



Vaginal tuberculosis as differential diagnosis of cancer: A case report

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ABSTRACT

Tuberculosis remains a worrying public health problem. But if pulmonary tuberculosis's symptomatology is well known by the medical profession, this is not the case of genital tuberculosis. We take advantage of a case of vaginal tuberculosis to review the international literature about clinical diagnosis, further tests, and treatment of this extremely rare tuberculosis localization.

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1 Introduction

Nowadays, tuberculosis is still a public health problem in the world, especially in developing countries. If the pulmonary form is well known, genital tuberculosis is rare and represents only 9% of extrapulmonary tuberculosis cases [1,2].

Because of the scarcity of this localization, the semiology is little known. Most of the time, genital tuberculosis is asymptomatic or associated with some non-specific symptoms, which increases the difficulty of the diagnosis.

After all, an understanding of this pathology is important in Europe, where immigrant women are mainly affected. The higher number of cases in this population can be explain by precarious living conditions and little social security coverage leading to a non optimal medical follow-up.

We present here a case of vaginal tuberculosis, which represents less than 2% of cases of genital tuberculosis [3–7] and poses problem of differential diagnosis with tumors. The main goal is to give readers the keys to don't miss the diagnosis.

2 Case report

Our patient was a 55 years-old postmenopausal woman. She came to the gynecology department with complaints of bearing down and vulvar itching.

About her life style, it was a single woman working as home help and smoking 8–10 cigarettes per day. She weighted 41 kg and measured 1,58 m.

There was no notion of tuberculosis contact. She travelled only in Tunisia (last trip in 2012).

In her medical background we found a bifid kidney, a hysterectomy in 2016 (for fibroma), 1 delivery in 1993 and 2 abortions. Her first periods appeared at 12 and her menopause at 51 years old. The last Pap smear, done in 2016, was normal.

During the interrogation, she reported an alteration of the general condition (weightloss, asthenia) associated with cough and serous sputum since 1 or 2 years. She also suffered from pelvic pain, vulvar itching or burning, vaginal discharges, urinary frequency and burning.

The global examination (neurological, cardiological, pulmonary, breast and abdominal) was normal. At the pelvic floor, vulva seemed intact but the anterior surface of vagina and cervix was inflammatory. We practiced a Pap smear and vaginal biopsies.

The vaginal touch revealed an indurated and painful mass (Fig. 1). There was one inguinal lymph node palpable.

Concerning complementary exams: the pap smear was normal and vaginal biopsies revealed ulcerative cervicitis lesions with partially necrotizing gigantocellular epihtelioid granuloma. There was no atypical or dysplastic lesions associated (Fig. 2).

Please note that in our case, the diagnostic had probably been delayed because the operative report of hysterectomy in 2016 mentioned a non-necrotizing gigantocellular epihtelioid granuloma, evoking sarcoidosis in the first place.

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Fig. 1. Inflammatory mass at the local examination.

Search for BK by culture and PCR was positive on vaginal biopsies and urinary sample; it revealed a Mycobacterium of the tuberculosis complex.

We searched for a pulmonary damage associated: direct examinations on sputum, gastric tubage and bronchoalveolar lavage were negative. During the bronchial fibroscopy, we did not see any ENT chain or bronchial tree abnormalities.

The biological checkup was normal except a minim inflammatory syndrome (CRP at 35 mg/L and leucocytes at 10,6 G/L). ELISPOT® test was positive unlike HIV, HCV and HBV test.

Extension had been assessed using a TAP scanner: it revealed a right lobar mass with spicules, multiples bilateral micronodules, diffuse emphysema and a thickening of the interlobular septa (Fig. 3). There was no anomaly on the pelvic floor.

The treatment of our patient had been sequential with: 5 weeks of quadritherapy (Isoniazid 50mg*4/day + Rifampicin 120mg*4/day + Pyrazinamide 300mg*4/day + Ethambutol 500 mg/day); then 5 weeks of tritherapy (same doses without ethambutol - stopped because we suspected a peripheral neuropathy); and lastly 4 months of bitherapy (Isoniazid 50mg*2/day + Rifampicin 120mg*2/day).

After 3 months of treatment, we noted a normalization of the gynecologic examination with regression of the vaginal mass. In the same time, a new scanner has been done to control the lung lesion: we found a progression of the right lobar mass. Biopsy revealed an adenocarcinoma, treated by surgery - radiotherapy and chemotherapy.

3 Discussion

Underestimate and barely mentioned, female genital tuberculosis (FGTB) is generally a difficult and delayed diagnosis.

The lack of precision about her incidence in Europe (and in France) is due to underreporting cases, asymptomatic forms and imprecise symptomatology. Some studies suggest that FGTB represents 0,05 à 1% of all tuberculosis cases. Vaginal localization is the rarest one [8].

Despite all, the knowledge of this pathology seems important. Indeed with the increase of immigration and the lower vaccination coverage, a resurgence of FGTB can be expected in Europe in the coming years.

Concerning the semiology, we can differentiate two groups : affection of the upper genital tract (especially fallopian tubes and endometrium but also ovaries and uterus) and affection of the lower genital tract (especially cervix but also vagina and vulva) [3,4].

First group, the most common in developing countries, causes fertility problems, pregnancy losses, menstrual irregularities or abdominal pain.

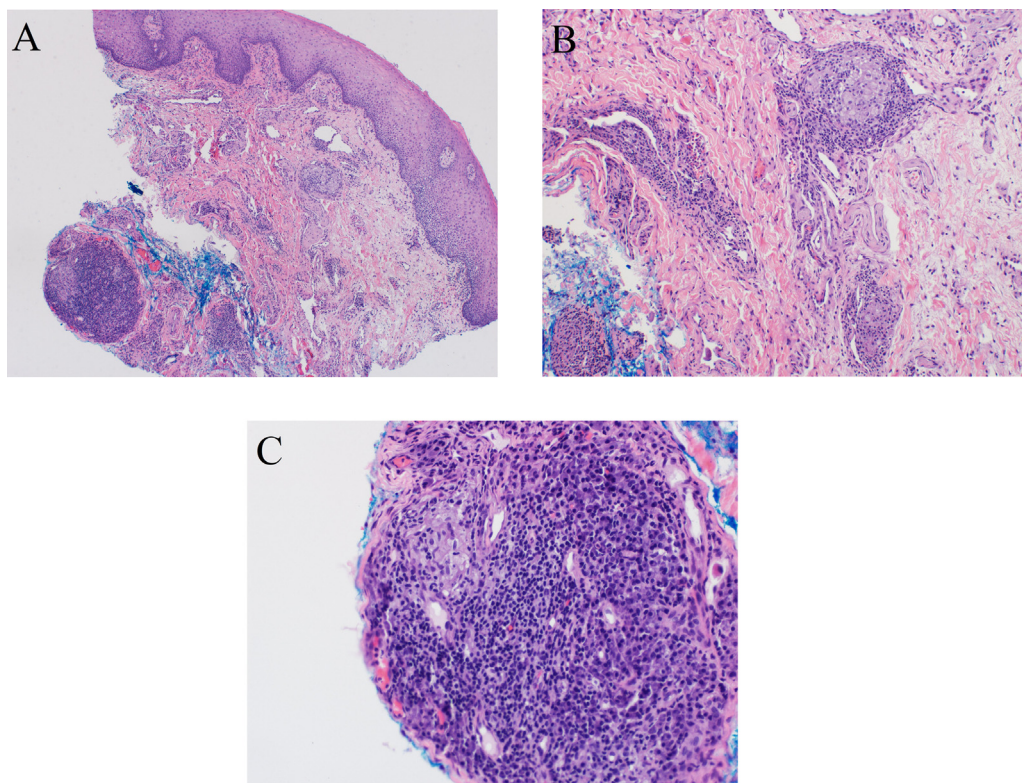


Fig. 2. Partially necrotizing carcinoma.

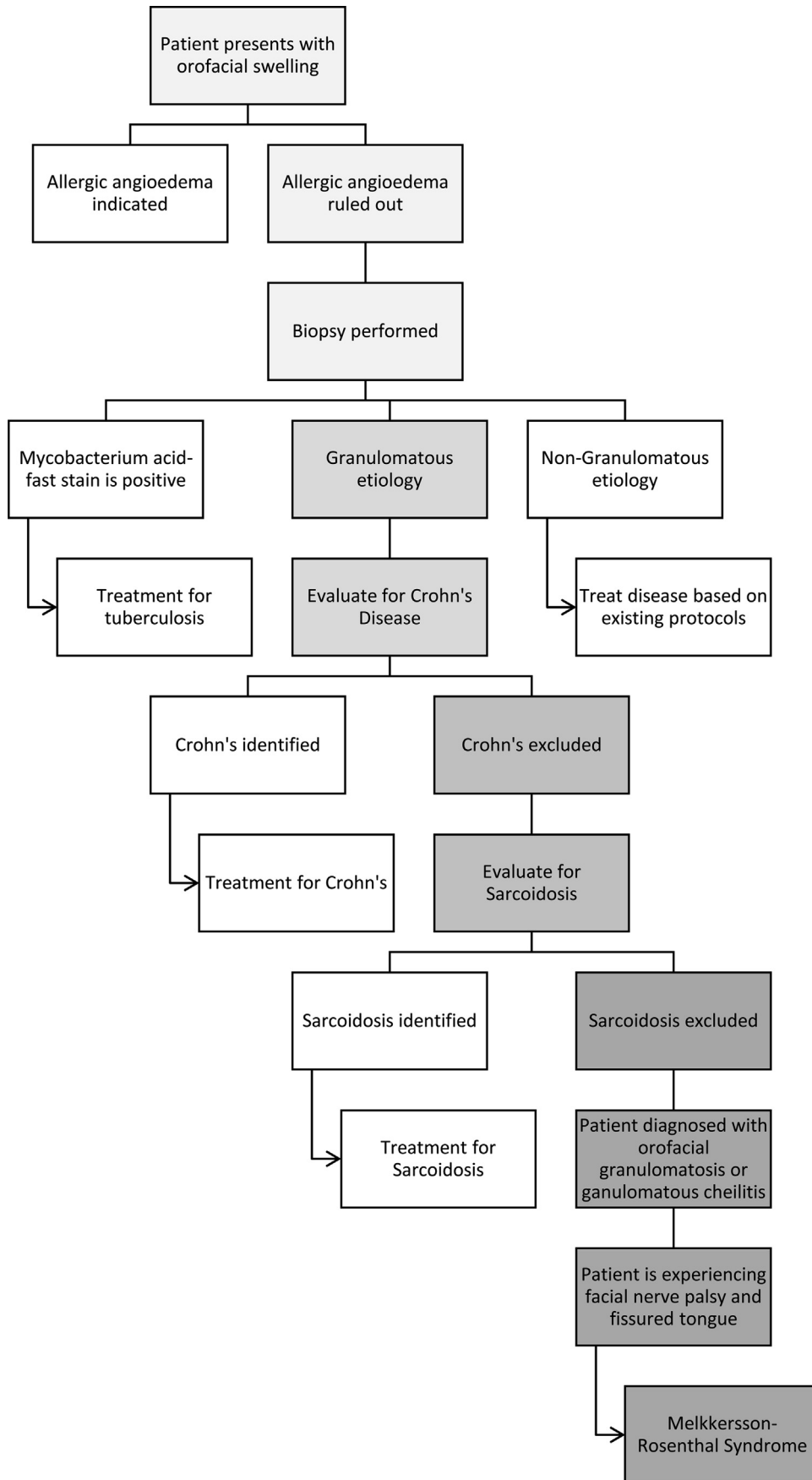


Fig. 3. Visualization of mass with spicules, micro nodules and emphysema at TAP-TDM.

The second one, rarest, can be responsible for local ulcers, persistent leucorrhoea, pyometra, post coital bleeding, vaginal and vulvar itching or discharges [5–7].

The average age of onset is about 30–40 years old. After incidental finding, the most common means of revelation are infertility work-up, chronic pelvic painful syndrome and macrolesional forms. We must retain that the gross appearance is varied and unspecific [5–7].

The gravity is due to genital consequences as infertility.

FGTB is most of the time secondary to extra genital TB lesion (especially lung) and the two common ways of autoinoculation are hematogenous or direct spread [9].

So, it's necessary to evoke the diagnosis if a patient presents genital symptoms associated with pulmonary symptoms (prolonged cough, dyspnea, bloody expectoration), hematuria, altered general state (weight loss, fever) or typical circumstances of extragenital tuberculosis (immunodepression, travel in endemic area, migrant, undernourished, precariousness, background of tuberculosis, background of bladder cancer treated by instillation of BK . . .).

In the vaginal form, isolation of mycobacterium from local biopsy is the gold standard to make the diagnosis ; but presence of typical granuloma suggests BK and imposes to research it [10,11].

The anatomopathology also help to exclude differential diagnoses as invasive cancer (most frequent in post-menopausal women), ulcer or others granulomatous diseases (amoebiasis, schistosomiasis, brucellosis, tularemia, sarcoidosis) [7,10,11].

Diagnosis of vaginal tuberculosis implies an extended assessment with thoracic scanner (caves lung), hemoculture (miliary), bronchiolo alveolar wash (to check the infectiousness) and research of immunodepression (HIV testing) [9].

The others investigations depend on the symptoms: others biopsies, fibroscopy, urine collections, abdominopelvic scanner, etc [12].

As in the pulmonary form, it's recommended to inform the health authorities mandatory who judge the necessity of search around the contact subject. In this case, they didn't screen family members because our patient wasn't contagious.

About the treatment, scientific literature is quite consensual and recommends in first intention 2 month of Rifampicine + Isoniazide + Pyrazinamide + Ethambutol ; then Rifampicine + Isoniazide during 4 months [12]. In most of cases, patients respond well to this quadrytherapy. In the opposite scenario, the medical treatment can be extended ; and if it's not sufficient after 9 month, we can propose surgery [13,14].

According to OMS recommendations, this antituberculous are not contraindicated during pregnancy.

The follow up of FGTB is not well defined and depends on the localization of this affection. In case of vaginal tuberculosis, it's important to check the regression of the lesion during the treatment. After that, a gynecological examination at least annually seems appropriate to detect an eventual local recurrence.

Declaration of Competing Interest

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