primary studies - published RCT

Iron supplementation does not worsen respiratory health or alter the sputum microbiome in cystic fibrosis.

Code: PM24332997 **Year:** 2013 **Date:** 2017 **Author:** Gifford AH

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

Crossover, randomized, double-blind study

Participants

12 Clinically stable Cystic fibrosis (CF) preschool children (6M, mean age +/- SD: 5.7 +/- 0.8 yrs)

Interventions

Patients were randomly assigned to receive hypertonic saline (HS-4 ml 7% sodium chloride), or normal saline (NS-0.9% sodium chloride) twice a day. After a 16 weeks period, therapy was exchanged to allow all the patients enrolled in the study to carry out both treatments.

Outcome measures

Monitoring visits, spirometry (COSMED Quark PFT4 ergo) and Rint were scheduled at 0,4,16,20,32 weeks. At T0, spirometric measurements and Rint were performed immediately before and 30 min after the inhalation therapy. Salbutamol (400 mcg) was administered before the drug at each visit.

Main results

After a 16-weeks treatment with HS an improvement of FVC (p = 0.02) and a favorable trend of FEV1 were registered. A worsening of FEV1 (p

Authors' conclusions

Seven percent hypertonic saline therapy proved to be a useful and safe treatment in young CF children with clinically stable conditions.

http://dx.doi.org/10.1016/j.jcf.2013.11.004

See also

J Cyst Fibros. 2013 Dec 12. pii: S1569-1993(13)00194-X. doi: 10.1016/j.jcf.2013.11.004.

Keywords

Child; hydration; Hypertonic Solutions; Inhalation OR nebulised; pharmacological_intervention; Airway clearance drugs -expectorants-mucolytic- mucociliary-; Respiratory System Agents;