

Dermscopic Features of Morbilliform Rash in Dengue Fever: A Clinical Insight

Caterina Mariarosaria Giorgio¹, Eugenia Veronica Di Brizzi¹, Giuseppe Argenziano¹,
Claudia Di Sarno², Raffaele di Sarno³, Gaetano Licata⁴

1 Dermatology Unit, Department of Mental and Physical Health and Preventive Medicine, University of Campania Luigi Vanvitelli, Naples, Italy

2 Medical Student of University of Campania Luigi Vanvitelli, Naples, Italy

3 Emergency Room Infection Disease Cotugno Hospital AORN dei Colli, Naples, Italy

4 Dermatology Unit, San Antonio Abate Hospital, Trapani, Italy

Citation: Giorgio CM, Di Brizzi EV, Argenziano G, Di Sarno C, Di Sarno R, Licata G. Dermscopic Features of Morbilliform Rash in Dengue Fever: A Clinical Insight. *Dermatol Pract Concept*. 2025;15(4):5245. DOI: <https://doi.org/10.5826/dpc.1504a5245>

Accepted: January 7, 2025; **Published:** October 2025

Copyright: ©2025 Giorgio et al. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (BY-NC-4.0), <https://creativecommons.org/licenses/by-nc/4.0/>, which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original authors and source are credited.

Funding: None.

Competing Interests: None.

Authorship: All authors have contributed significantly to this publication.

Corresponding Author: Gaetano Licata, MD, Dermatology Unit, San Antonio Abate Hospital, Via Cosenza 82, 91016, Erice (TP), Italy. E-mail gaetano.licata89@gmail.com

Case Presentation

A 30-year-old male came to our department with a history of high fever (39°C), asthenia, headache, and myalgia four days after a trip to a tropical area; he presented with erythematous macules confined to the hands and feet. Clinically well-demarcated macular, non-pruritic, erythematous areas primarily affecting the hands and feet were observed (Figures 1A and B). Dengue fever was confirmed via serological tests. Considering the diagnosis of dengue and the atypical clinical presentation, dermoscopic examination was performed, and the following dermoscopic features were observed (Figures 1C and D): shiny white structures, visible under polarized light, potentially indicative of acute inflammation and dermal fibrosis; red hemorrhagic dots and globules, indicative of capillary fragility.

Teaching Point

Dengue fever typically manifests with a generalized rash involving the trunk and sometimes the face[1]. The observed shiny white structures may reflect acute dermal changes, while red dots/globules could be markers of thrombocytopenia. Current literature contains few studies describing the dermoscopic patterns of exanthematous diseases[2]. Measles may exhibit an intensely erythematous background due to confluent macules, rubella may show a pinkish-red background corresponding to its non-confluent maculopapular rash, and parvovirus B19 may reveal a moderately erythematous reticulated pattern. These dermoscopic differences underscore the potential of this tool in differential diagnosis. Interestingly, a comparison with other viral exanthems revealed the absence of shiny white structures, suggesting that this finding could be



Figure 1. A-B: Clinical images of a 30-year-old male affected by dengue fever extending to the palms and soles. C-D: Dermoscopic images of dengue fever where it is highlighted the specific presence of red dots/globules (square) and shiny white structures (arrows).

characteristic of dengue fever. Moreover, red hemorrhagic dots and globules are instead present in other exanthematous diseases [2]. However, further studies are necessary to validate their diagnostic relevance and specificity in dengue.

Ethics Statement: The patients in this manuscript have given written informed consent to the publication of their case details. This study follows the ethics guidelines.

References

1. Khan MB, Yang ZS, Lin CY, et al. Dengue overview: An updated systemic review. *J Infect Public Health.* 2023 Oct;16(10): 1625-1642. doi: 10.1016/j.jiph.2023.08.001. Epub 2023 Aug 3. PMID: 37595484.
2. Errichetti E, Stinco G. How to differentiate skin rash in covid, mononucleosis, chickenpox, sixth disease and measles. *Curr Opin Infect Dis.* 2023 Apr 1;36(2):109-113. doi: 10.1097/QCO.0000000000000904. Epub 2023 Jan 25. PMID: 36718910.