

Pneumonia During COVID-19 Pandemic in Hospitalized Children. Characterization of SARS-COV2 Pneumonia . Multi-Center Cohort Study

Hassan Al-Asy¹, Osama Toema², Rehab Elmezawy², Mohammed Hamza², Omar Hasanin²,
Maali Mabrouk², and Manal Aldiba³

¹Tanta Faculty of Medicine - Tanta University

²Tanta University Faculty of Medicine

³Almenshawey General Hospital

February 22, 2022

Abstract

Abstract : Although COVID-19 is milder in young than adults. However, it can cause pneumonia in children eventually requiring hospitalization. Clinical similarity between COVID-19, other viral, and bacterial pneumonia at initial presentation of the disease caused a great challenge. We aimed to differentiate COVID-19 pneumonia from other viral and bacterial pneumonia in children, and to characterize it . Materials and Methods: This study included 300 children, who were hospitalized with clinically and radiologically confirmed pneumonia during COVID-19 pandemic. Clinical symptoms were collected and analyzed . Cultures , real time polymerase chain transcriptase test for some respiratory viruses and SARS-COV2, C-reactive protein, serum procalcitonin ,serum ferritin , complete blood counts , and ferritin/procalcitonin ratio were done for all patients Results: This study showed that COVID-19 pneumonia was only 15 % of all admitted pneumonia cases. It had low proportion of high fever , mild course, significant lymphopenia , significant thrombocytopenia, low procalcitonin , low C-reactive protein , higher ferritin / procalcitonin ratio , and higher neutrophil/ lymphocyte ratio , significant high percentage of ground glass , and less percentage of consolidation in CT images . Conclusion: During (COVID-19) outbreak, pneumonia due to COVID-19 was less common , and less severe than that caused by other viruses or bacteria in children. Naso- pharyngeal swabs for multi-respiratory pathogen, including SARS-COV-2, are required to not to attribute most pneumonia cases to be due to COVID-19. However , further large-sample studies are needed to have full blown picture about COVID-19 pneumonia in children.

Hosted file

Copy of TEXT.docx available at <https://authorea.com/users/461826/articles/557430-pneumonia-during-covid-19-pandemic-in-hospitalized-children-characterization-of-sars-cov2-pneumonia-multi-center-cohort-study>

Hosted file

tables for magazine.docx available at <https://authorea.com/users/461826/articles/557430-pneumonia-during-covid-19-pandemic-in-hospitalized-children-characterization-of-sars-cov2-pneumonia-multi-center-cohort-study>