

## Syphilis on the face in primary care:

a rare sign of an increasingly common problem

### INTRODUCTION

Syphilis in the UK continues to rise, particularly among men who have sex with men. In 2014, there was a 46% increase in syphilis in this risk group.<sup>1</sup> Syphilis is a major problem in some parts of the world including Eastern Europe and is also seen in heterosexual men and women. Syphilis has also been diagnosed in white British individuals with no obvious risk factors.

Two rapidly emerging social phenomena are likely to be helping the transmission of sexually transmitted infections (STIs) including syphilis. First, dating apps such as Tinder and Grindr are facilitating meeting more sexual partners.<sup>2</sup> Second, the use of recreational drugs for enhanced sexual pleasure, known as chemsex, is associated with increased risk-taking behaviour.<sup>3</sup>

This article describes an unusual case of primary syphilis presenting with tongue

and facial sores, and encourages primary care practitioners to consider testing for STIs including syphilis in individuals with oropharyngeal lesions.

### CASE REPORT

A 32-year-old man who has sex with men presented to primary care with a 2-week history of a lesion on the tongue. He was otherwise well and reported no other symptoms. He had no past medical history and was taking no regular medication. He was a smoker and used cocaine occasionally. He had previously been treated for genital herpes and had his last sexual health screen 6 months before. He was prescribed chlorhexidine mouthwash and oral flucloxacillin, and was urgently referred to oral medicine where the tongue lesion was biopsied. Routine blood tests including vitamin B12 and folate, and

### Box 1. Facts about syphilis

- Syphilis is caused by the bacterium *Treponema pallidum*.
- Transmission occurs during sexual contact with a highly infectious lesion. Condoms reduce the risk of transmission.
- Primary syphilis typically presents as an ulcer known as a chancre (pronounced SHANG-kur). This may be on the genitals or anus, or in the mouth, and is classically not painful so can easily go unnoticed. Syphilitic tonsillitis has also been described.<sup>4</sup>
- Secondary syphilis occurs several weeks after having a primary chancre. It typically causes a maculopapular rash that may affect the palms and soles of the feet. Other features include alopecia, cranial nerve palsies, lymphadenopathy, anterior uveitis, hepatitis, and meningitis.
- One-third of those with untreated syphilis will develop symptomatic late syphilis with complications including stroke, cognitive decline, tabes dorsalis, aortitis, and destructive granulomas.
- Syphilis can be diagnosed on same-day dark-ground microscopy of anogenital lesions at sexual health clinics or on serology. Ask your local sexual health team for advice on serology interpretation if necessary. Polymerase chain reaction (PCR) is increasingly available.
- Syphilis passed from mother to child during pregnancy can cause permanent skin, bone, renal, and neurological problems.
- Syphilis and HIV are linked for several reasons. Primary syphilis facilitates HIV acquisition because genital ulcers breach the mucosa.<sup>5</sup> When primary syphilis does occur in individuals with HIV, it is more likely to cause multiple ulcers rather than the classical single lesion.<sup>6</sup> HIV-positive individuals may also be more likely to develop neurological complications in the early stages of syphilis infection.
- Finding partners with the same HIV serostatus, known as 'serosorting', may lead to acquisition of more sexually transmitted infections including syphilis through unprotected sex.<sup>7</sup>
- Vincent van Gogh, Édouard Manet, and Henry VIII were all thought to have been infected with syphilis. The discovery of penicillin in the 20th century has made current treatment of syphilis largely uncomplicated.

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Figure 1. Ulcer on tongue after biopsy.

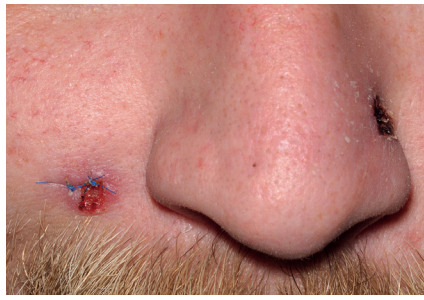


Figure 2. Lesion on right cheek after biopsy.

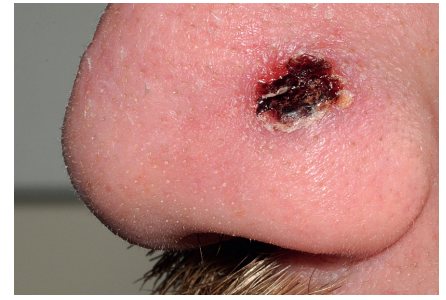


Figure 3. Lesion on nose.



Figure 4. Ulcer on tongue 4 weeks after treatment.



Figure 5. Lesion on right cheek 4 weeks after treatment.



Figure 6. Lesion on nose 4 weeks after treatment.

thyroid function tests, later came back as normal.

Referral was also made to dermatology where a lesion on the right cheek was biopsied. Dermatology then referred the man to our genitourinary medicine clinic where examination revealed three lesions: a 2 cm non-tender, indurated ulcer on the posterior third of the tongue that had been biopsied (Figure 1), a 1 cm superficial ulcer on the right cheek that had been biopsied (Figure 2), and a 1 cm superficial crusted ulcer on the left ala nasa (Figure 3). The patient had no genital symptoms and declined genital examination.

Syphilis serology later demonstrated a positive syphilis antibody test and a positive *Treponema pallidum* particle agglutination (TPPA) assay with a titre of >1:5120. Rapid plasma reagin (RPR) was also positive with a titre of 1:16. *Treponema pallidum* PCR sampled from one of the lesions was later confirmed positive. Histology from right cheek and tongue biopsies supported a diagnosis of syphilis. A complete STI screen including a rapid HIV test was otherwise negative.

The man was treated for primary syphilis with a single dose of benzathine penicillin (2.4 million units, intramuscularly). He was advised to abstain from sex until repeat serology confirmed adequate

syphilis treatment. A health advisor discussed partner notification and sexual risk reduction. He had had three male partners in the previous 3 months who were contacted for screening.

Four weeks later, he returned for review and repeat syphilis serology. All three lesions had improved (Figures 4, 5 and 6).

## DISCUSSION

### 'He who knows syphilis knows medicine'

Sir William Osler referred to syphilis as 'the great imitator' due to its variety of multisystem presentations and ability to mimic other diseases.

### Facial sores

In this case, there was a primary chancre of syphilis on the tongue and satellite facial lesions. Cases of lesions on the face in primary syphilis are rare.

## SUMMARY

A case of a young male with oral and facial sores has been presented. Taking a sexual history can hint at the diagnosis of syphilis. Early treatment is vital to reduce transmission, prevent complications, and avoid unnecessary investigations for other causes.

### Patient consent

The patient consented to the publication of this article and the images.

### Provenance

Freely submitted; externally peer reviewed.

### Competing interests

The authors have declared no competing interests.

### Discuss this article

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## REFERENCES

1. Public Health England. *Health Protection Report 2015. Sexually transmitted infections and chlamydia screening in England, 2014*. **9(22)**: 1–20. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437433/hpr2215\\_STI\\_NCSP\\_v6.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437433/hpr2215_STI_NCSP_v6.pdf) [accessed 19 May 2016].
2. Kelsey R. Dating apps increasing rates of sexually transmitted infections, say doctors. *BBC Newsbeat*; **2 Nov 2015**. <http://www.bbc.co.uk/newsbeat/article/34008736/dating-apps-increasing-rates-of-sexually-transmitted-infections-say-doctors> [accessed 19 May 2016].
3. Ma R, Perera S. Safer 'chemsex': GPs' role in harm reduction for emerging forms of recreational drug use. *Br J Gen Pract* 2016; DOI: 10.3399/bjgp16X683029.
4. Gedela K, Boag F. Syphilitic tonsillitis in primary care: a case report. *Br J Gen Pract* 2012; DOI: 10.3399/bjgp12X636254.
5. Stamm WE, Handsfield HH, Rompalo AM, *et al*. The association between genital ulcer disease and acquisition of HIV infection in homosexual men. *JAMA* 1988; **260(10)**: 1429–1433.
6. Kingston M, French P, Higgins S, *et al*. UK national guidelines on the management of syphilis 2015. *Int J STD AIDS* 2016; **27(6)**: 421–446. <http://www.bashh.org/documents/UK%20syphilis%20guidelines%202015.pdf> [accessed 19 May 2016].
7. Lucht A, Shah M, Kretzschmar M. Could HIV Serosorting explain increases in syphilis prevalence among men who have sex with men? — a mathematical modelling study. *Sex Transm Infect* 2013; **89(Suppl 1)**: A188–A189.