Relapsing-remitting painful masses of the skeletal muscle

Gaetano Vattemi, Valeria Guglielmi, Matteo Marini, Giuliano Tomelleri

Department of Neurosciences, Biomedicine and Movement Sciences, Section of Clinical Neurology, University of Verona, Verona, Italy

Correspondence to
Dr Gaetano Vattemi, Department of Neurosciences, Biomedicine and Movement Sciences, Section of Clinical Neurology, University of Verona, Verona 37134, Italy; gaetano.vattemi@univr.it

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CLINICAL QUESTION

A 59-year-old male patient complained, from age 36, of insidious appearance in several weeks of a circumscribed painful mass, single or multiple, under the skin with hard consistency on palpation. At first, these masses were localised on sural aspect of the legs, thereafter on arms, thighs and, occasionally, on trunk and face. They had a diameter ranging from 3 cm to 5 cm and the overlying skin tissue was normal. Pain might increase with movement causing functional limitation of the corresponding limb. In the first years, they spontaneously remitted within 2–3 months, successively in 6–7 months. Onset of these lesions was never preceded or accompanied by systemic symptoms such as fever, weakness and fatigue. A muscle biopsy was taken from one of the lesions in the left vastus lateralis from both superficial (Fragment A) and deep (Fragment B) areas. Review the high quality, interactive digital Aperio slide at http://virtualacp.com/JCPCases/jclinpath-2019-206090/ and consider your diagnosis.

DIFFERENTIAL DIAGNOSES

A. Focal myositis
B. Nodular myositis
C. Proliferative myositis
D. Pyomyositis
E. Rhabdomyoma

The correct answer is after the discussion.

CLINICAL IMAGE

See figure 1.

DISCUSSION

We report an unusual case of relapsing-remitting focal myositis[1 2] with a 23-year history that migrated to different muscles during disease course. Two muscle biopsies performed 12 years after disease onset proved the inflammatory nature of the lesions and showed dermatomyositis (DM)-like histological features, excessive proliferation of connective tissue and fasciitis. Alternative diagnosis including nodular myositis, proliferative myositis, primary mycobacterium tuberculosis pyomyositis and other focal intramuscular masses were ruled out combined with medical history, clinical manifestations and laboratory investigations.[3–5]

Focal myositis is an uncommon idiopathic inflammatory pseudotumour of the skeletal muscle.[1 2] Focal myositis most commonly presents as solitary, rarely painful mass growing insidiously for several weeks within a single muscle.[1 2] The disease typically disappears spontaneously, and rarely recurrent cases and/or bilateral lesions have been described.[2] Since the first description, over 200 cases have been reported in the literature. Laboratory investigations including creatine kinase, erythrocyte sedimentation rate and C-reactive protein are usually within normal limits or slightly increased.[2] Pathological features are similar to those seen in inflammatory myopathies with moderate to severe inflammation in the endomysium and perimysium.[2]

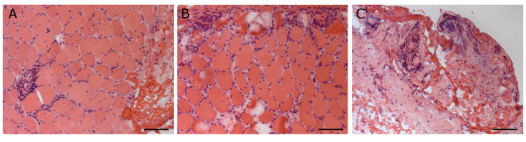

Figure 1 Light microscopy of muscle biopsy. Histological findings on Fragments A (A and B) and B (C). (A and B) H&E stain shows small inflammatory infiltrates around two vessels (A), mild increase of endomysial connective tissue (A and B), conspicuous perimysial fibrosis (A), a necrotic muscle fibre invaded by mononuclear cells and some necrotic and degenerating fibres (B). (C) Muscle tissue completely replaced by fibrotic tissue with inflammatory cells around vessels.

Take home messages

- Focal myositis may present as relapsing and spontaneously remitting masses involving different muscles
- Focal myositis is clinically characterised by a benign course
- Focal myositis could be a focal dermatomyositis
- The massive proliferation of connective tissue, that completely replaces the muscle tissue, should be considered an additional hallmark of the disease process

CORRECT ANSWER

A. Focal myositis

Correction notice This article has been corrected since it appeared Online First. The link to the digital slide has been added.

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Contributors All authors fulfil the criteria of authorship because of their substantial contribution to analysis, interpretation or manuscript preparation and have read and approved the submission of the manuscript.

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ORCID iD
Gaetano Vattemi http://orcid.org/0000-0003-3412-8339

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