**Albuterol is better than epinephrine for treating bronchiolitis**

Bronchiolitis is the main cause of acute respiratory illness in infants aged <12 months and is a leading cause of hospitalisation worldwide. The primary objective of this study was to compare the effect of nebulised racemic albuterol with nebulised racemic epinephrine on discharge rate among children presenting to the emergency department (ED) with bronchiolitis, while adjusting for severity of illness; the secondary objective was to determine the effect of these bronchodilators in infants aged <12 months and those presenting for the first time.

**Methods**

This randomised, double-blind study compared the use of nebulised albuterol with nebulised epinephrine in the EDs of two teaching hospitals. The authors studied children aged 0–18 months who presented with bronchiolitis that was not severe enough for immediate intubation but that required treatment. Criteria for hospital admission were age <2 months, respiratory rate >70 per min on entry or >60 per min following treatment, oxygen saturation <92%, more than mildly increased work of breathing after treatment, dehydration without recovery of feeding, apnoeic or cyanotic episodes and either sufficient comorbidities or a clinical judgment that the child required admission. Study variables included the effects of the two drugs, severity of illness and study site on discharge probability. Patients were randomly assigned to three consecutive doses of nebulised racemic albuterol or one dose of nebulised racemic epinephrine followed by two nebulised saline treatments.

**Results**

A total of 173 out of 352 patients in the albuterol group and 160 out of 351 in the epinephrine group were successfully discharged. Crude analysis (not adjusting for severity of illness) showed no difference between groups (relative risk 1.08, 95% confidence interval (CI) 0.92–1.26). However, after stratification by severity, patients who received albuterol were significantly more likely to be successfully discharged, with an odds ratio of 1.18 (95% CI 1.02–1.36). The advantage of albuterol was also seen among first-time wheezers and children aged <12 months.

**Conclusion**

ED treatment of bronchiolitis with nebulised albuterol resulted in more successful discharges than treatment with nebulised epinephrine. In children aged ≤18 months presenting with a clinical diagnosis of bronchiolitis, racemic albuterol, rather than racemic epinephrine, should be the initial agent chosen.

**Original article**


**References**