SARS-Cov-2 associated periferal neuropathy and congenital myopathy: case report

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Abstract

Background: Association of congenital myopathy with COVID-19 – associated peripheral neuropathy is not reported. We aim to present such a case.
Material and methods: Clinical case of a 14-year-old male with history of myopathy from the age of 5 who presented with features of COVID-19-related polyneuropathy and multiple organ dysfunction syndrome.
Results: The patient was admitted with generalized muscle weakness, motor difficulties, unsteady gait, chest pain, respiratory failure. Physically – hyposthenic body type, muscle atrophy, cyanosis, shortness of breath, tachycardia, hepatomegaly. Neurologically – muscle pain on palpation, hypotonia, especially in lower limbs, distal hypoesthesia, loss of deep tendon reflexes and myopathic gait. IgG and IgM SARS-Cov-2 were elevated and the patient presented a history of fever one month before admission. The albumin and total protein were low, but serum creatine kinase, creatine kinase-MB, LDH, liver enzymes, D-dimers were elevated, as well as cerebrospinal fluid protein level. The chest CT showed fibro atelectasis of S3 and S10 segments of the left lung, pleural adhesions. Electromyography studies showed a myopathic pattern. The patient received five plasma exchange treatments and was weaned from mechanical ventilation. The treatment also included antibiotics, infusion therapy, dexamethasone, which resulted in a partial response.
Conclusions: The presented case of the association of congenital myopathy and Covid-19 associated peripheral neuropathy had a partial response to treatment. Such cases should be tailored by a multidisciplinary management team.
Key words: polyradiculoneuropathy, congenital myopathy, SARS-CoV-2, COVID-19.

Clinical features and outcome in patients with Guillain-Barré syndrome

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Abstract

Background: Guillain-Barré syndrome (GBS) is a heterogeneous group of autoimmune polyradiculopathies, in which disease biomarkers, and outcome predictors are under continuous research.
Material and methods: Thirty-three patients with GBS (12 females/21 males) aged between 24 and 73 years were assessed, using clinical data, Modified ERASMUS GBS Outcome (MEGOS) score and electromyography (EMG).
Results: The average age of onset was 52.1 ± 12 years. The mean time period before hospitalization was 15 days. Clinical symptoms at onset were areflexia (24%), paresthesia (25%), weakness in the legs (36%) and arms (22%). 15 patients (45.4%) had cranial nerves involvement, while 11 (33%) developed respiratory failure of which five (15%) required mechanical ventilation. EMG revealed myelinopathy in majority of the patients – 19 (70%), axonopathy – 6 (22%), and axonomyelinopathy – 2 (8%). 27 (81%) patients received plasmapheresis, 2 (6.06%) – plasmapheresis with immunoglobulins, and 6 (18%) received no plasmapheresis due to contraindications. Treatment outcomes were as follows: 29 (88%) patients saw improvement, 2 (6.06%) had stable disease. There were 2 (6.06%) deaths in the cohort. Mean MEGOS was 4.0 ± 2 (male 5.0 ± 2; female 4.0 ± 2). Patients with myelinopathy and axonomyelinopathy had a higher MEGOS. Hospitalization delay and higher MEGOS score correlated with more severe disease evolution.
Conclusions: Patients with delayed hospitalization, predominantly men, who had myelinopathy and mixed forms of GBS have a less favorable prognosis of the disease. Increased attention to the onset of symptoms consistent with GBS is needed in order to ensure a prompt diagnosis and hospitalization, as well as specialized treatment.
Key words: Guillain-Barre syndrome, onset symptoms, outcome, MEGOS.