Acute otalgia during sleep (live insect in the ear): a case report

Uykuda ani kulak ağrısı: Kulakta canlı bir böcek (Olgu sunumu)

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Summary

Foreign bodies in the external auditory canal may cause otalgia, and live insects have been reported among the causes. A number of methods have been used to immobilize the live insects. In our manuscript, we describe immobilization of an insect and provision of analgesia using EMLA cream.

Key words: Ear; EMLA; foreign body; insect; otalgia.

Özet

Dış kulak yolundaki yabancı cisimler kulak ağrısına (otalji) neden olabilir. Böcekler de bu yabancı cisimlerden olabilir ki; onları etkisiz hale getirmek için birçok yöntem kullanılmıştır. Bu yazıda, dış kulak yolundaki bir böceğin, EMLA krem kullanılarak etkisiz hale getirilmesi ve sağladığımız analjezi deneyimimizi sunduk.

Anahtar sözcükler: Kulak; EMLA; yabancı cisim; böcek; kulak ağrısı.

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Introduction

Otalgia is defined as ear pain. Pain that originates from pathologic conditions of the ear is called primary otalgia. Pain that originates outside the ear is called secondary otalgia. The most common causes of primary otalgia are infectious diseases of the ear, such as otitis media, mastoiditis, otitis externa and herpes zoster oticus (Ramsay-Hunt syndrome). Tumors, frostbite, burns, trauma and rarely foreign bodies are other causes of primary otalgia. Secondary otalgia is caused by diseases in the paranasal sinuses, nose, and pharynx or, frequently, from temporomandibular and cervical spine disorders. The cause of secondary otalgia can also be referred pain from the mouth, teeth, larynx, or thyroid gland; neural, vascular, or lymphatic structures of the neck; or the esophagus, heart, or lungs.[1-3]

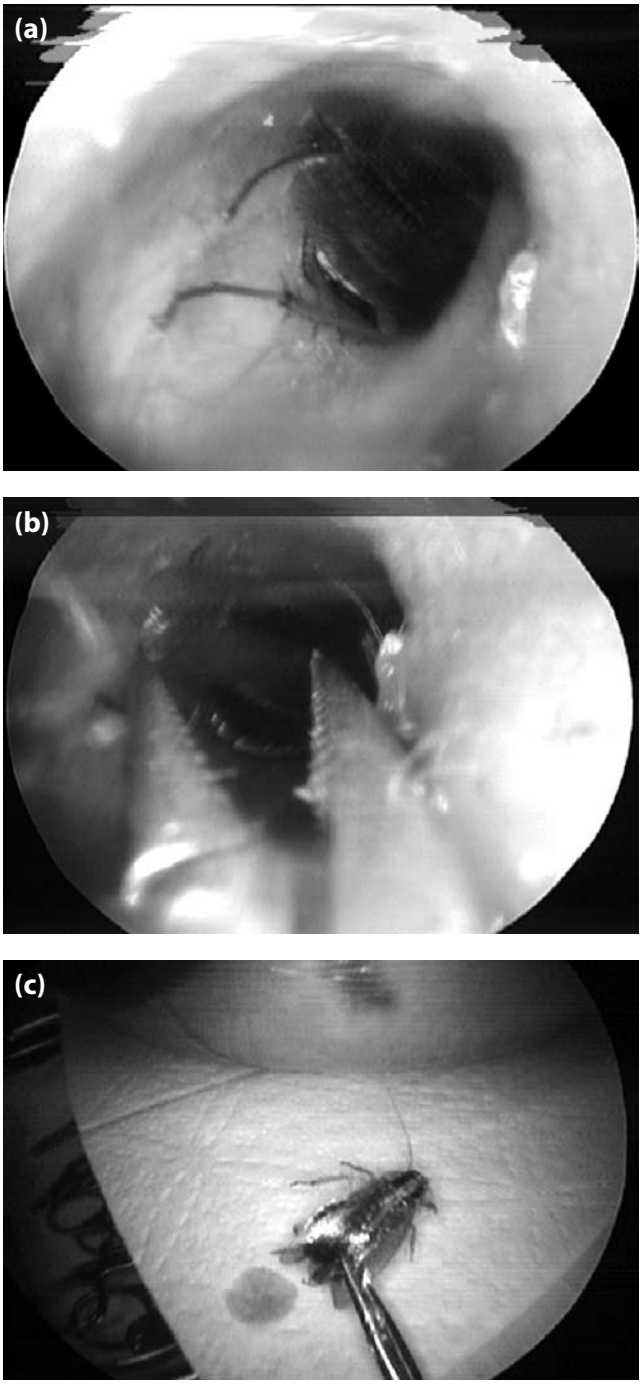

Figure 1. (a) A live insect in the EAC. **(b)** An insect was removed with forceps after EMLA cream application. **(c)** An inactivate insect after removal.

In a patient with acute otalgia, the cause of the pain due to foreign body is often ignored and leads to severe pain when the foreign bodies are alive. Live insects are the most common object encountered in older children and teenagers, representing 14% of all foreign bodies of the ear. Cockroaches are the most commonly specified insect foreign body (78%); others include honeybees, beetles, spiders and unspecified.[4]

Case Report

We report a 25-year-old male who presented for pain in his left ear for two days. He suffered from an acute ear pain during sleep. The pain was severe (VAS: 6) and intermittent in nature with tinnitus. Endoscopic examination revealed a live insect in the external auditory canal (EAC) in contact with the tympanic membrane in the left ear (Figure 1a). The EAC and the tympanic membrane were washed with lidocaine 1%. EMLA cream (2.5 g)-absorbed gauze wad was stuffed into the EAC. The patient's toleration of the gauze wad was good. No complication occurred. After 60 minutes, the wad was extracted and the immobilized insect was seen. It was removed with forceps using aspiration under otomicroscopy (Figure 1b, c).

Discussion

Live insects in the EAC can be quite painful and cause a significant amount of physical and emotional distress. They should be immobilized or killed before removal is attempted. Once killed, the insect can be removed by instrumentation or irrigation. Subsequent microscope examination is necessary to ensure no anatomic parts of the insect are left within the EAC; remaining barbed appendages can induce delayed EAC infection.[5] The manipulation of the

EAC is extremely painful. When the patients, especially young children, react to the pain and struggle, the physician may sometimes unfortunately persist and remove contents of the EAC. This could include the tympanic membrane and some of the ossicles of the middle ear, leaving the child with a hearing loss at the least.[6] Local anesthesia is invasive and is not generally used for uncomplicated foreign body removal because of the complex innervation of the EAC.[7]

EMLA is a eutectic mixture of 2.5% lidocaine and 2.5% prilocaine base to yield a 5% cream. This mixture is frequently used as topical anesthetic for minor surgical procedures, such as venipuncture, punch biopsies, curettage of molluscum contagiosum, chemical peels, and epilation. Although the ear is the only conceivable place where EMLA application can result in full anesthesia, one study evaluating the efficacy of EMLA for total anesthesia of the external ear concluded that it was not a good and first option for use in the ear because of its poor anesthetic effect.[8]

A wide variety of preparations have been used to relieve pain and immobilize insects in the EAC of humans. To our knowledge, there is no report in the literature regarding the usage of EMLA cream for this purpose. Given the fact that the value of a preparation for removal of aural insect foreign bodies must be measured against other parameters, such as irritation of the ear canal skin and potential for ototoxicity, we suggest that EMLA cream can be a good alternative for painless and less complicated foreign insect body removal.

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