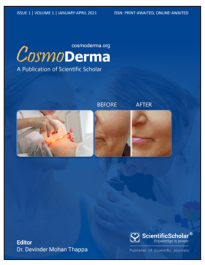
www.cosmoderma.org

ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

CosmoDerma



Images/Instrument in Dermatology/Dermatosurgery

Hand-foot syndrome secondary to sorafenib in a case of breast carcinoma

Yamini Sihag[1], Shilpi Tyagi[1], Anup Singh[2]

[1]Department of Dermatology, All India Institute of Medical Sciences, Rajkot, Gujarat, [2]Department of Internal Medicine, Medanta The Medicity, Gurugram, Haryana, India.

***Corresponding author:**
Shilpi Tyagi,
Department of Dermatology,
All India Institute of Medical Sciences, Rajkot, Gujarat, India.

tshilpi94@yahoo.com

Received: 02 July 2024
Accepted: 19 July 2024
Published: 09 August 2024

DOI
10.25259/CSDM_111_2024

Quick Response Code:

A 70-year-old female on sorafenib for the treatment of carcinoma breast (left side) presented with acute-onset painful erythematous macules over the dorsal as well as palmar aspect of hands [Figure 1a]. Simultaneously, the patient developed large painful erythematous scaly plaques with multiple superficial erosions involving the genitals and extending over the medial aspect of both thighs[Figure 1b]. Her quality of life was significantly affected as the lesions interfered with day-to-day activities. The patient was diagnosed as a case of hand-foot syndrome (HFS) secondary to sorafenib. She was started on topical corticosteroids and emollients with cessation of sorafenib and responded well with lesions resolving in 8–10 days. Later, chemotherapy was resumed, with regular application of emollients, without another episode of recurrence.

HFS, also known as palmar-plantar erythrodysesthesia or Burgdorf syndrome, is a painful reversible cutaneous adverse effect noted with oral multikinase inhibitors such as sorafenib. It presents as painful erythema, papules, plaques, desquamation, blisters or ulceration over hands and feet and rarely over the genitals.[1,2]

The pathogenesis of hand-foot syndrome is not known. It is hypothesized to occur due to the local accumulation of chemotherapeutic drugs that bring about degeneration and

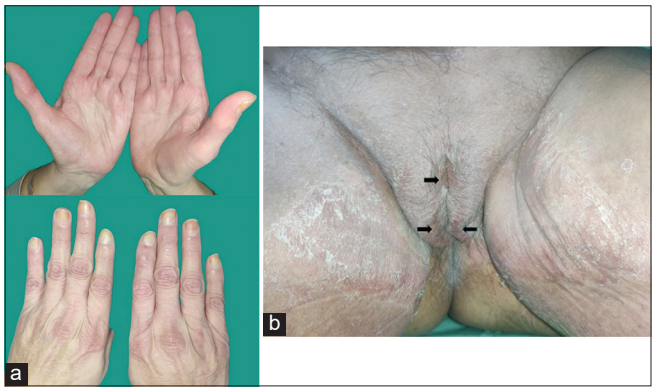


Figure 1: (a) Tender erythematous macules over the palmar and dorsal aspect of both hands and (b) well-defined erythematous plaques with overlying scaling and erosions (arrow) over the genitals (involving labia majora and mons pubis) and medial aspect.

Table 1: The differences between HFS and HFSR.

	HFS	HFSR
Site	Acral area (palms>soles), rarely genital area	Intertriginous and pressure bearing areas (soles>palms)
Clinical Presentation	Erythema, edema, fissuring, and desquamation	Blisters with reddish halo, followed by appearance of hyperkeratosis
Drugs	Chemotherapeutic drugs (e.g., Methotrexate, capecitabine, cytarabine, and 5-fluorouracil)	Multikinase inhibitors (e.g., Sorafenib)

Sorafenib at dose <300 mg twice a day is infrequently associated with HFSR, higher doses such as 300–600 mg twice a day are associated with increased severity of HFSR, and dose limiting toxicity was noted at doses higher than 600 mg twice a day. Meta-analysis has shown relatively higher frequency of HFS secondary to sorafenib as compared to HFSR secondary to sorafenib. HFS: Hand-foot syndrome, HFSR: Hand-foot skin reaction

necrosis of eccrine glands of hands and feet.[3] It is not a life-threatening condition but severely impairs the quality of life in these patients.[2] It can be managed by emollients, topical corticosteroids, and cold compresses along with dose reduction or cessation of the chemotherapeutic drug until remission, generally resolving in two weeks.[3] A close mimicker of HFS is hand-foot skin reaction that occurs secondary to multikinase inhibitors [Table 1].[4,5]

The present case shows the involvement of the palms and the genitals, the latter being a rare presentation of HFS.

Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Pathania YS. Hand-foot skin reaction induced by sorafenib in a hepatocellular carcinoma patient. Postgrad Med J 2020;96:495.
2. Kwakman JJ, Elshot YS, Punt CJ, Koopman M. Management of cytotoxic chemotherapy-induced hand-foot syndrome. Oncol Rev 2020;14:442.
3. Braghiroli CS, Ieiri R, Ocanha JP, Paschoalini RB, Miot HA. Do you know this syndrome? Hand-foot syndrome. An Bras Dermatol 2017;92:131-3.
4. Gomez P, Lacouture ME. Clinical presentation and management of hand-foot skin reaction associated with sorafenib in combination with cytotoxic chemotherapy: Experience in breast cancer. Oncologist 2011;16:1508-19.
5. Demirkan S, Gündüz Ö, Devrim T. Sorafenib-associated hand-foot syndrome treated with topical calcipotriol. JAAD Case Rep 2017;3:354-7.

How to cite this article: Sihag Y, Tyagi S, Singh A. Hand-foot syndrome secondary to sorafenib in a case of breast carcinoma. CosmoDerma. 2024;4:89. doi: 10.25259/CSDM_111_2024