Dermatology Practical & Conceptual

Microinvasive Retained Foreign Body Removal With the Use of a Dermoscopic Working Ring

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Case Presentation

A middle-aged woman and a middle-aged man with retained cutaneous foreign bodies (FB) presented to the Dermatology Outpatient Department. The former was a hairdresser by occupation and suffered from prolonged localized eczema of the thumb, which was sustained by the presence of the hair shaft fragments embedded both into the skin and under the nail plate. The second patient arranged a full body skin check after findings of cutaneous melanoma at the Surgical Outpatient Department a few weeks before the visit. Retained nylon sutures were identified with a dermoscope within the post-surgical scar.

Teaching Point

The presence of retained cutaneous FB is difficult to detect without the dermoscope or hand lens and may lead to infections or development of FB granulomas [1,2]. Their safe removal can be challenging and time-consuming. As a dermoscope is usually held in one hand and the instrument used for extraction is in another, loss of focus during the procedure is not uncommon, contributing to stress for the operator. A diSTANCE metal working ring, whose idea/design originated from one of the coauthors (**P.P.**) is a supplementary adapter for Heine Delta30 Pro dermatoscope (Heine Optotechnik). It stabilizes focus and features three large windows for instrument insertion for effective and microinvasive FB removal, e.g., fine pincer for subungual hair or needle for retained sutures (Figure 1, A-F). Allowing just minimal direct contact with the site, it provides clear and stable visualization of the FB and therefore reduces the risk of trauma, scarring, and infection and is more comfortable for the patient.

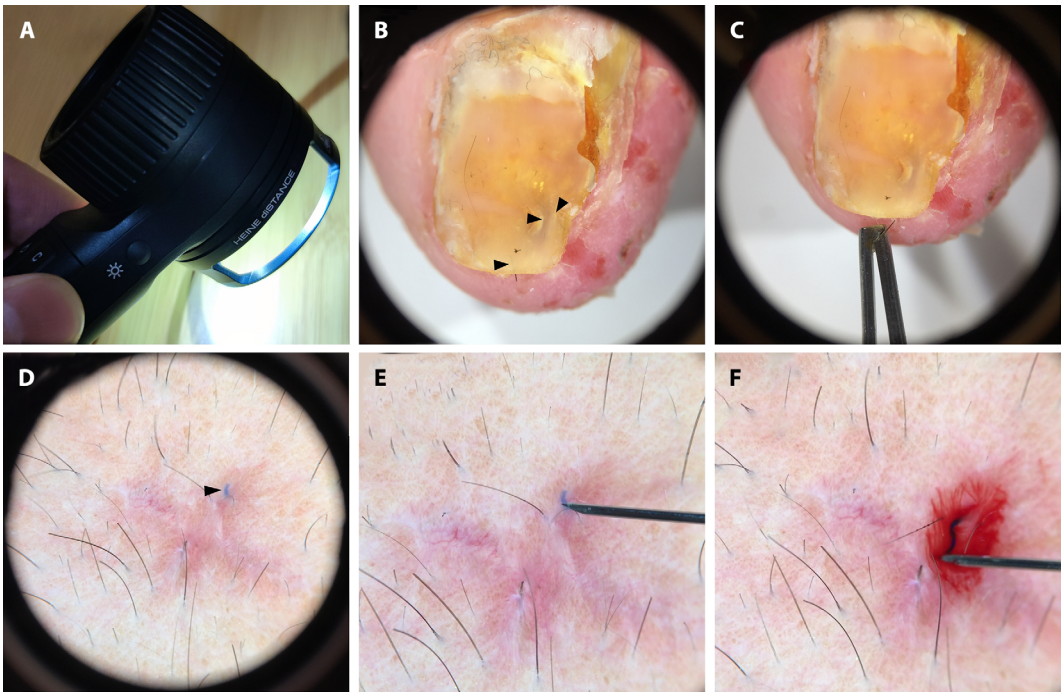

Figure 1. (A) A metal diSTANCE working ring attached to the Delta30Pro dermatoscope with three wide windows for instrument insertion that facilitated a stable focus when removing the foreign body (e.g., retained sutures, hairs, glass shards, plant thorns, splinters). (B) Three fine retained hairs present for some weeks under the thumbnail in a hairdresser (black arrowheads). Their presence resulted in a periungual eczematous reaction confirmed by dermoscopy (magnification ×10). (C) With a stable focus provided by the working ring attached to the dermatoscope, a fine needle, directed towards the bottom surface of the nail plate to avoid nailbed trauma, was used to move the hairs distally and removed with a pincer (magnification ×20). (D) Retained blue nylon sutures in the surgical scar (black arrowhead; magnification ×10). (E) After site disinfection, a sterile needle a was used for minimal incision of the skin overlying the suture (magnification ×10×). (F) Levering the nylon thread allowed microinvasive removal of the thread's tail with a pincer, with minimal bleeding. All the images were captured with non-contact polarized videodermoscopy (Heine Delta30Pro with diSTANCE working ring [Heine Optotechnik]) attached to an iPhone 6.

References

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