Genital Infection Due to Mycobacterium genavense in a Patient with AIDS

In 1993, a new species named Mycobacterium genavense, which is responsible for disseminated infections in patients with AIDS, was described [1]. M. genavense infections have been associated with extreme immunosuppression and are clinically similar to those induced by the Mycobacterium avium complex (MAC) except for a certain organotropism for the small intestine, spleen, and liver [2]. We present here the first case of M. genavense infection of the external genitalia in a patient with AIDS.

A 25-year-old female drug addict was found to be HIV-seropositive in 1984. The patient was extremely immunocompromised, with a CD4 lymphocyte count of 0.020 × 10⁹/L. In April 1992, she presented to our infectious department because of chronic diarrhea, fever (temperature, 37.8°C), generalized cutaneous pruritus, and significant weight loss. Physical examination revealed hepatosplenomegaly, a right inguinal lymph node, and leukorrea. The vaginal cavity was normal, but papular and warty lesions infiltrated the right labium majus pudendi.

Histological investigation of specimens from the genital lesions showed focal necrosis and an extensive granuloma infiltrated with foamy histiocytes, lymphocytes, and giant cells filled with short acid-fast bacilli (AFB). Mycobacterial culture of blood (Isolator, Merck, Darmstadt, Germany), stools, sputum, and urine on both Löwenstein-Jensen medium and Septi-Chek medium for AFB (Roche Diagnostic Systems, Basel, Switzerland) remained negative. Only culture of a genital tissue specimen on Septi-Chek medium yielded growth. Phenotypic study and determination of the 16S rRNA gene was performed to precisely identify M. genavense [3]. Sequencing of one DNA fragment amplified with primers that are specific for gram-positive bacteria with high levels of guanine and cytosine was performed; this strategy excludes many perineal bacteria and reduces the time of screening for clones [4]. Molecular cloning techniques revealed no evidence of a mixed mycobacterial infection [5]. The partial 16S rRNA gene sequences from selected clones were identical to that from M. genavense, (×60070, EMBL, United Kingdom) [6].

Antibiotic therapy with rifabutin (300 mg/d), clofazimine (600 mg/d), clarithromycin (1,000 mg/d), and ethambutol (1,000 mg/d) was added to the therapeutic regimen because of fever, more weight loss, and abdominal pain. In April 1993, bulky mesenteric adenopathy was discovered. Histopathologic study of a specimen showed many short AFB associated with epithelioid cells. Clofazimine therapy was started again, and after 9 months of therapy, the abdominal mass decreased. As of May 1994, no other infectious conditions had been noted, and studies for mycobacteria were negative.

The vulvar location of M. genavense infection is unusual [7]. Only one study reported an autopsy finding AFB in the skin of a patient with disseminated M. genavense infection [8]. Clinically, the mucous lesions were not specific, and the main differential diagnosis was squamous cell carcinoma. M. genavense has been reported to be fastidious, but isolation of pure growth was possible on Septi-Chek medium for AFB. The optimal antibiotic therapy for M. genavense infection is difficult to define because it is a rare infection. M. genavense is susceptible to clarithromycin [9], but in our case, the addition of clofazimine was required for effective therapy.

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References