primary studies - published RCT

Long-term comparative trial of conventional postural drainage and percussion versus positive expiratory pressure physiotherapy in the treatment of cystic fibrosis.

Code: PM9386661 **Year:** 1997 **Date:** 1997 **Author:** McIlwaine PM

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

Randomised controlled trial. Parallel design.

Participants

40 participants, of which 36 completed. Ages: 6-17 years. CCPT: Mean (range) 9.8 years (6-14 years); PEP: 10.4 years (6-17 years).

Interventions

CCPT versus PEP.

Outcome measures

FVC, FEV1 and FEF25-75, radiographic score (not reported).

Main results

Group B (PEP) demonstrated improved pulmonary function in all parameters as measured by change in percent predicted value for age, gender, and height. The changes in pulmonary function over the study period were: FVC, +6.57; FEV1, +5.98; and FEF25-75, +3.32. This improvement was significantly different from that of group A (PD&P) whose pulmonary function declined in all parameters (FVC, -2.17; FEV1, -2.28; FEF25-75, -0.24). The differences between treatment groups were statistically significant for the changes in FVC ($p = 0.02$) and FEV(1) ($p = 0.04$).

Authors' conclusions

Our results indicate that for our patients with cystic fibrosis, pulmonary physiotherapy with the PEP technique was superior to conventional physiotherapy with the PD&P technique.

http://dx.doi.org/10.1016/S0022-3476(97)70064-7

See also

J Pediatr. 1997 Oct;131(4):570-4.

Keywords

Adolescent; Airway clearance technique; Child; Drainage; non pharmacological intervention - devices OR physiotherapy; Percussion; Postural Drainage; Positive-Pressure Respiration- PEP- pep mask; Chest physiotherapy;