

PubMed

U.S. National Library of Medicine
National Institutes of Health



Display Settings: Abstract

Am Heart J. 2009 Dec;158(6):1031-7.

Aerobic interval training versus continuous moderate exercise after coronary artery bypass surgery: a randomized study of cardiovascular effects and quality of life.

Moholdt TT, Amundsen BH, Rustad LA, Wahba A, Løvø KT, Gullikstad LR, Bye A, Skogvoll E, Wisløff U, Slørdahl SA.

Department of Circulation and Medical Imaging, Norwegian University of Science and Technology (NTNU), Trondheim, Norway.
trine.moholdt@ntnu.no

Abstract

BACKGROUND: Peak oxygen uptake ($Vo(2peak)$) strongly predicts mortality in cardiac patients. We compared the effects of aerobic interval training (AIT) versus moderate continuous training (MCT) on $Vo(2peak)$ and quality of life after coronary artery bypass grafting (CABG). **METHODS:** Fifty-nine CABG patients were randomized to either AIT at 90% of maximum heart rate or MCT at 70% of maximum heart rate, 5 d/wk, for 4 weeks at a rehabilitation center. Primary outcome was $Vo(2peak)$, at baseline, after rehabilitation (4 weeks), and after 6 months of home-based exercise (6 months). **RESULTS:** $Vo(2peak)$ increased between baseline and 4 weeks in AIT (27.1 ± 4.5 vs 30.4 ± 5.5 mL.kg⁻¹.min⁻¹), $P < .001$) and MCT (26.2 ± 5.2 vs 28.5 ± 5.6 mL.kg⁻¹.min⁻¹), $P < .001$; group difference, not significant). Aerobic interval training increased $Vo(2peak)$ between 4 weeks and 6 months (30.4 ± 5.5 vs 32.2 ± 7.0 mL.kg⁻¹.min⁻¹), $P < .001$), with no significant change in MCT (28.5 ± 5.6 vs 29.5 ± 5.7 mL.kg⁻¹.min⁻¹). Quality of life improved in both groups from baseline to 4 weeks, remaining improved at 6 months. There were no changes in echocardiographic systolic and diastolic left ventricular function. Adiponectin increased between 4 weeks and 6 months in both groups (group differences, not significant). **CONCLUSIONS:** Four weeks of intense training increased $Vo(2peak)$ significantly after both AIT and MCT. Six months later, the AIT group had a significantly higher $Vo(2peak)$ than MCT. The results indicate that AIT and MCT increase $Vo(2peak)$ similarly in the short term, but with better long-term effect of AIT after CABG.

PMID: 19958872 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

LinkOut - more resources