Unusual presentation of Sweet's syndrome involving palms and its dermoscopy

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DESCRIPTION

An adult male patient, a known case of ALCL (anaplastic large cell lymphoma-T-cell) since the last 1 month, presented to dermatology OPD with sudden onset of multiple, painful, reddish and raised lesions over the extremities for 5 days. These were associated with intermittent spikes of fever (38.5°C−39°C) and mild joint pain. There was no history of sore throat, cough, abdominal pain and alteration of bowel habits. The patient was currently being treated with mini-CHOP chemotherapy (cyclophosphamide, vincristine, doxorubicin and prednisone).

Cutaneous examination revealed multiple well-demarcated tender, erythematous and oedematous papules and plaques over the forearms, dorsa of both hands, palms, the lower third of both legs and dorsa of the feet (figure 1A,B). The 'illusion of vesiculation' appearance was also noted in a few of the lesions. Local temperature was raised in all the lesions.

Dermoscopy of the pseudovesicular erythematous lesions over dorsa of hands using DermLite DL200 hybrid-3Gen; polarised mode, ×10 magnification revealed the focal arrangement of red clod vessels and few dotted vessels over patchy pinkish background along with diffuse pale areas (figure 2A,B).

The laboratory studies revealed Hemoglobin—123 g/L, total leukocyte count—14.6 x 10^9/L with neutrophilic leucocytosis of 81.5% and platelet count—436 x 10^9/L. All other investigations (renal function test, liver function test, urine routine examination with microscopy, blood culture and sensitivity, urine culture and sensitivity, HBsAg, HCV Ab, chest X-ray and ECG) were within normal limits apart from elevated erythrocyte sedimentation rate (40 mm/hour). We kept a differential diagnosis of Sweet's syndrome (SS) and neutrophilic eccrine hidradenitis.

Histopathological examination of skin biopsy specimen from the pseudovesicular lesion revealed mild to moderate spongiosis with dense perivascular and periadnexal neutrophilic infiltrate with few eosinophils in the superficial and deep dermis (figure 3a and b). There were few dilated capillaries with extravasation of red blood cells (RBCs), along with dermal oedema. There was the presence of karyorrhexis, but fibrinoid necrosis was not seen. Eccrine glands were spared. These findings were consistent with the diagnosis of SS.

After ruling out infections, the patient was started on oral prednisolone 40 mg (1 mg/kg body weight). All the lesions had cleared up when he came for follow-up after 2 weeks.

SS or Gomm Button disease is an acute febrile neutrophilic dermatosis, first described by Robert Douglas Sweet in 1964.[1] Triggering factors include internal malignancy (15%–30%, mostly haematological), a preceding infection (25%) and exposure to a potential drug (10%).[2] It is more common in the third—fifth decade, with a female predominance of 4:1.

The classical presentation includes acute fever, arthralgia, and an eruption of tender, erythematous or violaceous papules and nodules surmounted by pseudovesicles. The pronounced oedema in the upper dermis gives the lesion an illusion of vesiculation.[2] In malignancy-associated SS, lesions may appear bullous, ulcerated and may resemble pyoderma gangrenosum.[3]

The predominant involvement of both palms in our patient is a rare presentation, as the common sites include the head, neck, upper extremities and sometimes the dorsal aspects of hands.[4 5]

Malignancy-associated SS (20%) is most often associated with haematological disorders, among which acute myelogenous leukaemia is the most common. In patients with haematological malignancies, SS can occur in the following forms: a

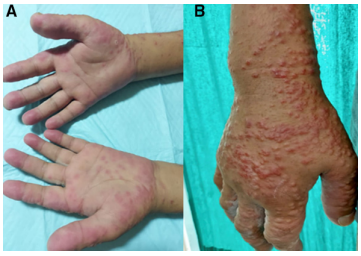

Figure 1 Multiple, tender, well-defined erythematous and oedematous papules and plaques over the (A) palms and (B) dorsum of hand and forearm.

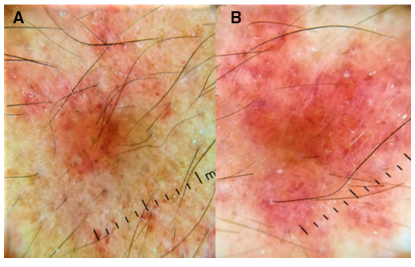

Figure 2 (A, B) Dermoscopy of the pseudovesicular erythematous lesions over dorsa of hands showing focal arrangement of red clod vessels and few dotted vessels over patchy pinkish background along with diffuse pale areas.

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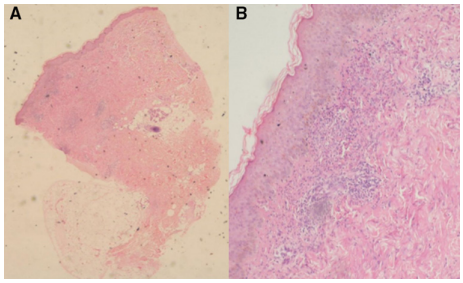

Figure 3 (A) H&E, 10×—mild to moderate spongiosis with dense perivascular and periadnexal infiltrate in the superficial and deep dermis. (B) H&E, 40×—the infiltrates consist mainly of neutrophils with few eosinophils. There are also a few dilated capillaries with extravasation of RBCs, along with dermal oedema, karyorrhexis but fibrinoid necrosis was not seen. Eccrine glands are spared.

paraneoplastic syndrome, a drug-induced dermatosis postchemotherapy or concurrent demonstration of leukaemia cutis. This dermatosis can either precede, follow or appear in concurrence with the diagnosis of malignancy.

The mainstay treatment for SS is systemic corticosteroids. Other agents include dapsone, potassium iodide, colchicine, indomethacin, clofazimine, cyclosporine and antibiotics.[3]

To the best of our knowledge, only three cases of SS with palmoplantar involvement have been reported and dermoscopy of SS has been reported only once.[6–9] We report additional findings of red clods and dotted vessels over a pinkish background, corresponding with histological findings of dilated capillaries and extravasated red blood cells. Other features such as diffuse pale areas due to the underlying oedema were seen.[9] We aim to highlight the dermoscopic features of SS with an unusual presentation involving the palms, which may aid a physician in arriving at the correct diagnosis in cases of rarer site presentation of this syndrome.

Learning points

- Sweet's syndrome (SS) involving palm is a rare presentation.
- Among malignancy-associated SS, haematological malignancy is the most common.
- Dermoscopy can aid in the diagnosis of SS.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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