

EFFECT OF CARDIAC REHABILITATION ON NT-PRO BNP, METS, AND QUALITY OF LIFE, IN PATIENTS WITH CORONARY ARTERY DISEASE AFTER UNDERGOING PERCUTANEOUS CORONARY INTERVENTION

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ABSTRACT

Background: Percutaneous coronary intervention (PCI) is one of the most effective therapies in patients with coronary artery disease (CAD) after the attack. Cardiac rehabilitation (CR) makes an important contribution to secondary prevention of cardiac events. The World Health Organization defines CR as the sum of activities required to influence favorably the underlying cause of the disease, as well as to ensure the best possible physical, mental and social conditions, so that they may, by their own efforts, preserve or resume when lost as normal a place as possible in the life of the community. This study aimed to estimate the effects of CR on NT-proBNP and METs among patients with CAD after PCI.

Subjects and Method: This was a cohort study carried out at Dr. Moewardi Hospital, Surakarta, Central Java, from November to February 2018. A sample of 18 patients with CAD after PCI was selected for this study. The dependent variables were NT-proBNP, METs, and quality of life. The independent variable was CR. The three outcome variables were measured before and after CR. The data before and after CR were compared and tested by t-test.

Results: NT-proBNP level in CAD patients after PCI (Mean= 97.17 ng/ml) was lower than before PCI (Mean= 1,629.4 ng/ml), and it was statistically significant. METs value in CAD patients after PCI (Mean= 8.31 ml/kg) was higher than before PCI (Mean= 6.41 ml/kg), and it was statistically significant. The quality of life also increased significantly.

Conclusion: Cardiac rehabilitation is effective to lower NT-proBNP level, as well as to increase METs value and quality of life of CAD patients.

Keywords: coronary artery disease, cardiac rehabilitation, NT-proBNP, METs, quality of life.

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