

PHOTOLETTER TO THE EDITOR

Exogenous pigmentation after Diplopoda exposure leading to a dermatoscopic parallel ridge pattern on the plantar region

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Abstract

The millipedes (also known as "gongolos") are arthropods characterized by a cylindrical body consisting of rings. When threatened, they release chemicals that can cause erythema and hyperpigmentation. We report the case of a patient who developed a darkened macule on the plantar region after stepping on a millipede. Dermatoscopic examination showed a parallel-ridge pattern, which is considered typical for acral melanoma. A detailed history was essential for the diagnosis, as the clinical and dermatoscopic features suggested a malignant melanocytic lesion. (*J Dermatol Case Rep.* 2015; 9(3): 85-86)

Key words:

arthropods, dermoscopy, dermatoscopy, melanoma, parallel ridge, simulation

A 31-year-old woman presented with an asymptomatic, dark brown macular lesion on the plantar region of the left foot (Fig. 1A), of 2 days' duration, after having stepped on a "gongolo" — Diplopoda (Fig. 1B). She reported slight erythema and a mild burning sensation at the time of the event, followed by dark discoloration of the affected area. On dermatoscopy, we observed a parallel ridge pattern with preserved acrosyringial openings (Fig. 2). The patient was reassured of the benign nature of the lesion and instructed about watchful waiting. The pigmentation resolved completely within 3 months.

The class Diplopoda comprises the arthropods known as millipedes or gongolos, which are distinguished from other classes of Arthropoda by having two pairs of legs per body segment. Millipedes live in moist environments, usually under leaves and other plant litter, and contribute to the decomposition of organic matter in soil. Their bodies are usually long and cylindrical and composed of a series of rings. At rest and when threatened, millipedes will curl into a coil.

In the latter situation, they may secrete a foul-smelling fluid through their repugnatorial glands, located on the sides of each ring. The most common component of this fluid is benzoquinone, but depending on the order of Diplopoda, quinazolinones or hydrogen cyanide may also be secreted. Contact of this fluid with the skin can cause inflammatory reactions and various forms of pigmentation or discoloration (black, brown, red, or purple).^{1,2} In the case reported herein, the patient developed an area of marked dark brown skin pigmentation with a parallel ridge pattern on dermatoscopic examination. It is important to emphasize that this pattern is not exclusive to melanoma and can be observed in exogenous pigmentation as well as in benign lesions, including racial melanosis and lentiginous conditions.³ Management consists of watchful waiting, as the hyperpigmentation tends to improve within a few months. It has been reported that rubbing the affected site with alcohol or ether could dissolve the causative toxins.⁴ We must stress the importance of a detailed history in the diagnosis of exogenous

pigmentation caused by millipede exposure. The differential diagnoses include acral lentiginous melanoma (which also presents with a parallel ridge pattern on dermoscopy) and peripheral ischemia (in lesions located in the toes or fingers and characterized by purplish discoloration).



Figure 1

(A) Dark brown macule as it appeared on the day following millipede exposure. (B) A millipede (Arthropoda: class Diplopoda).

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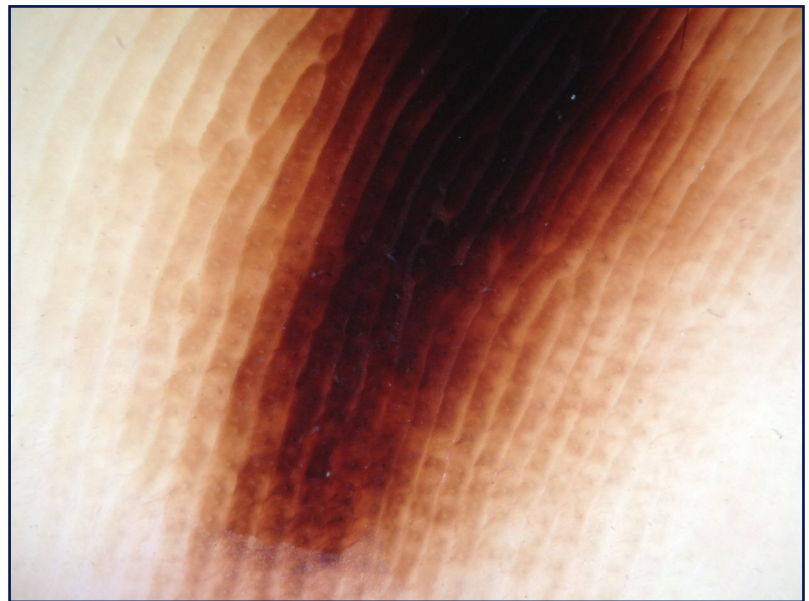


Figure 2

Dermoscopy: parallel ridge pattern. Acrosyringial openings are unaffected.