Case Report

Localized Nodular Myositis. A Paraneoplastic Phenomenon


Summary  Localized nodular myositis was recognized in an elderly man six months prior to the diagnosis of Hodgkin's disease. Meticulous search of the muscle specimen failed to disclose tumorous involvement. The possible paraneoplastic nature of localized nodular myositis in this patient is discussed.

Key words  Myositis, Hodgkin's Disease, Paraneoplastic Syndrome.

INTRODUCTION

Cumming, Heffner and their co-workers described independently in 1977 a benign inflammatory pseudotumour of the skeletal muscle, which they referred to as localized nodular myositis and focal myositis, respectively (1,2). The disorder is characterized by a rapidly enlarging, firm and painful mass, which as a rule affects a single muscle. Spontaneous regression or healing following partial or complete surgical excision is observed in most cases. In the occasional patient, the disease progresses to polymyositis, evolves from the beginning as a multifocal localized myositis or regresses locally only to reappear later as a polymyositis (1-8). Nearly fifty cases of localized nodular myositis (LNM) have been reported in the literature. The cause is generally elusive. Traumatic or ischaemic events have been suggested to explain the focal nature of the muscle injury (1,2). LNM was reported in two cancer patients (9,10). We have recently treated a patient in whom LNM was diagnosed six months prior to the diagnosis of Hodgkin's disease.

REPORT OF A CASE

A 78-year-old man consulted his physician because of pain and a tender mass in the left forearm of five months duration and a recently evolving cervical node. Except for a small jugular lymph node and cubital swelling, there were no relevant findings on physical examination. Routine laboratory tests were within the normal range. While the cervical node was no longer palpable after three weeks, the cubital swelling progressively enlarged, the pain intensified and radiated to the third finger. The patient was referred to the department of orthopaedic surgery for evaluation. An intramuscular, oval, firm and tender mass, measuring a 4 cm in length, was found 5 cm distal to the left antecubital fossa. The overlying skin and subcutis were unremarkable. The physical examination was otherwise unrewarding, in particular, there were no enlarged lymph nodes. Chest X-rays were normal. Routine laboratory tests were without abnormalities.

Clinically, a soft tissue neoplasm was suspected and a muscle segment, measuring 4.5 by 3 by 2.5 cm was excised. Cut sections disclosed a central, firm, pale brownish and poorly demarcated lesion, measuring 3.5 by 2.5 by 2 cm. Microscopically, while the muscle at the perimeter was normal, it was partly replaced by inflamed fibrous tissue in the lesional area (Fig. 1). Clustered myofibers persisted within the fibrous tissue, of which some were atrophic, others segmentally necrotic (myocytolysis) or deeply eosinophilic and homogeneous (waxy degeneration). Centrally-sited and partly-pyknotic nuclei were frequent in the persisting myofibers, which were separated from each other by a prominent and slightly inflamed endomysium (Fig. 2). The fibrous tissue was either densely packed and hypocellular or loosely textured, myxoid and contained a heavy infiltrate of lymphocytes admixed with some histiocytes, plasma cells and rare eosinophils. Several medium-sized arteries and veins were inflamed (Fig. 1). Their walls were thickly in-
**Fig. 1:** Groups of persisting myofibers (arrows) with segmental degenerative changes (arrowhead) are separated from one another and encased by inflamed fibrous tissue. One of several vessels displays arteritic alterations. Hematoxylin and eosin. × 30.

**Fig. 2:** A bundle of myofibers with central nuclei and prominent endomysium containing some mononuclear cells. It is flanked by fibrous tissue, which contains a heavy chronic inflammatory infiltrate (arrow). Hematoxylin and eosin. × 130.