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Clinical Record

An unusual cause of pre-auricular swelling

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Abstract

Objective: To present an interesting cause of pre-auricular swelling.

Case report: We report the case of a 39-year-old woman who presented to the ENT department as an emergency with swelling in the left pre-auricular region. The patient had recently travelled to Central America, where the botfly is endemic. On examination, there was a raised, indurated area with a central orifice. A botfly larva was suspected. The larva was suffocated with paraffin paste, allowing removal without remnants being retained.

Conclusion: Suffocation of botfly larvae is favoured to surgical removal, due to the possibility of larval remnants being retained and acting as a nidus for infection. The increasing frequency of exotic travel means doctors need to be more aware of tropical medicine.

Key words: Botfly; Head And Neck; *Dermatobia Hominis*

Introduction

This report highlights an interesting case of pre-auricular swelling in a patient who had recently travelled. It serves to highlight an alternative diagnosis to a simple abscess, and emphasises the fact that thorough history-taking is vital for correct diagnosis and effective treatment.

Case report

A 39-year-old woman presented to the ENT department as an emergency with a swelling in the left pre-auricular region (Figure 1). The swelling had been present for three weeks, along with the sensation of something moving within the swelling. The patient had returned four weeks previously from a holiday in Belize, Central America. Two different courses of oral antibiotics had been previously prescribed but were ineffective.

Examination revealed a raised, indurated area around a central orifice. Level II lymph nodes on the ipsilateral side were palpable.

It was suspected that the swelling was an abscess, and an incision was made under local anaesthetic; however, no pus was found.

The patient's husband mentioned the possibility of a botfly larva, this being common in Central America. A literature search revealed that the botfly larva attaches via hooks to the subcutaneous tissues. If removed with sufficient force to fragment the larva, a larval remnant will remain and act as a focus for infection.

Guided by the literature, a thick layer of paraffin paste was applied to the central orifice of the swelling and covered with a dressing, and a clinic appointment was booked for two days hence.

In the clinic, the larva was found to have tunnelled through the paraffin paste to reach air, removing itself from the orifice and lying free within the dressing. The patient had removed the dressing and kept the larva for verification (Figure 2).

At follow up one week later, the raised, indurated area persisted in the left pre-auricular region. The decision was made that this should be explored under general anaesthetic.

In the operating theatre, no further larvae or larval remnants were found, only a fibrous sac.

Discussion

The botfly (*Dermatobia hominis*) is endemic in Central and South America. It has a remarkable lifecycle. The botfly captures arthropods such as mosquitoes and lays its eggs on their abdomen.[1] When the mosquito bites a human or animal, the botfly eggs are transferred to the skin and subsequently hatch due to the warm surroundings. The larvae

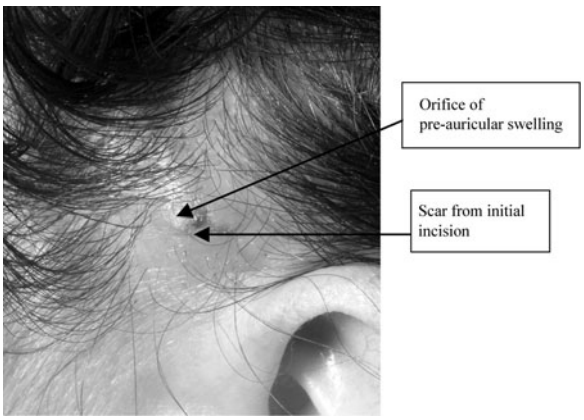

Fig. 1
The left-sided, pre-auricular swelling.

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FIG. 2
The larva, collected by the patient.

then enter the recipient's skin through the mosquito feeding site. Once inside, they feed for up to three months, remaining attached to the host through a series of spines (see Figure 2). The larvae then exit the skin and fall to the ground, where they live within the soil for a further month and pupate, before emerging as adult flies.[2]

Suffocation of the larva has been advocated to avoid retention of larval remnants. Various techniques have used petroleum jelly, pig fat and beeswax. Injection of lignocaine hydrochloride under the skin to force the larva out under pressure has also been effective.[3] Surgical exploration may be needed, and is seen as a definitive, efficient and safe option.

- **This paper describes the case of a 39-year-old woman who presented to an ENT department as an emergency with a pre-auricular swelling**
- **The patient had recently travelled to Central America, where the botfly is endemic**
- **Suffocation of botfly larvae is preferred to surgical removal, due to the possibility of larval remnants being retained and acting as a nidus for infection**

Happily, in this case the patient's husband suggested the correct diagnosis.

With the increase in exotic holidays, doctors will need to be more aware of tropical medicine and alternative diagnoses.

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