QUIZ SECTION

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# Not Always a Malignant Tumour: A Quiz

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A 34-year-old man with unremarkable medical history was admitted to the dermatology department due to an asymptomatic oral lesion that had evolved over a period of 8 week. Physical examination revealed a centrally ulcerated nodular lesion in the right lip commissure (Fig. 1a), with no other findings. Histological examination revealed a moderate lymphocytic infiltrate in the dermis with frequent plasma cells (Fig. 1b). No microorganisms were identified on Warthin–Starry stain. The lesion had spontaneous remission within 3 weeks. Twelve weeks later the patient returned due to asymptomatic white labial mucosal plaques (Fig. 1c), histopathological examination of which demonstrated a dense interstitial and perivascular plasma cell infiltrate in the lamina propria.

*What is your diagnosis?*

Differential diagnosis 1: Syphilis

Differential diagnosis 2: Keratoacanthoma

Differential diagnosis 3: Basal cell carcinoma

Differential diagnosis 4: Skin adnexal tumour

*See next page for answer.*

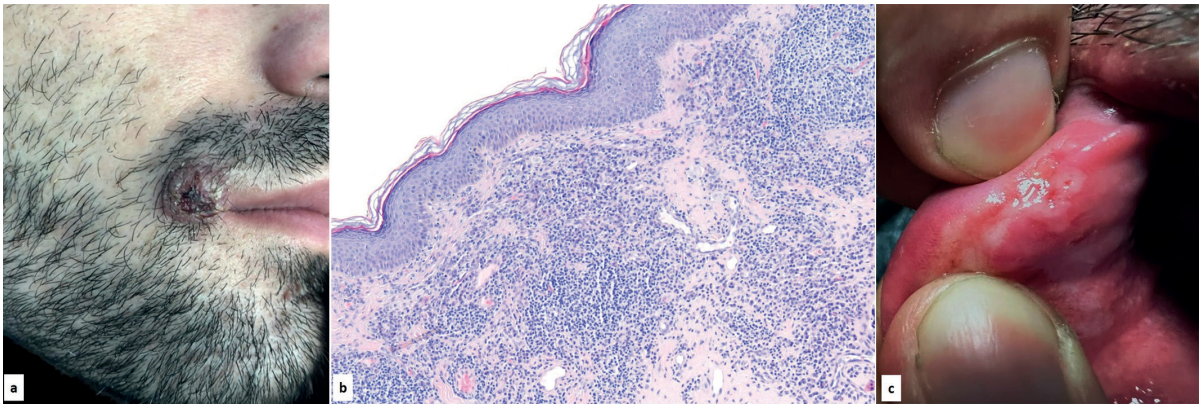


**Fig. 1. (a) Centrally ulcerated nodular lesion, asymptomatic, with firm and well-defined borders measuring 2 cm in the right lip commissure, with no other findings.** (b) Interstitial lymphocytic infiltrate with plasma cells in the dermis (haematoxylin and eosin (HE), 100×). (c) Asymptomatic white plaques on the labial mucosal. Written permission is given by the patient to publish these photographs.

## ANSWERS TO QUIZ

### Not Always a Malignant Tumour: A Commentary

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***Diagnosis:*** **Syphilis**

Syphilis is a sexually-transmitted infectious disease caused by the anaerobic filamentous spirochete *Treponema pallidum* (1). Transmission is mainly through direct contact with syphilitic lesions, most often during vaginal, anal, or oral sex (1, 2).

Patients with undiagnosed syphilis may present with only oral lesions (2). Approximately 4–12% of patients with primary syphilis present with oral chancres, commonly on the lip, tongue, buccal mucosa, palate, gingiva or tonsillar pillar (2). Chancres remit spontaneously in 3–8 weeks (1). In secondary syphilis, oral manifestations are variable and the most well-recognized lesions are multiple mucous patches that are slightly raised and covered by greyish-white pseudomembranes and surrounded by erythema (1).

In line with its nickname of "The Great Imitator", oral manifestations of syphilis may mimic a variety of infectious, neoplastic or immune-mediated processes (2, 3). In a recent case series, 92.5% of cases were diagnosed in the secondary stage and only 7.5% within the primary stage (4). The histopathological appearance may also lead to a plethora of diagnoses (2). Although no single microscopic feature is specific, the diagnosis should be considered towards an unusual epithelial hyperplasia, granulomatous or plasmacytic predominant chronic inflammation (5). The infiltrate characteristically surrounds blood vessels and nerves (2).

The first clinical presentation of this patient with a solitary ulcerated nodule of the lip commissure (Fig. 1a), which mimicked a neoplastic lesion. Even though he denied unprotected sexual contacts, the clinical and histopathological findings were suggestive of syphilis, and serological screening with a Venereal Disease Research Laboratory (VDRL) test showed a reactive title (1:32). PCR tests for *Treponema pallidum* were positive, both in skin biopsy specimens from the right labial commissure lesion and in mucosal plaques. After administration of a single dose of penicillin G benzathine (2.4 million units intramuscularly) there was complete remission of the lesions.

In conclusion, the large spectrum of possible appearances of oral manifestations of syphilis can create a diagnostic challenge to the clinician and pathologist, leading to delay in diagnosis or misdiagnosis. Therefore, early recognition is imperative for prompt diagnosis, treatment and prevention of disease transmission.

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