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EDITORIAL COMMENTARY

A Nationwide Representative Analysis of Pediatric COVID-19 from a National Clinical Registry in India

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COVID-19 caused significant morbidity and mortality among children and young people even though the risk of death was considerably lesser than for adults. Approval for COVID-19 vaccines in children were delayed due to the lack of studies in children [1]. In India, the recommendations for COVID-19 vaccines in children were even more delayed with staged introduction of vaccines for different age groups and no vaccines were made available for children less than 5 y of age [2]. This decreased vaccination coverage in children, especially the younger children, makes a study of COVID-19 in this vulnerable age group important. Most studies on COVID-19 in children from India have been single centre studies reporting from a restricted time period [3]. The study in this issue on Pediatric COVID-19 is an observational study from multiple centres that are part of a National Clinical Registry in India and covers the 3 major COVID-19 waves that swept through India [4].

The study describes data collected as part of an ongoing data collection platform from 42 participating centres across India. The sociodemographic, clinical, laboratory, and hospital outcome data from 1st September 2020 to 20th February 2022 of children 0-18 y were analysed. Of the 1244 hospitalized children, 68.6% children were symptomatic at admission and there were 240 infants (19.3%) including 98 neonates (7.8%) in the cohort. Among symptomatic children, fever was the most common symptom reported. Most neonates (64.3%) were asymptomatic. Outcome data was available for 87% of the admitted children. Among them, there was 6.2% mortality. This figure is likely to be an under-estimate as those who did not have outcome data were either transferred to another hospital or left against medical advice. Infants other than neonates had the highest mortality (12.5%) followed by neonates (7.2%). Importantly, of the children who died, half of them (50.8%) had atleast 1 co-morbidity. Chronic kidney disease (CKD), malignancy and chronic neurological disease were associated with increased odds of death. Interestingly, the proportion of patients admitted with co-morbidities and the mortality across the three waves was not significantly different, though a significant shift in age towards the under-5 group was observed at the time of the third wave.

The results of this study summarize the clinical spectrum and outcome of COVID-19 in the vulnerable pediatric age group with representative data from multiple centres across India. A substantial representation of the study population with neonates and infants is an important aspect of this study. The results of this study are in keeping with other studies in children where most mortality had occurred in children with co-morbidities [5]. These findings, along with results from other studies make a case for better inclusion of children in vaccination and other preventive strategies against COVID-19. The increased proportion of deaths among infants and neonates, and high risk groups with co-morbidities, highlight the need for better monitoring, treatment and preventive strategies in these groups. Prioritizing these groups for prevention would be an important step forward.

Declarations

Conflict of Interest None.

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