

Comparison Study of Functional Capacity in Revascularized STEMI and Non-revascularized NSTEMI Patients Using the 6-Minute Walk Test

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Abstract

Background: Coronary artery disease generally demonstrates decrease of maximal uptake of oxygen and exercise tolerance. Decrease in functional capacity varies in part with the severity of disease. Patient with ST Elevation Myocardial Infarction (STEMI) occurs complete occlusion which causes a transmural heart damage effect compared with non ST elevation of acute coronary syndrome (NSTEMI). A 6-minute walk test (6MWT) is an easy and simple check to assess a functional capacity.

Objective: To compare the functional capacity using 6MWT of STEMI patients who had revascularized with non-revascularized NSTEMI including Unstable Angina Pectoris (UAP) and Non ST elevation of myocardial infarction (NSTEMI).

Method :A cross-sectional study was performed to assess the functional capacity using 6MWT in revascularized STEMI patients (n = 32) and non-revascularized NSTEMI patients (n = 32). The following parameters were assessed : distance and VO₂Max after 6MWT. For statistical analysis, the parametric variables were analyzed using independent t-test and analysis of variance (ANOVA), with significance level $p \leq 0.05$

Result :There was no significant difference in distance 6MWT between revascularized STEMI subjects (279.62 meters \pm 16.56) and non-revascularized NSTEMI subjects (267.03 meters \pm 15.95), ($p= 0.586$). As well as estimated VO₂Max among STEMI subjects (11.92 \pm 0.82) was not different compared to VO₂Max of NSTEMI subjects (10.89 \pm 0.83), ($p= 0.381$) after 6MWT.

Conclusion : Our study² showed no significant difference in functional capacity in STEMI that has been revascularized compare with NSTEMI regarding distance and VO₂ max after 6MWT. This findings support the statement that revascularization on acute coronary syndrome improves functional capacity.

Keywords: Functional capacity; 6-minute walk test; Acute coronary syndrome