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ABSTRACT

Aim: Published guidelines do not recommend nasal irrigation in bronchiolitis, but it is common practice in Italy, despite a lack of data on its benefits or adverse effects. This single-blind, multicentre, randomised controlled trial compared nasal irrigation using either isotonic 0.9% sodium chloride or hypertonic 3% sodium chloride with simple supportive care in infants with bronchiolitis.

Methods: We randomly assigned 133 Infants up one year of age, who were admitted to the emergency department with bronchiolitis and an oxygen saturation (SpO₂) of between 88-94%, to the isotonic (n=47), hypertonic (n=44) or standard care (n=42) groups. Variations in SpO₂ and the wheeze, air exchange, respiratory rate, muscle use (WARM) respiratory distress score were recorded at zero, five, 15, 20 and 50 minutes.

Results: Five minutes after the intervention, the median SpO₂ value (95%) in the isotonic group was higher than both the hypertonic (94%) and the standard care (93%) groups. The differences between the isotonic and standard treatment groups were statistically significant at each time point, while the hypertonic group only reached significantly higher values after 50 minutes. However, the WARM score did not improve.