primary studies - published RCT

Mucus clearance with three chest physiotherapy regimes in cystic fibrosis: a comparison between postural drainage, PEP and physical exercise.

Code: PM1628733 **Year:** 1992 **Date:** 1992 **Author:** Lannefors L

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

cross-over study

Participants

9 clinically stable cystic fibrosis (CF) patients

Interventions

The patients performed: 1) postural drainage with thoracic expansion exercises + forced expiration technique (FET) in the left decubitus position; 2) positive expiratory pressure (PEP)-mask breathing + FET; and 3) physical exercise on a bicycle ergometer + FET. All treatments had the same duration and FET was standardized.

Outcome measures

Mucus clearance was assessed using a technique based on measurement of the elimination of inhaled radiolabelled particles.

Main results

Mean clearance of tracer from the right lung by postural drainage, PEP and physical exercise was 18% (range 10-29%), 20% (12-43%), 16% (8-25%), respectively, and from the left lung 20% (8-42%), 15% (5- 23%) and 13% (5-17%), respectively. The differences were not statistically significant. Surprisingly, postural drainage (PD) was the most effective technique in the left, dependent lung in 7 of the 9 patients.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/120/CN-00208120/frame.html

See also

European Respiratory Journal YR: 1992 VL: 5 DE: RCT NO: 6

Keywords

Airway clearance technique; Drainage; exercise; non pharmacological intervention - devices OR physiotherapy; Postural Drainage; Positive-Pressure Respiration- PEP- pep mask; cycle ergometer; forced expiration technique; Training; Chest physiotherapy; Active Cycle of Breathing Technique -ACBT-;