

COVID-19 Management and Outcome of 76 Pediatric Cancer Patients: A Single Centre Experience from a Developing Country

Mahmoud Hammad¹, Iobna shalaby¹, Iman Sidhom¹, Nancy Sherif², Ibrahim Abdo², Sonya Soliman¹, Youssef Madney¹, Reem Hassan³, Shaimaa Elmeniawy², Nagwa Khamis², Iman zaki¹, Tarek Mansour¹, Mohamed El-Ansary³, Ahmed El-Halfawy³, Sherif Abouelnaga¹, and Alaa Elhaddad¹

¹National Cancer Institute Cairo University

²Children's Cancer Hospital Egypt 57357

³Cairo University Kasr Alainy Faculty of Medicine

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Abstract

Background: Sufficient data pertaining to the impact of the COVID-19 pandemic on pediatric cancer patients is still currently lacking. The main aim of this prospective study was to describe clinical management and outcomes of COVID-19 in this vulnerable group. Methods: Conducted between May 1st and November 30, 2020, this study included 76 pediatric oncology patients with confirmed COVID-19. Remdesivir (RDV) was the antiviral therapy used. Results: The median age of patients was 9 years. Sixty patients were on first line treatment. Haematological malignancies constituted 86.8% of patients. 35.4% of cases had severe to critical infections. The commonest presentation was fever (93.4%). Chemotherapy was delayed in 59.2% of cases and doses were modified in 30.2%. The sixty-day overall survival (OS) stood at 86.6%, with mortalities occurring only among critically ill patients. Of sixteen acute leukaemia patients in the first induction phase of treatment, 13 survived and 10 achieved induction remission. A negative PCR within 2 weeks and improvement of radiological findings were statistically related to disease severity ($p=0.008$ and 0.002 respectively). Better OS was associated with regression of radiological findings after 30 days from infection ($p=0.002$). Of the forty-five cases who received RDV, 70% were severe to critically ill cases with comparable outcome to patients who did not receive the drug. Conclusions: Most pediatric cancer patients with COVID-19 should have good clinical outcomes, except for those with critical form of infections. Newly diagnosed cases seem to tolerate induction therapy alongside COVID-19 treatment. RDV was well tolerated with no serious adverse events observed.

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