

primary studies - published RCT

Inhaled mannitol improves the hydration and surface properties of sputum in patients with cystic fibrosis.

Code: PM19880909

Year: 2010 Date: 2014

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

Single-blind randomized controlled trial

Participants

Adult patients with a history of CF who were admitted to the hospital because of pulmonary exacerbation.

Interventions

Participants were randomly assigned to receive a daily standardized protocol of Osteopathic manipulative treatment (OMT) or sham therapy. Both groups also received standard treatment for CF.

Outcome measures

Spirometry and questionnaire data (self-assessment of breathing, pain, and anxiety level) were collected before the first OMT or sham therapy session and after the final session.

Main results

A total of 33 patients were included in the study: 16 in the OMT group and 17 in the sham therapy group. Improvements in spirometric parameters were observed in both the OMT and the sham therapy groups, with no statistically significant differences found between the groups. More patients in the OMT group than in the sham therapy group had questionnaire response patterns that indicated their breathing had improved during the study period (15 of 16 vs 8 of 16, respectively). No differences were found between groups for perceived improvement of pain and anxiety.

Authors' conclusions

In the current study, CF patients who received OMT did not demonstrate statistically significant differences in pre- and posttreatment spirometry findings compared with CF patients who received sham therapy. Questionnaire findings suggest that OMT may affect CF patients' perception of overall quality of breathing. Additional studies are needed to assess the clinical use of OMT in patients with CF.

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See also

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Keywords

Adult; Aged; non pharmacological intervention - complement med; Osteopathic treatment; placebo; Complementary medicine; Bacterial Infections; Infection; Respiratory Tract Diseases; Respiratory Tract Infections; Exacerbation;