

Dermato-venereological Quiz

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A 58-year-old man was diagnosed to have acute myeloid leukaemia. He was started on induction chemotherapy consisting of doxorubicin and cytarabine. One month later, he developed multiple painful erythematous plaques and nodules on his face, upper limbs and trunk. He had also been given multiple drug treatment within two weeks before the onset of rash. The drugs included fluconazole, clarithromycin, allopurinol, ceftazidime, vancomycin and acyclovir. He was febrile with gross hepatosplenomegaly. Skin examination showed multiple tender 3-10 cm sized, erythematous and oedematous plaques on face, upper limbs and trunk (Figure 1). There was no mucous membrane involvement.



Figure 1.

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Questions

1. What is the clinical differential diagnosis?
2. What are the histological features of the skin biopsy (Figures 2 & 3)?
3. What are the associated conditions?
4. What is the management?

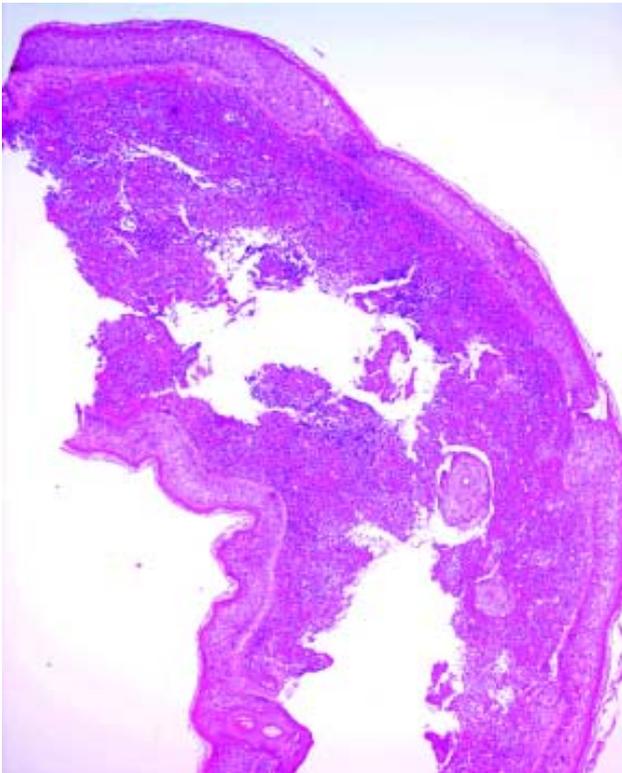


Figure 2. H & E, original magnification x 40.

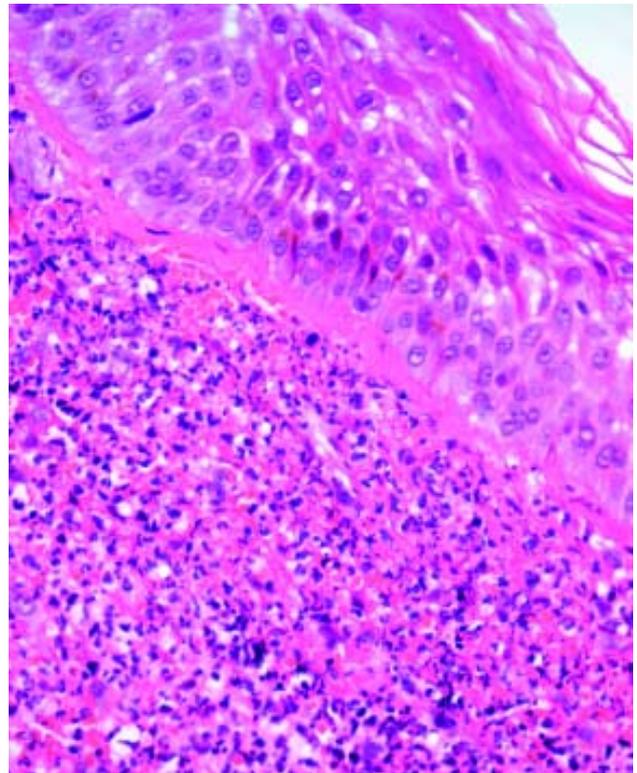


Figure 3. H & E, original magnification x 400.

Answers to Dermato-venereological Quiz on pages 44-45

1. The clinical differential diagnosis includes disseminated opportunistic infection, leukaemia cutis, Sweet's syndrome, atypical erythema multiforme, neutrophilic eccrine hidradenitis, and erythema elevatum diutinum.
2. The histology showed intense neutrophilic infiltration in the papillary and reticular dermis. There were prominent nuclear dusts and endothelial swelling, but no true vasculitis. There was no leukaemic infiltration. The diagnosis was consistent with Sweet's syndrome. Further stains for acid fast bacilli, bacteria, cytomegalovirus and fungus were all negative. All cultures were negative.
3. Sweet's syndrome (acute febrile neutrophilic dermatosis) is a reactive dermatosis presenting with fever, polymorphonuclear leucocytosis and an inflammatory skin lesions with a characteristic histology. It is usually idiopathic but may follow an upper respiratory tract infection. In 10-20%, there is an association with haematoproliferative diseases especially acute myeloid leukaemia. Other possible associated conditions include infections (e.g. yersinia), inflammatory bowel disease, systemic diseases (e.g. rheumatoid arthritis, Behçet's disease, pyoderma gangrenosum, sarcoidosis, thyroid disease), pregnancy, drugs (e.g. granulocyte-colony stimulating factor) and solid tumours (e.g. breast, gastrointestinal or genitourinary carcinoma).
4. Possible underlying causes should be searched and treated. The disease usually rapidly responds to systemic prednisolone of dosage 0.5 to 1.0 mg/kg/day. The drug is then tapered within two to four weeks. Alternative treatment includes dapsone, potassium iodide, colchicine and NSAIDs.