

Nuclear medicine imaging in idiopathic inflammatory myopathies

Thomas Nadin¹ , Mohammed Akil¹ , Manu Shastry² , Michael Hughes¹ 

A 76-year-old female presented with a three-month history of progressive proximal muscle weakness and systemic disturbances, including fatigue and malaise. There was a contemporaneous onset of a widespread rash (including the trunk and limbs) in keeping with dermatomyositis. Before the onset of her illness, she was fully mobile and independent. Physical examination revealed marked reduction in power in the proximal musculature and neck. Investigations revealed a raised creatine kinase (4018 IU/L). Magnetic resonance imaging of the femurs demonstrated florid muscle edema. Computerised tomography - positron emission tomography (CT-PET) (Figure 1) (Top and bottom left) imaging demonstrated increased uptake of fluorodeoxyglucose tracer in the skeletal muscle of the proximal upper limbs and neck. Electromyography findings were consistent with diagnosis of myositis, including profuse fibrillation and positive sharp waves in the deltoid muscle group. Immunology was negative, including myositis-specific antibodies. A diagnosis of dermatomyositis was made based on the clinical findings and investigations. CT-PET (Figure 1) (Bottom right) revealed an incidental facial squamous cell carcinoma (arrow) which was subsequently completely excised at an early stage, avoiding lymph node/other spread. Increased colonic uptake from diverticular disease was also noted and subsequent colonoscopy was negative for malignancy. Our case highlights the potential clinical utility of nuclear medicine imaging to screen for underlying malignancy and to assess muscle disease activity (Figure 1).

ORCID IDs of the authors:

T.N. 0000-0003-1326-2475;
M.A. 0000-0002-6813-4289;
M.S. 0000-0003-3856-9959;
M.H. 0000-0003-3361-4909.

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¹ Department of Rheumatology, Royal Hallamshire Hospital, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK

² Department of Radiology, Northern General Hospital, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK

Address for Correspondence:

Michael Hughes; Department of Rheumatology, Royal Hallamshire Hospital, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK

E-mail: Michael.hughes-6@postgrad.manchester.ac.uk

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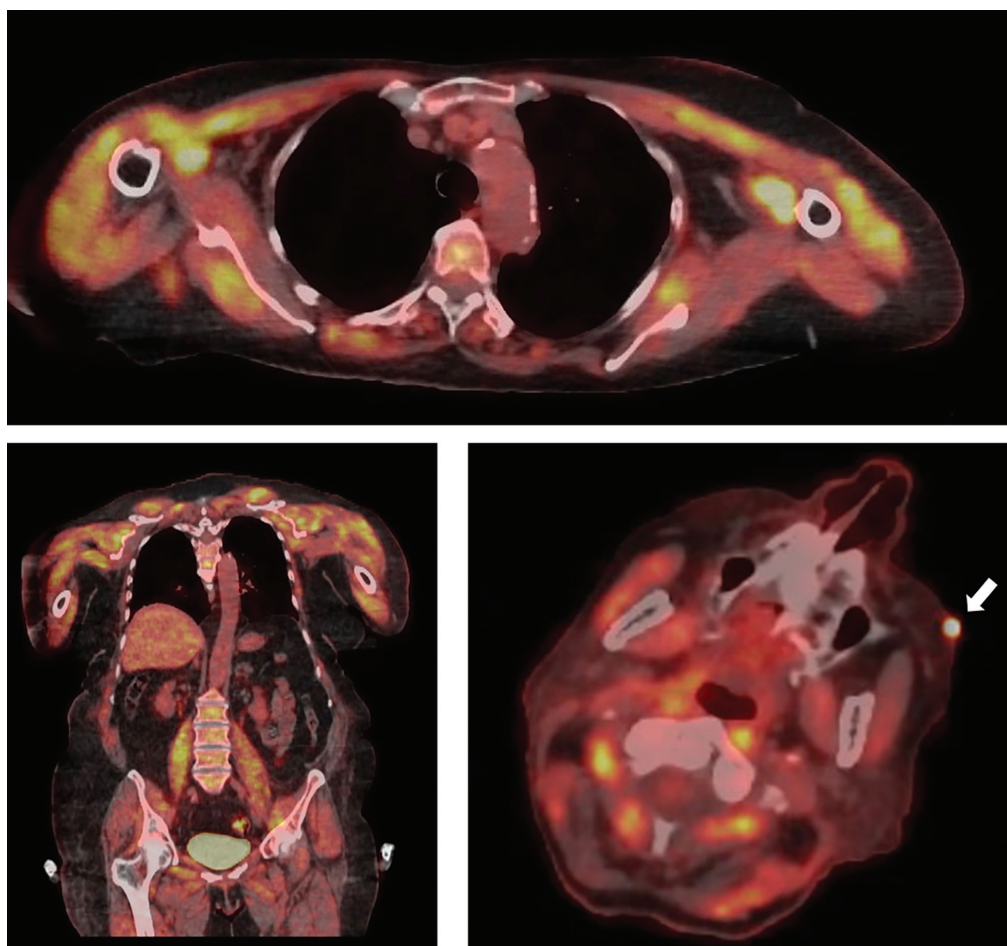


Figure 1. Nuclear medicine imaging in idiopathic inflammatory myopathies

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