primary studies - published, non RCT

The immediate effects of a single autogenic drainage session on ventilatory mechanics in adult subjects with cystic fibrosis.

Code: PM29596479 **Year:** 2018 **Date:** 2018 **Author:** Wallaert E

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

Prospective observational study

Participants

24 Adult CF subjects in stable condition.

Interventions

Autogenic drainage (AD).

Outcome measures

Changes in respiratory system resistance (Rrs), reactance (Xrs), and spirometry . Spirometry and Rrs and Xrs measurements using the forced oscillations technique at 5, 11, and 19 hertz (Hz) were performed before and 30 min after a 20-min AD session. Control CF subjects were tested at baseline and 50 min without AD.

Main results

13 subjects were included in the physiotherapy group (age 29 [25-34] years, forced expiratory volume in 1 s (FEV1) 40.3 [30.1-57.9]% predicted) and 11 in the control group (age 31 [28.5-36.5] years, FEV1 43.6 [31.1-51.9] % predicted). No significant changes in any parameter were observed in the control group. AD modestly but significantly increased the forced vital capacity (FVC) and FEV1 (p

Authors' conclusions

A single session of AD improved inspiratory airway resistance, except in the distal airways. The forced oscillations technique provides a new tool for understanding the pathophysiological effects of airway clearance physiotherapy in CF.

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See also

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Keywords

Airway clearance technique; Child; Drainage; non pharmacological intervention - devices OR physiotherapy; Self-Management; Chest physiotherapy; Postural Drainage; Percussion; Active Cycle of Breathing Technique -ACBT-; forced expiration technique; Positive-Pressure Respiration- PEP- pep mask; High Frequency Chest Wall Oscillation -HFCWO-; VEST Airway Clearance System; oscillating devices; Acapella; flutter; Intrapulmonary Percussive Ventilation; Vibration; exercise; Autogenic drainage;