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 Vsimilar2, 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 Vsimilar2, 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;