Gangrene-like cheilitis and pustular eruptions in a patient with secondary syphilis

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32-year-old heterosexual Japanese man presented with a 2-week history of painful gangrene-like cheilitis (Figure 1A) and generalized asymptomatic pustular eruptions (Figure 1B). He had a history of HIV infection and was undergoing antiretroviral therapy. His latest CD4 count was 0.53 × 10⁹/L. He had had sexual intercourse with a female partner several weeks before presentation. There were no noticeable genital ulcers.



Figure 1: (A) Painful gangrene-like lesions on the lips of a 32-year-old man with HIV infection and secondary syphilis. (B) Asymptomatic pustular eruptions on the patient's back.

Blood tests showed no remarkable abnormalities except for a positive rapid plasma reagin test result at a titre of 1:256 and a positive *Treponema pallidum* hemagglutination assay. We diagnosed secondary syphilis and started the patient on oral amoxicillin 3 g/d and probenecid 750 mg/d for 2 weeks, as part of a regimen that has been suggested in Japan.¹ Although World Health Organization guidelines recommend intramuscular administration of benzathine penicillin G 2.4 million units in a single dose for treating infectious syphilis in adults and adolescents, including people living with HIV,² benzathine penicillin G is unavailable in Japan. All symptoms resolved 1 week after treatment without any complications. We were unable to contact the patient's partner and advised the patient to notify her.

Secondary syphilis is known to have variable clinical symptoms; in particular, symptoms can be atypical in patients with HIV infection.³ Although various oral manifestations occur in patients with secondary syphilis, the most common presentation consists of slightly elevated plaques and oval-shaped ulcers; gangrene-like cheilitis is uncommon. Similarly, skin lesions usually present as symmetric macular, papular or maculopapular lesions; however, patients sometimes develop pustular lesions.³

Syphilis is widespread globally and still imposes a substantial global health burden.⁴ Clinicians should be aware of uncommon lesions that can occur in patients with syphilis, not

only to achieve appropriate diagnosis and treatment, but also to prevent the spread of infection.

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