A Case Of Acute Ophthalmoplegia Presenting After Multisystem Inflammatory Syndrome In Children (MIS-C)

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INTRODUCTION

Multisystem inflammatory syndrome (MIS-C) is a new pediatric hyperinflammation disorder caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). There are many neurological complications of covid 19 infection. Ophthalmoplegia is a rare condition resulting from brain tumors, ophtalmoplegic migraine, Miller fisher syndrome, multipl sclerosis and Lyme disease. Covid-19 infection may be one of the causes of ophthalmoplegia. We aimed to report a case with acute ophthalmoplegia presenting after MIS-C.

CASE REPORT

A 9-year-old girl was admitted to the pediatric emergency department with sudden onset double vision and headache. She was diagnosed with COVID-19 infection 5 weeks and was stay in the hospital 2 weeks ago due to MIS-C. She received methylprednisolone, intravenous immunoglobulin (IVIg), salicylic acid and antibiotics for MIS-C. On neurological examination, she had bilateral limitation of outward and upward gaze, and binocular horizontal diplopia. The remaining neurological examination was normal. Cerebrospinal fluid results were evaluated as normal. Cranial and orbital MRI, and MRI venography were unremarkable. Ganglioside antibodies such as GM1, GQ1b, GD1a, GD1b, GT1b were negative. On the 7th day after IVIg treatment (total 1 g/kg, 2 day), a significant improvement was observed in the ophthalmoplegia.

CONCULSIONS

Miller-Fisher syndrome was previously described after COVID-19 infections, but to our knowledge this is the first report to describe acute ophthalmoplegia (without ataxia and arefleksia).

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