primary studies - published RCT

The effect of nitric oxide inhalation on pulmonary gas exchange and exercise capacity in patients with Cystic Fibrosis.

Code: CN-00448709 **Year:** 2001 **Date:** 2004 **Author:** Stewart IB

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

Parallel design over 8 weeks.

Participants

All participants: n = 29, mean (SD) age = 22 (4.2) years. Intervention 1: n = 9, mean (SD) age = 24.8 (5.5) years. Intervention 2: n = 10, mean (SD) age = 20 (4.7) years. Control: n = 6, mean (SD) age = 21.3 (2.7) years.

Interventions

Control = "No Training" Intervention 1 = IMT at 80% of "maximal inspiratory effort". Intrevention 2 = IMT at 20% of "maximal inspiratory effort". IMT = Incremental maximal effort with progressively shorter rest periods, 3 times a week.

Outcome measures

FEV1(%pred), FVC (%pred), PImax, SPImax, heart rate, perceived exertion, dyspnoea and Chronic Respiratory Disease Questionnaire.

Main results

Following training, significant increases in Pimax and SPimax (p

Authors' conclusions

An 8-week program of high-intensity IMT resulted in significant benefits for CF patients, which included increased IMF and thickness of the diaphragm (during contraction), improved lung volumes, increased PWC, and improved psychosocial status.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/709/CN-00448709/frame.html

See also

Clinical Exercise Physiology YR: 2001 VL: 3 DE: RCT NO: 1

Keywords

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