ST elevation myocardial infarction during head-up tilt testing

Lucas Simonetto Faganello1,2*, Mauricio Pimentel1,2, Ana Paula Arbo Magalhães2, Leandro Ioschpe Zimerman2

1Post-Graduate Program in Cardiology and Cardiovascular Sciences, Medical School, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
2Cardiac Electrophysiology Group, Cardiology Division, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil

Introduction

Head-up tilt testing (HUTT) is a useful diagnostic tool for syncope investigation,1 and few complications are expected. Arrhythmias, ST-segment elevation due to coronary vasospasm, non-ST elevation myocardial infarction (non-STEMI),2 and recently, ventricular fibrillation3 were reported after drug sensitization. As far as we know, this is the first report of ST elevation myocardial infarction (STEMI) during HUTT.

Case Report

A 54-year-old man was admitted to our emergency department after four episodes of syncope. Treadmill test and electrophysiological study were normal. During passive HUTT, the patient had inferolateral ST elevation. Coronary angiography showed two severe lesions in the right coronary artery and circumflex artery.

Discussion

Neurally-mediated syncope is the most common type of syncope.4 Although its triggers and clinical presentation are

*Corresponding Author: Lucas Simonetto Faganello, Email: lucasfaganello@gmail.com

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Well known, sometimes this condition may be associated with other disorders, such as myocardial ischemia, leading to an atypical presentation.\textsuperscript{5,6} We reported a case of STEMI during HUTT in a patient with normal treadmill test results two days earlier. The patient had no history of syncope until one week before hospitalization, and one episode was preceded by chest pain. We believe that hypotension due to vasodepressor reflex unmasked the coronary disease, leading to typical STEMI. The sensitivity of treadmill test for diagnosing coronary heart disease is 45\%-61\% which could explain a previously normal test.\textsuperscript{7} In this case we consider that vasodepressor reflex was an unusual trigger for acute myocardial ischemia. To the best of our knowledge, occurrence of STEMI during passive HUTT has not been reported previously in the literature.

**Competing interests**
None declared.

**Ethical approval**
Informed consent has been obtained from the patient to publish this material.

**References**