Noninvasive airway approaches for acute neuromuscular respiratory failure in emergency departments.

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Abstract

Emerging evidence advocates for noninvasive ventilation (NIV) combined with mechanical in-exsufflation (MIE) as a first-line approach for acute respiratory failure (ARF) in patients with neuromuscular disorders (NMD). To date, most NIV studies of ARF in NMD patients have been performed in intensive care units or in hospital settings. However, the utility of using combined NIV/MIE in the emergency department (ED) settings is unclear. We report on the implementation of NIV/MIE in two children with type II spinal muscular atrophy who presented to the ED with ARF. This is the first report on the feasibility and efficacy of combining NIV/MIE in ED settings for pediatric NMD patients with ARF.

KEYWORDS: acute respiratory failure; emergency department; mechanical in-exsufflator; neuromuscular disorders; noninvasive ventilation

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