LETTER

Relationship Between Number of Cardiac Rehabilitation Exercise Training Sessions, Muscle Mass, and Cardiorespiratory Fitness in Rural Elderly Patients with Coronary Artery Disease [Letter]

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Dear editor

We are grateful to Juliasih et al¹ for their insightful original article, "Relationship Between Number of Cardiac Rehabilitation Exercise Training Sessions, Muscle Mass, and Cardiorespiratory Fitness in Rural Elderly Patients with Coronary Artery Disease" that greatly impressed us. Preliminary evidence from this single-center retrospective study suggests that older coronary artery disease patients may benefit from increased muscle mass and fitness through cardiac rehabilitation (CR) exercise sessions. One of the study's strengths is that it focuses on elderly patients, a demographic that is frequently underrepresented in CR studies. It was possible to measure the results objectively by using exercise tolerance testing and bioimpedance analysis. Notable is the statistically substantial association found between muscle mass change and participation in CR.²

Nevertheless, the lack of randomization and the small sample size from a single center are drawbacks. The baseline weights of the groups varied significantly, which might have an impact on the outcomes. A longer period of observation is required to assess the effects' sustainability. The study assessed a basic cutoff of seven sessions; however, more research is needed to determine the optimal amount of exercise. Even for elderly patients who are more susceptible than others, adherence is still a big problem, but potential solutions like tele-rehabilitation were not investigated. Cardiovascular events and other patient-centered outcomes were not measured in this study.³

All in all, this study offers a valuable preliminary insight into the effects of exercise training on older patients who have had myocardial infarctions. To validate results and improve cardiac rehabilitation protocols to maximize adherence and effectiveness for the aging population, more multicenter randomized trials with expanded outcomes are necessary.^{4,5}

Disclosure

The author declares no conflict of interest in this communication.

References

- 1. Kim JH, Kim JH. Relationship between number of cardiac rehabilitation exercise training sessions, muscle mass, and cardiorespiratory fitness in rural elderly patients with coronary artery disease. J Multidiscip Healthc. 2023;16:3309–3318. doi:10.2147/JMDH.S434056
- Anderson L, Oldridge N, Thompson DR, et al. Exercise-based cardiac rehabilitation for coronary heart disease Cochrane systematic review and meta-analysis. J Am Coll Cardiol. 2016;67:1–12. doi:10.1016/j.jacc.2015.10.044
- Zheutlin AR, Niforatos JD, Stulberg E, Sussman JB. Failure of cardiovascular phase 3 randomized clinical trials to report pre-trial and post-trial parameters: a cross-sectional analysis of clinicalTrials.gov. J Gen Intern Med. 2021;36:1808–1810. doi:10.1007/s11606-020-05995-9
- 4. Dalal HM, Doherty P, Taylor RS. Cardiac rehabilitation. BMJ. 2015;351:1-8.
- 5. Fletcher GF, Ades PA, Kligfield P, et al. Exercise standards for testing and training: a scientific statement from the American heart association. *Circulation*. 2013;128:873–934. doi:10.1161/CIR.0b013e31829b5b44

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