

A Case of Acute Postexercise Rhabdomyolysis of Upper Extremities

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Abstract

The article presents a case of acute postexercise rhabdomyolysis of rare localization in the upper extremities without acute renal damage that developed in a 19-year-old patient after the transfer of heavy objects (in a position with his arms down). The patient was enough trained, was physically developed and didn't have manifestations of hereditary or acquired neuromuscular pathology. The disease manifested itself immediately after physical exertion in the form of severe edema, hyperemia and pain in the elbow and shoulder joints and moderate muscle weakness of the upper extremities. On the morning of the next day, a volume reduction and a color change of the excreted urine to dark brown was noted. An increase in the level of serum myoglobin to 7231 ng/ml and creatine phosphokinase (CPK) to 157009 U / L made it possible to establish the diagnosis of rhabdomyolysis with oliguria without increasing azotemia. MRI scan of the upper extremities showed a homogeneous increasing of signal intensity in T2-weighted images and STIR, as well as an increasing of relaxation time, indicated the first type of rhabdomyolysis in the triceps of the shoulders, anterior dentate, supraclavicular, subclavian and deltoid muscles. A dynamic examination revealed a direct, high strength correlation between CPK, myoglobin, ALT, AST of blood serum and relaxation time of muscle tissue. Thus, MRI is a sensitive imaging method even for atypical localization of rhabdomyolysis, the results of which affect further treatment tactics and prognosis of complications, and the use of quantitative MRI techniques allows to control the effectiveness of the therapy.

Key words: Post-Exercise Rhabdomyolysis, Skeletal Muscle, Quantitative Evaluation.

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