**Case report:**

Removal of Aural Tick in a General Practitioner Setting During COVID-19 Lockdown

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**Abstract**

Foreign body in the ear including beads and seeds is not uncommon in children. Tick also has been a common aural foreign body especially in tropical climate countries. Although in older cooperative children it can be attempted in the clinic setting, most of paediatric aural foreign bodies require general anaesthesia. In addition, a general practitioner setting may impose additional limitations. The available instruments and experience may be different from a tertiary referral centre. We report a case of a 3-year-old child with left ear pain for 4 days associated with loud crying when the pinna was touched. It has been worsening until the cry became continuous. The mother was quite hesitated to bring the child to hospital because of the lockdown situation. She sought nearby general practitioner where the engorged tick was removed without any complication in that clinic alone.

**Keywords:** Foreign body; ear tick; general practitioner; clinic

**INTRODUCTION**

Foreign body in the ears are not uncommon encounters in tertiary centres with otolaryngology setting. Depending on the types of foreign body, its removal often needs special instruments and often requiring sedation or general anaesthesia, especially if it involves relatively younger-aged children. This is important to avoid injury to the ear canal and tympanic membrane. Half of the aural foreign body cases (59.8%) occur in children of less than 10 years old¹. Tick infestation into the ear drum is uncommon, and removal in a 3-year-old child is near impossible at general practitioner (GP) setting.

**CASE REPORT**

A 3-year-old girl was noted by mother for being easily irritable for 4 days, especially whenever the right ear was touched. The child appeared uncomfortable with excessive crying. The mother also noticed that child was less attentive to surroundings. The mother decided to bring the child to a GP since the problem occurred during lockdown period and travel to distant tertiary hospital was quite troublesome.

Upon arrival at the clinic, the patient appeared restless. Her vital signs were stable. No fever and ear discharge seen. On otoscopy examination, there was a greyish swelling in the right ear canal. It was identified as an engorged tick, located in the outer-third of the ear canal (Figure 1).

The child was calmed down. We asked the father to hold her head still in order to minimize movement and trauma. By using the crocodile forceps with suction (Figure 2), the tick was successfully removed. The procedure took half an hour to get the huge living tick removed. Based on our observation, the tick has been resting in the ear probably within 2 or 3 days. There were blackish faecal materials inside the ear canal. We prescribed syrup paracetamol and syrup cloxacillin to cover for infection. We advised to bring the child immediately if there is any sign of infection such as ear discharge, fever or pain.

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DISCUSSION

Tick is a type of ectoparasite, and it is from Ixodidae hard tick and Argasidae (soft tick). Most of the patients contracting aural ticks are majority working in the farm. Tick infestations occur in all sites of the human body especially skin, scalp and others. Infestation of tick in the ear canal is common in rural areas and it has been reported before. Ticks may mimic mass within the ear canal when they grow bigger after sucking blood. The ear canal is a perfect place to slip inside. The warm, moist conditions and protected shelter of an ear canal would be just the best place to hide. Wax in the ear attracts the insects where they get stuck behind hairs into wax, or penetrate the skin or eardrum. Sometimes, patient has no complaint upon tick infestation if it is painless. Children are more likely to present to hospital than adults with a foreign body in the ear or nose.

There are a few different ways that the insects can get into the ear. It could enter ear canal during sleeping at night, or when the child is playing near the bushes. Localized otalgia can be the presenting complaint. Facial nerve paralysis can be due to toxin released. Itching and tinnitus in the ear is associated with patients who had coexistent otomycosis developed over swollen vegetable or hygroscopic foreign bodies. Some of the ticks may be still alive at presentation, usually is more painful compared to the dead ticks. In few reported cases, the person may not notice the insects entering their ear initially and later had the symptoms. The most common symptoms of insect in the ear are pain and discomfort. It also may bite or sting while it remains trapped in the ear depending on the type of the insect. Clearly, do not insert anything inside the ear such as probing object or a cotton swab in order to remove it from the ear because sticking something into the ear can push it further inside, which can lead to long lasting damage for examples, bleeding, bruising as well as ruptured the eardrum. In most of the cases, this foreign body in the ear will not cause any significant problems, but it can occasionally lead to complications. Regardless of the dangers, that foreign body has to be removed as soon as possible. Oral and topical analgesics are sometimes required in some cases to reduce the pain before referral to the tertiary center.

Ticks are blood-sucking arthropods and it is associated with many diseases worldwide and under public health concern. Malaysia climate is considered as a suitable environment for tick. They are a type of parasite which lives by sucking the blood. Ear canal is an ideal area for breeding of a tick. Ear canal is a humid area and tick can easily enter the ear canal and stay within the confined areas for a long period of time.
Removing tick is a very important procedure to prevent further complication. There are many complications can happen when tick attach in the ear. It includes ear canal abrasion, laceration, bleeding, otitis externa, acute otitis media, rupture the ear drum and later can also infect the inner ear and extending to the brain9.

It must be removed immediately and carefully from the affected area. Several research or study or case reports/series in human and animal showed the risk of in 1 days or 24 hours of tick infestation and is especially high after 48 hours10. The careful, mechanical extraction of ticks using blunt, curved, medium point forceps is recommended as safe and effective11.

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Study design: ZZ, HS  
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