Inhaled Isotonic Saline for Bronchiolitis

To the Editor I read with interest the meta-analysis by House et al1 showing that inhaled isotonic saline may have a beneficial therapeutic effect in bronchiolitis. While I am glad that they included our study2 in their analysis, I wish to point out that a novel element of our study was the use of a physiologic outcome measure to assess response to inhaled albuterol and isotonic saline, namely, respiratory inductance plethysmography (RIP).2,3 We observed no significant changes in the variables assessed by House et al1 (respiratory rate, oxygen saturation, and respiratory distress assessment index). However, 30% of albuterol-treated infants and 40% of isotonic saline–treated infants demonstrated a significant decrease in the phase angle, an indication of decreased airflow obstruction following treatment. Our results provide physiologic evidence for a potential beneficial effect of inhaled isotonic saline and further support the need for research studies into the role of inhaled isotonic saline in the treatment of viral bronchiolitis. Respiratory inductance plethysmography, which does not require sedation, may be able to serve as a noninvasive objective physiologic measure for such studies. Although improvement in respiratory mechanics may not affect outcomes, such as length of stay, it is likely that an improvement in work of breathing can reduce symptoms of dyspnea and improve patient comfort, both of which are desirable treatment goals.

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