Letter to the Editor

Cervix tuberculosis simulating cancer

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Sir,

We present the case of a woman with cervical tuberculosis with an initial suspicion of cervical cancer, who was admitted into a third-level hospital in Madrid for evaluation. A 36 years old patient born in Philippines had been living in Spain for 5 years. Neither did she or her family have any relevant medical history and had not been ever pregnant. She had three sexual partners and did not take any contraceptive measures. She had never undergone cervical smear tests. The patient presented with irregular menstruation, coital bleeding since 2 years and no other symptoms. Gynaecological examination (figure 1A) showed normal external genitalia and vagina. A 4 cm large irregular friable growth that bled on touch was found at the cervix. The mass spread over the whole cervix and reached the vaginal border. On bimanual palpation, the uterus was movable and non-tender. Rectal examination was normal. Gynaecological ultrasonography (figure 1B) showed a 32 mm long cervix containing a hypoechoic image with a diameter of 1.5 cm and increased vascularization. No peritoneal fluid was detected. On colposcopic examination (figure 1C-1D), the cervical orifice was not to be found since it was hidden by an exophytic mass with increased vascularization spreading over the whole cervical circumference although not reaching vaginal tissue. Suspecting cervix cancer, biopsy samples were obtained for histological analysis. Microscopic examination with haematoxylin-eosin stain (figure 1E) showed multiple fragments of mucosa and endocervical glandular epithelium with frequent epithelioid granulomas with Langhans giant cells and no caseous necrosis. Ziehl-Neelsen stain (figure 1F) showed acid-fast bacilli. PCR-amplification of the *proB* gene region for *Mycobacterium tuberculosis* DNA detection was performed and was positive. Endometrial aspiration biopsy showed multiple fragments of endometrial mucosa with epithelioid granulomas with Langhans giant cells and no caseous necrosis, compatible with tuberculotic granulomatous endometritis. Abdominopelvic CT-scan did not show radiologically pathologic nor suspicious lymph nodes. Both the uterus and its appendages showed no remarkable alterations. The rest of the study was completed, including a chest X-ray with no findings and negative sputum cultures. Therapy with a daily regimen of isoniazid, pyrazinamide, rifampicin and ethambutol was initiated. The patient completed the therapy with good tolerance and without any signs of relapse during one year of follow-up. Afterwards, she reported no coital bleeding and the cervix had a normal appearance on colposcopic examination.

Female genital tuberculosis is an important cause of morbidity. It is difficult to calculate the real incidence, since it usually is diagnosed incidentally during the course of infertility evaluations. Among women, genital tuberculosis represents 5-10% of the non-pulmonary cases. Uterine tubes are involved in 90-100%, endometrium in 50-80% and ovaries in 20-30% of cases. Cervical involvement appears in 5-15% of all cases of female genital tuberculosis, i.e. 0.1-0.65% of all tuberculosis cases[1]. Infertility is the most common manifestation. The most usual symptoms are pelvic pain, abnormal vaginal bleeding and amenorrhea. In cases of cervical involvement, it may simulate malignant neoplasms[2-4]. The gold standard for diagnosis is the isolation of *M.* tuberculosis in cultures, but they are negative in up to one third of cases. Nonetheless, the presence of granulomas on histological examination is highly suggestive[1]. PCR-assays may be useful in cases with negative cultures[2]. In conclusion, the incidence of genital tuberculosis varies according to the different countries and it is proportional to the total number of cases of pulmonary tuberculosis. Cases of cervix tuberculosis simulating cancer have been communicated in high-incidence areas, the vast majority in India[2-4]; cases communicated in Europe are exceptional[5]. Because of this, in the occidental country scenario, cervix tuberculosis should be ruled out in female immigrants from countries with high incidence of tuberculosis.

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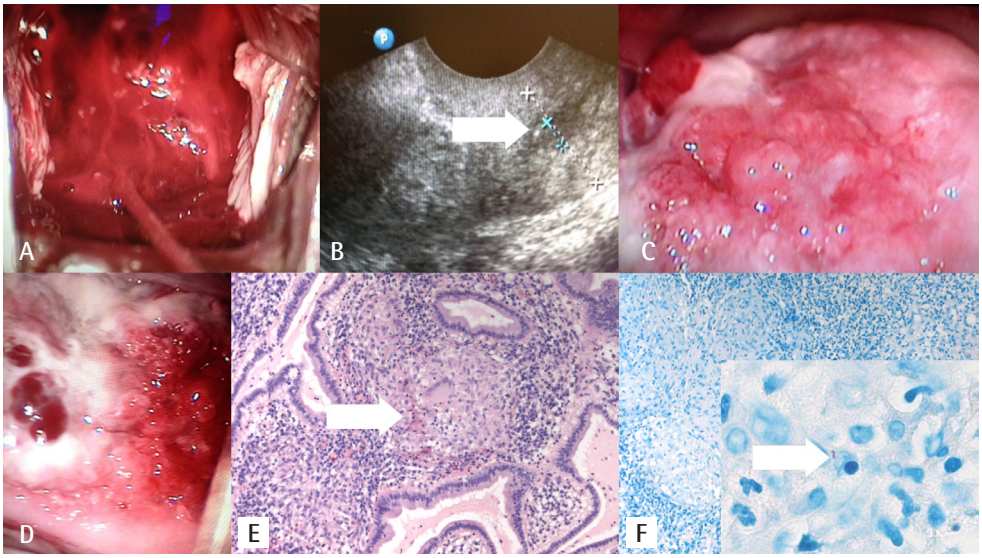

Figure 1 **Cervix tuberculosis simulating cancer. (A) Gynecological examination 4 cm large irregular friable growth that bled on touch was found at the cervix. (B) Gynecological ultrasonography showed a 32 mm long cervix containing a hypoechoic image with a diameter of 1.5 cm and increased vascularization. (C-D) Colposcopic examination the cervical orifice was not to be found since it was hidden by an exophytic mass with increased vascularization spreading over the whole cervical circumference. (E) Microscopic examination with hematoxylin-eosin stain showed multiple fragments of mucosa and endocervical glandular epithelium with frequent epithelioid granulomas with Langhans giant cells and no caseous necrosis. (F) Ziehl-Neelsen stain showed acid-fast bacilli.**

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