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Introduction

Cardiac rehabilitation (CR) is an essential secondary prevention for individuals who have experienced a cardiovascular event. Therefore, the CR program includes various strategies to improve cardiovascular fitness and reduce potential risk factors, such as regular exercise, healthy diet, cessation of smoking, limitation of alcohol consumption, weight control, and management of psychological stress. We investigated whether CR actually improves the lifestyle of patients with cardiovascular disease by analyzing the Korean National Health Insurance Database (KNHID).

Materials and Methods

The study population consisted of patients over the age of 18 who underwent coronary revascularization (coronary intervention or bypass graft) for ischemic heart diseases from February to December 2017. The data for eligible patients was extracted from the KNHID. Patients who died within one month of revascularization were excluded from the analysis. We defined participation in CR as having received at least one session of CR education (MM450), evaluation (MM452), or therapy (MM453). Changes of lifestyle before and after CR were investigated using the public health examination data at the closest time from revascularization. The effect of CR on regular exercise, cessation of smoking, and weight reduction was analyzed using multivariable logistic regression.

Results

Among physically inactive patients before revascularization, those who participated in CR achieved regular exercise significantly more often than those who did not (OR 1.204, 95% CI 1.045-1.388). On the other hand, CR did not have a significant effect on smoking cessation in smokers or on achieving 5% or more weight reduction in obese patients (OR 1.167, 95% CI 0.885-1.538 and OR 1.105, 95% CI 0.977-1.249, respectively).

Conclusion

In cardiovascular patients, it can be expected that CR leads to positive changes in lifestyle, especially promoting regular exercise.