primary studies - published RCT

The intermittent intrapulmonary deflation technique for airway clearance in patients with cystic fibrosis: A randomized trial.

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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 ± 11 years; FEV(1)%: 57.1 ± 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 ± 6.93 vs 5.40 ± 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.

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See also

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Keywords

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