A painful toe: botfly myiasis

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DESCRIPTION

A 47-year-old woman presented with a 2-week history of severe sporadic shooting pain in her right second toe following return from a bird watching holiday in Panama.

On examination she was systemically well. Examination of her right foot revealed a small non-healing puncture type wound (1 mm; figure 1) on the plantar aspect of the toe with continual serous-sanguinous discharge. A small white foreign body could be visualised deep in the puncture wound (figure 2).

Surgical exploration under local anaesthesia revealed a large parasite (0.5 cm; figure 3) subsequently identified as *Dermatobia hominis* larvae (botfly). Damage to her digital nerve and some pulp loss was observed. The pain completely resolved postprocedure and the recovery has been uneventful.

The botfly is native to Central and South America; all documented cases of *D. hominis* myiasis had recently been to the region.¹

Larvae transmission occurs by phoresy, with blood-feeding arthropods, such as mosquitos, acting as vectors. Eggs hatch on feeding, stimulated by the warmth of the blood, and enter the skin through the bite puncture.^{1 2}

The larvae are known to infest the subcutaneous skin layer of mammals, often resulting in painful secretory pustules, with a characteristic central pore that provides air to the larvae. They are not known

Figure 2 Wound during exploration. A small white foreign body can be seen in the center of the puncture.

to transmit pathogens, and following extraction the wound tends to heal quickly and without complication.^{1 2}

Figure 1 Small puncture-type wound in toe.

Figure 3 Parasite removed from toe measuring 0.5 cm. Subsequently identified as botfly larva.

To cite: Kay S, Butt D, Lidder S, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-201860

Learning points

- ▶ Differential diagnoses for a puncture wound such as this include penetrating trauma, foreign body, infected insect bite, abscess or sebaceous cyst. Parasitic infestation should be included in the differential diagnosis of a new skin lesion in patients who have travelled to endemic areas.²
- ▶ The presence of the botfly is not in itself harmful as they are not known to transmit pathogens and the secretions are neutral.² It is the resultant pain and tissue damage which is problematic.
- ▶ Management options for myiasis include conservative management, allowing the larvae to exit as per its life cycle, techniques which encourage the larvae to come out by excluding the pore using petroleum jelly/wax, or mechanical extraction using tweezers/venom extractor. Anecdotally surgical extraction is favoured by patients due to quick removal and debridement.^{1 2}

Contributors The patient was under the care of SJ. The case was seen and treated by DB and SL both of whom provided images. The case report was written by SK and edited by DB.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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