

primary studies - published RCT

## Effects of music therapy as an adjunct to chest physiotherapy in children with cystic fibrosis: A randomized controlled trial.

**Code:** PM33125399

**Year:** 2020 **Date:**

**Author:** Montero-Ruiz A

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

Randomized Controlled Trial

### Participants

Participants with CF accustomed to autogenic drainage (AD) as their standard ACT. Seventeen patients with CF (aged  $29 \pm 11$  years; FEV<sub>1</sub> %:  $57.1 \pm 20.1$ ) were analysed.

### Interventions

Intermittent intrapulmonary deflation (IID). Participants received, in a randomized order, a 30-min session of either AD alone or AD combined with IID (AD+IID).

### Outcome measures

Sputum was collected during each ACT regimens and for a 24-hour period following both sessions. Sputum wet weight, dry weight, solids content and rheological properties were analyzed. Cough events occurring during and over 2 h post ACT were compared between both regimens.

### Main results

The sputum wet weight collected during AD alone was significantly higher than during AD+IID ( $8.11 \pm 6.93$  vs  $5.40 \pm 4.11$  respectively,  $p = 0.01$ ). The sputum rheological properties did not significantly differ between group. There were more cough episodes during AD alone compared to AD+IID (median [IQR]: 8 [5-15.5] vs 5 [3.5-11.0] respectively,  $p = 0.02$ ).

### Authors' conclusions

In participants with CF accustomed to AD, adding the IID technique in combination to AD does not confer a clear benefit on airway clearance in the short term.

<http://dx.doi.org/10.1371/journal.pone.0241334>

### See also

PLoS One. 2020 Oct 30;15(10):e0241334. doi: 10.1371/journal.pone.0241334. eCollection 2020.

### Keywords

Airway clearance technique; Drainage; non pharmacological intervention - devices OR physiotherapy; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Chest physiotherapy; Autogenic Drainage;