primary studies - published RCT

High-frequency chest compression system to aid in clearance of mucus from the lung.

Code: PM2390665 **Year:** 1990 **Date:** 1990 **Author:** Hansen LG

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

RCT cross-over design. Single centre study USA.

Participants

5 participants. Age and sex of participants not stated.

Interventions

HFCWO versus CPT. 30 sessions of each therapy lasting same duration, but duration of treatment was not defined.

Outcome measures

Measured before and after duration of intervention (30 days). Sputum weight. Primarily looking at the pressure and frequencies generated by the vest and the mucus collection was an aside.

Main results

Maximum vest pressure is 39 mmHg (5.2 kPa), with patient-controlled vest inflation and deflation time constants of 0.5 s. Vest pressure increases from 28 mmHg (3.7 kPa) at 5 Hz to 39 mmHg (5.2 kPa) at 25 Hz. Preliminary clinical trials have shown the HFCC device to be more effective than standard chest physical therapy. The HFCC device yielded a mean volume of cleared mucus of 3.3 cc per session, compared with 1.8 cc for a conventional therapy session.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/239/CN-00358239/frame.html

See also

Biomedical Instrumentation & Technology YR: 1990 VL: 24 DE: CCT NO: 4

Keywords

High Frequency Chest Wall Oscillation -HFCWO-; VEST Airway Clearance System; oscillating devices; Airway clearance technique; Chest physiotherapy; non pharmacological intervention - devices OR physiotherapy;