QUIZ SECTION

MJS PUBLISHING

ActaDV Acta Dermato-Venereologica ActaDV Advances in dermatology and venereology

A Wagyu Beef-like Appearance of Hyperpigmentation: A Quiz

Hong-Kai GAO[1] and Cheng TAN[2*]

[1]Department of Dermatology, Wuxi Hospital of Traditional Chinese Medicine, Wuxi, 214000, China, and [2]Department of Dermatology, Affiliated Hospital of Nanjing University of Chinese Medicine, Nanjing 210029, China. *Email: tancheng@yeah.net

A 27-year-old Chinese man presented to the dermatology department with a 1-year history of widespread, asymptomatic, hyperpigmented macules and patches. Lesions previously began on the trunk and gradually extended to the neck, face and extremities. However, the palms, soles, nails and mucous membranes were uninvolved. He was otherwise healthy without taking any medications. The patient denied any history of prolonged sun exposure, and no family members had an onset of similar eruptions. Physical examination revealed numerous blue-grey oval macules and patches on the trunk, neck, face and extremities with a Wagyu beef-like appearance (Fig. 1A, B). On the forearms, some hyperpigmented macules were surrounded by an erythematous border (Fig. 1C). Darier's sign was not elicited for the lesions. Routine laboratory investigations, including complete blood count, biochemical parameters, antinuclear antibodies, viral hepatitis panel and human immunodeficiency virus (HIV) were all normal.

What is your diagnosis?

1: Lichen planus pigmentosus
2: Idiopathic eruptive macular pigmentation
3: Maculopapular mastocytosis
4: Erythema dyschromicum perstans

See next page of answer.

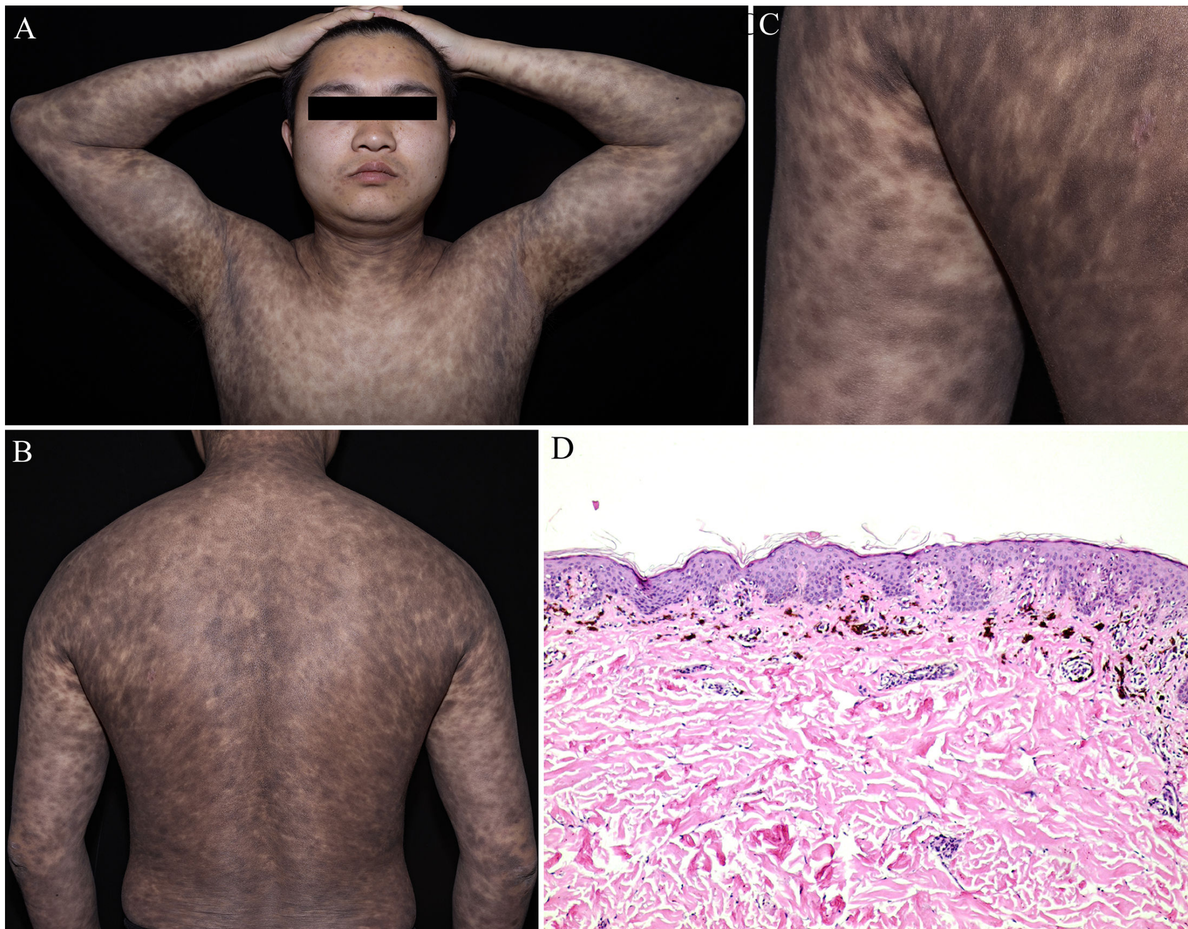

Fig. 1. Clinical and histopathological findings. (A) Diffuse hyperpigmented lesions on the anterior aspect of the body. (B) Diffuse hyperpigmented lesions on the posterior aspect of the body. (C) Partial lesions of the upper limb with an erythematous border. (D) Focal vacuolar alteration of the basal layer, with abundant melanophages and mild lymphocytic infiltration in the dermis (original magnification × 100, hematoxylin-eosin stain stain).

2026 ©Author(s). Published by MJS Publishing, on behalf of the Society for Publication of Acta Dermato-Venereologica. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (https://creativecommons.org/licenses/by-nc/4.0/).

ActaDV Acta Dermato-Venereologica ActaDV Advances in dermatology and venereology

ANSWERS TO QUIZ

A Wagyu Beef-like Appearance of Hyperpigmentation: A Commentary

Acta Derm Venereol 2026; 106: adv-2025-0105.
DOI: 10.2340/actadv.v106.adv-2025-0105

Diagnosis: **Erythema dyschromicum perstans (EDP)**

It is common to differentiate EDP from other pigmentary skin disorders with the guidance of a global consensus statement on AD, lichen planus pigmentosus (LPP) and idiopathic eruptive macular pigmentation (IEMP) (1). EDP, AD and LPP may have remarkable histopathological resemblances during some periods of the disease. Hyperpigmented macules in EDP usually present a peripheral erythematous margin, which differs from AD (1-2). Unlike EDP, the lesions in LPP always involve the sun-exposed areas, the flexural regions of the skin and the mucosa without an obvious erythematous border. Hyperkeratosis, epidermal thinning and lichenoid infiltrate are commonly observed in LPP (3). Although similarly without preceding inflammation, IEMP mainly affects young individuals and is often distributed on the trunk. Pathologically, it is highlighted with basal layer hyperpigmentation without interface pathology, which differs from EDP.

The aetiology of EDP is not fully elucidated. Infections (HIV and hepatitis C virus), toxic chemicals and drugs (ammonium nitrate, proton pump inhibitors, chlorothalonil, ethambutol, fluoxetine, adalimumab, ribociclib, osimertinib, erlotinib, etc.) are considered as the potential triggers (1, 4–6). EDP has been reported to be associated with abnormal immune responses mediated by $CD8^{+}$ T lymphocytes, $HLA\text{-}DR4^{+}$ and intercellular adhesion molecules (7).

There is no consistently effective therapy for EDP. The condition persists for years and then gradually disappears much more slowly in adults, in contrast with the course of the disorder in young patients, 50–69% of idiopathic prepubertal patients tend to resolve spontaneously (8). As there is no effective standardized regimen for EDP, many modalities (clofazimine, isotretinoin, dapsone, griseofulvin, steroids, topical tacrolimus, topical ruxolitinib and narrowband-UVB) have been tried with unsatisfactory results (9). Awareness of this uncommon, psychologically devastating pigmentary skin disorder can prompt a correct diagnosis, warranting proper counselling and management.

REFERENCES

1. Kumarasinghe SPW, Pandya A, Chandran V, Rodrigues M, Dlova NC, Kang HY, et al. A global consensus statement on ashy dermatosis, erythema dyschromicum perstans, lichen planus pigmentosus, idiopathic eruptive macular pigmentation, and Riehl's melanosis. Int J Dermatol 2019; 58: 263–272. https://doi.org/10.1111/ijd.14189
2. Tan C. Atlas of pigmentary disorders. In: Springer Nature. Cham 2016. https://doi.org/10.1007/978-3-319-10897-1.
3. Shah S, Baskaran N, Vinay K, Bishnoi A, Parsad D, Kumaran MS. Acquired dermal macular hyperpigmentation: an overview of the recent updates. Int J Dermatol 2023; 62: 1447–1457. https://doi.org/10.1111/ijd.16859
4. Alsisi GG, Alsisi MH, Alhowaish AK, Alshammari WS. Erythema dyschromicum perstans after adalimumab treatment. Cureus 2022; 14: e32264.
5. Mariano M, Donati P, Cameli N, Pigliacelli F, Morrone A, Cristaudo A. Ribociclib-induced erythema dyschromicum perstans (ashy dermatosis)-like pigmentation in a metastatic breast cancer patient. J Breast Cancer 2021; 24: 117–121. https://doi.org/10.4048/jbc.2021.24.e1
6. Ransohoff KJ, Pugliese SB, Zaba LC, Rieger KE, Kwong BY. Epidermal growth factor receptor inhibitor therapy-associated erythema dyschromicum perstans-like eruption: a case series. Br J Dermatol 2020; 183: 1130–1132. https://doi.org/10.1111/bjd.19396
7. Leung N, Oliveira M, Selim MA, McKinley-Grant L, Lesesky E. Erythema dyschromicum perstans: a case report and systematic review of histologic presentation and treatment. Int J Womens Dermatol 2018; 4: 216–222. https://doi.org/10.1016/j.ijwd.2018.08.003
8. Torrelo A, Zaballos P, Colmenero I, Mediero IG, de Prada I, Zambrano A. Erythema dyschromicum perstans in children: a report of 14 cases. J Eur Acad Dermatol Venereol 2005; 19: 422–426. https://doi.org/10.1111/j.1468-3083.2005.01203.x
9. Srinivasan D, Gottlieb A. Successful management of erythema dyschromicum perstans following topical ruxolitinib therap. J Drugs Dermatol 2023; 22: 297–299. https://doi.org/10.36849/JDD.7156