Case Report

Cutaneous Tuberculosis in HIV Infected Patient

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Abstract

The presence of cutaneous miliary tuberculosis in the AIDS era emphasized the importance of having a high index of suspicion for this condition in HIV-positive patients with skin lesions and advanced immunodeficiency. We report a 38 year-old male patient, diagnosed with HIV infection that developed disseminated tuberculosis in chest, abdomen and skin. While pulmonary symptoms improved under antituberculous drugs, skin lesion showed positive cultures for 6 months. He was healed after 12 months of treatment.

Keywords: Miliary tuberculosis; AIDS; Tuberculous gumma

Background

Tuberculosis has become more frequent since the emergence of HIV infection epidemics. Nowadays, there are important challenges, which complicate the management of HIV-TB co-infected patients. Among them, it is emphasized the increase of disseminated and extra-pulmonary tuberculosis forms, the multi-drug resistance and the increase in mortality.

Case Report

A 38 year-old male patient was diagnosed 6 months ago with HIV infection. One month later he was admitted at the hospital with intermittent fever. At admission, the patient complained of asthenia, anorexia and important weight loss (5 kg), deshydration and fever (39º). Crackles were audible over both pulmonary bases. The exam revealed hepatosplenomegaly and a red gummatous lesion of 4 cm of diameter developed on the internal surface of the left arm (Figure 1). Lymphadenopathy was absent and the blood pressure was normal. The laboratory tests showed a normal blood count (10 × 10⁹/L), hemoglobin 100 g/l, a high C reactive protein (100 mg/l; normal: 0-9 mg/l), liver tests and kidney function were normal.

HIV viral load was 40,000 copies/mm³ and a decreased CD4 cells (300/mm³). Tuberculin test was negative. Acid-fast bacilli and culture results of sputum were negative.

A chest plain radiograph showed micronodular miliary. Thoracic MRI showed disseminated micronodular lesions. Abdominal MRI revealed ascitis, necrosed retroperitoneal adenopathies. The material collected from the skin lesion was studied for histopathology patterns, bacterioscopy and culture studies. Ultrasound confirmed a subcutaneous structural alteration on the internal surface of the left forearm with 04 cm in size. Skin histopathology studies revealed hypercanthosis of the reticular dermis and mild infiltrate of lymphocytes around vessels and skin adnexa. Aspirated secretion from the lesion was negative for acid-fast bacilli. Culture studies revealed growth of mycobacterium tuberculosis.

Quadruple therapy with ethambutol, rifampin, isoniazid and pyrazinamide was started. After 3 months, there was a remarkable improvement in the patient’s general condition. Pulmonary symptoms improved under antituberculous drugs. Skin swabs showed positive cultures for 6 months. Two antibiograms did not disclose any resistance to tuberculostatic drugs. The patient was healed after twelve months of treatment.

Discussion

Cutaneous tuberculosis is unusual in industrialized countries, most reports coming from developing countries [1,2]. The incidence of cutaneous tuberculosis has been reported to range from 0.15% to 0.26% [3]. Ravolamanana revealed that cutaneous tuberculosis occurred in 04.7% of extra-pulmonary manifestations of tuberculosis [4]. But the number of cutaneous tuberculosis observed in the north of Ethiopia, by Terranova [5], indicated a high incidence of the disease in the region. Terranova had identified 202 cases of cutaneous tuberculosis in the period of 34 months in the north of Ethiopia. 22% were HIV positive. Cutaneous tuberculosis is under diagnosed due to the low number of dermatologists and the poor life conditions in the population. Also, cutaneous tuberculosis diagnosis is difficult because of clinical polymorphism. Cutaneous manifestations are common in the HIV positive population and few lesions are biopsied [6]. The tuberculous gumma had been described during cutaneous tuberculosis. Kummar has found 05.4% of tuberculous gumma [2].

Figure 1: Tuberculous gumma

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Cutaneous tuberculosis is quite unusual. HIV infection can favor dissemination and delay the microbiological and clinical responses. However, prolonged treatment with antituberculous drugs may be needed

**References**


