primary studies - published RCT

Hypertonic saline improves the LCI in paediatric patients with CF with normal lung function.

Code: PM20435858 **Year:** 2010 **Date:** 2010 **Author:** Amin R

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

CRT, crossover trial

Participants

20 patients with CF

Interventions

patients received 4 weeks of hypertonic saline (HS) and isotonic saline (IS) in a randomised sequence separated by a 4 week washout period.

Outcome measures

The primary end point was the change in the LCI due to HS versus IS.

Main results

Baseline characteristics including the LCI were not significantly different between both study periods. Four weeks of twice-daily HS inhalation significantly improved the LCI compared with IS (1.16, 95% CI 0.26 to 2.05; p=0.016), whereas other outcome measures such as spirometry and quality of life failed to reach statistical significance. Randomisation order had no significant impact on the treatment effect.

Authors' conclusions

The LCI, but not spirometry was able to detect a treatment effect from HS inhalation in patients with CF with mild disease and may be a suitable tool to assess early intervention strategies in this patient population.

http://dx.doi.org/10.1136/thx.2009.125831

See also

Thorax. 2010 May;65(5):379-83.

Keywords

Adolescent; Child; hydration; Hypertonic Solutions; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Sodium Chloride; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Respiratory System Agents;