primary studies - published, non RCT

Short-term nutritional supplementation during management of pulmonary exacerbations in cystic fibrosis: a controlled study, including effects of protein turnover.

Code: PM3136639 **Year:** 1988 **Date:** 1988 **Author:** Shepherd RW

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

controlled trial

Participants

12 CF patients treated, 10 not treated

Interventions

during pulmonary exacerbations patients received pulmonary therapy and either standard diet (n = 10) or adjunctive enteral supplements (n = 12).

Outcome measures

weight and protein turnover

Main results

Initial protein turnover, measured by [15N]glycine kinetics, showed alterations of protein synthesis (P Syn) and catabolism (P Cat), which correlated with the degree of underweight, and negligible net protein deposition (P Dep). With treatment both groups had significant increases in mean body weight and forced expiratory volume in 1 s, expressed as percent predicted value for height (FEV1) by 3 wk, but a significant correlation between initial underweight and subsequent weight gain was observed only in supplemented patients. Mean P Syn and P Dep increased significantly (p less than 0.001) only in the supplemented group. Pulmonary exacerbations in CF have important adverse effects on body-protein metabolism, similar to changes in protein-energy malnutrition and infection. These effects are reversed by short-term nutritional support.

Authors' conclusions

Strategic nutritional intervention should thus be considered in management, especially in malnourished patients.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/224/CN-00055224/frame.html

See also

The American journal of clinical nutrition YR: 1988 VL: 48 NO: 2

Keywords

Adolescent; Bacterial Infections; Child; Enteral Nutrition; Infection; non pharmacological intervention - diet; Pneumonia; Proteins; Respiratory Tract Diseases; Respiratory Tract Infections; Supplementation; Virus; Exacerbation; Malnutrition; Nutrition Disorders;