IMMUNE-MEDIATED NECROTIZING MYOPATHY IN A PATIENT WITH HUMAN IMMUNODEFICIENCY VIRUS

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BACKGROUND

Myopathies in patients with human immunodeficiency virus (HIV) may be caused by the itself, pyogenic infections, antiretroviral drugs, or more rarely autoimmune myositis. Herein, we report a patient with HIV who developed a severe myopathy that was defined posteriori as immune-mediated necrotizing myopathy.

CASE REPORT

This patient was a 33-year-old white man with HIV since 2019. The patient was using tenofovir, lamivudine, and dolutegravir, with undetectable HIV viral load. In October 2020, the patient showed progressive, symmetrical and predominantly proximal limb muscle weakness associated to weight loss of 22 kg in 2 months. The patient was admitted into emergency care under the hypothesis of Guillain-Barré syndrome and submitted to intravenous methylprednisolone pulse therapy (1 g/day) for 5 consecutive days associated with intravenous immunoglobulin (2 g/kg). Because the patient did not improve clinically (MRC 2/5 on proximal lower limbs and 3/5 on proximal upper limbs), he was transferred to our center for reinvestigation. The patient evolved acute respiratory failure, a need for orotracheal intubation, and a subsequent need for tracheostomy by prolonged orotracheal intubation. During the investigation, neoplasia and other infections were excluded, and laboratory data revealed high serum levels of creatine phosphokinase (29,000 U/L). In addition, thigh muscle magnetic resonance imaging showed extensive muscle edema, and muscle biopsy revealed a necrotizing myopathic histological pattern; Anti-SRP and anti-Jo-1 autoantibodies were negative. Due to the muscle severity, the patient received two more cycles of intravenous methylprednisolone pulse therapy (5 g) associated with intravenous immunoglobulin (2 g/kg). After 40 days, the patient was discharged from hospital to our outpatient clinic, displaying laboratory improvement in creatine phosphokinase and clinical muscle strength (MRC 4/5 proximal lower limbs and MRC 3/5 in proximal upper limbs). Using azathioprine (150 mg/day) and prednisone (40 mg/day), the patient's muscle strength improved after discharge. However, despite correct adherence to treatment, the serum levels of creatine phosphokinase increased (2709 U/L); therefore, a new intravenous methylprednisolone pulse therapy (5 g) was indicated and immunobiological therapy with rituximab was indicated.

CONCLUSION

As with our patient, in cases of HIV infection, weakness can have a neurological cause such as HIV-related polyneuropathy, Guillain-Barré syndrome and LEMP can exceed the causes of myopathy. Polymyositis and nonspecific myositis are the most common forms of muscle involvement related to HIV infection. However immune-mediated necrotizing myopathy, despite being rare must be remembered and approached because of quickly dysfunction evolves.

KEYWORDS

Myopathy, Necrotizing, HIV.