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EDITORIAL COMMENTARY

Impact of COVID-19 Infection in West Syndrome: The Need for More Data

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The impact of COVID-19 among children with epilepsy (CWE) has been variable, with few reporting worsening seizure control and others reporting well-controlled epilepsy [1, 2]. West syndrome (WS) is an epileptic encephalopathy characterized by epileptic spasms with or without the presence of hypsarrhythmia on electroencephalography (EEG). During the COVID pandemic, the unique challenges for early detection and management of children with WS included delay in seeking medical treatment, limited availability of safe EEG, neuroimaging facility, and limited access to standard treatment drugs [3]. There is scarce information on the clinical outcome of children with infantile spasms who acquired COVID-19 infection.

The study by Madaan et al. provides insight into the impact of COVID-19 infection among five children treated for WS [4]. The study included three children with West syndrome who were in remission (one with structural etiology, one with tuberous sclerosis, and one with presumed genetic etiology) and two with persistent spasm (both had structural etiology).

The study depicts the variable clinical outcome among those with WS who acquire COVID-19 infection. Authors observed that of the three children in remission, one with tuberous sclerosis had relapsed following COVID infection, with the rest two maintaining spasm freedom. Among two children with ongoing spasms, one attained transient cessation of spasms for three weeks with a recurrence of spasm followed by regression of acquired milestones. The brief cessation of clinical spasms and resolution of hypsarrhythmia is well recognized during febrile illness (pyretotherapy). Still, authors noticed persistence of hypsarrhythmia despite the transient resolution of ongoing spasms. The clinical course of COVID infection among the five children was mild, with two requiring hospitalization and complete recovery. This is consistent with literature supporting that most children with COVID-19 illness were mild and asymptomatic [5].

This article provides new information regarding the implications of SARS-CoV-2 infection in children with WS. The variable clinical outcome denotes that apart from COVID-19 illness, other factors determine the treatment outcome of children with WS when infected with active COVID-19 infection. It may be challenging to establish a predictive relationship between COVID-19 disease and the clinical outcome of West syndrome in this limited series of five children.

As children are infrequently tested for COVID-19, and most have mild clinical course, the real impact of COVID-19 infection in patients with WS may be underdiagnosed. COVID-19 testing may be considered among patients of WS with fever with or without respiratory symptoms. The findings of this study on five children must provoke other authors who manage children with WS to team up and dig out their clinical outcome data during the COVID pandemic. This might provide more robust data on the impact of the COVID-19 pandemic on the clinical outcome of children with WS. This will help us gear up for the next wave of COVID infection lest it happens.

Declarations

Conflict of Interest None.

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