RBFEx
ISSN Online: 2675-1372

Revista Brasileira de Fisiologia do Exercício

Editorial

Is it possible to prevent readmissions after myocardial revascularization surgery?

É possível prevenir reinternações após cirurgia de revascularização do miocárdio?

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According to some studies [1-3], gait speed (GS) is an important parameter to determine the risk of deleterious effects after hospital discharge, in addition to impact the individual's functional activities. The decrease in GS is linked to the presence of risk factors and the occurrence of cardiovascular events. In addition, the relative risk of cardiovascular death increases in patients with slow gait speed [4,5].

According to the BYPASS study, Myocardial Revascularization Surgery (MRS) makes up the majority of cardiac surgical procedures performed throughout Brazil [6]. Based on data from the National Health System, in 2017, 21,474 coronary artery bypass grafting (CABG) were performed in public institutions in Brazil, with an average mortality and hospital stay of 5.37% and 12.2 days, respectively [7].

Hospitalization after MRS is associated with reduced functional capacity. Several factors can influence this occurrence, such as the use of Extracorporeal Circulation (ECC), postoperative complications, pain and mobility restriction [8,9]. These aspects, as well as bed restriction, are closely related to decreased effort tolerance and limitations in activities of daily living after surgery.

In the 2022 2nd edition of the *Revista Brasileira de Fisiologia do Exercício*, a cohort study conducted by Cordeiro *et al.* [10] evaluated 56 patients over 18 years of age undergoing MRS, using ECC and median sternotomy. The study evaluated the use of the 10-meter test at two moments. In the preoperative period and at hospital discharge. They evaluated the degree of impact of gait

Received: September 20, 2022; Accepted: September 30, 2022.

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speed on the T10m and its relationship with hospital readmission up to 6 months after discharge. They observed that the increase in time on the second test compared to the first allows for an early understanding of viable hospital readmissions.

This study [10] brings us a perceptive, easy-to-apply and low-cost tool that can be used in hospital services. Its use will facilitate the evaluation of patients after MRS, promoting a more assertive analysis that can predict possible readmissions of these patients, evaluating their ability in the T10m test. In addition, the evaluation proposed in this protocol will allow adjusting the prescription of activities in the hospital environment, to offer a gain in functional capacity and an increase in gait speed during hospitalization.

Analyzing the use of the six-minute walk test (6MWT) in relation to the T10m speed test, the second one presents better reproducibility, as it requires a reduced space when compared to the requirement of a 15 or 30 m area in the 6MWT [11], in addition to offering less overload for the patient.

In addition to the assessment of functional capacity in a hospital environment, these findings [10] allow tracking the most critically ill patients for immediate referral to cardiac rehabilitation, increasing cardiorespiratory capacity and consequently reducing the risk of readmissions [12].

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