

# Photodermatosis secondary to hydroxyurea

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## DESCRIPTION

A middle aged Southeast-Asian man, recently diagnosed with chronic myeloid leukaemia (Philadelphia positive on FISH), was started on cytoreductive therapy with hydroxyurea due to high leucocyte count (130 000/ $\mu$ L). The patient had no history of using any other drugs simultaneously or in the recent/remote past. He developed a clearly defined erythematous rash over only those areas of his body exposed to the sun. The rash progressed to confluent epidermal necrosis, denudation with peeling and minimal associated inflammation (figure 1). There was recovery with intact skin (figure 2) after 3 weeks of abstinence of the drug and after using sun blocking measures including sunscreen (SPF-30). He had no history of any idiopathic photodermatoses such as actinic prurigo, hydroa vacciniforme or chronic actinic dermatitis.

Features seen in photodermatosis secondary to drugs include: rash predominantly on skin-exposed areas, with clear definition between sun-exposed/non-exposed areas, and temporal correlation rash from using the implicating drug. In our patient, clues to diagnosis were the presence of the above characteristics, sparing of the upper eye lids and resolution of rash with withdrawal of drug. Also, the presentation suggests photo-toxicity more than



**Figure 2** Resolution of skin lesions following abstinence.



**Figure 1** Skin lesions secondary to hydroxyurea.

photoallergy. In such cases if the usage of drug is mandatory then decreased sun exposure and sun protection with sunscreens can be tried.

Hydroxyurea (hydroxycarbamide) is associated with various dermatological syndromes such as alopecia, facial erythema, cutaneous vasculitic toxicities, skin atrophy and nail pigmentation.<sup>1</sup> Prolonged usage of this drug is associated with dermatomyositis and dermatomyositis-like eruptions.<sup>2</sup> Photosensitivity is also occasionally reported with use of this drug.<sup>3</sup>

## Learning points

- ▶ Hydroxyurea can lead to photodermatosis of a phototoxic type.
- ▶ Exposure to sun and the drug simultaneously should be avoided.
- ▶ Photodermatosis secondary to hydroxyurea should be differentiated from dermatomyositis-like eruptions.

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