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Syphilitic Chancre of the Lips Transmitted by Kissing

A Case Report and Review of the Literature

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Abstract: Primary syphilitic chancre most often involved genitalia, with 12% to 14% extragenital lesions. This article describes a rare case of a female patient with labial ulcer and diagnosed as oral syphilis (OS), an uncommon presentation of primary syphilis. OS is transmitted through orogenital contact.

This study is case report and literature review.

We report a 27-year-old woman with painless, ulcerative, and indurated lesion on her lower lip and a 7-day history of symmetrically distributed nonpruritic macules. OS was diagnosed based on clinical presentations and serologic test and patient's oral ulcer was cured with intramuscular penicillin G benzathine. However, both the patient and her husband denied any orogenital sexual history before. In addition, her husband was also diagnosed as syphilis later in our clinic. He reported having orogenital contact with other people.

Therefore, this is a rare case of OS transmitted through kissing.

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Abbreviations: OS = oral syphilis, RPR = rapid plasma reagin, STI = sexually transmitted infection.

INTRODUCTION

Syphilis is a sexually transmitted infection transmitted by *Treponema pallidum* subspecies *pallidum* (TP). Syphilis remains a major public health problem with increasing incidence worldwide.¹ Primary syphilitic chancre most often involved genitalia, with 12% to 14% extragenital lesions. It was reported that nonsexual transmission, such as mouth-to-mouth transfer of prechewed food, can also result in syphilis infection.² In addition, nipple syphilitic chancres have also been reported after biting by others during sexual intercourse.^{3,4}

CONSENT

Written informed consent was obtained from the patient's parents on behalf of the child for publication of this case report

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and any accompanying images. A copy of the written consent is available for review by the editor of this journal.

CASE REPORT

A previous healthy 27-year-old woman presented with a 6-week history of a painless, ulcerative lesion with indurated margin on her lower lip (Figure 1). She also reported a 7-day history of symmetrically distributed nonpruritic macules on her trunk and limbs. She denied any history of orogenital sex with her partner. In addition, her husband also corroborated no history of orogenital contact. On examination, she had a 2 × 2 cm erythematous indurated nodule with ulcer and crust on her lower lip. In addition, she also had bilateral nontender submandibular lymphadenopathy. However, no lesion was observed on her genital and anal areas. She was referred for a serologic reactive rapid plasma reagin (RPR) test, which was positive at a titer of 1:128 (normal value: <1:2). A fluorescent antibody test for *T pallidum* was positive for both IgG and IgM. HIV testing was negative. Syphilis was diagnosed, with findings consistent with both primary (oral chancre and lymphadenopathy) and secondary (macular rash) disease. Therapy with intramuscular penicillin G benzathine was given. She experienced moderate chills and rigors in the first 24 h after the treatment with intramuscular penicillin G benzathine, indicating the reaction of the Jarisch–Herxheimer. The patient received a weekly dose of penicillin G benzathine for 3 weeks and returned after treatment. Physical examination revealed that her oral lesion was significantly reduced.

Her sexual partner was also brought here for fear of an infection. RPR test was at a titer a 1:64. A fluorescent antibody test for *T pallidum* was positive for IgG and negative for IgM. However, he denied any symptoms associated with syphilis. He admitted orogenital contact as well as oral contact with multiple partners. Physical examination including genital and rectal examination revealed no evidence associated with syphilis. HIV test was negative. The man was diagnosed as syphilis and also received treatment with intramuscular penicillin G benzathine. Both of them denied history of orogenital sex with each other. The man had a history of multiple oral ulcers before the onset of his wife's oral lesion but he did not see the doctor. His oral ulcer disappeared without any therapy. The woman oral lesion developed 1 month after his oral lesions. Her syphilis was considered to transmit through mouth-to-mouth kissing with another syphilis person.

DISCUSSION

Syphilis is a sexually transmitted disease caused by infection of *T pallidum*. Sex contact is the most common way of transmission. However, studies have showed that nonsexual transmission, such as mouth-to-mouth transfer of prechewed food, can also result in syphilis infection.² In addition, nipple syphilitic chancres have been reported after biting by others during sexual intercourse.^{3,4} We report a rare case of acquired



FIGURE 1. Oral chancre and oral lesion after therapy. (A) A painless, ulcerative lesion with indurated margin on the lower lip. (B) A remarkably improvement of the oral lesions.

primary oral syphilis (OS) chancre after kissing with her partner, who was infected with syphilis earlier. As far as we know, this is the first report on infection of primary OS after kissing another syphilis person.

Primary syphilitic chancre most often involved genitalia, with 12% to 14% extragenital chancre. Oral mucosa is the most frequent site of extragenital syphilis.⁵ Clinical manifestations of syphilis include several overlapping stages.⁶ This patient presented with a painless ulcerated lesion at the site of inoculation

as well as lymphadenopathy. Serological tests revealed *T pallidum* infection. Treatment with penicillin G benzathine results in the complete resolution of symptoms.

In this case, both the patient and her sexual partner denied any history of orogenital sexual contacts. And her sexual partner also came to the clinic and diagnosed syphilis with a history of multiple oral ulcers before the woman's symptoms. Oral lesions are highly infectious, with a reported transmission rate of 18% to 80% during sexual contact.⁷ Thus, the oral chancre of woman is considered to infect through kissing with her partner, who was infected syphilis earlier.

From this case report, several clinical and public health implications can be learned. First, a nonspecific oral ulceration should remind clinicians of OS since untreated syphilis can progress to late stage, resulting in cardiovascular and neural disorders.⁸ Diagnosis of OS is based on unprotected orogenital sexual history, a reasonable incubation period, clinical manifestations, and positive serologic tests.⁹ In addition, concurrent HIV infection should be ruled out. Second, kissing can also transmit syphilis, which may present as an oral chancre. *T pallidum* can invade mucous membranes through abrasion. Therefore, oral chancre can result from kissing with a syphilis patient. Therefore, kissing with a syphilis patient should also be avoided in order to block the infection.

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