CASE STUDY

A Serpiginous Lesion on the Foot

Forum

Pre-test CME Quiz

Abstract

Cutaneous larva migrans is a parasitic infection caused by percutaneous penetration and subsequent migration of the larvae of hookworm. The tracks are commonly raised, erythematous, serpiginous, and pruritic. Cutaneous larva migrans is diagnosed based on its clinical characteristics. It is a self-limiting condition because larvae eventually die in humans without being able to infest new hosts. Treatment is used to shorten the disease course, control the intense pruritus, and prevent the risk of secondary infection. Topical thiabendazole is the treatment of choice for mild and localized condition. Systemic treatment such as albendazole, mebendazole, and ivermectin are used in widespread cases or cases recalcitrant to topical treatment.

Keywords: *Cutaneous larva migrans, Parasitic infection, Hookworm,* Ancylostoma braziliense, *Thiabendazole*

A 24-year-old female developed an erythematous, serpiginous, and pruritic lesion on the dorsum of her right foot after her return from a Caribbean vacation 2 weeks ago. The use of desonide cream and terbinafine cream did not provide any improvement.

What is your diagnosis?

Cutaneous larva migrans is a parasitic infection caused by percutaneous penetration and subsequent migration of the larvae of hookworm. Humans are usually infected by walking barefoot on beaches or soil that have been contaminated by infested animal feces. The larvae are commonly found in tropical and subtropical geographic areas and they include *ancylostoma*

About the authors

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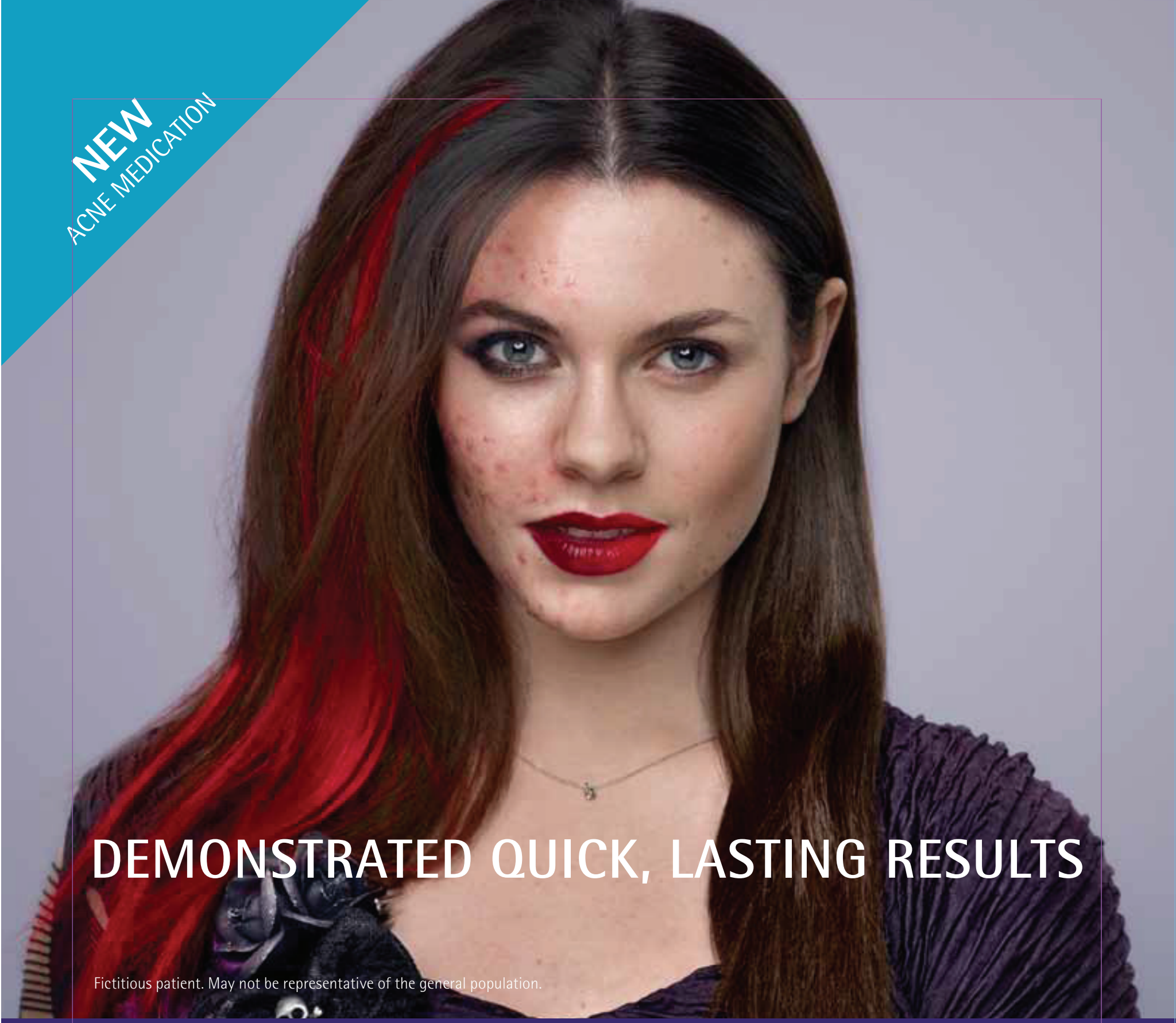

DEMONSTRATED QUICK, LASTING RESULTS

Fictitious patient. May not be representative of the general population.

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Onset of efficacy seen as early as **WEEK 1...**[1-3†‡]

In a **12-week** *double-blind, randomized trial:*[1, 2†]

√ **25.7%** reduction in mean inflammatory lesion counts with TACTUO™ at **Week 1**

√ 13.6% with gel vehicle ($p<0.001$)

√ TACTUO™ **significantly reduced** all lesion counts at **Week 12** ($p<0.001$)

√ Mean percent reduction from baseline: inflammatory (TACTUO™, 52.4%; vehicle, 31.8%), non-inflammatory (TACTUO™, 45.9%; vehicle, 27.8%) and total lesion counts (TACTUO™, 48.6%; vehicle, 29.7%)

...with results sustained up to **52 WEEKS.**[1, 3‡]

In a **52-week** *open-label, single-arm study with TACTUO™:*[1, 3‡]

√ **21.5%** reduction in mean inflammatory lesion counts was observed at **Week 1**

√ Mean percent reduction from baseline was **64% or greater** for all lesion counts at **Week 52**

√ Inflammatory (66.4%), non-inflammatory (64.6%) and total lesion counts (65.1%)

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See prescribing summary on page xxx

braziliense, ancylostoma caninum, uncinaria stenocephala, and *bunostomum phlebotomum*. Ancylostoma braziliense is the most common cause and their hosts include wild and domestic dogs and cats. They are found in the central and southern United States, Central America, South America, and the Caribbean.[1]

Cutaneous larva migrans is a self-limiting condition because larvae eventually die in humans without being able to infest new hosts.

Infested animals deposit parasite eggs via their feces to warm and moist soil where the larvae hatch. Larvae can enter the stratum corneum of human hosts via hair follicles, skin fissures or even intact skin. However, they are unable to penetrate the basement membrane to invade the dermis of humans.[2] The condition is confined to the outer layers of human skin, as opposed to an animal host where larvae are able to penetrate the dermis and subsequently migrate via the lymphatic and venous systems to the lungs. The larvae then enter the alveoli and trachea, where they are subsequently swallowed and enter into the gastrointestinal system of the animal hosts in which more parasite eggs can be excreted to begin the cycle again once the larvae mature.[2,3]

Figure 1: Cutaneous larva migrans

Upon penetration, the larvae may lay dormant or begin migrating from a few millimetres to centimetres daily. The tracks are commonly raised, erythematous, serpiginous, and pruritic.[4] Lesions are usually found on the distal lower extremities, but may also appear in the anogenital areas, hands and knees. Systemic signs such as elevated immunoglobulin E (IgE) levels, peripheral eosinophilia, and migratory pulmonary infiltrates rarely occur.[5]

Cutaneous larva migrans is diagnosed based on its clinical

Figure 2: Cutaneous larva migrans

SUMMARY OF KEY POINTS

Cutaneous larva migrans is a parasitic infection caused by percutaneous penetration and subsequent migration of the larvae of hookworm.

Cutaneous larva migrans is diagnosed based on its clinical characteristics. **It is a self-limiting condition** because larvae eventually die in humans without being able to infest new hosts.

Treatment is used to shorten the disease course, **control the intense pruritus,** and prevent the risk of secondary infection.

Topical thiabendazole is the treatment of choice for mild and localized condition. Systemic treatment such as albendazole, mebendazole, and ivermectin are used in widespread cases or cases recalcitrant to topical treatment.

Post-test CME Quiz

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characteristics. It is a self-limiting condition because larvae eventually die in humans without being able to infest new hosts. Depending on the species, most lesions resolve within 8 weeks, but the condition may last for as long as 1 year in rare cases.[5] Treatment is used to shorten the disease course, control the intense pruritus, and prevent the risk of secondary infection. Topical thiabendazole is the treatment of choice for mild and localized condition. Systemic treatment such as albendazole, mebendazole, and ivermectin are used in widespread cases or cases recalcitrant to topical treatment.[6] Significant reduction in pruritus should be apparent within 48 hours of treatment and most lesions should clear within 1 week. Treatment with antibiotics is necessary in patients who suffer from secondary infections.

All of the tables and photos are original.
No competing financial interests exist in preparation of this case study.

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