

## Visual Treats in Dermatology

# Hydroxyurea-induced hand-foot syndrome

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A 40-year-old male known case of essential thrombocytosis presented with pigmentation and burning sensation in the palms and soles for the past 2 months. The patient has been on treatment with hydroxyurea 500 mg twice daily for the past 3 months. On cutaneous examination diffuse erythema and hyperpigmentation seen over the bilateral palms and soles [Figure 1a-c]. Based on history and clinical examination, hydroxyurea-induced hand-foot syndrome was diagnosed. The patient was treated with topical betamethasone cream and advised regular follow-up.

Palmoplantar erythrodysesthesia, also called Burgdorf syndrome, acral erythema, toxic erythema of chemotherapy, or hand-foot syndrome, is commonly seen with chemotherapeutic agents. Hydroxyurea-associated acral erythema is associated with long-term hydroxyurea use, usually at doses equal to or greater than 1 g daily. It can start from weeks to years after initiation of hydroxyurea. In a large retrospective review of patients with myeloproliferative neoplasms treated with hydroxyurea, <10% of patients treated with hydroxyurea developed any mucocutaneous toxicities, out of which more than 80% of patients had cutaneous ulceration and oral mucosal aphthae. Hand and foot syndrome has been previously reported in association with hydroxyurea with chronic myeloid leukemia and sickle cell disease.<sup>[1]</sup> We present this case of hand-foot



**Figure 1:** (a-c) Diffuse erythema over the palms and soles with accentuation in areas of weight-bearing and additional areas of hyperkeratosis and focal desquamation in the soles with extension to the dorsum of toes.

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syndrome as a rarely encountered cutaneous adverse effect associated with hydroxyurea in a case of essential thrombocytosis.

#### **Declaration of patient consent**

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

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#### **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.

#### **REFERENCE**

1. Butler D, Nambudiri VE, Nandi T. Hydroxyurea-associated acral erythema in a patient with polycythemia vera. *Am J Hematol* 2014;89:931-2.

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