CASE STUDY

Recurrent Lingual Abscess

Álvaro Sánchez Barrueco, a,⁎ Miguel A. Melchor Díaz, a Ignacio Jiménez Huerta, a Jose M. Millán Juncos, b Carlos Almodóvar Álvarez a

a Servicio de Otorrinolaringología, Hospital Universitario 12 de Octubre, Madrid, Spain
b Servicio de Radiodiagnóstico, Hospital Universitario 12 de Octubre, Madrid, Spain

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Abstract Lingual abscess is an unusual condition but it may become a life-threatening entity. It presents as a very painful swelling of the tongue that, in its early stages, can be managed by antibiotic treatment. When the airway is obstructed, drainage is required by an open incision or aspiration with a large bore needle. We report a case who consulted on two occasions for a lingual abscess, which opened spontaneously. Due to the rarity of recurrent cases, the causes, diagnosis, and treatments will be reviewed.
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Absceso lingual recurrente

Resumen El absceso lingual es una patología infrecuente pero que puede llegar a comprometer la vida del paciente. Se presenta como una tumoralación lingual muy dolorosa, pudiendo ser manejada en sus estadios iniciales únicamente con tratamiento antibiótico. Cuando asocia compromiso de la vía aerodigestiva, su drenaje es necesario mediante aspiración con aguja gruesa o mediante apertura quirúrgica. Se presenta un caso que sufrió en dos ocasiones un absceso lingual, con apertura espontánea del mismo. Debido a la muy baja incidencia de los casos recurrentes de absceso lingual se procederá a una revisión de su etiología, diagnóstico y tratamiento.
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Clinical Case
We report the case of a 56-year-old African male with type 2 diabetes who was admitted to the emergency room due to a very painful tongue tumour of 2 weeks evolution and explosive growth in the previous 3 days. The patient reported dysphagia, sialorrhea, and throaty voice. In addition, he also reported having suffered a similar episode 1 year earlier, with spontaneous resolution after the discharge of abundant purulent-haematic content. Furthermore, he reported suffering a traffic accident 26 years earlier, with complete section of the anterior third of the tongue, but with no subsequent functional alterations. During the current episode, he referred impaction of a toothbrush bristle during his daily cleaning of the lingual surface.

Physical examination confirmed the presence of a very painful tumour in the back of the middle third of the tongue,
with limited mobility and no obvious injuries or entry points (Fig. 1). Dental status was correct and there was no involvement of the airway. A complete blood count (CBC) revealed no evidence of leukocytosis and a CT scan of the oral cavity confirmed the presence of a multilobed abscess in the middle third of the tongue, related to a foreign body with plastic density (Fig. 2). Spontaneous opening of the abscess was certified during the diagnostic process (Fig. 1). After its aspiration, we proceeded to its surgical opening through the spontaneous dorsal dehiscence. The culture of the aspirate showed a growth consistent with oral saprophyte flora and a control CT scan on the sixth postoperative day confirmed the disappearance of the foreign body and intralobal collection. The patient was discharged with oral antibiotic treatment, with no reports of recurrence.

Discussion

Lingual abscesses are uncommon entities which are omitted in the vast majority of oropharyngeal pathology books, so their diagnosis and treatment are generally established based on case reports. The development of antibiotic treatment and generalisation of dental care have significantly reduced their incidence. They are most notable in heavy smokers, subjects with poor oral hygiene and immunocompromised patients, such as those suffering leukaemia, neutropenia, acquired immunodeficiency syndrome (AIDS) or diabetes mellitus, as in the present case.

The tongue is constantly exposed to trauma on its surface, which is usually manifested as nonspecific inflammations. Despite being in contact with numerous pathogens, it is generally immune to their action due to its keratinised mucosa, its rich haematic and lymphatic vasculature and its salivary protection. However, in situations of immune system involvement, once the first line of defence has been overcome, the infection may be resistant to treatment and represent a vital threat.

Classically, the tongue is divided into 3 parts, 2 of which are anterior to the lingual V, known as the oral tongue. Abscesses in this region are easily diagnosed and their most common etiology is impaction of foreign bodies (fish bones, toothbrush bristles, etc.). The posterior third of the tongue is known as the tongue base and contains the tonsils and remnants of the thyroglossal duct, so that abscesses in this area are generally related to episodes of tonsillitis or infections of the thyroglossal duct. This location can be difficult to diagnose due to its nonspecific symptoms, which occasionally include dysphonia, reflex otalgia, dyspnoea and sepsis. The presence of a pseudoaneurysm of the lingual artery should always be ruled out due to its fatal implications if it were to be opened.

Therefore, lingual abscesses usually appear as painful lumps with an evolution of hours or days, exacerbated by tongue movement and not always accompanied by fever, dehydration or analytical standards consistent with acute infection. The use of imaging techniques such as ultrasound, CT or MRI scans is very useful after the initial exploration. For some authors, the study should be performed using ultrasound, obtaining a hypoechic image of the lesion surrounded by a hyperechic ring, thus suggesting an abscess. However, CT and MRI studies are predominant because it is difficult to reach the affected area and the anatomical borders are imprecise. CT scans are essential to differentiate abscesses from cellulitis, in the diagnosis of arteriovenous malformations and in the possible location of impacted foreign bodies, as in the present case.

There are 2 treatment possibilities: thick-needle aspiration or surgical opening, both via a dorsal or sublingual approach. Some authors recommend aspiration, since surgery can cause increased oedema and involvement of the airway. In our case, the spontaneous opening forced the choice of open surgery. It should be noted that abscesses
in the posterior third of the tongue can cause respiratory involvement and require prompt action, sometimes even requiring tracheotomy.\textsuperscript{6,11}

In both approaches, the pus extracted reveals an aerobic–anaerobic, oral saprophyte flora\textsuperscript{10} or is negative due to prior antibiotic treatment. Antibiotic treatment should cover streptococci, staphylococci and Gram-negative anaerobes. The use of corticosteroids is controversial,\textsuperscript{12} but they are widely employed in our department due to the significant inflammatory component associated with this pathology and the improvement in symptoms derived from its decline. This philosophy is shared by other authors.\textsuperscript{4,10,11} On the other hand, all authors agree on establishing a broad-spectrum antibiotic treatment for at least 1 week, after eliminating the purulent collection.

Conflict of Interests

The authors have no conflicts of interest to declare.

References