Hookworm-related cutaneous larva migrans acquired in the UK

Katy Baple, James Clayton

SUMMARY

Hookworm-related cutaneous larva migrans (HrCLM) is a skin disease caused by infection with the larvae of animal hookworms. With conditions for infection more favourable in tropical climates, HrCLM in the UK is classically diagnosed in the returning traveller. We present two cases of clinically diagnosed UK-acquired HrCLM from a district general hospital in the south of England. A 68-year-old woman presented with a pruritic serpiginous tract on the right hand. She was a keen gardener and had been handling compost. A 50-year-old man, a long distance runner, presented with a similar lesion on the dorsum of his foot. Both patients were treated with a single dose of albendazole. These cases may represent an emerging infection in the UK. In the absence of a suggestive travel history, early recognition followed by efficient access to therapy is vital for treating HrCLM transmitted in the UK.

BACKGROUND

Hookworm-related cutaneous larva migrans (HrCLM) is a skin disease caused by infection with the larvae of animal hookworms, particularly those that infect cats and dogs. Species include Ancylostoma braziliense and Ancylostoma caninum. With conditions for infection more favourable in tropical or subtropical climates, HrCLM in the UK is classically diagnosed in the returning traveller. However, cases acquired within the UK are reported. The clinical history and examination findings of a classic serpiginous erythematous lesion known as a ‘creeping eruption’ resulting from the migrating larvae are fundamental to forming the diagnosis.

We report two cases of clinically diagnosed UK-acquired HrCLM presenting to a district general hospital in the south of England in the summer of 2014.

CASE PRESENTATION

Case 1

A 68-year-old woman presented with an 11-day history of a gradually extending pruritic serpiginous tract on her right hand in June 2014. She expressed being a keen gardener and described noticing a ‘bite’ underneath her ring on her right little finger after handling compost in her garden in Surrey. When gardening, she generally used gloves of a thin material. Over the following days, a rash developed, tracking from the initial ‘bite site’ with a sensation of ‘something crawling’ under the skin. The patient later attempted to self-extract this with a sterile needle after which she noticed the lesion extending at an increased rate. The lesion was described as intensely itchy and was associated with significant sleep disturbance. There was previous travel of a 1-month trip to South Africa 4 months prior to presentation. There was no significant animal contact (including with cats or dogs); however, she mentioned her garden was surrounded by woodland and was regularly visited by deer, foxes and rabbits. Examination revealed an erythematous papule between the fourth and fifth web space, with a red/brown elevated serpiginous tract tracking along the medial palmar aspect of the right hand (figure 1).

Case 2

A 50-year-old man presented, in August 2014, with a 4-week history of a small erythematous lesion on the dorsum of his foot, which gradually extended daily by a few millimetres (figure 2). The area was intensely pruritic and caused severe sleep disturbance. Antibacterials were prescribed by his general practitioner (GP), but with little effect. He
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red foxes; 2 in a study to quantify the prevalence of
hookworms HrCLM is commonly caused by infection with the larvae of the
DISCUSSION
3 months of follow-up.
achieved in our patients with no relapse reported within
2 years, or other obvious significant contact. The diagnosis of
HrCLM was made by a London GP.
TREATMENT
Both patients were systemically well and were given a single
dose of albendazole (400 mg) with resolution of the dermatitis after 1 week.
OUTCOME AND FOLLOW-UP
With this treatment regimen, early resolution of the lesion was
achieved in our patients with no relapse reported within
3 months of follow-up.

Learning points

- While hookworm-related cutaneous larva migrans (HrCLM) is
  most likely to be seen in people returning from abroad, this
  may represent an emerging infection in the UK.
- The cases that we describe may be due to skin contact with
  soil contaminated with infected dog/cat faeces; however, wild
  animals should not be discounted in the transmission
  of HrCLM.
- The warm temperatures and higher rainfall experienced in
  2014 may have had a positive effect on survival of the
  larvae and thus transmission in the two cases we have
  reported.
- Resolution of the lesion with no reported relapse within
  3 months can be achieved with a single dose of oral
  albendazole.
- In the absence of a suggestive travel history, recognition
  by front-line physicians and, where appropriate, further
  communication with specialists, followed by efficient
  access to therapy, is essential in treating HrCLM transmitted
  in the UK.

Humans are incidentally infected when there is skin contact
with contaminated soil or sand containing filariform larvae. These develop 5–10 days after the rhabditiform larvae have
hatched from eggs passed in the faeces of their infected defini-
tive host. Hatching and survival of the larvae are optimised in
specific soil conditions: moisture, warmth and shade. For this
reason, HrCLM commonly presents in tropical or subtropical
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Although the eruption largely resolves after 2–8 weeks without therapy, for the relief of symptoms and reduction in the risk of recurrence and secondary bacterial infection, treatment with antihelmithic agents is recommended. However, the optimal treatment regimen remains controversial, with varying treatment durations of albendazole (1, 3, 5 and 7 days), a single dose of oral ivermectin or topical therapy with thiabendazole or albendazole being recommended in the literature. When comparing single dose regimens, higher cure rates with ivermectin (81–100%) in comparison to albendazole (46–100%) are reported. In more extensive or multiple lesions, a 7-day course of albendazole (100% cure rate) has been advised. The optimum treatment regimen advised appears to be dependent on the extent of the clinical presentation. In our patients who presented with a single lesion uncomplicated by secondary bacterial infection, early resolution of the lesions was achieved with a single 400 mg dose of albendazole, with no relapse within 3 months.

Competing interests None declared.

Patient consent Obtained.

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REFERENCES