Quality of life and physical ability changes after hospital-based cardiac rehabilitation in patients with myocardial infarction

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Objective: To evaluate the effect of hospital-based cardiac rehabilitation (CR) on quality of life (QOL) and physical ability in patients with myocardial infarction (MI).

Methods: Patients with MI who were referred to the Cardiac Health and Rehabilitation Center two weeks after percutaneous coronary intervention were divided into CR and non-CR groups. The CR group performed supervised exercises three times a week for two months. QOL assessment, using the 36-item Short-Form Health Survey (SF-36) and physical ability evaluation were performed at the beginning and end of CR.

Results: The CR group demonstrated statistically significant improvements in physical functioning (PF), physical role functioning (RP), bodily pain (BP), general health perceptions (GH), vitality (VT), social role functioning (SF), emotional role functioning (RE), mental health (MH), physical component summary (PCS), and mental component summary (MCS). The non-CR group showed improvement in RP. Secondary outcomes, including resting heart rate (RHR), maximal oxygen consumption (VO2max), metabolic equivalent of task (MET), maximal exercise time (ETmax), stage 3 Borg rating of perceived exertion (3RPE), maximal Borg rating of perceived exertion (RPEmax), and stage 3 rate pressure product (3RPP), improved in the CR group. The non-CR group showed improvements in VO2max, MET, ETmax, and 3RPE. There were significant differences in improvements in PF, RP, BP, VT, SF, MH, MCS, RHR, VO2max, MET, ETmax, 3RPE, and 3RPP between the two groups.

Conclusion: Male patients with MI demonstrated improvements in QOL and physical ability following hospital-based CR; the impact on the mental component was greater than that on the physical component.

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