

# Florid skin rash in acute myeloid leukaemia

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## DESCRIPTION

A 64-year-old gentleman was diagnosed with acute myeloid leukaemia (AML) 3 years ago and was treated with cytarabine and daunorubicin induction chemotherapy followed by three cycles of high-dose cytarabine consolidation treatment. Patient tolerated treatment extremely well and went into remission. About 4 months ago, he developed relapse of AML. He was admitted to our inpatient oncology service to begin high-dose cytosine arabinoside chemotherapy in anticipation of allogenic bone marrow transplant.<sup>1</sup>

On day 3 of chemotherapy, patient started developing new maculopapular, erythematous and pruritic skin eruption over his body. It initially began over his face and anterior chest and within 24 h it spread diffusely involving the entire body (figures 1 and 2). Initial impression was neutrophilic eccrine hidradenitis, which is a dermatosis primarily affecting the eccrine glands and occurs in patients undergoing chemotherapy with cytarabine.<sup>2</sup> Skin biopsy was performed for diagnosis which revealed perivascular and interface dermatitis with purpura favouring drug eruption (figure 3). Antihistaminics were used as needed for patient's symptoms. The rash progressively worsened for 3 days and then started to resolve spontaneously. Patient did receive cytarabine again without any complications.

Cytarabine is an antimetabolite which is used in the treatment of AML. It has been associated with florid cutaneous reactions.<sup>3 4</sup> These reactions have been found to be dose related.<sup>3 4</sup> Most of



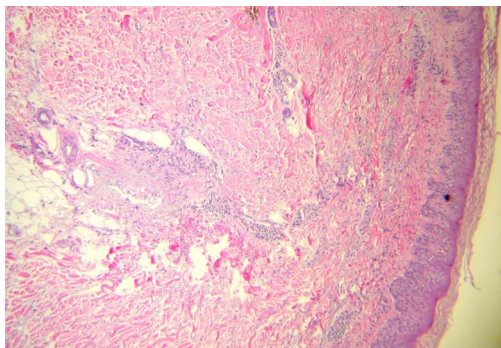
**Figure 2** Rash involving the lower extremities.

them have spontaneous resolution.<sup>3 4</sup> Exact cause remains unknown though hypersensitivity reaction is strongly implicated and proinflammatory



**Figure 1** Maculopapular erythematous rash all over the trunk.

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**Figure 3** H&E stain from skin biopsy showing diffuse dermatitis with purpura.

cytokines like IL-1, IL-6, Interferon- $\alpha$ , tumour necrosis factor- $\alpha$  have been isolated.<sup>4</sup>

### Learning points

- ▶ Cytarabine is associated with florid cutaneous reactions.
- ▶ These reactions are dose related.
- ▶ Though exact cause is unknown, hypersensitivity reactions are implicated.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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