primary studies - published RCT

Chest physiotherapy can affect the lung clearance index in cystic fibrosis patients.

Code: PM28125158 **Year:** 2017 **Date:** 2017 **Author:** Grosse-Onnebrink J

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

randomized controlled study

Participants

20 CF patients (7-34 years) hospitalized for infective pulmonary exacerbation. Twenty-one control group CF patients (7-51 years)

Interventions

a single treatment of HFCWO. Control group patients received no treatment.

Outcome measures

Coefficient of repeatability (CR) to estimate the clinical relevance of possible treatment effects.

Main results

HFCWO improved (ie, decreased) the LCI by a median of 0.9 (range -0.45; 3.47; P = 0.002); the LCI decreased in 15 of 20 intervention group patients. In five patients the decrease in LCI exceeded the CR (2.15), indicating a clinically relevant treatment effect; in five patients the LCI increased but did not exceed the CR. The LCI did not change significantly in the control group patients.

Authors' conclusions

HFCWO can have a short-term decreasing effect on the LCI, but the treatment response is heterogeneous. In future trials using LCI as an endpoint, the timing of CP in relation to MBW should be considered a possible bias.

http://dx.doi.org/10.1002/ppul.23670

See also

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Keywords

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