

## When is the best time to mobilize patients after myocardial infarction? An issue that merits further research

To the Editor,

Myocardial infarction (MI) is the main cause of mortality and morbidity worldwide. It is a result of imbalance between the oxygen supply and demand. Physical activity is the main physiological factor that leads to an increase in the myocardial oxygen demand by increasing the heart rate, myocardial contractility, and ventricular work. Therefore, bed rest in the acute phase is an important part in the treatment of acute MI because it reduces the myocardial workload (1).

Although the benefits of bed rest in the acute phase of MI are well established, the best time of mobilization after MI is unknown and there is no consensus or specific guideline in this regards. In addition, the results of several reviews highlight a disparity in the duration of post-MI bed rest; for example, in two separate reviews, the time of immobilization after MI was reported to be from 2 to 12 days (1) and 2 to 28 days (2).

Up to 2014, no specific guideline has been released about patients' mobilization after MI from any heart association around the world. After 2014, the American College of Cardiology/American Heart Association (ACC/AHA) recommends at least 12–24 h of bed rest for patients with uncomplicated ST-elevation MI (3). However, it seems that there are different factors that play an important role in decision making about mobilizing patient after MI because a recent study found that the recommended time of bed rest after uncomplicated MI was 72 h and most patients were mobilized after 3 days (4). Despite differences in the time of bed rest and mobilization after MI, several studies have reported that the early mobilization could reduce mortality, depression, and HR variations (5) and help in an early return to work (2) after MI. In contrast, early mobilization may adversely affect MI patient outcomes. Complications such as death, re-infarction, arrhythmia, dyspnea, and angina (2) have been reported.

Therefore, based on the available evidence, the optimal duration of bed rest and time of patient mobilization after MI remain unclear and there is a crucial need for a valid and updated

guideline. Considering this, further studies could be conducted to determine the best time to mobilize a patient after MI. Other recommendations for further research include the following: exploring the specific time of mobilization after complicated or uncomplicated MI, investigating the demographic properties of MI patients that contribute to patient mobilization, and identifying strategies particularly effective in mobilizing the patients.

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