
primary studies - published RCT

Supplemental oxygen and exercise performance in patients with cystic fibrosis with severe pulmonary disease.

Code: PM1729110

Year: 1992 **Date:** 1992

Author: Marcus CL

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

Randomized controlled cross-over trial, single center.

Participants

22 people with CF, median age 26 years (14 to 46 years), 17 males and 5 females, matched with 21 people in a control group, median age 29 years (19 to 37 years), 11 males and 10 females. Test of 1 CF participant terminated by physician.

Interventions

2 consecutive maximal exercise tests, FiO₂ 0.21 & 0.30.

Outcome measures

VO₂, duration of exercise, SaO₂, PETCO₂, tPCO₂, VE, VCO₂, HR, AT.

Main results

CF subjects exercised longer, had a higher maximal V_{similar2}, higher O₂ pulse, and less arterial oxygen desaturation when receiving supplemental O₂. Control subjects exercised longer when breathing supplemental O₂ but had no significant change in maximal V_{similar2}, O₂ pulse, or SaO₂. Both CF and control subjects had increased end-tidal PCO₂ when exercising while breathing supplemental O₂.

Authors' conclusions

CF patients with advanced pulmonary disease have increased exercise tolerance and aerobic capacity when exercising while breathing supplemental O₂.

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See also

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Keywords

Adolescent; Adult; exercise; non pharmacological intervention - devices OR physiotherapy; Oxygen; Respiratory Tract Diseases; Supplementation; Chest physiotherapy;