

Benefit of cardiac rehabilitation for elderly patients

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Background: Comprehensive cardiac rehabilitation (CR) is a class IA recommendation by European guidelines for all patients with ischemic heart disease (IHD). The risk profile of older IHD patients is often different from younger patients and there is less evidence available about the effects of CR. Therefore, it is still unclear if a one-size-fits-all centre-based CR focusing on the core components such as education, diet, risk reduction and optimal medication is as effective for elderly patients as for younger adults.

Methods: Patients with a revascularization for IHD who participated in at least 8 phase II center-based CR sessions between 2011–2014 were identified. A total of 294 patients were included in this study. The patients were divided in two groups: 0–64 years old and ≥ 65 years. The primary outcome was the incidence of major adverse cardiovascular events (MACE) during the 5-year follow-up. MACE is the composite of all-cause mortality, stroke and coronary artery revascularization.

Results: The medical records of 294 patients were retrospectively reviewed. Statistically significant baseline risk profile differences between the two groups were observed for the prevalence of current smokers ($P < 0.001$) and diabetes mellitus ($P = 0.002$). Furthermore, significant differences in blood pressure and lipid levels were present. No statistically significant differences between the two age groups were observed for 5-year coronary revascularizations ($P = 0.794$) and 5-year MACE ($P = 0.221$). Only significant differences between the age groups could be found in cardiovascular mortality ($P = 0.023$) and in all-cause mortality ($P < 0.001$). However, the total years of life lost were lower in the group with patients older than 64 year (14 vs 32 years).

Conclusion: There is clear difference in cardiovascular risk profile between younger and older IHD patients that participate in CR. There was no significant difference in 5-year MACE between the two groups. These results underline the importance to not forget recommending CR to elderly patients.

Outcomes

	All (n = 294)	<65 y (n = 153)	+65 y (n = 141)	P-value
1-year coronary revascularization	11 (3.7%)	5 (3.3%)	6 (4.3%)	0.656
2-year coronary revascularization	23 (7.8%)	12 (7.8%)	11 (7.8%)	0.989
5-year coronary revascularization	36 (12.2%)	18 (11.8%)	18 (12.8%)	0.794
Cardiovascular mortality	8 (2.7%)	1 (6.5%)	7 (5%)	0.023
All-cause mortality	14 (4.8%)	2 (1.4%)	12 (8.5%)	<0.001
5-year MACE	49 (16.7%)	20 (13.1%)	29 (20.1%)	0.221