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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

Corresponding author: Vittoria Cioppa, Dermatology Unit, Santa Maria alle Scotte Hospital, viale Mario Bracci, 53100 Siena, Italy.

E-mail: v.cioppa@student.unisi.it

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Abstract

The diagnosis of scabies is mainly clinical, however the high variability in presentation could make it through. 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.

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There are many cases in which dermoscopy alone is not able to target the pathognomonic element of scabies. In our case, eosine solution was able to remark scabies characteristic burrows. Magnification with eosine 2% implemented to dermoscopy valuation could be a useful option for a better assessment than dermoscopy alone.

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.
2. 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.

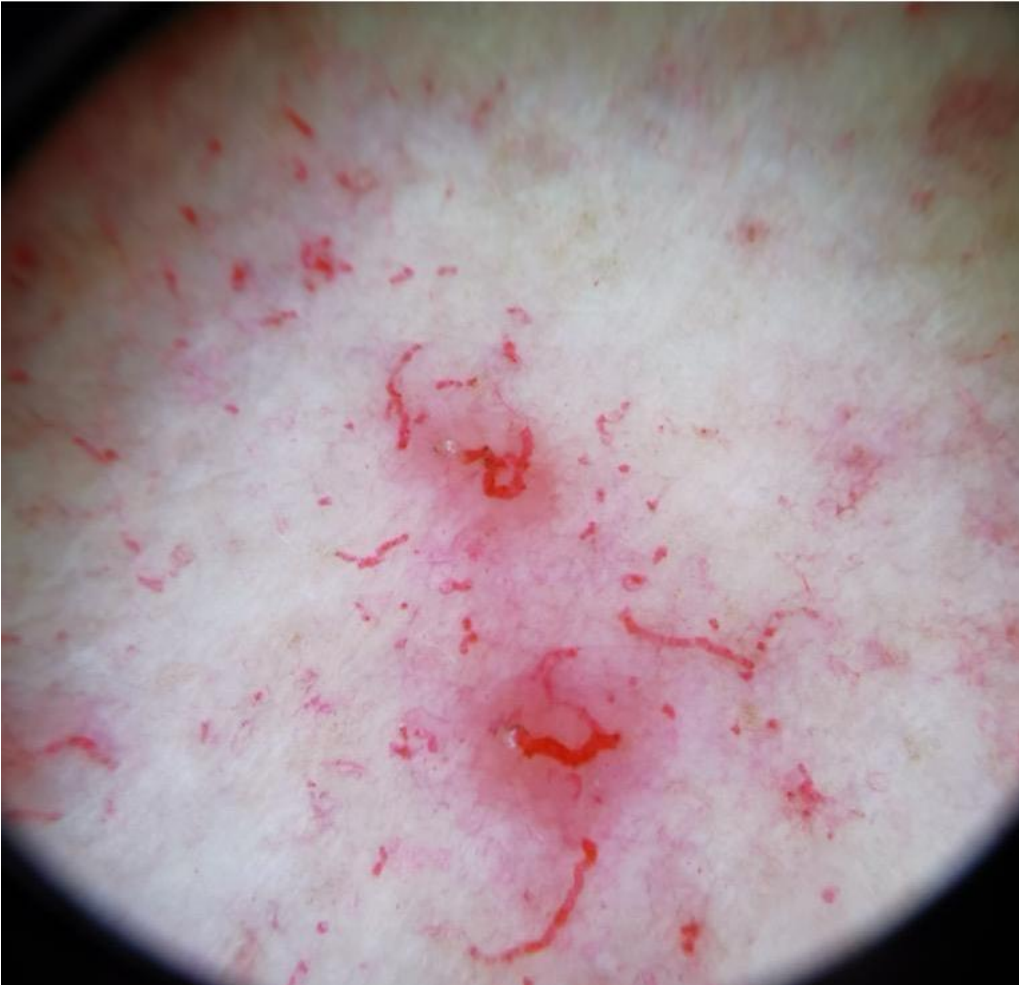


Figure 1. Track-line burrows with triangular structures located on their legs (“Delta wing-jet” sign) were observed in the areas where eosine had been applied.