INTRODUCTION

Different foreign bodies can reach the lumen of the external auditory canal. Clinical presence of the foreign bodies depends on the nature of the foreign body, localization, morphological features, and the presence of pathological process. Case Report. This study gives a report on a rare foreign body – a tick on the eardrum, which is a very rare localization in European countries. Conclusion. Identification, determination of the nature of the foreign body and the way of extracting it depend on the application of adequate diagnostic and therapeutic approaches.

Key words: Ticks; Tympanic Membrane; Diagnosis; Ear Canal; Bites and Stings; Surgical Instruments; Drug Therapy

Case Report

A seven-year old girl was an outpatient in the regional medical centre for a month due to repeated bleeding from the right ear. The child was treated with local therapy and unsuccessful removal of an unidentified foreign body. During the intervention, massive bleeding occurred and then she was sent to the ENT (Ear, Nose and Throat) Department with the glomus tympanicus diagnosis.

The patient did not complain of discharge, tinnitus or hearing loss.

Otoscopic and otomicroscopic check-up showed a foreign body, situated in the upper part of the right external auditory canal, next to the eardrum. Since a leg had been identified, it was concluded that the foreign body was an insect. The external auditory canal and tympanic membrane showed normal morphology, without any sign of bleeding and hematoma. A blood sample was taken for serology.

Both otomicroscopic examination and extraction of the foreign body by microforceps were carried out under short general anesthesia. A dead tick was identified in the upper posterior region of the eardrum near to the annulus, without perforation. Parasitological analysis confirmed a hard tick - Rhipicephalus sanguineus (female) (Figure 1).

Systemic antibiotic therapy (ceftriaxone) and local treatment were administered postoperatively. The postoperative course had no complications, and audiometry confirmed normal hearing. During the six-month follow-up period, the child's condition was good.

Serological analysis on Borrelia burgdorferi was negative and further serological analyses were not suggested by infectologist.

Informed consent had been obtained from the child's parents prior to the procedures performed.
Discussion

Ticks are blood-sucking ectoparasites of the class Arachnida. They are classified as hard ticks and soft ticks, depending on their covering cuticles. They feed with human and animal blood, and can transmit pathogens such as rickettsiae and spirochetes, which induce spotted fever, Lyme disease, and spirochetal infectious disease. There is not much data about this kind of foreign bodies in the external ear canal and eardrum, and the most common cases have not been reported in European countries [1–8].

Careful otoscopy and otomicroscopy are necessary to identify foreign bodies. The shape and diameter of the outer ear canal can present an obstacle. One of the most distressing experiences in case of a foreign body is having a live insect in the ear canal, especially in children. The insect’s movement can cause a buzzing in the ear and may be quite uncomfortable. In some cases, a foreign body in the ear canal will go undetected. Sleeping on the floor or outdoors would increase the chance of this unpleasant experience.

Successful removal of foreign bodies depends on a number of factors such as the nature of foreign body, the cooperation of the patient during removal, the ability to visualize the foreign body, the equipment and tool available for the removal of foreign body, the experience and skill of otorhinolaryngologist [9].

Literature recommends different therapeutic procedures, such as mere inaction until a tick falls off spontaneously [4], extraction by microforceps [1, 2, 5], extraction with the skin around it, and extracting the abdomen of tick along with suction of the body fluid and the extraction of the whole body of the tick after three days [4].

Some authors recommend killing the tick by pouring warm water, mineral oil [2], 4% solution of lidocain [2] or glicerin [5] into the outer ear canal before the extraction of the tick.

The tick can be extracted from the canal under local anesthesia, while general short-term anesthesia is recommended for its removal from an eardrum in the pediatric population. Antibiotic therapy is recommended after extracting the tick [5, 6], or to treat complications [4].

References
