



## Medical imagery

## Diagnosis of oral syphilis remains a challenge – A case report



A 45-year-old man presented at our department with a 3-month history of persistent oral ulcer with mild pain in his oral mucosa. He denied any skin and genital lesions or other accompanying symptoms. He was initially diagnosed with a recurrent aphthous ulcer and was prescribed topical steroids with no improvement. Afterwards, he was referred to the otolaryngological department; the ENT doctor took the biopsy. It was reported as a non-specific inflammation pathologically, and he was given Cydiodine lozenge. The oral ulcer had not healed, and he came back to our department for further consultation.

Physical examination revealed mucous patches with erosions in his soft palate and the abdomen of the tongue; the patches were irregular, slightly elevated, well-defined, and with a surrounding red halo, covered with a white or gray pseudomembrane (Figure 1). No genital or skin lesions were noted. Since the diagnosis remained indefinite, further investigations were ordered. Serological tests for rapid plasma reagin (RPR) [titer: 1:32] and treponema pallidum

haemagglutination (TPHA) were positive, while the tests for HIV and hepatitis C were negative. Therefore, a definitive diagnosis of oral secondary syphilis was established. The patient was treated with standard intramuscular benzathine benzylpenicillin at 2400 000 IU once a week, and the lesion resolved over a 3-week period.

The global re-emergence of syphilis calls for more attention to recognize this entity. As the great imitator, oral secondary syphilis is commonly misdiagnosed or underdiagnosed because of its clinical presentations. It should be differentiated from an aphthous ulcer, oral candidiasis, lichen planus, erythema multiforme, hairy leukoplakia, pharyngolaryngitis, and even squamous cell carcinoma (Çakmak et al., 2019; de Andrade et al., 2018). Despite contacts with different medical professionals, including dermatologists, ear–nose–throat specialists, and dentists, the diagnosis remains a challenge. Therefore, identifying and recognizing the clinical signs of syphilis is of great significance



**Figure 1.** Mucous patches in the soft palate (A) and the abdomen of the tongue (B).

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for healthcare professionals to initiate prompt and appropriate management.

### Conflict of interest

No conflict of interest.

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### Ethical approval

Informed consent was obtained from the patient for publication and an unidentified image.

### References

- Çakmak SK, Tamer E, Karadağ AS, Waugh M. Syphilis: a great imitator. *Clin Dermatol* 2019;37:182–91.
- de Andrade RS, de Freitas EM, Rocha BA, Gusmão ES, Filho MR, Júnior HM. Oral findings in secondary syphilis. *Med Oral Patol Oral Cir Bucal* 2018;23:e138–43.

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