

CHRONIC CHALLENGES IN CHILDREN AND ADOLESCENTS FOLLOWING SARS-COV-2

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While the occurrence of severe COVID-19 is less common in children compared to adults, there are at least two potential long-term consequences that may arise after a SARS-CoV-2 infection in children [1]. The repercussions include paediatric inflammatory multisystem syndrome (PIMS) and LONG-COVID-19. Asymptomatic individuals might experience both the effects of a coronavirus infection. Paediatric Inflammatory Multisystem Syndrome is a condition characterized by widespread inflammation affecting several organs in the body. This disease, which impacts 1 of approximately 3,000 children who get the virus require intensive care therapy in 68% of instances [2, 3]. LONG-COVID-19 is a complex and varied sickness that affects several systems in the body. It does not have a formal categorization yet, but it is defined by the persistence of signs and symptoms after infection with SARS-CoV-2 [4, 5]. A meta-analysis of 80,071 people ranging in age from 0 to 18 years revealed a prevalence rate of 25.24% for LONG-COVID-19 in children and adolescents. The five most often reported clinical complaints were mood symptoms (16.50%), fatigue (9.66%), sleep disorders (8.42%), headache (7.84%), and respiratory symptoms (7.62%). In addition, the occurrence of cognitive impairments in children, including reduced focus, learning difficulties, disorientation, and memory loss, was significantly greater compared to the control group. An important constraint of this meta-analysis was the absence of stratification of children into groups based on their COVID-19 vac-

ination status in any of the 21 studies included in the study [6]. The presence of LONG-COVID-19 presents a significant public health dilemma since there are currently no established protocols for its identification and treatment. Patients are essentially left to deal with this health condition alone, and the number of afflicted persons is steadily increasing. Research has shown that the pandemic has had a significant and far-reaching effect on children and adolescents. This influence manifests in several ways, such as impeding the development of children due to factors including social isolation, economic hardship, inadequate access to food, the loss of parental figures, disruption and limitation of educational opportunities, and heightened levels of stress. The COVID-19 pandemic has led to a significant increase in mental health issues, impacting both the general population and those who are recovering from LONG-COVID-19 sickness [7, 8]. Our objective should be to substantially decrease the prevalence of LONG-COVID-19 and its enduring consequences, while also implementing recommendations and therapeutic interventions for those struggling with it. Vaccinations might potentially reduce the prevalence of this illness, but they are not capable of eliminating it entirely [9]. The research revealed that children in the United States who were administered mRNA vaccinations for COVID-19 acquired a specific degree of immunity against the development of persistent symptoms after SARS-CoV-2 infection. Vaccination decreases the probability of encountering at least one persistent

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COVID-19 symptom by 34% and the frequency of two or more symptoms by 48% [10]. Establishing protocols is crucial for those struggling with the long-term effects of COVID-19 and their medical care. Additional study is important to determine strategies for mitigating the impact of the pandemic on children and adolescents, as well as safeguarding them against enduring problems of LONG-COVID-19.

Article information and declarations

Author contributions

All authors participated equally in the creation of the article

Conflict of interest

The authors declare no conflict of interest.

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