A Case of Melanoma in a Patient With Psoriasis Highlighting the Importance of Dermatoscopy and Inflammoscopy

Sarah Benton¹, Lori Ann Fiessinger¹, Juan Pablo Jaimes¹

1 Department of Dermatology, University of Minnesota Medical School, Minneapolis, Minnesota, USA

Citation: Benton S, Fiessinger LA, Jaimes JP. A case of melanoma in a patient with psoriasis highlighting the importance of dermatoscopy and inflammoscopy. *Dermatol Pract Concept.* 2022;12(3):e2022139. DOI: https://doi.org/10.5826/dpc.1203a139

Accepted: December 27, 2021; Published: July 2022

Copyright: ©2022 Benton 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: Juan P Jaimes, MD, MS, Department of Dermatology, University of Minnesota Medical School, 516 Delaware St SE Suite 4-240, Minneapolis, MN 55455, USA E-mail: jaim0004@umn.edu

Case Presentation

A male patient in his fourth decade of life presented to the clinic for evaluation of psoriasis. Dermatoscopy of a lesion on the right posterior upper arm that clinically resembled a psoriasiform papule showed numerous polarizing-specific white lines and polymorphous vessels (Figures 1, A-C). Dermatoscopy of nearby papules and plaques of psoriasis revealed white scale on a background of randomly distributed dotted and coiled vessels (Figure 1D). The lesion in Figure 1A was sent for histological analysis and found to be a malignant melanoma with a Breslow depth of 0.7 mm, occurring in association with a nevus.

Teaching Point

Though clinically the melanoma resembled a psoriatic papule, under dermatoscopy the lesion appeared very different from other psoriatic lesions and had features of melanoma. This highlights the importance of dermatoscopy and inflammoscopy in the diagnosis of neoplasms and inflammatory conditions. The most common dermatoscopic pattern of psoriasis is erythematous background with evenly distributed red dots and white scale [1]. Polarizing specific white lines and polymorphous vessels, clues that can be seen in melanoma, would not be expected in psoriasis [2].

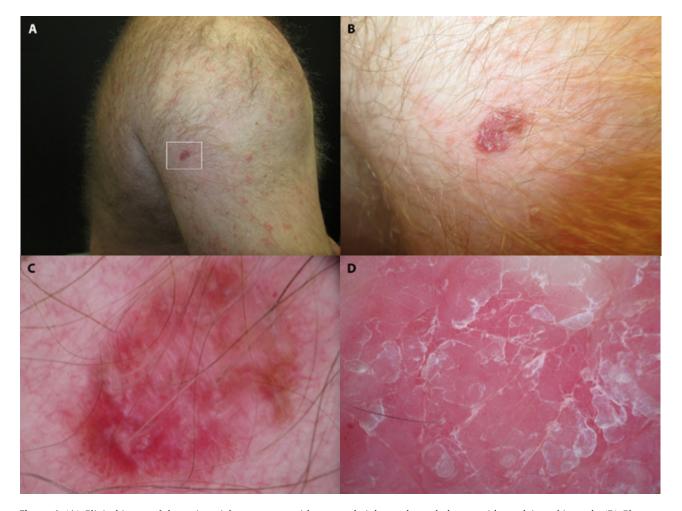


Figure 1. (A) Clinical image of the patient right upper arm with scattered pink papules and plaques with overlying white scale. (B) Close-up image of the patient right upper posterior arm showing an 8 mm erythematous papule with white scale. (C) Dermatoscopic view showing many polarizing-specific white lines and polymorphous vessels (polarized dermatoscopy). (D) Dermatoscopic view of nearby psoriasis showing white scale on a background of randomly distributed dotted and coiled vessels (polarized dermatoscopy).

Informed consent: Written informed consent for publication of clinical details and clinical images was obtained from the patient.

References

- 1. Sgouros D, Apalla Z, Ioannides D, et al. Dermoscopy of Common Inflammatory Disorders. *Dermatol Clin.* 2018;36(4): 359-368. DOI: 10.1016/j.det.2018.05.003. PMID: 30201145.
- Balagula Y, Braun RP, Rabinovitz HS, et al. The significance of crystalline/chrysalis structures in the diagnosis of melanocytic and nonmelanocytic lesions. *J Am Acad Dermatol.* 2012;67(2):194. e1-194.e8. DOI: 10.1016/j.jaad.2011.04.039. PMID: 22030020.