HFNC versus CPAP in bronchiolitis patient

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Bronchiolitis is one of the most common diagnoses requiring hospitalization in less than 2 years old and Continuous Positive Airway Pressure (CPAP) is the most common treatment strategy for providing positive pressure ventilation (PPV) in these patients. Recently, High flow nasal cannula (HFNC) has emerged as a new modality for providing PPV. Our study attempts to compare the two modes. It is a retrospective chart review including patients less than 2 years with a clinical diagnosis of bronchiolitis and no chronic lung disease. The study compares the outcome which is defined as escalation of therapy to BIPAP or mechanical ventilation between the two groups. CPAP group is an in built control as HFNC was not available during first year of data collection. Post HFNC introduction, all the patients were started on HFNC except for some who were started on CPAP based on HFNC availability. The study included total of 63 patients based on eligibility criteria. Among 63 patients, CPAP group had 14 and HFNC group had 19. In CPAP group, 2 patients got intubated and 1 patient got escalated to BIPAP. In HFNC group, 1 patient got intubated and 4 patients got escalated to BIPAP. Overall, among CPAP group 21% worsened and required escalation and among HFNC group 26% worsened and required escalation. P-value for the above study was 0.69 which was not significant. Therefore, our study shows there is no difference between CPAP and HFNC use in bronchiolitis patients. Our study was limited due to small sample size.

Biography

Nisha Agarwal has completed her MBBS in 2012 from Stanley Medical College, India. She is currently pursuing her Pediatrics residency at Harlem Hospital Center, New York and is in her second year. She has participated in basic science research project in 2013-2014 which has been published in premier journals like American Journal of Respiratory and Critical Care Medicine. She is also involved in multiple patient and quality improvement projects at Harlem hospital currently.

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