

Scabies clinically diagnosed with eosine 2% magnification dermoscopy

Giulio Cortonesi, Emanuele Trovato, Corinne Orsini, Elisa Cinotti, Eugenio Capalbo, Vittoria Cioppa Dermatology Unit, Department of Medical, Surgical, and Neurological Sciences, Santa Maria alle Scotte Hospital, Siena, Italy

Dear Editor,

The diagnosis of scabies is primarily clinical; however, the variability in presentation can complicate it. Besides dermoscopy, different non-invasive imaging techniques have been used to assist in scabies diagnosis: 400x magnification, line-field confocal optical coherence tomography (LC-OCT), reflectance confocal microscopy (RCM), and high-frequency ultrasound (HFUS) could be useful for the diagnosis of various diseases such as benign tumors, malignant tumors, and infectious diseases of all types (viral, bacterial, and parasitic). On the other hand, all these techniques are strictly operator- and device-dependent. A 52-year-old woman presented to our clinic for chronic itch for 3 weeks. Physical examination did not show any relevant lesion except for major skin folds intertrigo, for which the patient applied eosine 2% solution. There was no evidence of any specific scabies

Correspondence: Vittoria Cioppa, Dermatology Unit, Santa Maria alle Scotte Hospital, viale Mario Bracci, 53100 Siena, Italy. E-mail: v.cioppa@student.unisi.it

Key words: scabies; eosine; dermoscopy; non-invasive imaging.

Contributions: GC, EC, VC, writing and original draft preparation; ET, CO, EC, supervision. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: the authors declare no potential conflict of interest.

Ethics approval and consent to participate: not applicable.

Consent for publication: the patient in this manuscript has given written informed consent to the publication of her case details.

Availability of data and materials: the data that support the findings of this study are available from the corresponding author upon reasonable request.

Received: 26 July 2024. Accepted: 31 August 2024.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

©Copyright: the Author(s), 2024 Licensee PAGEPress, Italy Dermatology Reports 2025; 17:10099 doi:10.4081/dr.2024.10099

Publisher's note: all claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.

lesions on nipples, wrists, genitals, buttocks, and feet. Under dermoscopic examination, track-line burrows with triangular structures located on their legs ("delta wing-jet" sign) were observed in the areas where eosine had been applied (Figure 1). These highly specific clinical elements made a diagnosis of scabies possible.

There are many cases in which dermoscopy alone is unable to target the pathognomonic element of scabies. In our case, an eosine solution marked scabies characteristic burrows. Magnification with eosine 2% implemented to dermoscopy valuation could be a useful option for a better assessment than dermoscopy alone.



Figure 1. Track-line burrows with triangular structures located on the legs ("delta wing-jet" sign) were observed in the areas where eosine had been applied.

References

- 1. Orsini C, Trovato E, Cortonesi G, et al. Line-field confocal optical coherence tomography: New insights for psoriasis treatment monitoring. J Eur Acad Dermatol Venereol 2024;38:325-31.
- Campoli M, Cortonesi G, Tognetti L, et al. Noninvasive imaging techniques for the diagnosis of cutaneous larva migrans. Skin Res Technol 2022;28:374-6.

