primary studies - published RCT

Long-term multicentre randomised controlled study of high frequency chest wall oscillation versus positive expiratory pressure mask in cystic fibrosis.

Code: PM23407019 **Year:** 2013 **Date:** 2013 **Author:** McIlwaine MP

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

Randomised controlled study in 12 CF centres in Canada.

Participants

107 patients with cystic fibrosis

Interventions

After a 2-month washout period, subjects were randomised to perform either HFCWO or PEP mask therapy for 1 year. 51 patients were randomised to PEP and 56 to HFCWO.

Outcome measures

Number of pulmonary exacerbations (PEs) and time to first PE. Lung function, health-related quality of life scores, patient satisfaction scores.

Main results

There were 19 dropouts within the study period, of which 16 occurred prior to or at the time of randomisation. There were significant differences between the groups in the mean number of PEs (1.14 for PEP vs 2.0 for HFCWO) and time to first PE (220 days for PEP vs 115 days for HFCWO, p=0.02). There was no significant difference in lung function, health-related quality of life scores or patient satisfaction scores between the two groups. PEP mask therapy required a shorter treatment time.

Authors' conclusions

The results of this study favour PEP and do not support the use of HFCWO as the primary form of AC in patients with CF.

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See also

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Keywords

Adult; Aged; Airway clearance technique; Child; High Frequency Chest Wall Oscillation -HFCWO-; non pharmacological intervention - devices OR physiotherapy; Positive-Pressure Respiration- PEP- pep mask; VEST Airway Clearance System; oscillating devices; Chest physiotherapy;