Cutaneous larva migrans

Zespół larwy skórnej wędrującej

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Przegl Dermatol 2016, 103, 292–294
DOI: 10.5114/dr.2016.61778

KEY WORDS:
cutaneous larva migrans, dermatitis serpiginosus, hookworm.

SŁOWA KLUCZOWE:
zespół larwy skórnej wędrującej, *dermatitis serpiginosus*, nicienie.

ABSTRACT

Introduction. Cutaneous larva migrans (CLM) is a tropical zoonosis, caused by parasites, usually Ancylostoma braziliense. Humans are an accidental host. Polish patients with CLM are usually tourists visiting tropical and subtropical countries. The first symptoms do not always appear as creeping eruptions, which complicates the diagnosis.

Objective. To present the case of a man with CLM after returning from Thailand to Poland and associated diagnostic difficulties.

Case report. We present a case of a 28-year-old man who returned to Poland from Thailand. The first symptoms appeared as disseminated pruritic papules. No improvement after treatment with corticosteroids and antihistamines was observed. The diagnosis was established after the appearance of serpentine erythemas and improvement after albendazole therapy.

Conclusions. In the case of returnees from exotic countries suffering from raised, pruritic rashes, and no improvement after treatment with corticosteroids and antihistamines, parasitic etiology should be considered.

STRESZCZENIE

Wprowadzenie. Zespół larwy skórnej wędrującej jest tropikalną zoonozą spowodowaną przez pasożyty, najczęściej z rodzaju *Ancylostoma brasiliense.* Człowiek jest przypadkowym żywicielem tych pasożytów. W Polsce pacjenci z zespołem larwy skórnej wędrującej są zazwyczaj turystami podróżującymi do krajów tropikalnych i subtropikalnych. Pierwsze objawy nie zawsze obejmują linijne zmiany, co utrudnia diagnozę.

Cel pracy. Opis przypadku oraz trudności diagnostycznych u pacjenta z zespołem larwy skórnej wędrującej, który wrócił z Tajlandii do Polski.

Opis przypadku. Przedstawiamy przypadek 28-letniego mężczyzny, który wrócił do Polski z Tajlandii. Pierwszymi objawami były rozsiane swędzące grudki, nieustępujące po leczeniu glikokortykosteroidami (GKS) i lekami przeciwhistaminowymi. Rozpoznanie ustalono na podstawie pojawienia się na skórze charakterystycznych serpentynowatych rumieni oraz poprawy po leczeniu albendazolem.

Wnioski. U osób powracających z egzotycznych krajów, u których obserwuje się swędzącą grudkową wysypkę, nieustępującą po leczeniu GKS i lekami przeciwhistaminowymi, należy rozważyć etiologię pasożytniczą.

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INTRODUCTION

Cutaneous larva migrans (CLM) is a zoodermatosis which was first described in 1874 [1]. According to medical literature it is also known as "dermatitis serpiginosus" [2]. Cutaneous larva migrans is a disease occurring mostly in tropical and subtropical countries [3]. The larvae from soil or sand contaminated with animal faeces migrate into the body through healthy skin [3, 4]. Skin lesions usually manifest as a vesicular maculopapular rash, with subsequent formation of serpiginous tunnels and subcutaneous ducts [2–5]. In most cases, severe pruritus is present [3].

OBJECTIVE

The aim of the study is to present the case of a man with CLM after returning from Thailand to Poland and associated diagnostic difficulties.

CASE REPORT

A 28-year-old patient was admitted to the Dermatology Clinic at CMP Medical Center in November 2015 because of a pruritic papular rash. The first symptoms appeared five days after returning from a 2-week stay in Thailand. Giving the medical history, the patient reported that he had been bitten by insects. Prior to admission he was treated with an antibiotic and glucocorticosteroid ointment without improvement. On admission, the patient was in good general condition. In the area of the buttocks, lumbosacral region, back, thighs and elbows, severe red papules sharply demarcated from the surrounding skin were present (Fig. 1). They were accompanied by severe itching which was particularly intense at night. Pruritus was assessed by the 11-point numerical rating scale (NRS) and was 9. Laboratory studies revealed elevated levels of eosinophils in the blood. Despite adding prednisone 30 mg/day and bilastine 20 mg twice daily for 15 days, skin changes were only slightly flattened and faded

Figure 1. Red, sharply demarcated papules on the buttocks and in lumbosacral area

Rycina 1. *Czerwone, ostro odgraniczone od otoczenia grudki na pośladkach i w okolicy lędźwiowo-krzyżowej*

(Figs. 2, 3). However, very soon tunnels and serpiginous erythema appeared on the skin. The itching remained at a similar level. A therapy with albendazole 200 mg twice daily for 5 days was applied. Because of an elevated level of aminotransferase in the serum on the fifth day of treatment, the albendazole dose was reduced to 200 mg once daily on the sixth and seventh day. Twenty-four hours after introduction of therapy the itching completely disappeared. On the fifth day of treatment ethyl chloride freezing therapy of skin lesions was applied. Total remission of skin lesions was achieved within a few days.

DISCUSSION

Cutaneous larva migrans is distributed globally, but it is endemic in the Caribbean Islands, Africa, South America, South East Asia and the South Eastern United States [1]. In Poland, the illness is associated mainly with tourism to tropical and subtropical countries [3]. Morbidity applies to both adults and children [1, 3, 6, 7]. The youngest patient reported in the literature was a 2-month-old baby [1]. The lesions are caused by a hookworm from the intestines of dogs and cats [4, 8]. The parasites that can cause CLM are listed in Table 1. In the case of internal organ involve-

Figure 2. Serpiginous erythema on the right thigh

Rycina 2. *Serpentynowaty rumień zlokalizowany na prawym udzie*

Figure 3. Pink serpiginous lesions in the lumbosacral area

Rycina 3. *Różowe, serpentynowate zmiany skórne w okolicy lędźwiowo-krzyżowej*

Table I. Intracellular parasites that can cause skin lesions of cutaneous larva migrans type

Tabela I. Rodzaje wewnątrzkomórkowych pasożytów mogących być przyczyną zespołu larwy skórnej wędrującej

Ancylostoma braziliense
Ancylostoma duodenale
Necator americanus
Ancylostoma caninum
Uncinaria stenocephala
Strongyloides stercoralis
Bunostomum phlebotomum
Gnathostoma spinigerum
Dermatobia hominis
Gasterophilus
Hypoderma bovis

ment accompanied by general symptoms, visceral larva migrans syndrome is diagnosed. Usually, in such cases eosinophilia in peripheral blood is observed [7].

The parasites invade the body through healthy skin [3]. Infection occurs most often through contact with soil or sand infected with faeces of sick animals [4, 5, 9]. In exceptional cases infection can occur even at home, after contact with the floor contaminated with the faeces of cats [8]. The lesions may appear as early as 3 days after skin contact with infected ground [10]. They appear in the form of punctate dots, vesicles, papulo-vesicles and characteristic serpiginous erythema called "tunnels" (creeping eruption) [3, 5]. Outbreaks of blisters have also been reported [4]. Skin changes are often accompanied by itching, increased particularly at night [4]. Excoriations, seldom inflammation of subcutaneous tissue associated with fever may appear [3]. As a result of walking on infected ground containing parasite eggs, frequent penetration through soles is observed [3, 5, 9]. Other reported locations of CLM include the trunk, upper limbs, face, scalp and genitals [2, 3, 4, 6]. Due to diverse clinical symptoms the diagnosis of CLM is not always obvious. Patients are often treated first for eczematous rash with no improvement with antihistamines, topical corticosteroids or even anti-fungal agents [3, 6]. The differential diagnosis should include insect bites, scabies, contact dermatitis and tinea [1–3]. The preferred treatment is antiparasitic oral medication. First-line treatment is oral ivermectin or albendazole. Ivermectin is administered with a single dose of 200 μg/kg. Albendazole is administered orally at 400 mg/day for 3 days [2] Sometimes the 3-day treatment is ineffective, and it is recommended to extend the therapy to 5–10 days [3]. Topical therapy also includes thiabendazole ointment or 10% cream [2, 10].

Polish patients with cutaneous larva migrans are usually tourists visiting tropical and subtropical countries. This was also true for the reported case. The manifestation of skin can be polymorphic, and the first symptoms do not always appear with the occurrence or presence of creeping eruptions, which complicates the diagnosis. In the case of returnees from exotic countries suffering from raised, pruritic rashes, and especially showing no improvement after treatment with corticosteroids and antihistamines, parasitic etiology should always be considered.

Submitted: 16 IV 2016
Accepted: 11 VII 2016

Conflict of interest

The authors declare no conflict of interest.

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