

QUIZ SECTION

Yellow Changes of the Skin: A Quiz

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A man in his late 60s presented with multiple asymptomatic yellow, slightly elevated plaques symmetrically distributed over the periorbital areas, neck, proximal trunk, medial aspect and flexural folds of the arms, progressively enlarging over 6 months (Fig. 1). He was otherwise generally well. No lymphadenopathies or hepato-splenomegaly were detected. Blood tests revealed raised erythrocyte sedimentation rate (ESR) of 58 mm/h (normal 0–30 mm/h) and low haemoglobin (125 g/l; normal 130–180). Com-

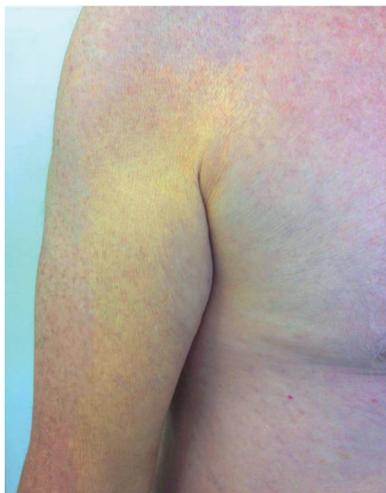


Fig. 1. Large yellow, very slightly elevated plaque in a vertical linear array of the right arm pit.

plement level alterations were found with C4 at the lower end of the normal range (12.3 mg/dl; normal 12.0–72.0) and low C1 inhibitor (12.5 mg/dl; normal 16–30). An IgG monoclonal protein peak was found on serum electrophoresis (21.6 g/l; normal 6.0–16.0).

Two incisional biopsies were taken from the right shoulder and arm (Fig. 2A). Both specimens showed similar features with normal epidermis and the presence of irregular aggregates of foamy histiocytes between collagen bundles in the dermis. A bone marrow biopsy specimen showed an increased number of plasma cells (14%) (Fig. 2b).

What is your diagnosis? See next page for answer.

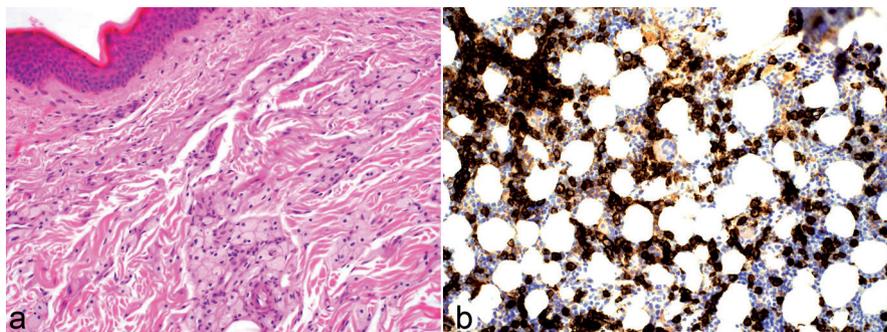


Fig. 2. (a) Histology of the skin shows dermis containing clusters of foamy histiocytes (H&E; ×20); (b) Bone marrow biopsy shows a markedly increased number of CD138 positive cells, identified as plasma cells (Immunohistochemistry: ×10).

ANSWERS TO QUIZ

Yellow Changes of the Skin: A Commentary

Acta Derm Venereol

Diagnosis: Diffuse plane normolipemic xanthomatosis associated with multiple myeloma

Diffuse plane normolipemic xanthomatosis is a rare cutaneous entity described in normolipemic patients in association with myelodyscrasias including monoclonal gammopathy of unknown significance (MGUS) and multiple myeloma (1, 2). Common clinical findings are yellow to orange mostly asymptomatic patches and plaques symmetrically distributed over the face, neck and upper trunk (1–3). In general, an extensive cutaneous involvement suggests the presence of an underlying systemic disease (3).

A recent review by Szalat et al. (4) analysing a large number of patients presenting with normolipemic xanthomatosis associated with multiple myeloma and MGUS showed that, in nearly all cases, haematological dyscrasias were discovered only after the onset of the cutaneous changes. Furthermore, remission and relapse of the haematologic disease were associated with an almost simultaneous improvement and recurrence of the xanthoma lesions (4).

The pathogenesis of plane normolipemic xanthomatosis is still uncertain. It has been attributed to the formation of immune complex, resulting from monoclonal IgG directed against low-density lipoproteins, leading to a lipid accumulation in the skin and subsequent phagocytosis by macrophagic cells (3–5). The characteristic histopathological findings are the so-called “foam cells” in the dermis consisting of histiocytes with lipid imbibed cytoplasm, and a normal epidermis (3). In addition, when a haematologic

condition is present in the setting of xanthoma lesions, a low C4 and C1 serum level inhibitor is usually detected. Such abnormality seems to be induced by circulating paraproteins which, activating the complement, induce the consumption of serum C4 and C1 inhibitor (4, 5).

In conclusion, xanthomas are common cutaneous manifestations with variable morphology which have been described with or without abnormalities in lipid profiles (6). Patients with extensive plane cutaneous xanthomas with normal blood lipid levels and/or low serum complement should be investigated further for haematological diseases.

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