OLGU SUNUMU CASE REPORT

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Lingual Abscess in a Young, Healthy Female Patient

Genç, Sağlıklı, Kadın Hastada Dil Apsesi

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ABSTRACT A lingual abscess is a rare, life-threatening disease. It may present with non-specific symptoms such as respiratory distress, odynophagia, dysphagia, and pain. Lingual abscesses may occur idiopathically or due to local trauma, foreign bodies, and surgical trauma. However, although it is rare, it may occur without any known risk factors, as in our case. Radiological evaluation (especially computed tomography and magnetic resonance imaging) plays a key role in the diagnosis of the disease. Treatment mainly focuses on airway securing, appropriate antibiotic usage, and drainage. A case report of a 30-year-old patient who did not have additional risk factors and was referred to us with odynophagia was presented.

Keywords: Tongue; abscess; airway obstruction

ÖZET Lingual apse, nadir görülen yaşamı tehdit edebilen bir hastalıktır. Solunum güçlüğü, odinofaji, disfaji, ağrı gibi spesifik olmayan semptomlarla ortaya çıkabilir. İdiyopatik veya lokal travmaya, yabancı cisimlere ve cerrahi travmaya bağlı olabilir. Ancak nadir de olsa, sunduğumuz olgumuzda da olduğu gibi bilinen herhangi bir risk faktörü olmadan da ortaya çıkabilir. Radyolojik değerlendirme (özellikle bilgisayarlı tomografi ve manyetik rezonans görüntüleme), hastalığın tanısının konmasında kilit rol oynar. Tedavi, esas olarak havayolunun güvenceye alınması, uygun antibiyotik kullanımı ve drenajdır. Otuz yaşında, ek risk faktörleri olmayan ve odinofaji nedeniyle tarafımıza sevk edilen hastanın, olgu sunumu yapıldı.

Anahtar Kelimeler: Dil; apse; havayolu obstrüksiyonu

A lingual abscess is a rare , potentially life-threatening disorder. It may present with nonspecific symptoms such as pain, odynophagia, dysphagia, or difficulty in breathing.[1] It may develop idiopathically or secondary to a local trauma, foreign bodies, and surgical trauma.[2] Physical examination usually shows swollen tongue and tenderness. The abscess might be located at the lateral border, anterior 1/3, or posterior 1/3 of the tongue.[3] Although plain radiograms usually do not give valuable information, both magnetic resonance imaging (MRI) and computed tomography (CT) might show abscess. Treatment mainly focuses on airway protection, appropriate antibiotic usage, and drainage. With appropriate treatment, mortality due to lingual abscess is seen in less than 3% of cases.[4]

CASE REPORT

A 30-year-old female admitted to our outpatient clinic with odynophagia, dysphagia, pain, and tenderness in her tongue. Her complaints were existing for 5 days and getting worse. She did not use any medication before applying to the hospital. She did not have any trauma, surgical, or dental procedure history. She did not have any history of illness, medication usage, smoking, and alcohol consumption. Physical examination revealed swollen tongue with hyperemia in tongue base, with the normal flexible laryngoscopy examination. Oral hygiene was good, and tonsils were at a normal size without any infection signs. She was afebrile (36.6°C). After the patient had been hospitalized, laboratory and

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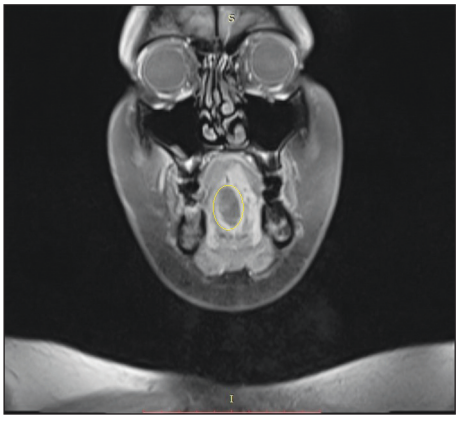

FIGURE 1: Abscess is seen within the hypointense yellow ring on T1-weighted coronal magnetic resonance imaging.

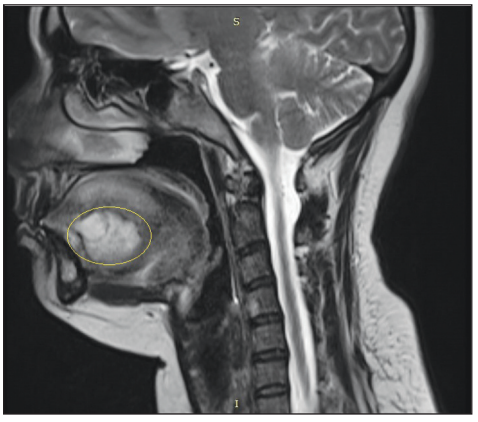

FIGURE 2: T2-weighted sagittal magnetic resonance imaging shows a hyperintense lobulated contoured abscess within the yellow ring.

radiological investigations were performed. Laboratory test results were as follows white blood count: 15.70/mm^3 (3.7-10.1/mm3), lymphocyte: 2.07/mm^3 (1.09-2.99/mm^3), neutrophil: 12.47/mm^3(1,63-6,96/mm^3), C-reactive protein: 50 mg/L (normal <5 mg/L). In MRI images at the anterior 1/3 of the tongue, 29x34 mm sized peripherally contrasting mass was detected (Figure 1, Figure 2, Figure 3). Following the imaging studies, after local anesthesia, needle drainage was applied to the patient. Microbiological examinations did not show any organisms. Intravenous ceftriaxone (1x2 gr), clindamycin (3x600 mg), paracetamol 3x1 gr treatments were started. The patient's complaints relieved with treatment and she had not any additional complaints. In laboratory studies, acute phase reactants and white blood cell count declined to normal levels. After 14 days of intravenous antibiotic treatment, she was discharged with full recovery. The patient was informed about her hospitalization and illness, and consent forms were signed.

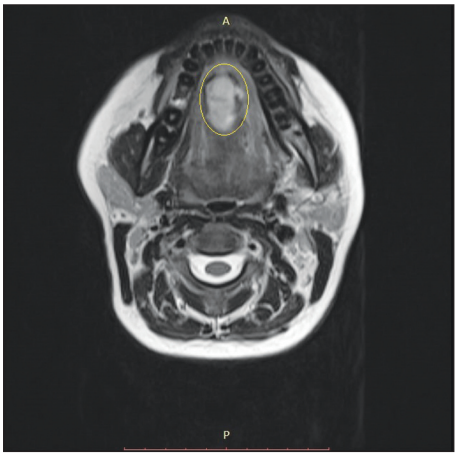

FIGURE 3: T2-weighted axial magnetic resonance imaging shows a hyperintense lobulated contoured abscess within the yellow ring.

DISCUSSION

Tongue abscesses are very rarely seen disorders, probably due to strong protective mechanisms of the tongue.[5] There are few publications in the literature on tongue abscess. This makes it difficult to understand the epidemiology of tongue abscess. Patients are usually between 25 and 50 years old.[6] Although the literature information consists of case reports, it provides adequate information for treatment.[3-5] Owing to rich vascularization and lymphatic drainage, stratified mucosa, immunological protective properties of saliva, they all are protective against infectious processes.[5,7,8]

A careful history taking, and detailed physical examination are essential for diagnosis. imaging, laboratory results, and needle aspiration can provide important information about diagnosis, prognosis, and choice of treatment method.

The most important factors related to the tongue abscess are poor oral hygiene, recurrent trauma, iatrogenic trauma, immunocompromising illnesses, and foreign bodies.[4] A posteriorly localized abscess can

be secondary to thyroglossal ductus cyst, lingual tonsillitis, or periodontal infections.[6,9-11] However, it can occur without any known risk factor like in the case we presented.

Abscesses can be classified as anterior and posterior depending on their localization in the tongue. Misdiagnosis and delay in diagnosis are more common in abscesses located in the posterior compared to the anterior. It causes higher morbidity and mortality rates in posterior located abscesses.[3]

Microbiological studies reported in previous literatures have shown that common pathogens are normal flora of the oral cavity and oropharynx.[6,7,10,12]

Radiological evaluation is a very important diagnostic tool that gives information about localization, airway status, and possible deep infection signs. Although ultrasonographic investigation can localize abscess, usually a CT or MRI with contrast is performed. Contrast-enhanced CT has an important role especially in the diagnosis of posterior abscesses. It also helps to identify and exclude possible mass lesions.[6,7,11] MRI is a more valuable tool than CT for evaluating soft tissue structures. However, due to the long processing time; MRI will not be suitable for patients with airway insufficiency or at risk in this regard.[7,12]

Treatment is based mainly on airway control, drainage, and antibiotic treatment. Especially patients with posteriorly localized abscesses should be screened carefully to avoid urgent tracheotomy procedure.[4] As known, an urgent tracheotomy has more complication rates than an elective procedure. As anteriorly localized abscesses can be drained with a needle, laterally localized ones can be drained by incision and drainage procedure, and posteriorly localized abscesses can be drained by needle or open procedure.[2,7] Wide-spectrum antibiotic combinations such as clindamycin + ceftriaxone, amoxicillin-clavulanate + ceftriaxone are suitable for empiric treatment.[5-8,10] Antibiotic treatment can also be reordered according to the culture results. By means of suitable treatments, mortality occurs in less than 3% of cases.[4] In the differential diagnosis, epiglottitis, angioedema, neoplasm, cystic lesions and tuberculosis should be considered.[3]

In conclusion, patients with pain, tenderness, odynophagia, dysphagia, and the respiratory problem should be screened carefully for potential mortal tongue abscesses and in any suspicion, an MRI or CT with contrast should be performed to avoid any misdiagnose or delay.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Recep Haydar Koç, Mehmet Akif Abakay;* ***Design:*** *Filiz Gülüstan;* ***Control/Supervision:*** *Mehmet Akif Abakay;* ***Data Collection and/or Processing:*** *Recep Haydar Koç, Nusret Solak;* ***Analysis and/or Interpretation:*** *Filiz Gülüstan;* ***Literature Review:*** *Recep Haydar Koç, Nusret Solak;* ***Writing the Article:*** *Recep Haydar Koç, Nusret Solak, Filiz Gülüstan;* ***Critical Review:*** *Mehmet Akif Abalay.*

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