Myositis with elevated creatinine Kinase in patient after Coxsackie B infection

Mukesh Kumar (01) , Syed Musadiq Ali (01), Nivedita Jha (02), Al-Sibai Ahmed (03)

Abstract: Viral myositis is rare but serious complication coxsackie B virus infection and often mistaken with idiopathic "polymyositis" or dermatomyositis. A severe form of viral myositis with extensive necrosis may mimic necrotizing myopathy and drug-induced myopathy. We report a case of 47-year-old patient with history of decompensated alcoholic cirrhosis who was presented with bilateral upper and lower extremity weakness and diffuse body pain with motor deficit of extremities after Group B coxsackie virus infection. Neurological exam was unremarkable except some proximal weakness (4/5 shoulder abduction b/l, elbow flexion and extension 4+/5, hip flexion 2/5 b/l, hip abduction -4/5 b/l, knee flexion) and diminished sensation to cold temperature in length dependent pattern in lower extremities. Activities significantly limited by tenderness in bilateral upper and lower extremities. Creatine kinase blood level rose to 1678 U/L. Autoimmune, infectious and Inflammatory workup was negative including extended myositis panel, HMG Cao reductase antibodies, influenza panel, COVID, blood cultures, ascitic fluid cultures, viral hepatitis panel all negative.

Coxsackie viral panel showed higher titers for Coxsackie B3 and B5 1:64. AST and ALT mildly elevated.

Patient's muscle biopsy was suggestive of immune mediated inflammatory myopathy with necrotizing features, antibody negative. Due to lack of spontaneous recovery for about a week, she was subsequently started on trial of IV Solu-Medrol 1 g for 5 days. All clinical and paraclinical abnormalities improved.

This case illustrates the importance of Coxsackie B myositis specific to B3 and B5 which is rare cause of focal weakness and not reported well in literature before. It is very important to take comprehensive history to identify prodromal symptoms when working up weakness and myalgias, especially in patients with chronic problems like alcoholic liver cirrhosis. Clinicians should broaden serological testing for coxsackie panel as potential cause of weakness. Regardless of its influence on the treatment plan, awareness of potential complications like myositis will help direct clinicians to manage patients in an effective way and save time in similar situations. More cases need to be reported in patients who have muscle weakness due to coxsackie B and to determine whether use of steroid has any importance in management.