primary studies - published RCT

Effect of Expiratory Muscle Training on Peak Cough Flow in Children and Adolescents with Cystic Fibrosis: A Randomized Controlled Trial.

Code: PM33421333 **Year:** 2021 **Date:** 2021 **Author:** Emirza C

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

randomized trial

Participants

Thirty CF patients

Interventions

Patients were randomized as training and sham groups. Both groups were trained with the EMT protocol, which involved twice per day for at least five days per week for six weeks. The training intensity in the training group was 30% of the maximal expiratory pressure (MEP). In the sham group, it remained at the lowest pressure (5cmH(2) O).

Outcome measures

The primary outcome was PCF. The secondary outcomes were MEP, maximal inspiratory pressure (MIP), spirometric measures, six-minute walking distance (6MWD), and QoL (Cystic Fibrosis Questionnaire-Revised).

Main results

Twenty-eight patients completed the study. Changes in PCF (p=0.041) and MEP (p=0.003) were higher in the training group than the sham group. Also, treatment burden (p=0.008), digestive symptoms (p=0.019), and vitality (p=0.042) in QoL were more improved in the training group. MIP (p=0.028) and 6MWD (p=0.035) changed significantly only in the training group. Spirometric measurements did not change (p>0.05).

Authors' conclusions

The results of the study show that EMT could improve PCF, MEP, treatment burden, digestive symptoms, and vitality domains of QoL in patients with CF. Moreover, MIP and functional exercise capacity improved in the training group with EMT.

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See also

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Keywords

Adolescent; Adult; Inhalation OR nebulised; non pharmacological intervention - psyco-soc-edu-org; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; training; expiratory muscle training; exercise; Chest physiotherapy;