

Cardiovascular rehabilitation dose for patients after their first myocardial infarction

Žaklina Muminović^{1,*}

Mario Ivanušić^{1,2,3}

¹Institute for Cardiovascular Prevention and Rehabilitation, Zagreb, Croatia

²University of Rijeka, Faculty of Medicine, Rijeka, Croatia

³University of Applied Health Sciences, Zagreb, Croatia

KEYWORDS: acute myocardial infarction, cardiovascular rehabilitation, physical activity.

CITATION: Cardiol Croat. 2022;17(9-10):336. | <https://doi.org/10.15836/ccar2022.336>

***ADDRESS FOR CORRESPONDENCE:** Žaklina Muminović, Poliklinika za prevenciju kardiovaskularnih bolesti i rehabilitaciju, Draškovićeve 13, HR-10000 Zagreb, Croatia. / Phone: +385-1-4612-290; Fax: +385-1-4612-343 / E-mail: zaklina0101@gmail.com

ORCID: Žaklina Muminović, <https://orcid.org/0000-0001-6037-7537> • Mario Ivanušić, <https://orcid.org/0000-0002-6426-6831>

Introduction: The cardiovascular rehabilitation (CVR) is one of the measures of secondary preventions that is proven to have a positive effect on survival and life quality of cardiovascular patients^{1,2}. The goal of this research was to determine whether there are differences in recovery of patients after their first acute myocardial infarction (AIM) depending on their demographic variables as well as engagement of cardiovascular rehabilitation.

Patients and Methods: The data of consecutive patients, who were included in CVR programme at the Institute for Cardiovascular Prevention and Rehabilitation in Zagreb after their first AIM during the period between September 10, 2015 and September 10, 2019 were analyzed. The analysis included demographic data, onset of programme considering the time of AIM, exercise stress test (EST) results, and dose of medical gymnastics.

Results: 474 AIM patients, 356 being male (75.1%) and 118 being female (24.9%) were included in the programme. The average age of men was lower than that of women (62 ± 9.8 vs 65 ± 8.6 years). The patients in age group 30 to 50 started their CVR programme sooner than the patients older than 70 years (69.5 ± 41.9 vs 106.7 ± 75.4 days). Significantly better recovery and EST results, measured with ≥2 MET change at discharge, were shown by 59.3% of patients, mostly men (66.0 vs 38.3 %). The average engagement of medical gymnastics was 24.3 ± 8.3 hours, and patients in the age group 30 to 50 years old, as well as those at the age of 51 to 60 were more regular at their medical gymnastics than 61 to 70 or older patients (26.3 vs 25.9 vs 23.6 vs 21.9 attendances). The regression analysis stated that the male gender and medical gymnastics dose were closely tied, while the age stays negatively to the possibility of EST results improvement during discharge.

Conclusion: The prompt inclusion in CVR programme and regular participation in its components, especially medical gymnastics³, leads to better EST results during patient discharge.

RECEIVED:
October 24, 2022

ACCEPTED:
November 10, 2022



LITERATURE

- Ivanušić M. Sekundarna prevencija nakon akutnog infarkta miokarda: važnost kardiovaskularne rehabilitacije i farmakološkog liječenja. Medicus 2015;24(2):127-131. <https://hrcak.srce.hr/file/217744>
- Novaković M, Novak T, Vižintin Cuderman T, Krevel B, Tasić J, Rajković U, et al. Exercise capacity improvement after cardiac rehabilitation following myocardial infarction and its association with long-term cardiovascular events. Eur J Cardiovasc Nurs. 2022 Jan1;21(1):76-84. <https://doi.org/10.1093/eurjcn/zvab015>
- Muminović Ž. Fizioterapijske intervencije u ambulantnoj kardiovaskularnoj rehabilitaciji kod bolesnika s prvim akutnim infarktom miokarda (diplomski rad). Rijeka: Fakultet zdravstvenih studija; 2022.