COVID-19 in a child with leukemia and Down syndrome: A story of a wonderful survivor

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Abstract

Introduction: In late December 2019, Chinese citizens of the city of Wuhan, China, had shown symptoms of viral pneumonia that were not very common, with various presentations with different grades of severity, and poor response to the regular treatment. With tremendous clinical and research work, the causative of the disease outbreak has been identified as COVID-19 and has been recognized as the novel coronavirus (SARS-CoV-2), which later continued to make the headlines when the World Health Organization announced it as a pandemic on March 11, 2020, after it had hit many parts in the globe with worrying rates of morbidity and mortality. Although available data has expressed that moderate or even mild forms of the disease are expected amongst most of the pediatrics cases, very limited data are available on the prognosis and the complications of the disease on the immunocompromised, especially oncology patients.

Methods: We report a case of relapsed Precursor B-cell acute lymphoblastic leukemia (ALL) of a child with Down syndrome (DS) and COVID-19 and outline the treatment regimen that we used.

Results: Unlike other reports, ground-glass opacities were presented bilaterally in our patient, Tocilizumab seems to have promising results in severe cases of children with COVID-19, unlike hydroxychloroquine with a macrolide.

Conclusion: Although our case -to the best of our knowledge- is the first report of a case of combined risks of Down syndrome, high-risk ALL and COVID-19, it is spotting the light on the efficacy of Tocilizumab in complicated severe cases of COVID-19, but further studies are needed to attest this hypothesis.

Biography

Ahmed Arafat is an assistant professor in Kazan State Medical University.