

Secondary syphilis presenting with atypical oropharyngeal ulcers

Jessica Axiak*; Michela Manfre; Donia Gamoudi; Kenneth Muscat

***Corresponding Author: Jessica Axiak**

Department of Otorhinolaryngology, Mater Dei, Malta.

Email: jessica-marie.axiak@gov.mt

Abstract

We report a rare case of oropharyngeal syphilis in a male patient with a homosexual orientation who initially presented with dysphagia. Clinical examination revealed the presence of slough on both tonsillar pillars, a soft tissue lesion on the posterior surface of the soft palate, and bilateral cervical lymphadenopathy. A biopsy of the lymph nodes indicated a reactive response. Additionally, a biopsy of the soft palate lesion revealed the presence of Candidosis along with marked acute and chronic inflammation. Following consultation with the Genitourinary clinic, throat swabs were obtained, confirming the diagnosis of Syphilis infection. Treatment, comprising Fluconazole and Benzathine Penicillin, was employed, resulting in the successful resolution of the infection.

Keywords: Syphilis; Oropharyngeal ulcers; Secondary syphilis; Mucosal manifestations; Sexually transmitted infection.

Background

Syphilis, a sexually transmitted infection caused by the spirochete bacterium *Treponema pallidum*, primarily spreads through sexual contact but can also be transmitted from an infected mother to her child during pregnancy [1]. The 21st century has witnessed a concerning increase in the incidence of syphilis, with 35,039 confirmed cases reported across 29 EU/EEA member states in 2019. This translates to an incidence rate of 7.4 cases per 100,000 population [2]. Notably, the infection disproportionately affects males, with a prevalence nine times higher than that in females, particularly peaking in the 25–34 year age group. Factors contributing to this surge include various sexual behaviours, notably among men who have sex with men, particularly those involved in multiple sexual relationships, as well as individuals living with HIV [2].

Oral manifestations are most commonly observed during the second stage of the infection, with up to 22% of secondary syphilis cases involving some form of oral mucosal involvement [3]. However, it is essential to recognize that oral lesions can occur at any stage of the disease.

Case Presentation

A 66-year-old gentleman, with no significant past medical or surgical history, presented at the Otorhinolaryngology outpatient clinic with a five-week history of dysphagia, tolerating fluids. Additionally, he denied experiencing pain, fever or unintentional weight loss and reported no recent change in voice. He acknowledged smoking ten cigarettes per day and indulging in social alcohol consumption. He had a regular male partner with no other recent sexual partners.

During the physical examination, the patient did not exhibit signs of cachexia. A neck examination revealed the presence of a palpable mass just anterior to the right sternocleidomastoid muscle border. It was described as hard and mobile but not tethered to skin. An oropharyngeal examination also identified a whitish mass over the posterior aspect of the soft palate with slough over bilateral tonsillar pillars. Subsequent flexible nasoendoscopy confirmed the presence of a mass extending from the posterior aspect of the soft palate extending to the uvula.

Laboratory findings revealed an elevated erythrocyte sedimentation rate of 54 mm (normal range: 12-16 mm in 1st hour) and a slightly elevated C- reactive protein of 12.5 mg/L (normal range 0-5 mg/L). All other blood test taken were within normal limits.

Investigations

A neck ultrasound examination revealed the presence of two enlarged jugulodigastric lymph nodes, one on each side. Fine needle aspiration of these lymph nodes revealed multiple reactive cells while ruling out the presence of metastatic cells.

Subsequent Magnetic Resonance Imaging (MRI) of the neck disclosed moderately enlarged palatine tonsils, particularly notable on the right, along with mildly enlarged bilateral level II lymph nodes, measuring up to 1.7x1.4 cm on the right side. Additionally, a small volume of lymphoid tissue was observed in the nasopharynx, while the oral cavity and larynx appeared unremarkable.

In light of the inconclusive results thus far, biopsies under general anaesthesia of the anterior pillars bilaterally and posterior surface of the soft palate were taken. Histological analysis revealed the coexistence of Candidosis with acute and chronic inflammatory changes.

Following these findings, the case was deliberated with the Genitourinary clinic, which recommended a comprehensive serological panel including testing for HIV, Hepatitis B surface antigen, Hepatitis C surface antigen, Syphilis, Cytomegalovirus, Epstein Barr Virus, and Toxoplasma. Additionally, a throat swab was collected to investigate for genitourinary diseases. Subsequently, both the serological testing (TPHA titre >1:10240, VDRL 1:64) and the throat swab confirmed the presence of Syphilis infection.

Treatment

The patient was started on a daily course Fluconazole for 3 weeks and was subsequently referred

to the Genitourinary clinic. Here, he received a successful three-week regimen of Benzathine Penicillin via weekly intramuscularly injections for 3 weeks.

Follow up

According to the guidelines set forth by the British Association for Sexual Health and HIV (BASHH), the patient is scheduled for follow-up VDRL serology at 3 months, 6 months and 12 months [4].

Discussion

During sexual activity, Syphilis is acquired through direct contact with open sores containing *Treponema* bacteria and contaminated secretions from an infected partner. Following an incubation period ranging from 10-90 days, a painless sore, known as chancre, emerges at the site of infection, marking the onset of primary syphilis. This is succeeded by secondary syphilis, characterized by a non-itchy rash with maculopapular features affecting various parts of the body, including the trunk, palms, soles of the feet, arms, legs, face, mucous membranes, and genitalia. If left untreated, the infection can enter a latent phase, which can be further categorized as early latent (acquired within the first year) or late latent syphilis (acquired after one year). Several years after the initial infection, tertiary syphilis may develop, marked by multi-organ involvement and the potential for severe damage to blood vessels and the nervous system.

Mucosal throat ulcers represent a common patient complaint with diverse underlying causes. As exemplified in this case report, syphilis can manifest with primary oral manifestations. However, it may present with atypical symptoms or may even be asymptomatic, posing challenges in the recognition of oral syphilis [5]. This is why syphilis is known as the great imitator. Syphilitic throat ulcers typically arise as a manifestation of secondary syphilis. In the primary stages, tonsils become oedematous and indurated, progressing to the secondary stage characterized by circular raised areas with inflamed mucosal surfaces. These areas are covered by a white-grey membrane and encircled by a reddish halo on the tonsils, buccal mucosa, and palate. In the tertiary stage, persistent and profound ulcers extend deep into the muscular layers of the oropharynx, though they remain painless [6].

Diagnosis relies on a combination of clinical assessment, histological evaluation, immunohistochemical staining and serologic testing. Imaging findings in oropharyngeal syphilis tend to be non-specific [7]. The most common histological feature is a significant subepithelial infiltration of plasma cells. Immunohistochemistry aids in distinguishing *T. pallidum* from commensal oral cavity spirochete. Serological tests, specifically *Treponema pallidum* Particle Agglutination (TP-PA) and Rapid Plasma Reagin (RPR), are employed to confirm the diagnosis [5].

References

1. Nyatsanza F, Tipple C. Syphilis: presentations in general medicine. *Clinical Medicine Journal*. 2016; 16: 184-188.
2. European Centre for Disease Prevention and Control. Syphilis. In: ECDC Annual epidemiological report for 2019. Stockholm: ECDC. 2022.
3. Khan M, Sharma A, Mifsud M, Hathron T, Sandhu M, Rosen R, et al. The mucosal manifestation of Syphilis in the head and neck.

Ear, Nose & Throat Journal. 2023; 27: 1-14.

4. Kingston M, et al. UK national guidelines on the management of syphilis 2015. International Journal of STD & AIDS. 2015; 27: 421-446.

5. Deng F, Thompson LDR, Lai J. Unexpected reason for non-healing oral ulcers: Syphilis. Head Neck Pathology. 2022; 16: 544-549.

6. Machado FT, Machado FW, Marcal Kanashiro K, Mayumi Sato L, Martins Rodrigues ND, de Lucena OS. Syphilitic tonsillitis as differential diagnosis of angina. Internal Archives of Otorhinolaryngology. 2014; 18: a2371.

7. Ripoll E, Montironi C, Alos L, et al. Oropharyngeal syphilis: Imaging and pathologic findings in two patients. Head Neck Pathology. 2017; 11: 399-403.

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Authors Information: Jessica Axiak^{1*}; Michela Manfre¹; Donia Gamoudi²; Kenneth Muscat¹

¹Department of Otorhinolaryngology, Mater Dei, Malta.

²Genito-Urinary Medicine, Mater Dei Hospital, Malta.

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