primary studies - published RCT

Lower respiratory illness in infants and young children with cystic fibrosis: evaluation of treatment with intravenous hydrocortisone.

Code: PM9261853 **Year:** 1997 **Date:** 1997 **Author:** Tepper RS

Study design (if review, criteria of inclusion for studies)

RCT

Participants

20 CF infants

Interventions

10 days of hydrocortisone (10 mg/kg/day) or placebo in addition to standard treatment with intravenous antibiotics, chest physiotherapy, and an aerosolized beta-agonist with cromolyn.

Outcome measures

Functional residual capacity (FRC) and forced expiratory flows (V'mak,FRC) were measured on admission, on Day 10 of hospitalization, and as outpatients 1-2 months following hospital discharge. Pulmonary function values were adjusted for differences in body length and expressed as Z-scores

Main results

Upon admission flows were decreased, and FRC was increased in both groups; there were no differences between the groups. The change in pulmonary function from admission to Day 10 of hospitalization was not different for the two groups. From admission to outpatient follow-up after hospitalization, there was a significant increase in flows for the steroid group, but not for the placebo group. In addition, the direction of change in FRC was significantly different for the two groups; the steroid group had a small decrease in FRC, while the placebo group had a small increase in FRC.

Authors' conclusions

These findings suggest that the addition of intravenous hydrocortisone to the standard treatment of CF infants hospitalized for a LRI may produce a greater or a more sustained improvement in lung function following hospitalization.

3.0.CO;2-F" target="_blank">http://dx.doi.org/10.1002/(SICI)1099-0496(199707)24:1<48::AID-PPUL8>3.0.CO;2-F

See also

Pediatr Pulmonol. 1997 Jul;24(1):48-51.

Keywords

Anti-Inflammatory Agents; Artificial Ventilation; Child; Hydrocortisone; Infant; Intravenous; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Respiratory Tract Diseases; Steroids; Ventilators;