

Case Report



A Rare But Important Emergency: Abscess of The Tongue Base

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ABSTRACT

Abscess of the tongue base is a very rare clinical entity. It may be life-threatening according to narrowing of upper airway. Tongue base abscess should be considered in patients who presented with tongue swelling, dysphagia and dyspnea. Aspiration of the purulent material by needle is adequate both for treatment and diagnosis. We present a case of tongue base abscess presented with dysphagia, dyspnea and swelling of tongue for 2-weeks.

Key words: *Tongue, Abscess, Dysphagia, Dyspnea*

ÖZET

Nadir Fakat Önemli Bir Acil: Dil Kökü Absesi

Dil kökü absesi çok nadir görülen bir klinik antitedir. Üst solunum yolunun daralmasına bağlı olarak hayatı tehdit edebilir. Dilde şişme, disfaji ve dispne ile gelen hastalarda dil kökü absesi düşünülmelidir. Pürülan materyalin iğne ile boşaltılması tanı ve tedavi için yeterlidir. Dil kökü absesine bağlı 2 haftadır disfaji, dispne ve dilde şişme şikayetleri olan bir vakayı sunuyoruz.

Anahtar Sözcükler: *Dil, Abse, Disfaji, Dispne*

Tongue base abscess seems to be occur very rarely. There is no clinical description of tongue base abscess in majority of textbooks. Antoniadis et al. in 2003 reviewed 50 cases of tongue abscess published in the English literature during the past 30 years, consisting mostly of single case reports (1). Although tongue is exposed to bite trauma frequently it is resistant to infection. This is mostly explained by its rich blood supply and musculature and immunologic and cleansing functions of the saliva (1, 2).

Most of the abscesses occur in the anterior two thirds of the tongue and not difficult to diagnose. The abscess involving the posterior one third may obstruct the upper airway and must be treated urgently (3, 4). Here we report a case of tongue base abscess in an adolescent presented with dysphagia.

CASE REPORT

A 61-year-old man was admitted to our ear, nose, and throat clinic with complaints of dysphagia, dyspnea and swelling of the tongue for 2 weeks. Physical examination revealed swelling of the posterior third of the tongue and it was tender with palpation. The patient had poor oral hygiene and 40-years history of smoking. There was no history of trauma or bite wounds to the tongue. The white blood cell count was normal, erythrocyte sedimentation rate was elevated (41mm/h). On

magnetic resonance imaging T1-weighted images showed centrally necrotic, 36 × 35 -mm mass which enhanced peripherally (Figure 1).

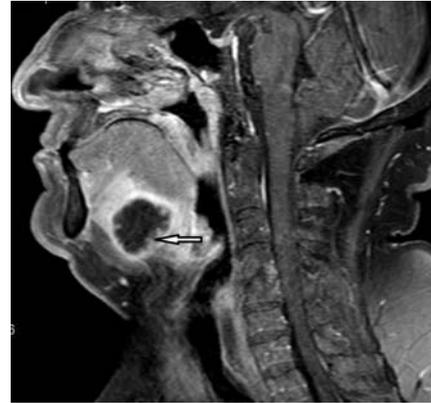


Figure 1. Sagittal T1-weighted MRI scan showing abscess at the base of the tongue (arrow)

A few hours later the patient was taken to the operating room but the patient could not intubated. Tracheotomy was performed under local anesthesia. Approximately 20 cc of purulent material aspirated from the abscess cavity by a needle through the undersurface of tongue along the midline (Figure 2). The patient was treated with ceftriaxone and metronidazole. Culture of the pus revealed methicilline

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resistant staphylococcus aureus. Previous antibiotherapy is changed with vancomycin. Four days later he was decanulated and 5 days after that he was discharged. He was symptom-free after 1-month.



Figure 2. The abscess is drained by a needle through the undersurface of tongue along the midline.

DISCUSSION

Tongue abscess is very rare condition and it is not described in most of the clinical textbooks. Despite the tongue is exposed to many pathogens and local trauma it is comparatively immune to infection. The reasons for this immunity are; its rich blood supply, thick covering of keratinized mucosa, cleansing action of saliva and strong lingual muscles (1, 2).

The symptoms of acute tongue abscess are swelling of tongue, dysphagia, odynophagia, referred otalgia, voluntary fixation of the tongue due to pain (5, 6). Anterior tongue abscess is more common and can be managed with medical treatment. Posterior third tongue abscess is difficult to diagnose, may cause progressive dyspnea and it is potentially life-threatening condition (3, 4). Posterior third abscess

mostly originates from lingual tonsillar infection, infected thyroglossal duct cyst remnants or extension of dental infection (3, 5).

Staphylococcus aureus, alpha hemolytic streptococci, Haemophilus spp., Bacteriodes spp. and anaerobic cocci are mostly isolated organisms from the culture of purulent material of the patients with tongue abscess (5, 7). In our case methicillin resistant staphylococcus aureus was isolated from the aspirated material of the patient's tongue base abscess. Although anaerobic bacteria heavily colonized in the oropharynx rarely recovered in tongue abscess (7). Empiric antimicrobial therapy should be effective to aerobic and anaerobic bacteria. When an organism is isolated from culture specific antibiotherapy should be administered (5, 7).

The differential diagnosis should include acute epiglottitis, carcinoma, allergic edema, lingual artery aneurysms, dermoid cysts, hemorrhage, arteriovenous malformations, lingual tonsillitis, thyroglossal cysts and tuberculosis (3, 5, 8).

The management of tongue abscess includes ensuring adequate airway, drainage of the abscess and antibiotherapy (5). Drainage of the abscess of tongue base should performed under general anesthesia with endotracheal intubation (3). Drainage of tongue base abscess by needle aspiration is effective and more conservative treatment option and not has disadvantage of exacerbating edema (2, 5). In our patient we also performed drainage of the abscess by needle aspiration. Drainage of the abscess is also important for preventing deeper spread of the infection towards the epiglottis and larynx (1). Although tongue base abscess is seen very rarely it should be thought in patients especially who was exposed to oral trauma (5).

REFERENCES

1. Antoniadis K, Hadjipetrou L, Antoniadis V, Antoniadis D. Acute tongue abscess: report of three cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2004; 97: 570-3.
2. D.G. Balatsouras, P.N. Eliopoulos, A.C. Kaberos. Lingual abscess: diagnosis and treatment. Head Neck 2004; 26: 550-4.
3. Vellin JF, Crestani S, Saroul N, Bivahagumye L, Gabrillargues J, Gilain L. Acute abscess of the base of the tongue: A rare but important emergency. J Emerg Med 2011; 41: 107-10.
4. Munoz A, Ballesteros AI, Brandariz Castelo JA. Primary lingual abscess presenting as acute swelling of the tongue obstructing the upper airway: diagnosis with MR. AJNR Am J Neuroradiol 1998; 19: 496-98.
5. Kiroglu AF, Cankaya H, Kiris M. Lingual abscess in two children. Int J Pediatr Otorhinolaryngol Extra 2006; 1: 12-4.
6. Ozturk M, Durak AC, Ozcan N, Yigitbasi OG. Abscess of the tongue: findings on MR imaging. AJR Am J Roentgenol 1998; 170: 797-98.
7. Brook I. Recovery of anaerobic bacteria from a glossal abscess in an adolescent. Pediatr Emerg Care 2002; 18: 358-9.
8. Kolb JC, Sanders DY. Lingual abscess mimicking epiglottitis. Am J Emerg Med 1998; 16: 414-6

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