Severe Acute Respiratory Syndrome in pediatrics – Viral etiologies and clinical outcomes in a Brazilian hospital, during 2021 and 2022.

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October 4, 2023

Abstract

Objectives: Identifying the viral etiology of Severe Acute Respiratory Syndrome (SARS) in pediatrics during the study period, understanding the importance of each agent and its impact on different age groups, comparing clinical outcomes based on identified etiology, and educating healthcare professionals and managers for future seasonal outbreaks. Study design: This is a descriptive, retrospective, cross-sectional, and quantitative study. A total of 958 pediatric patients who underwent a panel for respiratory viruses between December 2021 and June 2022 in a Brazilian secondary public hospital were selected. The electronic medical records of those who met the criteria for SARS were studied, and data was collected, compiled, graphically grouped, analyzed, and compared based on the literature available on the subject. Results: Out of the initially selected 958 patients, 532 met the criteria for SARS. The majority required respiratory support, and the most prevalent etiology during the period was Respiratory Syncytial Virus (RSV), which was also the main contributor to unfavorable outcomes. Conclusions: This study reinforces the need for prevention measures such as the use of palivizumab and the importance of a vaccine against RSV for children. Additionally, it allows for the improvement and better training of healthcare teams that faced this increase in respiratory infections with unfavorable progression during the same period.

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Graph 2. Etiologies identified with respiratory viral panel tests in SARS patients.
Graph 3. Need for respiratory support in patients with RSV as the single etiology, by age group.
Graph 4. Need for respiratory support by identified etiology in the Viral Panel, in SARS patients.
Graph 1. Respiratory support required in SARS patients.

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