CASE REPORT

Dental abscess as an initial presentation of tertiary syphilis: A case report

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Introduction

Syphilis, caused by the sexually transmitted spirochete Treponema pallidum, often occurs as a coinfection in HIV-infected patients. Recently, syphilis prevalence has increased in the United States. We report a case of oral gummata presenting as a dental abscess in an HIV-infected 25-year-old MSM with no prior history of syphilis.

Case Report

A 25-year-old, African-American MSM, recently diagnosed with HIV infection, was hospitalized with a 3-month history of right-sided facial swelling and dental abscess, not responding to antibiotics. On physical examination, he had mild trismus, right buccal induration without tenderness, and exudative changes of the right upper molar. He was neurologically intact with normal mental status. Computed tomography of the facial bones revealed a large defect in the floor of the right maxillary sinus with extensive opacification of the right maxillary sinus and a soft-tissue density extending through the maxillary floor defect into the adjacent soft tissues, indicating possible chronic osteomyelitis with bony destruction and the possibility of malignancy [Figure 1a and b]. Laboratory studies included HIV viral load (120,740 copies/ml), CD4 count (90/µL), negative cytomegalovirus, and toxoplasma antibodies. The patient’s rapid plasma reagin was positive at 1:512 dilution with positive confirmatory fluorescent treponemal antibody absorption test. Surgical exploration of the suspected abscess identified a 5-cm ulcerated mass eroding into the right maxillary sinus. Tissue gram stain and culture of the mass revealed only mixed oral flora. Pathology revealed acute and chronic inflammatory granulation tissue, and the Warthin–Starry stain identified rare microorganisms, suspicious for spirochetes. Our patient was treated for tertiary syphilis with intramuscular benzathine penicillin G injections weekly for 3 doses. At 1-month follow up, the patient was symptom-free.

Discussion

Gummatous lesions are characteristic of tertiary syphilis and are often associated with AIDS and other sexually transmitted diseases (STDs). Any organ can be affected. Oral lesions usually involve the midline of the palate, tongue, or tonsils; however, our case demonstrates perforation into the maxillary sinus.3,4 While the gumma represents a granulomatous inflammatory response to spirochetes, these are rare in gummas and Warthin–Starry staining may only identify few spirochetes if at all, making the diagnosis challenging.5,6 We emphasize that syphilitic gumma should be considered in the differential of large nontender indurated oral lesions unresponsive to typical

Abstract

Recognize syphilis as a re-emerging disease, especially in the presence of HIV. Syphilis, caused by the sexually transmitted spirochete Treponema pallidum, often occurs as coinfection in HIV-infected patients, and its prevalence has increased in the United States. We report a case of oral gummata presenting as a dental abscess in an HIV-infected 25-year-old MSM with no prior history of syphilis. The patient’s rapid plasma reagin was positive at 1:512 dilution with positive confirmatory fluorescent treponemal antibody absorption test. Surgical exploration of the suspected abscess identified a 5-cm ulcerated mass eroding into the right maxillary sinus. Tissue gram stain and culture of the mass revealed only mixed oral flora. Pathology revealed acute and chronic inflammatory granulation tissue, and the Warthin–Starry stain identified rare microorganisms, suspicious for spirochetes. Our patient was treated for tertiary syphilis with intramuscular benzathine penicillin G injections weekly for 3 doses. At 1-month follow up, the patient was symptom-free.

Keywords: Gumma, HIV infection, spirochetes, tertiary syphilis
antibiotics for odontogenic infections, especially in a patient with concurrent STDs. Coinfection with HIV is associated with rapid progression to tertiary syphilis as little as several months.

Conclusion
Syphilis is a re-emerging disease in HIV-infected individuals and should be considered in the differential diagnosis of atypical oral lesions unresponsive to antibiotics.

Clinical significance
Coinfection of HIV is associated with rapid progression of syphilis. It is imperative to include syphilis in the differential diagnosis of HIV-infected patients presenting with atypical oral lesions. This case illustrates the need to recognize the increased prevalence of syphilis in HIV-infected patients and its rapid progression into tertiary syphilis.

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References