

## REHABILITATION IN MYOSITIS

### REHABILITACIJA U BOLESNIKA S MIOZITISOM

Nadica Laktašić Žerjavić<sup>1</sup>

<sup>1</sup>University of Zagreb School of Medicine, University Department for Rheumatology and Rehabilitation, Clinical Hospital Centre Zagreb, Zagreb, Croatia

Idiopathic inflammatory myopathies (IIMs) are associated with pronounced impairment in health-related quality of life (QoL). Muscle weakness and atrophy, reduced aerobic capacity, fatigue, pain, dysphagia, dysphonia, calcinosis and joint contractures, osteoporosis, frequent falls and fractures, and avascular osteonecrosis cause cumulative damage and progressive functional impairment.

In immune-mediated necrotizing myopathy (IMNM) there is a subacute onset of severe symmetric proximal muscle weakness with a worse muscle prognosis than in dermatomyositis (DM) and antisynthetase syndrome (ASyS). Up to 20 % of DM cases can be amyopathic. Patients with inclusion body myositis (IBM) present with slowly progressive loss of muscle strength and atrophy asymmetrically affecting proximal and distal muscles; the damage being the most pronounced in the quadriceps. Approximately 8 years after the onset of IBM, there is a need for mobility aid. In the late stage, a wheelchair for ambulation is needed, and patients have limited use of hands and marked dysphagia.

The clinical exam needs to determine the topography and severity of the muscle deficit. Proximal, distal, axial (neck flexors), facial, and oculomotor muscle groups must be tested. Weakness inferior to 3 on the 5-point Medical Research Council scale for muscle strength and/or swallowing troubles indicate severe IIM.

In IBM exercise represents the core therapy. Home exercise program (resistance training combined with aerobic training) should be performed twice a day progressing from moderate to heavy exertion. Muscle weakness of finger and wrist flexors requires an individualized hand exercise program involving occupational therapy. In IMNM and DM an intensive exercise program (5 days a week resistance training) can be introduced approximately 2 months after initiating a high dose glucocorticoid therapy. At that point, exercise exhibits an anti-inflammatory effect and does not alter inflammatory markers or cause exacerbation detectable on muscle biopsy.

Exercise improves muscle strength, endurance and aerobic capacity. Reduces glucocorticoid-induced muscle atrophy, falls and fractures improving functional performance. Moreover, it improves cognitive and psychological health, and QoL of patients with IIMs. Myocarditis, arthritis, calcinosis, intestinal lung disease, and malignancy can interfere with rehabilitation.

**Keywords:** inflammatory myopathy, exercise, rehabilitation

**E-mail of the main author:** nadica\_laktasic@yahoo.com

**Conflict of interest statement:** The authors declare no conflict of interest.