Clinical vignette

MRI myositis sine myositis: the importance of the histopathology

Sir, A 67-year-old woman complained of painful, swollen ankles that limited weight bearing. Serum inflammatory markers were increased. A US ruled out joint effusion. The MRI scan (Fig. 1, left; coronal and axial views) revealed increased signal intensity in T2 fat-saturated sequences involving both leg muscles diffusely, characteristic of myositis. However, there were no proximal muscle symptoms and creatine kinase (CK) levels were normal. A muscle biopsy was performed (Fig. 1, right; haematoxylin and eosin stain). Remarkably, the muscle fibres showed no necrosis, atrophy or inflammation within the endomysium or in the perifascicular compartment. Conversely, marked inflammatory infiltrates involved the medium to small vessels with fibrinoid necrosis and lumen obliteration; no giant cells or granuloma were present. These findings were consistent with PAN.

MRI muscle oedema may be the result of inflammatory myopathies, infections, trauma, muscle infarction or denervation [1]. Vasculitis is not usually included in the differential diagnosis, making histopathological confirmation essential. PAN restricted to the lower limbs was reported to show a focal, patchy muscle involvement on the MRI [2], whereas in our case the oedema was diffuse (myositis-like). The absence of muscle fibre necrosis in the biopsy explained both the normal CK levels and the preserved strength.

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References


Fig. 1 MRI and biopsy findings of PAN limited to lower limbs