Our Dermatology Online

Case Report

Remember the great imitator 'syphilis' in oral lesions

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ABSTRACT

Syphilis is an infectious disease characterized by various mucocutaneous and systemic findings. It can mimic many other diseases. Therefore, syphilis is known as 'the great imitator'. It remains a public health problem especially in developing countries. Treatment of the early stages of syphilis is fast, easy and effective. However, it can result in serious complications if left untreated. Therefore, early diagnosis is crucial. Hereby, a 30-year-old Caucasian female with an oral syphilis who had previously been misdiagnosed was presented. Syphilis can be easily misdiagnosed in patients with oral mucosal lesions. It should be considered in the differential diagnosis of other intraoral diseases.

Key words: Mouth mucosa, Penicillin G benzathine, Syphilis

INTRODUCTION

Syphilis is a systemic disorder caused by the spirochete Treponema pallidum. Syphilis remains a serious global health problem. However, Africa and low-income and middle-income countries have a high incidence and prevalence of the disease. Syphilis usually presents with several clinical manifestations. Local inflammatory response to the spirochete has been implicated as the cause of varied presentations of syphilis. The diagnosis is usually made based on clinical findings and serological tests. Dark field microscopy, immunohistochemistry, fluorescent antibody staining and polymerase chain reaction can be used as direct diagnostic methods [1].

CASE REPORT

A 30-year-old Caucasian female presented with a three-month history of an asymptomatic lesion on the oral mucosa. The patient was treated with nystatin oral suspension 500.000 units four times a day and 0.1% triamcinolone acetonide in orabase three times a day for two weeks previously. However, no clinical improvement has been achieved. Dermatological examination revealed a mucosa-colored, annular, infiltrated plaque and linear erythema on the left side of the hard palate (Fig. 1). The past medical history was unremarkable. Laboratory tests including complete blood count, chemistry panel, serum vitamin B12, folate, ferritin, zinc and thyroid-stimulating hormone levels were all in normal limits. Serum IgM antibodies for *Herpes simplex virus* type-1 (HSV-1) and HSV-2, serum levels of hepatitis B surface antigen, antibodies against hepatitis C virus, hepatitis B virus and human immunodeficiency virus were negative. However, serologic testing for syphilis revealed positive Venereal Disease Research Laboratory (VDRL) at a titer of 1:2560 and *Treponema pallidum* haemagglutination (TPHA). The patient was diagnosed with secondary syphilis based on clinical and laboratory findings. She was treated with a single dose of benzathine penicillin G (BPG) 2.4 million units (MU) intramuscularly. No adverse effects have been observed after therapy. The lesion started to regress within two days (Fig. 2). Therefore, the patient was advised to make a follow-up appointment four weeks later to evaluate the clinical and serological response to treatment.

DISCUSSION

Syphilis usually presents with an anogenital ulcer termed as chancre. Then the stages develop with various mucocutaneous and systemic findings in untreated infected individuals [2]. Dermatological symptoms

How to cite this article: Tamer F. Remember the great imitator 'syphilis' in oral lesions. Our Dermatol Online. 2018;9(4):397-398.
Submission: 20.01.2018; **Acceptance:** 30.03.2018
DOI:10.7241/ourd.20184.8

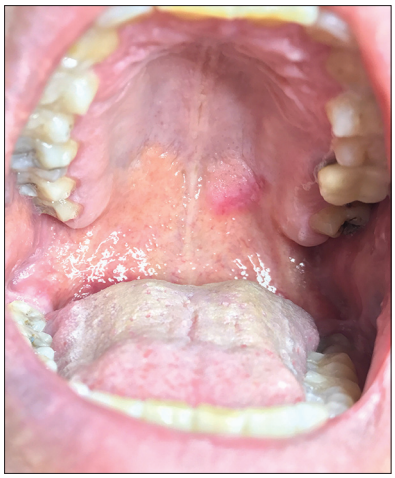

Figure 1: Erythematous plaque on the left side of the hard palate.

Figure 2: The lesion regressed in two days after penicillin injection.

include single, painless, indurated genital ulcer, regional lymphadenopathy, widespread maculopapular rash, palmoplantar rash, alopecia, buccal and lingual patches, condylomata lata and granulomatous lesions with central necrosis [3].

Oral manifestations of syphilis can also be various. Primary syphilis can present with ulceration of the tongue dorsum, erythema, edema, petechial hemorrhage and chancre. Secondary syphilis is characterized by mucous patches. They are slightly raised, oval ulcers with an erythematous border and overlying gray membranous exudates. Chronic, destructive lesions occur in tertiary syphilis. The tounge is usually atrophic, fissured and has a leukoplakic plaque over it [4]. Therefore, the diagnosis of syphilis is not always easy. It should be kept in mind in the differential diagnosis of other intraoral diseases like tuberculosis, histoplasmosis, squamous cell carcinoma, herpetic and fungal infections [4].

The new insights on the management of early syphilis have been reviewed through this case. 2016 World Health Organization guidelines for the treatment of *Treponema pallidum* advice a single dose of BPG 2.4 MU intramuscular injection as the first line therapy option for early stages [5]. United Kingdom national guidelines updated on 2015 recommend BPG since multiple injections of procaine penicillin is not convenient and cost-effective [3].

CONCLUSION

In conclusion, treatment of the early stages of syphilis is fast, easy, inexpensive and effective. However, the disease can be easily misdiagnosed in patients with oral mucosal lesions as a result of its various clinical presentations.

CONSENT

The examination of the patient was conducted according to the Declaration of Helsinki principles.

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Source of Support: Nil, **Conflict of Interest:** None declared.