

# An Unusual Cause of Dysphagia: Live Leech in the Tongue Base

## *Disfajinin Nadir Bir Nedeni: Dil Kökünde Canlı Sülük*

### Case Report Olgu Sunumu

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### Abstract

Inhaled or ingested foreign bodies are relatively common causes of airway obstructions. They can be associated with significant morbidity and even mortality. Although various foreign bodies are aspirated or ingested, live leeches are rarely encountered. We reported a case of

a live leech at the base of the tongue in an 18-year-old female patient with a history of unfiltered spring water drinking. We discussed the surgical technique and importance of anesthesia with this brief study.

**Keywords:** Larynx, dysphagia, leech, foreign body

### Özet

Solunan veya yutulan yabancı cisimler havayolu obstrüksiyonunun nispeten sık nedenidir ve önemli morbidite ve hatta mortalite ile ilişkili olabilir. Aspire edilen veya yutulan çeşitli sayıda yabancı cisim olmasına rağmen, canlı sülüklere nadiren rastlanır. Bu olgu sunumunda filtresiz kaynak suyu içme öyküsü olan 18 yaşında ba-

yan hastanın dil kökü bölgesinde yer alan canlı bir sülük bir olgusunu sunduk. Bu kısa çalışma ile canlı yabancı cisimlerin çıkarılması sırasında cerrahi teknik ve anestezinin önemi tartışılmıştır.

**Anahtar Kelimeler:** Larinks, disfaji, sülük, yabancı cisim

### Introduction

Leeches are blood-sucking hermaphroditic parasites that live in freshwater, natural spring water, and marine environments, particularly in rural areas (1). Direct contact with water, particularly during the leech season (from May to September) may cause infestation by the parasite. Reported infestation sites in the head and neck region include regions of the nose, nasopharynx, larynx, oropharynx, tonsils and the esophagus (2-5). However, leeches used in medicine, which are applied for flap survival in patients undergoing head and neck reconstruction, may migrate to the upper aerodigestive tract and cause ingestion (2). We have presented a case of live leech infestation at the base of the tongue in an 18-year-old female patient with a history of drinking unfiltered spring water.

admitting the patient to the operation theater, first we attempted to extract the parasite without local anesthesia, which can cause inhibition of the cough reflex and may cause aspiration of the living foreign body during surgery. Because the gag reflex of the patient did not permit any surgical intervention, after administration of 10% Lidocaine pump spray (Vemcaine; Vem İlaç, İstanbul, Turkey), we carefully removed the leech under topical anesthesia with laryngeal punch (Figure 2). One day after hospitalization, the patient completely recovered without any complication and was discharged from the hospital. On the first-week control, she remained well without any complaint. Informed consent of the patient was obtained for this case report.

### Discussion

Leeches are parasites living in the fresh-water streams and lakes in the rural areas (6). In patients presenting with dysphagia, hoarseness, and hemoptysis with a history of contact with spring or unfiltered water, an upper airway leech parasite infestation must be considered in the differential diagnosis (7). The presence of a leech in the larynx and upper airway requires emergency intervention because it may result in hemoptysis and airway obstruction. The reason for bleeding in the case of a leech infestation is that the saliva of a leech con-

### Case Report

An 18-year-old female patient complaining of dysphagia, bloody saliva, and foreign body sensation in the throat 3 days after drinking from unfiltered spring water presented to the otorhinolaryngology clinic of our tertiary center. Indirect endoscopic laryngeal and oropharyngeal examination using a 70° telescope revealed a dark-green living foreign body with some bleeding on the right side of the base of the tongue (Figure 1). Other physical examination findings were normal. After



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Figure 1. A dark-green living foreign body on right side of the base of tongue is shown



Figure 2. Live leech has been presented

tains hirudin, which has anticoagulant properties. Furthermore, the saliva contains a histamine-like vasodilator that promotes bleeding, causing epistaxis, hemoptysis, or hematemesis (4).

The removal of the leech should be performed with great caution because it strongly attaches to the associated mucosa with its anterior suckers (1). Because the parasite has a slippery surface, there is a risk of rupture during intervention. Furthermore, if it ruptures during surgical intervention, bleeding may continue when some parts of its mouth remain in the mucosa (7). To minimize the risk of rupture, mostly blunt-ended surgical instruments such as laryngeal punches are recommended (6). In addition to the technique of removing the parasite, anesthesia during the surgical procedure is very important. Removal of leeches from the upper airway can be performed under general or topical/local anesthesia (2). If the leech infestation area is near the lower airway such as the interarytenoid area or epiglottis, there is a risk of aspiration of the parasite during general

anesthesia (2). Uygur et al. (2) recommended tubeless induction anesthesia with mask ventilation for the removal of a laryngeal leech, whereas Alioglu et al. (7) preferred removal of the parasite without local anesthesia to prevent the inhibition of reflexes for aspiration. San et al. (1) and Rajati et al. (6) preferred careful intubation under general anesthesia for supraglottic infestations. We removed the leech under topical anesthesia because the gag reflex did not permit the surgical intervention.

## Conclusion

A live leech in the tongue base region should be considered in the differential diagnosis of patients presenting with dysphagia, sensation of a foreign body, and bloody saliva. Rural areas and contaminated or unfiltered spring water drinking are predisposing factors for leech infestations in the upper airway. The surgeon and the anesthesiologist should take the necessary measures to avoid hazardous complications such as aspiration and even death during the surgical procedure.

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