Case Report

Typical and unusual cases of female genital tuberculosis

E. Kulchavenya a,b,⁎, S. Dubrovina c

a Novosibirsk Research TB Institute, Novosibirsk, Russian Federation
b Novosibirsk Medical University, Novosibirsk, Russian Federation
c Federal State Institute “Rostov-on-Don Scientific Research Institute of Obstetrics and Pediatrics”, Rostov-on-Don, Russian Federation

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ABSTRACT

Tuberculosis is a disease with myriad presentations and manifestations; it can affect any organ or tissue, excluding only hair and nails. Doctors who are not familiar with extrapulmonary tuberculosis often overlook this disease. Urogenital tuberculosis (UGTB) is the second most common form of TB in countries with severe epidemic situation and the third most common form in regions with low incidence of TB. The term "Urogenital tuberculosis" includes kidney tuberculosis; male and female tuberculosis and urinary tract tuberculosis as complication of kidney tuberculosis. We describe rarest case of tuberculosis of a placenta in young woman, suffered from genital tuberculosis, which was overlooked before delivery, as well as typical tubo-ovarian tuberculomas.

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Tuberculosis is an ancient but still now an unsolved problem. World Health Organization (WHO) recognized tuberculosis (TB) as a global problem [1]. Urogenital TB (UGTB) is the second most common form of TB in countries with a severe epidemic situation and the third most common form in regions with low incidence of TB. Clinical features of UGTB are variable, UGTB mimics numerous other diseases that results in delayed diagnosis.

Female genital tuberculosis (FGTB) is not very rare but often underdiagnosed, overlooked disease. Mostly clinical features of FGTB are non-specific, and it may be as a reason for late diagnosis. Sabita et al. [2] reported a case of isolated cervical TB which mimicked carcinoma of the cervix. Jayprakash et al. [3] emphasized that in countries like India, where carcinoma of cervix is very common, cervical TB and cervical cancer are close in the diagnostic link. They reported a case of TB cervicitis (secondary to pulmonary TB) in a postmenopausal woman, who presented with a complaint of discharge per vaginum.

Massive uterovaginal prolapse with cervical lesion mimicking cervical carcinoma was described by Pei Shan Lim et al. [3] – and later FGTB was diagnosed in this patient. Vulval TB once was estimated as vulval carcinoma, and the patient underwent radical surgery, whereupon TB was found by histological investigation [4].

A postmenopausal woman with carcinoma of the breast in history, presented with bloody vaginal discharge, fatigue, weight loss. Histological examination of the endometrium, done based on the suspicion of a cancer, revealed a TB inflammation, and M.tuberculosis (Mt) was found as well [5].

Singh et al. [6] described two cases of tuberculous cervicitis with variable clinical presentation. In one case, a young woman presented with primary infertility and secondary amenorrhea. The other was a perimenopausal woman with irregular vaginal bleeding and postcoital blood-stained discharge. The diagnosis was confirmed by histopathological examination of the endocervical curettages and a cervical biopsy.

Vulval and vaginal TB presented extensive painful genital ulcers [7,8], even in a sexually inactive pubertal girl [9]. Tiwari et al. [10] reported a case of hypertrophic vulval TB of primary origin in a 26-year-old female patient. The diagnosis was mainly based on histopathological examination.

⁎ Corresponding author at: Novosibirsk Research TB Institute, 81-a Okhotskaya str Novosibirsk 630040 Russian Federation. Tel.: +7 383 2037989;
Fax: +7 383 20338578.
E-mail address: ku_ekaterina@mail.ru (E. Kulchavenya).

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A case of tubo-ovarian TB mimicking acute appendicitis was described by Akbulut et al. [11]. A 17-year-old woman presented with complaints of right lower quadrant abdominal pain, nausea, and vomiting; acute appendicitis was diagnosed. A cystic mass was detected on the right tubo-ovarian structure by laparotomy and was excised: TB was found by histology [11].

The same case IImre et al. [12] have presented. A 35-year-old human immunodeficiency virus seropositive woman complained of lower abdominal pain and fever for two days. She underwent surgery due to left adnexal mass suggesting pelvic inflammatory disease. The peritonitis provoked by a tubo-ovarian abscess on the left side was found. Histopathological evaluation identified TB salpingitis and Mtb was found by polymerase chain reaction (PCR).

Our first case demonstrates a typical scenario of FGTB. A 29-years-old woman presented with a history of 11 years infertility and of Trichomonas vaginalis and Chlamydia trachomatis infections last year. She had no fever or weight loss. She had no past or family history of TB. Her pelvic ultrasound examination revealed paraovarian cysts near fallopian tubes. The size of left cyst was 18.7 mm × 9.9 mm, right cyst was 16.7 mm × 12.2 mm. The patient underwent laparoscopy, and extensive changes in the ampullary region of both tubes were found (Figs. 1–3). The uterus was displaced to the left because of the peritoneal adhesions in the Douglas’s Pouch (Fig. 4).

Histology revealed the cicatrical and adherent form of FGTB. Mtb was found in the tubal samples by PCR.

Two cases of congenital TB were reported by Das et al. [13]. Case one presented at 12 days of age. The mother had been symptomatic for TB in the first trimester but was not diagnosed until her infant developed symptoms. The infant’s gastric aspirate was acid-fast-bacilli (AFB)-positive and Mtb – culture-positive. PCR on the gastric specimen and mother’s sputum demonstrated identical strains. Case two presented at 45 days of age and the gastric aspirate was both AFB- and culture-positive. The mother was asymptomatic and contact-tracing of the family failed to detect infection. However, FGTB was found on an endometrial biopsy [13].

Agrawal et al. [14] described the case of a male preterm baby who had congenital miliary TB with multiple intestinal perforations. Exacerbation of latent genital TB during in vitro fertilization and pregnancy was described by Huang et al. [15].

Dadhwal et al. [16] reported a case of TB flare in a 28-years-old nulliparous woman following endometrial aspiration, which drained 30 ml pus. Following this, high-grade fever and pain in abdomen with rigidity had appeared. PCR was positive for Mtb and histopathology showed necrotizing TB endometritis. She also showed features of chronic TB meningitis [16].

Our second case demonstrates an extremely rare case of TB of placenta in young woman, suffered from genital TB, which was overlooked before delivery. This woman had no any contact with TB infection, had no history of TB, had no any complaints before pregnancy and had no special complaints during her pregnancy. The delivery was normal with healthy baby. In Russian Federation
the investigation of the placenta is standard approach, and TB inflammation (Fig. 5) and Mtb in the placenta (Fig. 6) were surprisingly revealed.

This woman got sick with TB in time of pregnancy – but her organism mobilized all reserves and localized TB inflammation in placenta only; the baby left well. In 3 months the calcification was found in the left ovary that was estimated as a sign of mother’s self-recovery.

**Conclusion**

Actually UGTB is not rare disease – but it is often overlooked disease. The main reasons for delayed diagnostic are two: vague clinical features and low index of suspicion. We cannot ignore UGTB. UGTB is an infectious contagious disease, and it is one of the most reasons for infertility. It is necessary to use all arsenals of bacteriology and histology to confirm UGTB.

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