Urticarial vasculitis: a paraneoplastic presentation of B-cell non-Hodgkin’s lymphoma

Sir, Urticarial vasculitis (UV) has been described as a rare association with visceral and haematological malignancy [1–5]. It is thought that tumour-associated immune complexes might be involved in the pathogenesis of the vasculitis. We report the case of a patient with UV which predated the development of localized B-cell non-Hodgkin’s lymphoma. We believe this is the first report of this association.

A 56-yr-old lady presented with a 12-month history of generalized arthralgia, myalgia and weight loss. On examination, she had a recurrent non-painful urticarial-type rash distributed around her axillae, buttocks and lower legs (Fig. 1). The lesions persisted for 2–3 days and then subsided with residual pigmentation. There was no lymphadenopathy or hepatosplenomegaly. There was bilateral wrist and metacarpophalangeal joint synovitis. Investigations revealed an erythrocyte sedimentation rate (ESR) of 109 mm h, C-reactive protein (CRP) concentration 157 mg/l, complement component C3 2.24 g/l (normal range 0.7–1.7 g/l) and C4 0.57 g/l (normal range 0.13–0.43 g/l). Screening for rheumatoid factor and autoantibody was negative. Extractable nuclear antibodies and cryoglobulins were not detected. Immunoglobulins, plasma protein electrophoresis, urea and creatinine, liver function tests, urinalysis and chest radiograph were normal. Hand radiographs revealed juxta-articular osteopenia. A skin biopsy revealed prominence of the endothelial cells lining the blood vessels with a chronic lymphocytic infiltrate around the dermal blood vessels. A diagnosis of urticarial vasculitis was made and the patient was commenced on prednisolone 20 mg daily for recurring skin lesions and persistent synovitis. Two weeks later, there was a clear response to treatment, with resolution of the rash (with residual pigmentation) and no synovitis. ESR and CRP had also fallen and complement levels had normalized. Her symptoms returned on reduction of the prednisolone dose, and methotrexate 10 mg weekly was commenced as a steroid-sparing agent. At review 6 months later, she complained of a swelling in her neck and a large firm cervical lymph node was palpated. There was no other palpable lymphadenopathy or hepatosplenomegaly. Histology of the node revealed total effacement of the normal lymph node architecture, which was occupied by a population of large mononuclear cells (Fig. 2). Immunohistochemistry showed positive staining of the large cells with leucocyte common antigen and the B-lymphoid marker CD20. The features were those of a diffuse large B-cell lymphoma (non-Hodgkin’s).

The prior methotrexate therapy raised the possibility of a lymphoma related to Epstein–Barr virus (EBV), but EBV titres, biopsy, immunohistochemistry and in situ hybridization for EBV were negative. CT scan of the
chest and abdomen were normal. Bone marrow aspiration and trephine were also normal, and she was referred for local radiotherapy.

Although UV is known to be associated with other connective tissue diseases, its association with malignancy is less well established. A review of the literature revealed five definite cases of UV associated with malignancy. Two patients who had received therapy for Hodgkin’s disease presented with UV [1]. One case of UV associated with immunoglobulin A myeloma has been described [2] and two further cases have occurred in association with both metastatic adenocarcinoma of the colon [3] and metastatic malignant teratoma of the testes [4].

To describe UV as a paraneoplastic phenomenon highlights the importance of excluding malignancy as an underlying cause. While the histological appearances were not typical of a florid leucocytoclastic vasculitis in this case, in new-onset UV there may be little vessel wall disruption and only a minor degree of perivascular infiltration. The exact pathogenesis of the association with malignancy is unclear, but in malignancy immune defects occur which may give rise to complement fixation in vessel walls and subsequent development of a vasculitis [5].

D. WILSON, W. G. McCULLAGGAGE, G. D. WRIGHT
Departments of Rheumatology and Pathology, Royal Victoria Hospital, Belfast, UK
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Correspondence to: D. Wilson, 39 Alveston Park, Carryduff, Northern Ireland B28 8RP, UK.