primary studies - published RCT

Use of ibuprofen to assess inflammatory biomarkers in induced sputum: Implications for clinical trials in cystic fibrosis.

Code: PM25869324 **Year:** 2015 **Date:** 2015 **Author:** Chmiel JF

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

Open-label, randomized, controlled trial

Participants

72 clinically stable CF subjects (FEV1>/=40% predicted)

Interventions

Subjects randomized to HDI or routine care

Outcome measures

IL-6, IL-8, TNF-alpha, IL-1-beta, free neutrophil elastase, and white cell counts with differentials change from baseline in induced sputum.

Main results

IL-6 was the only biomarker with significant within-group change: 0.13log10pg/mL mean reduction among ibuprofen-treated subjects (p=0.04); and no change in the control group. IL-6 change between groups was statistically significant (p=0.024). No other inflammatory biomarker differences were observed between groups after 28days.

Authors' conclusions

Although we studied only one agent, HDI, these results suggest that one month may be inadequate to assess anti-inflammatory candidates using markers from induced sputum.

http://dx.doi.org/10.1016/j.jcf.2015.03.007

See also

J Cyst Fibros. 2015 Apr 10. pii: S1569-1993(15)00062-4. doi: 10.1016/j.jcf.2015.03.007.

Keywords

Ibuprofen; Anti-Inflammatory Agents; pharmacological_intervention; Anti-Inflammatory Agents - excl Steroids;