

## Hydroxyurea-induced dermatomyositis-like eruption: A preneoplastic condition

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### Keywords

hydroxyurea; cutaneous drug eruption; dermatomyositis; precancerous

### Description

Long-term hydroxyurea therapy may cause a wide spectrum of dermatological side effects, also known as hydroxyurea dermopathies. The most frequent manifestations are represented by xerosis, photosensitivity, squamous dysplasia on sun-exposed areas, melanonychia, and painful leg ulcers [1]. In some patients, a peculiar eruption consisting of (i) violaceous erythema on the dorsum of hands and fingers, (ii) flat papules over interphalangeal and metacarpophalangeal joints, and (iii) erythema of the facial skin with periorbital edema, may occur. Because of the clinical picture, resembling dermatomyositis skin manifestations, this condition has been termed dermatomyositis-like eruption. When a 55-years-old caucasian patient referred to our department, purple erythema and scaling involving the face (cheeks, nose, forehead and periorbital areas, Figure 1) erythema, atrophy and xerosis of the dorsum of the hands and flat papules over the interphalangeal joints (Figure 2 and 3) had been present for more than a year. He had been prescribed hydroxyurea seven years prior our observation for essential thrombocythaemia. Typical signs of hydroxyurea skin toxicity co-existed, particularly, facial skin showed xerosis and scaling, skin of the dorsum of the hands was extremely atrophic. For several years this skin condition has been considered benign because, unlike dermatomyositis, ANA resulted always negative and myositis did not develop [2]. Nevertheless, we observed a nodular ulcerated lesion localized on the dorsum of the left hand that rapidly developed a few weeks prior to our visit. Clinical diagnosis was squamous cell carcinoma, histologically confirmed after surgical excision. Nowadays some Authors consider dermatomyositis-like eruption as premalignant manifestation [3] because these skin features may be associated with the development of multiple squamous cancers, especially on sun-exposed areas. From a pathogenetic point of view, hydroxyurea antimetabolites and UV radiations may induce a chronic phototoxic process, characterized by aberrant keratinocyte p53 expression along the lower layers of the epidermis [4]. Therefore, because of its clinical significance, once hydroxyurea-induced dermatomyositis-like dermatitis is diagnosed, the responsible drug should be immediately interrupted.

## Figures



**Figure 1:** Facial purplish erythema and scaling. Erythema was particularly intense on the cheeks and dorsum of the nose. Furthermore, periorbital erythema and edema, mimicking heliotrope rash of dermatomyositis, were present.



**Figure 2:** Symmetric involvement of the dorsum of the hands and fingers.



**Figure 3:** Intense atrophy, scaling and purplish erythema on the dorsum of the left hand. A crust is present where a squamous cell carcinoma was surgically removed. Flat papules, resembling Gottron papules, can be observed on the metacarpophalangeal and interphalangeal joints.

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**Manuscript Information:** Received: December 05, 2017; Accepted: February 12, 2018; Published: February 15, 2018

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**Citation:** Gualtieri B, Chiricozzi A, Panduri S, Romanelli M. Hydroxyurea-Induced dermatomyositis-like eruption: A preneoplastic condition. Open J Clin Med Case Rep. 2018; 1377.

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