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Efficacy Of Cardiac Rehabilitation After Percutaneous Coronary Intervention

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Abstract: Background: Cardiovascular disease (CVD) is the major health problem in developed countries. Cardiac rehabilitation (CR) programs have become an integral part of the standard of care in modern cardiology. Their scope has shifted from the emphasis on exercise therapy to comprehensive secondary prevention strategies managing risk factors, nutritional, psychological, behavioral and social factors that can affect patient outcomes. The aim of this study was to determine the efficacy of CR after percutaneous coronary intervention (PCI).
Subjects and Methods: Sixty patients recruited from National Heart Institute, Cairo, had participated in this study. They were randomly assigned to two equal groups. All patients underwent PCI. Study group was 30 patients (21 men and 9 women, mean age was 52.6 ± 5 years) that had been received aerobic training exercise on bicycle ergometer for 50 minutes, 3 times/week, for 6 months and educational program of secondary prevention, and was followed up after one year, while control group was 30 patients (20 men and 10 women, mean age was 53.8 ± 5 years) that had been received instructions about risk factors after PCI once and followed up after one year also. Quality of life (QoL) was assessed by 36-Item Short- Form Health Survey (SF-36), functional capacity was evaluated by 6-minutes walking test (6MWT), and different risk factors e.g. smoking status, body mass index (BMI), fasting blood glucose, blood pressure, blood lipid levels, were assessed before and after the CR for both groups.
Results: At the end of the study, a significant increase was observed in 6 MWT ($P < 0.05$), significant improve in cardiovascular risk factors(smoking status, body mass index, fasting blood glucose, blood pressure, blood lipid levels) and QoL were increased in the study group ($P < 0.05$) compared to control group.
Conclusion: Cardiac rehabilitation significantly improves functional capacity and cardiovascular risk factors and QoL after percutaneous coronary intervention.
Key words: Percutaneous coronary intervention, Cardiac rehabilitation, Functional capacity, Cardiovascular risk factors, Quality of life.

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