primary studies - published RCT

Use of beta-mimetic during chest physiotherapy in patients with cystic fibrosis.

Code: CN-00516750 **Year:** 2004 **Date:** 2004 **Author:** Orlik T

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

RCT

Participants

35 children with CF (mean age 11.26 yrs; range 7-17; 19F) randomly selected into three groups.

Interventions

Group A of patients inhaling a beta-mimetic (salbutamol) before PT. Group B, patients inhaling placebo before PT. Group C, patients without any inhalations. In the first phase of the study, a bronchial reversibility test was done. On this ground we selected patients with bronchial hyperreactivity (BHR). In the second phase, each patient received PT.

Outcome measures

FEV1, FVC, FEV1/VC, MEF25, MEF50, MEF75, PEF before and after PT, and the weight of coughed-up sputum during PT

Main results

in 15 patients we observed BHR. In this group we found a statistically significant decrease in FEV1, FVC, MEF25% after PT. In patients without BHR we found a significant decrease in MEF25% only. The application of a bronchodilator before PT increased all studied parameters in both groups. In the case of FEV1, FVC, FEV1/VC, and PEF, the diferences were statistically significant in patients with BHR and only in PEF in the group without BHR. The largest quantity of sputum determined by its coughed-up weight was in patients with BHR inhaling beta-mimetic before PT

Authors' conclusions

PT increases bronchial obstruction in patients with BHR. 2. Bronchodilators increase the effectiveness of PT evaluated by coughed-up sputum weight in patients with BHR. 3. Bronchodilators do not increase effectiveness of PT in patients without BHR.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/750/CN-00516750/frame.html

See also

Pediatria Polska YR: 2004 VL: 79 DE: RCT NO: 9

Keywords

Adolescent; Adrenergic beta-Agonists; Bronchodilator Agents; Child; Inhalation OR nebulised; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; placebo; Salbutamol; Respiratory System Agents; Respiratory Tract Diseases;