
primary studies - published, non RCT

Effect of addition of exercise to chest physiotherapy on sputum expectoration and lung function in adults with cystic fibrosis.

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Author: Baldwin DR

Participants

8 adult subjects (4 male) with cystic fibrosis

Interventions

Subjects were treated on two non-consecutive days of the second week of a course of in-patient antibiotic therapy in a cross-over fashion. On the exercise and physiotherapy day, subjects exercised 60 min before physiotherapy. On the physiotherapy alone day, subjects rested for 60 min instead of exercising. Physiotherapy was administered on both study days (postural drainage, percussion, deep breathing, vibrations, forced expiratory technique and coughing).

Outcome measures

Lung function tests were performed at baseline, after exercise or rest and again immediately and 30 min after physiotherapy. Sputum weights were measured in the 60 min of exercise or rest (period A) and for the 60 min physiotherapy period and 30 min after physiotherapy (period B)

Main results

Mean total sputum expectoration (period A and B) was 14 g on physiotherapy alone and 21.5 g (4.8) on exercise and physiotherapy (mean difference 7.5 g, 95% CI 1.4-13.6 g, $P = 0.02$). Mean sputum weights during period A (i.e. rest vs. exercise) on physiotherapy alone and exercise and physiotherapy were 2.6 and 7 g respectively (mean difference 4.4 g, 95% CI -0.07-8.8 g, $P = 0.053$).

<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/855/CN-00102855/frame.html>

See also

Respiratory medicine YR: 1994 VL: 88 NO: 1

Keywords

Adolescent; Adult; Airway clearance technique; Drainage; exercise; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Postural Drainage; percussion; Chest physiotherapy; forced expiration technique; Active Cycle of Breathing Technique -ACBT-;