Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Isolated Third Cranial Nerve Palsy and COVID-19 Infection in a Child

We read with interest the recent description of a child with transverse myelitis following COVID-19.[1] The literature also reports isolated COVID-19-related cranial nerve palsy.[2,3]

We document a post-COVID unilateral third cranial nerve palsy in a two-year-old child affected by sphingosine phosphate lyase insufficiency syndrome. This syndrome displays a wide spectrum of manifestations including steroid-resistant nephrotic syndrome, endocrine involvement, lymphopenia/immunodeficiency, and neurological problems (e.g., developmental delay, neuropathy).[4] Three weeks after resolution of a Sars-Cov2 infection complicated by multisystem inflammatory syndrome in children (MIS-C), the patient presented with right third nerve palsy (ophthalmoplegia with exotropia, ptosis, and mydriasis). The child came to our attention about 15 days after onset of these symptoms. No other neurological findings were detected except for pre-existing developmental and language delay, hypotonia, and hypotrophy with normal deep tendon reflexes, consistent with his syndrome. The clinical investigations performed, such as brain magnetic resonance imaging, blood tests, cerebrospinal fluid analysis, microbiology, and autoimmunity studies, including antiganglioside antibodies, revealed only blood-brain barrier damage, expressed by an elevated cerebrospinal fluid/serum quotient of albumin (Q_{Alb}), namely, 10450 (normal value < 5000). The patient was treated with oral prednisone for five days, with only eye partial recovery at one month follow-up.

In light of the published data and the clinical characteristics of our patient, it may be reasonably hypothesized that isolated post-COVID cranial neuropathies in children are a rare occurrence and are possibly favored by the underlying comorbidities.

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