Cutaneous Pili Migrans Mimicking Plantar Wart

Sir,

Cutaneous pili migrans (CPMs) was first reported by Yaffee in 1957 and, to date, a total of thirty-seven cases have been reported, mostly from Asia.[1,2] Body locations involved include the toe, sole, ankle, breast, cheek, neck and abdomen.[1] CPM and creeping eruption are often misdiagnosed as cutaneous larvae migrans, calluses and warts. Although CPM can only move in one direction and can be asymptomatic or painful, whereas plantar verruca is a benign proliferation of the skin resulting from infection with human papilloma virus (HPV). Hypertrophic epithelium and multiple black and hemorrhagic dots corresponding to thrombosed vessels are clearly evident during dermoscopy of verruca.[3] In addition Vazquez-Lopez et al.[4] tried to classify the dermoscopic vascular structures of non-tumor dermatoses and defined the vascular manifestations of flat warts as homogeneous red globules.

CPM mimicking verruca plantaris has, to our knowledge, not previously been reported in the literature. Here, we present a case of CPM, with clinical and dermoscopic findings, which was previously diagnosed as plantar wart but did not respond to treatment.

A 43-year-old man presented with a 2-month history of pain along the sole of his left foot when walking. He had no suspicious history, such as trauma, and was referred to the dermatology clinic, which diagnosed a verruca. A lotion containing salicylic acid was prescribed, but no improvement was seen. Dermatological examination revealed the presence of a 0.5 cm brownish structure in the left plantar thenar region [Figure 1a]. Dermoscopic examination revealed a linear, brownish-yellow keratin-containing punctate lesion with mild erythema at the base [Figure 1b].

The patient’s foot was placed in an appropriate position; an antiseptic lotion was then applied to the lesion, and it was curetted with a scalpel. After opening the superficial keratin, a slightly hardened, linear, brownish foreign body was observed [Figure 1c], and a diagnosis of CPM was made. There was minimal bleeding immediately after the 1 cm burrowing hair shaft was removed, and the eruption diminished immediately [Figure 1d and e]. Two months after the procedure, the patient had recovered without any signs of recurrence.

CPM has been defined in various sources with synonyms such as buried hair, bristle migrans, burrowing hair, migrating hair and creeping hair.[5] Although the etiology of CPM is not fully known, it has been assumed to be the result of the combined biomechanical forces generated between a sharp hair tip and a moving body part causing the hair shaft to penetrate the skin. This hypothesis explains the fact that most such reported lesions are from friction areas, such as the ankle, sole, toe, cheek, breast, neck, chin and abdomen.[5] In our case, only a hair shaft or fragment was noted, without any hair follicles. This is thought to be attributable to the hair shaft penetrating the epidermis due to friction. Complete removal of the lesion provides a cure in treatment, and a biopsy can be performed if there is uncertainty regarding the diagnosis. Under histopathological examination, the observation of a cross-sectioned hair fragment in a small empty space in the superficial dermis is diagnostic.[6]

The importance of making a correct diagnosis is directly linked to the risk of complications from the treatment if the diagnosis is wrong, such as the use of keratolytic products for warts, which was...
the first therapeutic option for the patient in this case. It is therefore necessary to distinguish CPM from other creeping eruptions through close examination to avoid unnecessary invasive procedures.

We are reporting this case because CPM is a rare and interesting disorder, and dermatological and dermoscopic examination are important for differential diagnosis. Once diagnosis has been made, it is sufficient to curettage and remove the lesion with the help of a scalpel or injector. Physicians should be aware of this possibility when examining patients presenting with painful lesions on the soles of their feet.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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