primary studies - published RCT

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

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

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

Randomized, double-blind, placebo-controlled, crossover trial

Participants

Twenty-two adults with CF and hypoferremic anemia

Interventions

Ferrous sulfate 325mg daily for 6weeks.

Outcome measures

Iron-related hematologic parameters, anthropometric data, sputum iron, Akron Pulmonary Exacerbation Score (PES), and the sputum microbiome were serially assessed. Fixed-effect models were used to describe how ferrous sulfate affected these variables.

Main results

Ferrous sulfate increased serum iron by 22.3% and transferrin saturation (TSAT) by 26.8% from baseline (p

Authors' conclusions

Low-dose ferrous sulfate improved hypoferremia without correcting anemia after 6weeks. We did not observe significant effects on sputum iron, Akron PES, and the sputum microbiome. Although we did not identify untoward health effects of iron supplementation, a larger blinded randomized controlled trial would be needed to fully demonstrate safety.

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

Iron; Minerals; Supplementation; Adult; pharmacological_intervention;