Old tiger man: a case of sarcoid myopathy

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DESCRIPTION

A 76-year-old man presented with asthenia and proximal muscle weakness during the past 6 months. A general physical examination proved to be unremarkable. Blood tests showed hypercalcaemia (ionised calcium 1.52 mmol/L) and normal creatine phosphokinase (CPK). Additional studies findings included: suppressed parathyroid hormone level (<2.5 pg/mL), low 1,25(OH)₂ vitamin D (14 ng/mL) and elevated serum angiotensin-converting enzyme (107 IU/L). Cell blood count, renal function, C reactive protein, erythrocyte sedimentation rate and urinary calcium were normal. A fluorodeoxyglucose positron emission tomography (FDG-PET) scan was ordered demonstrating enlarged hilar, mediastinal and right supraclavicular lymph nodes (figure 1A) and diffuse linear abnormal hypercapitation of the musculature (figures 1B and 2). Although the electromyogram (EMG) has not shown changes, a biopsy of the gastrocnemius muscle presented well-defined non-necrotising granulomas, suggesting sarcoid myopathy. Exclusion of other granulomatous diseases enabled the definitive diagnosis. The patient was successfully treated with prednisolone.

DISCUSSION

Sarcoid myopathy is a disorder of unknown cause. It is characterised by non-caseating granulomas. Symptomatic involvement occurs in 0.5%–5% and is rarely inaugural or isolated. Three different types

Figure 2 F-18 FDG PET/CT findings. Maximum intensity projection mode shows the characteristic linear 'tiger man' uptake pattern of muscular sarcoidosis in upper and lower limbs.

were defined: chronic myopathy, palpable nodules and acute myositis.¹

This case seems to fit into chronic myopathy, which is the most common symptomatic form (85%). In this condition, the patient experiences a slowly progressive proximal symmetrical weakness. A favourable clinical response with corticosteroids is usually observed.¹

The FDG-PET muscular uptake pattern observed in our patient, known as 'tiger man' sign, was first

Figure 1 F-18 FDG PET/CT findings. Increased uptake was noted in hilar and mediastinal lymph nodes (A), and nodular hypercapitation was seen in both legs (B) in transaxial images.

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Learning points

- ▶ The elevation of serum angiotensin-converting enzyme may be an important clue to the diagnosis of sarcoidosis in the context of hypercalcaemia.
- ▶ Diagnostic workup of sarcoid myopathy includes muscle enzymes, electromyogram (EMG) and muscle biopsy. However, normal CPK and EMG do not exclude muscular involvement in sarcoidosis.¹
- ▶ FDG-PET has a major role to assess sarcoidosis activity and guide a biopsy. A characteristic multiple linear 'tiger man' uptake pattern can be found in muscular sarcoidosis.^{2,3}

described in 2012 and is rarely reported.² This particular finding was crucial to achieving the diagnosis, considering that EMG and CPK were normal.

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