SCIENTIFIC LETTER



Profile of Children Affected During the Omicron Wave of SARS-CoV-2

Raghvendra Singh¹ · Aashima Dabas¹ · Mampy Das¹ · Monica Juneja¹ · Sonal Saxena² · Vikas Manchanda²

Received: 4 July 2022 / Accepted: 28 September 2022 / Published online: 15 October 2022 © The Author(s), under exclusive licence to Dr. K C Chaudhuri Foundation 2022

To the Editor: Omicron was identified as the fifth variant of concern with mutations in the receptor-binding domain of spike glycoprotein that accounted for the increased transmission and immune escape rate. Even though COVID is milder in children, those with comorbidity remain at a higher risk. The present cross-sectional study was planned to collate the clinical and demographic profiles of children hospitalized with COVID-19 in the third wave at a dedicated tertiary care COVID center between 5 January and 28 February 2022 after IEC permission. A total of 443 children presenting to the pediatrics emergency requiring hospitalization were screened for COVID-19 infection by rapid antigen test (RAT) or RT-PCR for COVID-19 on a nasal swab and/or throat swab sample. Of 84, 59 (18.9%) COVID-19+ve children required hospitalization and were enrolled after parental consent. The severity of illness was graded as mild, moderate or severe COVID-19 and managed as per the standard guidelines of the Government of India [1].

Most children had a mild COVID infection with associated comorbidities necessitating hospitalization and oxygen support. Ten children (16.94%), including 6 infants, required oxygen support at baseline, and another 11 (18.4%) during hospitalization. Three patients developed MIS-C and were treated with both intravenous immunoglobulin and methylprednisolone. All 3 patients had fever, 2 had diarrhea, and 1 had shock at presentation. Ten (16.9%) patients (5 infants) succumbed to the illness. Seven of these required oxygen support at baseline, and the remaining 3 deteriorated during

hospitalization. The cause of death was severe COVID and MIS-C in 1 patient each, and attributed to comorbidities in 8. The hospitalization trends and milder course were similar to other studies reported from South Africa and Spain [2, 3]. Children requiring oxygen support were younger, had lower weight-for-height *z* scores, higher blood urea levels, and higher leucocyte counts than those not requiring oxygen. However, this difference was not statistically significant.

Declarations

Conflict of Interest None.

References

- Ministry of Health and Family Welfare, Government of India. Guidelines for Management of COVID-19 in Children (below 18 years). 2021. Available at: https://www.mohfw.gov.in/pdf/GuidelinesforManagementofCOVID19inCHILDREN18June2021final.pdf. Accessed on 12 Jan 2022.
- Cloete J, Kruger A, Masha M, et al. Paediatric hospitalisations due to COVID-19 during the first SARS-CoV-2 Omicron (B.1.1.529) variant wave in South Africa: a multicentre observational study. Lancet Child Adolesc Health. 2022;6:294–302.
- Tagarro A, Coya ON, Pérez-Villena A, et al. Features of COVID-19 in children during the Omicron wave compared with previous waves in Madrid, Spain. Pediatr Infect Dis J. 2022;41:e249–51.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Department of Pediatrics, Maulana Azad Medical College and Lok Nayak Hospital, Bahadur Shah Zafar Marg, New Delhi 110002, India

Department of Microbiology, Maulana Azad Medical College and Lok Nayak Hospital, New Delhi, India