

Frictional Dermatitis in a Courier Driver

Uwe Wollina^{1*}, Georgi Tchernev², Torello Lotti³

¹Department of Dermatology and Allergology, Academic Teaching Hospital Dresden-Friedrichstadt, Friedrichstr. 41, 01067 Dresden, Germany; ²Department of Dermatology, Venereology and Dermatologic Surgery, Medical Institute of Ministry of Interior, and Onkoderma Polyclinic for Dermatology and Dermatologic Surgery, Sofia, Bulgaria; ³Centro Studi per la Ricerca Multidisciplinare e Rigenerativa, Università Degli Studi "G. Marconi", Rome, Italy

Abstract

Frictional hypermelanosis is an uncommon finding in Caucasians. We report the unusual case of 56-year-old male courier driver who developed linear and patchy hypermelanosis of the back caused by the driver's seat. Histology has included other pathologies. Treatment of the asymptomatic hyper pigmentation was not warranted.

Citation: Wollina U, Tchernev G, Lotti T. Frictional Dermatitis in a Courier Driver. Open Access Maced J Med Sci. <https://doi.org/10.3889/oamjms.2017.108>

Keywords: Occupational medicine; Frictional hypermelanosis; Differential diagnosis; Histopathology; Driver's seat; Pigmentary disorders.

***Correspondence:** Uwe Wollina, Department of Dermatology and Allergology, Academic Teaching Hospital Dresden-Friedrichstadt, Friedrichstr. 41, 01067 Dresden, Germany. E-mail: wollina-uw@khdf.de

Received: 14-Apr-2017; Revised: 30-Apr-2017; Accepted: 29-May-2017; Online first: 20-Jul-2017

Copyright: © 2017 Uwe Wollina, Georgi Tchernev, Torello Lotti. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

Funding: This research did not receive any financial support.

Competing Interests: The authors have declared that no competing interests exist.

Frictional hypermelanosis is an uncommon condition. The clinical finding is characterised by asymptomatic, diffuse, brownish patches located mainly in the skin above bony prominences. Histologically, increased melanin content of the epidermis with or without pigment incontinence, sometimes with amyloid deposits, are characteristic [1].

Friction may have various reasons, such as rubbing skin repeatedly with scrub pads (loofah) or bathroom towels [1], using a washing agent (fifa) during bathing with vigorous friction [2], religious practices [3, 4], clothing [5].

A 56-year-old male patient presented with a linear asymptomatic brownish hyperpigmentation above the breast spine and in the sacral region (Fig. 1 & 2). He used to drive a van as a courier driver for 10 to 12 hours a day. He took no medications and reported no other known complaints or diseases. We took a skin biopsy that confirmed epidermal hypermelanosis and excluded hypermelanocytosis.

Amyloid was absent. There was no inflammatory dermal infiltrate as well.



Figure 1: Linear hypermelanosis above the breast spine

Based on history, clinical presentation and histopathology the diagnosis of frictional dermatitis due to the driver's seat was confirmed. No treatment was wanted.

Friction can cause hypermelanosis, lichenoid dermatosis and callus formation. Other causes of circumscribed hypermelanosis include heat, neurocutaneous dysesthesia, post-inflammatory hyperpigmentation, adverse drug reactions, melasma and radiotherapy [6-9].



Figure 2: Patchy hypermelanosis in the sacral region

In case of warranted treatment, ablative surgery, cryosurgery, and lasers have been used with mixed results [10].

References

1. Al-Aboosi M, Abalkhail A, Kasim O, Al-Khatib A, Qarqaz F, Todd D, Al-Khidour M, Obeidate F. Friction melanosis: a clinical, histologic, and ultrastructural study in Jordanian patients. *Int J Dermatol.* 2004;43(4):261-264. <https://doi.org/10.1111/j.1365-4632.2004.01606.x> PMID:15090007
2. Sharquie KE, Al-Dorky MK. Frictional dermal melanosis (lifa disease) over bony prominences. *J Dermatol.* 2001;28(1):12-15. <https://doi.org/10.1111/j.1346-8138.2001.tb00079.x> PMID:11280458
3. Naimer SA, Trattner A, Biton A, Avinoach I, Vardy D. Davener's dermatosis: a variant of friction hypermelanosis. *J Am Acad Dermatol.* 2000;42(3):442-445. [https://doi.org/10.1016/S0190-9622\(00\)90216-0](https://doi.org/10.1016/S0190-9622(00)90216-0)
4. Papadakis G, Zampelis T, Michalopoulou M, Konstantopoulos K, Rosenberg T, Chatzipanagiotou S. Prayer marks in immigrants from Bangladesh with diabetes who live in Greece. *J Immigr Minor Health.* 2016;18(1):274-276. <https://doi.org/10.1007/s10903-015-0184-2> PMID:25784139
5. Verma SB. Dermatological signs in South Asian women induced by sari and petticoat drawstrings. *Clin Exp Dermatol.* 2010;35(5):459-461. <https://doi.org/10.1111/j.1365-2230.2009.03587.x> PMID:19758377
6. Wollina U, Helm C, Hansel G, Köstler E, Schönlebe J. Two cases of erythema ab igne, one with a squamous cell carcinoma. *G Ital Dermatol Venereol.* 2007;142(4):415-418.
7. Geria AN, Tajirian AL, Kihiczak G, Schwartz RA. Minocycline-induced skin pigmentation: an update. *Acta Dermatovenerol Croat.* 2009;17(2):123-126. PMID:19595269
8. Wu IB, Lambert C, Lotti TM, Hercogová J, Sintim-Damoa A, Schwartz RA. Melasma. *G Ital Dermatol Venereol.* 2012;147(4):413-418. PMID:23007216
9. Shumway NK, Cole E, Fernandez KH. Neurocutaneous disease: Neurocutaneous dysesthesias. *J Am Acad Dermatol.* 2016;74(2):215-228; quiz 229-230. <https://doi.org/10.1016/j.jaad.2015.04.059> PMID:26775772
10. Al-Dhalimi MA, Maluki AH, Tauma A. Efficacy and safety of 532-nm and 1,064-nm Q-switched Nd:YAG laser treatment of frictional dermal melanosis over bony prominences (Lifa disease). *Dermatol Surg.* 2015;41(1):136-141. <https://doi.org/10.1097/DSS.0000000000000238> PMID:25533157