Atorvastatin-associated necrotising inflammatory myopathy

Sirs,

Statin-treated patients may develop a non-inflammatory myopathy, however the spectrum of statin-associated muscle disorders is wider than we thought (1). An 83-year-old woman developed fatigue, muscle acheing, and weakness of shoulders, hips and thighs while taking atorvastatin (20 mg daily). Atorvastatin was started two years prior, at a stable dose, and she was not taking any other medications potentially associated with myopathy.

Proximal limb-girdle muscles were tender and weak, strength assessed at 2 to 3 of 5 bilaterally, deep-tendon reflexes + and symmetric, and plantar responses flexor; there were no fasciculations, cramps, skin rash, and pitting oedema.

Laboratory studies were normal except for myoglobin 1120 ng/ml (normal 50–110), creatine kinase 4457 U/L (20–200), aspartate aminotransferase 210 U/L (5–40), alanine aminotransferase 391 U/L (5–40), and lactate dehydrogenase 1455 U/L (210–400). An autoimmunity screening and a total-body computed tomography were unrevealing.

Atorvastatin was discontinued, though severe fatigue, muscle tenderness and weakness worsened; three weeks later she was unable to walk and enzyme levels were unchanged. T2-weighted sequences of the MRI of thighs showed muscle atrophy with muscle enzymes remaining elevated for weeks or months. Complications such as spontaneous compartment syndrome in association with severe necrotising myopathy without significant inflammation, which indicates they are required to achieve full recovery in inflammatory myopathies (7).

An immune-mediated mechanism is advocated in statin-associated polymyositis-like myopathy, though if statins may trigger muscle fiber apoptosis, T cell activation and MHC-I up-regulation remain unclear (5, 6).

Atorvastatin-associated polymyositis-like myopathy could go overlooked as patients with muscle symptoms or elevated enzyme levels do not usually undergo muscle biopsy except very severe cases. Clinicians should be aware of this disorder and muscle biopsy urgently performed in suspected cases since corticosteroids and/or immunosuppressors are required to achieve full recovery in inflammatory myopathies (7).

G. Famularo, MD, PhD
L. Gasbarrone, MD
M. Galluzzo, MD
G. Minisola, MD

Departments of Internal Medicine, Radiology, and Rheumatology, San Camillo Hospital, Rome, Italy.

Address correspondence and reprint requests to: Dr Giuseppe Famularo, Dipartimento di Medicina Interna, Ospedale San Camillo, Circonvallazione Gianicolense, 00152 Roma, Italy.
E-mail: gfamularo@scamilloforlanini.rm.it

Competing interests: none declared.

References
3. WALKER RL, SMITH GH, GASTON MS et al.: Spon-
6. SINGH P, KOHR D, KAPS M et al.: Skeletal muscle cell MHC I expression: implications for statin-in-