells (Fig. 3). Acid fast bacilli (AFB) was found in the tissue section. Sputum and ulcerative discharge for AFB were negative. The patient was treated by standard antituberculous drugs. A six-month regimen included four drugs in the initial phase (isoniacid, rifampicin, isoniazid, and ethambutol).
ethambutal and pyrazinamide) followed by rifampicin and isoniazid in the continuation phase. This treatment was highly effective in this case, with no adverse reaction. After 6 weeks of treatment, the lesion at the right lung and genital ulcer improved (Fig 4) and treatment with antituberculous drugs was planned for 6 months.

**DISCUSSION**

Genital tract tuberculosis is usually secondary to hematogenous spreading from pulmonary or other nongenital tract foci. The most frequent sites of tuberculous involvement in the female genital tract are the fallopian tubes and endometrium, although the cervix and ovary also can be affected. The vagina and vulva are rarely involved. The underlying diseases are very advanced pulmonary, intestinal, or rarely, genitourinary tuberculosis. In patients with active genital disease, the vulva is involved. A small yellowish or reddish nodule appears on the mucosa and breaks down to form a soft circular or irregular ulcer with a typical punched-out appearance, and undermined edges. The surrounding mucosa is swollen, edematous, and inflamed. Lesions may be single or multiple and are extremely painful. The diagnosis of genital tuberculosis may be suspected from medical history, travel history, and a chest roentgenogram with evidence of healed pulmonary tuberculosis. The possibility of genital tuberculosis should be entertained when a positive history of one
or more of the following is obtained: family history of tuberculosis, previous tuberculosis, infertility, general malaise, adnexal mass in virgins, and chronic refractory adnexal disease. The clinical symptoms and signs should direct the clinician to diagnosis. However, the disease is so uncommon that it is seldom encountered in the gynecologist’s usual practice; therefore, the clinical index of suspicion is generally low. In many cases, the clinical presentation is obscure and the diagnosis delayed. Tiwari and coworkers suggested that re-emphasis of tuberculosis should be kept in mind when a particular symptom fails to respond to empirical treatment. Chakrabarti and coworkers reported that the clinic-pathological aspect of female genital tuberculosis showed typical (classical) tuberculous granuloma of 77.6%, atypical tuberculous lesions of 22.4% and AFB-positive in smear of 81.9%, whereas, AFB-negative was of 18.1%, with a positive culture. Buppasiri and coworkers reported a case of vulvovaginal tuberculosis presenting with a large chronic genital ulcer, and positive AFB staining on the tissue biopsy. In other reports, the frequency of female genital tuberculosis was low because demonstration of AFB (the most important criterion for diagnosis) was difficult. Syphilitic lesion, genital herpes, chancroid, and carcinoma were excluded.

In this case, the authors reported tuberculosis of the vulva, which occurred secondary to pulmonary tuberculosis, due to haematogenous spreading. The patient had been treated with various antibiotics such as doxycycline, ofloxacin etc, but the ulcer persisted. Tissue biopsy confirmed the diagnosis. The other internal genital structures were not evaluated thoroughly, especially via laparoscopy or endometrial biopsy. The most common site of genital tuberculosis is the fallopian tube followed by endometrium. Tuberculosis of the vulva and vaginal orifice is very rare, as in this case. However, the management might not change in these investigations. The authors suggest that, based on clinical estimation, severe disease in the internal structures was unlikely, since normal pelvic examination revealed no adnexal abnormalities, a history of good fertility and normal menstrual pattern. Treatment with antituberculous drugs was planned for a six-month regimen, including four drugs in the initial phase (isoniacid, rifampicin, ethambutal, and pyrazinamide) and rifampicin and isoniazid in the continuation phase. This treatment was highly effective with no adverse reactions. It should be noted, however, that all antituberculous drugs can cause adverse reaction. Isoniacid and rifampicin are both associated with hepatitis, cutaneous hypersensitivity and hemolytic anemia. Isoniacid may cause peripheral neuropathy. Pyrazinamide can cause anorexia, nausea, hepatitis, arthralgia and hyperuricaemia. Ethambutol is associated with retrobulbar neuritis, hepatitis and peripheral neuropathy. Therefore, close monitoring of visual acuity and liver function was performed, and the result of treatment was very good after 6 weeks. Combined therapy enhances compliance and reduces the risk of secondary drug resistance. Relapse after treatment is seen in about 1% of cases. Genitourinary tuberculosis responds well to antituberculous drugs.

In conclusion, this case signified that chronic ulcer of the vulva refractory responding to empirical antibiotics should address the possibility of tuberculosis. This is an example of a rare form of genital tuberculosis with good response to antitubercu-
Tuberculosis of the vulva

Tuberculous drugs after long-standing treatment of various antibiotics.

REFERENCES


วัณโรคที่ปากช่องคลอด

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บัทคัดย้อ: วัณโรคที่ปากช่องคลอดชั้นที่เกิดจากการกระจายไปทางกระแสเลือดมักจะพบการติดเชื้อปฐมภูมิจากปอดหรือจากอวัยวะอื่นๆ โดยพบติดเชื้อในส่วนที่ห้องน้ำและเหี้ยมในเมล็ดสุขภูมิที่.rbการจะพบได้ง่าย ส่วนช่องคลอดและปากช่องคลอดพบน้อยมาก รายงานผู้ป่วยหญิง 1 ราย ที่มีแผลรังควงที่ปากช่องคลอดที่ตำแหน่ง 4-6 นาฬิกาใต้บริเวณร่างกาย มีการรักษาด้วยยาปฏิชีวนะไม่ได้ผล ผลการตรวจเนื้อเยื่อพบว่าเป็นวัณโรคและพบว่ามีโรคหอใจวัณโรคในโปรดจังหวะได้รับการรักษาด้วยยาต้านวัณโรคตามเกณฑ์มาตรฐาน 6 เดือน ผลการรักษาแผลรังควงที่ปากช่องคลอดดีขึ้นมากภายในเวลา 6 สัปดาห์ ผู้ป่วยรายนี้เป็นตัวอย่างผู้ป่วยที่แสดงอาการแผลรังควงที่ปากช่องคลอดที่พบน้อยมากและตอบสนองการรักษาด้วยยาต้านวัณโรคเป็นอย่างดี หลังจากการใช้ยาปฏิชีวนะหลังนิดำไม่ได้ผล เชิงปยาธิวิทยา 2554;50(40):123-128.

คำสำคัญ: วัณโรคที่ปากช่องคลอด, เผื่อนโรคที่ปากช่องคลอด, ยาต้านวัณโรค