



Clinicoepidemiological Profile and Outcome of SARS-CoV-2 Infection in a Cohort of Pediatric Cancer Patients During the Second Wave in India

Debabrata Mohapatra¹ · Prashant Prabhakar¹ · Rachna Seth¹ · Jagdish Prasad Meena¹ · Aditya Kumar Gupta¹

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To the Editor: The second wave of COVID-19, outnumbered the first, in terms of cases and deaths [1]. Global data have been variable with respect to mortality (0–6.6%) [2]. We report outcome of patients with COVID-19 during the second wave from the pediatric oncology unit of a tertiary care center in India.

Pediatric cancer patients, testing positive for SARS-CoV-2 were enrolled. Data on symptoms, hematological/inflammatory parameters, treatment, and outcome were collected. All cases were followed up till tested negative.

Forty-one patients (23 ALL, 5 Ewing sarcoma, 3 retinoblastoma, 2 each of AML/neuroblastoma/non-Hodgkin lymphoma, and 1 each of Hodgkin lymphoma/LCH/ rhabdomyosarcoma/nasopharyngeal carcinoma) tested positive for SARS-CoV-2. While more than half were asymptomatic, 36% had mild symptoms. Twenty-five (60.9%) patients improved on home isolation, 12 were admitted in ward, and 4 in ICU. Out of 5 patients that required supplemental oxygen, 4 needed mechanical ventilation. Systemic steroids and remdesivir were given in 4 and 2 patients, respectively. While hematological parameters were normal in majority, inflammatory markers: CRP, Ferritin, IL-6 and D-dimer were elevated. The mean time to negativity was 18 d, but 5 patients tested negative after 1 mo with the maximum time to negativity being 46 d.

Of the 4 deaths, 1 occurred due to terminal cancer, and rest 3 (7.3%) COVID-attributed deaths occurred in adolescent patients and 2 had superimposed bacterial/viral infections. Two patients were treated with IVIG for MIS-C. Additional contributors to mortality were: severe thinness,

superior mediastinal syndrome, disease relapse. None of our patients had any nononcological risk factors.

Although the rate of severe COVID-19 in our study (10%) is somewhat similar to other developed countries, 7.3% COVID-related deaths in our cohort is higher than those of the developed nations [3]. Pediatric cancer patients in developing countries might be at increased risk of superinfections, severe disease, and death.

Declarations

Conflict of Interest None.

References

1. Worldometer. Coronavirus. Available at: <https://www.worldometers.info/coronavirus/country/india/>. Accessed on 4 June 2021.
2. Millen GC, Arnold R, Cazier JB, et al. Severity of COVID-19 in children with cancer: report from the United Kingdom Paediatric Coronavirus Cancer Monitoring Project. *Br J Cancer*. 2021;124:754–9.
3. Madhusoodhan PP, Pierro J, Musante J, et al. Characterization of COVID-19 disease in pediatric oncology patients: The New York-New Jersey regional experience. *Pediatr Blood Cancer*. 2021;68:e28843.

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✉ Rachna Seth
drrachnaseth1967@gmail.com

¹ Division of Pediatric Oncology, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi 110029, India