

A tiger man

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A 41-year-old man with well controlled type 1 diabetes presented to us with a 6-month history of weight loss, polyuria, polydipsia, diffuse myalgia, and myoclonia. Laboratory tests showed severe hypercalcaemia, hypercalciuria and low parathyroid hormone and raised 1,25(OH)₂ vitamin D and angiotensin converting enzyme serum concentrations. ¹⁸F-FDG PET-CT scan showed hypermetabolic hilar and mediastinal lymphadenopathy, and intense uptake by the muscles, resulting in a tiger-man appearance (figure A). MRI of the thighs showed high signal infiltration throughout the muscles and

subcutaneous tissues (figure B, C). A biopsy sample of the vastus medialis showed non-caseating granulomas (figure D), confirming a diagnosis of sarcoidosis with muscle involvement. Corticosteroids were given, which resulted in clinical and biological improvement. Asymptomatic myopathy occurs in 50–80% of patients with sarcoidosis, whereas clinical symptoms are present in less than 5%. The tiger man sign is suggested here to designate the PET-CT pattern in our patient, similar to the leopard man sign described on gallium-67 scintigraphy in sarcoid myopathy.

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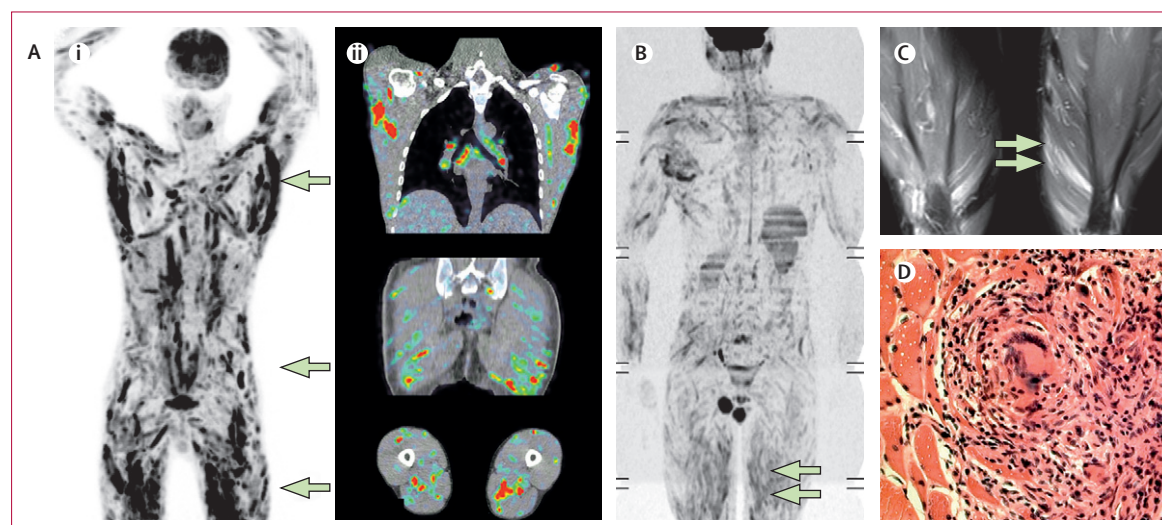


Figure: Muscular sarcoidosis

(A) (i) ¹⁸F-FDG PET in maximal intensity projection mode; and (ii) fused PET-CT slices, in coronal or transverse planes, show multiple pathological linear uptake of FDG (SUV max: 11.9), diffusely distributed along the bundles of the skeletal striated muscles (green arrows), mimicking the coat of a tiger. Also, symmetrical mediastinal and hilar lymphadenopathy. (B) Coronal whole-body diffusion-weighted MRI shows multiple linear areas of restricted water diffusion with an orientation and location typical for a muscular origin (C) Coronal short inversion time inversion-recovery MRI confirming the presence of high signal intensity thickened muscle bundles (green arrows), suggestive of inflammatory involvement. One of these bundles (arrows) was chosen for biopsy and histological sampling. (D) Histology of the specimen shows non-caseating granuloma of muscle, giant cells, epithelioid cells, and lymphocytes (haematoxylin-eosin stain).