

## Acil Serviste Ultrasonografinin Farklı Bir Kullanımı; Nadir Bir Boğaz Ağrısı: Dil Apsesi

### A Different Use of Ultrasonography in Emergency Service; A Rare Sore Throat: Tongue Abscess

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#### Öz

Dil apseleri farklı klinik prezentasyonlarla ortaya çıkabilen çok nadir bir hastalıktır. Kesin tanı direne edile pürülan materyal ile konulmaktadır. Bilgisayarlı tomografi ve manyetik rezonans görüntüleme gibi yöntemler tanıda yardımcıdır. Olgumuzda 45 yaşında acil servise boğaz ağrısı ve yutma güçlüğü şikayeti ile gelen erkek bir hasta sunduk. Hastaya daha önce gittiği kliniklerde farklı ön tanımlar konmasına rağmen acil servisinde dil apsesi tanısı konuldu. Bu olguyu sunmamızın temel amacı, literatürde ilk kez acil serviste acil servis hekimleri tarafından dil apsesi için kullanılan ultrasonografinin kullanılmasıdır. Bu vaka, dil apselerinin klinik yönetimi için farklı bir yaklaşım sunmaktadır.

**Anahtar kelimeler:** Apsel, dil, ultrasonografi, acil servis

#### ABSTRACT

Tongue abscesses are a sporadic disease that can present in different clinical presentations. The definitive diagnosis is made by seeing the purulent material in the drainage syringe because this procedure is painful; other diagnostic methods such as computed tomography and magnetic resonance are used as an aid. In our case, a 45-year-old male patient showed symptoms of sore throat and difficulty swallowing. The patient has had different pre-diagnosis in the clinics he visited before, but we were diagnosed with tongue abscess in our emergency department. The main purpose of presenting this case is that ultrasound is used to diagnose tongue abscess by emergency physicians in the emergency department for the first time in the literature as far as we know. This case offers a different approach for the clinical management of tongue abscesses.

**Keywords:** Abscess, tongue, ultrasonography, emergency service

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**Geliş tarihi/Received:** 31.05.2021

**Kabul tarihi/Accepted:** 28.10.2021

## Introduction

Tongue abscess is a rare condition that presents with complaints such as pain in the tongue, swelling, sore throat, difficulty swallowing, inability to put the tongue into the mouth, and difficulty breathing, and sometimes it can be life-threatening. The reason why tongue abscess is rarely seen is attributed to its unique anatomical structure, rich blood vessels, thick mucosal tissue, and the anti-inflammatory and antimicrobial effects of the salivary secretion with which it is in constant contact. Most of the patients with tongue abscesses are between the ages of 30-50 and are male (1). Although the definitive diagnosis is made by seeing the purulent material in the drainage syringe, generally, CT and MRI lead emergency physicians to the diagnosis of tongue abscess(2). The rate of encountering tongue abscesses during a physician's professional life is not very high. The rarity of tongue abscesses may increase the possibility of underdiagnosis in patients presenting with dysphagia and sore throat (3). The abscesses, especially on the back of the tongue, have the potential for airway obstruction. And it can be life-threatening (4.) In the differential diagnosis, tongue tumors, tongue swelling due to allergic reactions, dermoid cyst, lipoma, aneurysm of the lingual artery, bleeding should be kept in mind (5,6). Treatment is primarily to take airway safety, followed by drainage and antibiotics, which are the classic abscess treatment. Generally, parenteral routes such as intravenous or intramuscular are preferred for treatment (7,8). We wanted to share a 45-year-old case of a tongue abscess who applied to our clinic with a sore throat and difficulty swallowing.

## Case

A 45-year-old male patient was admitted to the emergency service with complaints of sore throat and difficulty swallowing. In the patient's anamnesis, he had these complaints for seven days, firstly he went to the family doctor and was diagnosed with tonsillitis. The family doctor prescribed him amoxicillin-clavulanic acid 1000 mg twice a day for four days. He applied to another emergency department when his complaints did not pass and continue in the same way. At that emergency department, he was allergic to the drugs he used or ate. The patient is administered avil® (pheniramine maleate 45.5 mg) and decort® (dexamethasone sodium phosphate 8 mg). But there was no reduction in his complaints. There was no pathology in the developing vitals of the patient. Blood pressure was 130/80 mm Hg, pulse 68 / min, respiratory rate 12 / min, body temperature 36.8 C. There was minimal redness on the tongue without uvula edema in the physical examination, no enlargement of the tonsils, and minimal

shape change and whiteness on one side of the tongue compared to the other in bright light (Figure-1 and 2). In the superficial ultrasonography, there was loculated fluid in the tongue of the patient. In Doppler ultrasonography, there was loculated fluid without vascularization, heterogeneous echo, 20x17x10 mm contour. The abscess was drained, and an intravenous antibiotic (clindamycin 600 mg) was administered. And, the clindamycin 600 mg twice a day was prescribed parenterally. The patient was called for follow-up three days after medication. (taking care of oral hygiene, feeding with liquid foods, antiseptic mouthwash). On the third day of treatment, no pathological finding was found in the examination of the patient. It was observed that all complaints of the patient regressed. Parenteral antibiotic therapy of the patient was stopped. The patient was told to pay attention to oral hygiene and continue oral antibiotics and antiseptic mouthwash. The patient was discharged and called for follow-up. 7-day post-discharge follow-up, he had no complaints, and no pathological findings were found in his physical examination. Neck magnetic resonance imaging was requested to exclude any accompanying complications (such as neck abscess, thyroglossal cyst, malignancy). No pathological finding was detected in the magnetic resonance images.



**Figure-1:** Picture of the patient's tongue under the light



**Figure-2:** Picture of the patient's tongue

## Discussion

Tongue abscess is an infrequent clinical condition (9). It is generally seen in the 30-50 age range and also in men. In the last thirty years, a limited number of cases, primarily single cases, have been reported in the literature (1,10). The clinical presentation of tongue abscess is frequently encountered as swelling of the tongue, sore throat, difficulty swallowing, shortness of breath, and limitation of tongue movements (4,5,11). Early diagnosis and treatment of tongue abscesses can be life-saving, especially in the presence of dysphagia and dyspnea (12).

Treatment of tongue abscess is classical abscess treatment and includes drainage and antibiotic therapy. Since tongue abscesses are close to the airways, they should be treated with airway safety (9). Agents effective against aerobic and anaerobic organisms should be preferred in antibiotic treatment (10). Although clindamycin, penicillin, gentamicin, metronidazole, cefuroxime, amikacin and ticarcillin are recommended. There is no definite opinion about the duration of the treatment (10,11,12). As a matter of fact, in our case, we used clindamycin 600 mg twice a day parenterally for three days. Tongue abscesses may be overlooked in emergency medicine practice because the number of admissions to the emergency service with sore throat is high, but we believe that the rate of missed out will decrease with a good anamnesis and physical examination, especially keeping in mind.

## Conclusion

Many patients apply to the emergency department with the complaint of sore throat; essential conditions such as tongue abscess should be kept in mind.

The second and the main issue we want to emphasize is that we believe that ultrasonography, which is increasingly used in emergency services, can also be helpful to diagnose tongue abscesses. In fact, in our research, we think that this case is the first case in which tongue ultrasonography was used in the emergency literature. Therefore, we believe that ultrasonography can be used in patients admitted to the emergency department with a sore throat and that more comprehensive studies with more cases are needed.

**Informed Consent:** Written informed consent was obtained from all participants who participated in this study.

**Conflict of Interest Statement:** The authors have no conflicts of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support. Author Contributions:

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

**Note:** It was presented as a poster presentation at the 4th International Critical Care and Emergency Medicine Congress & the 13th National Emergency Medicine Congress, Antalya, 2017.

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