

When to think about Myocardial Bypass in the Differential Diagnosis of Chest Pain? Case Report

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Abstract

A myocardial bridge is a segment of a coronary artery that travels into the myocardium instead of the normal epicardial course. Although it is general perception that myocardial bridges are normal variants, patients with myocardial bridges can present with symptoms, such as chest pain, that cannot be explained by a secondary etiology. It's one of the main differential diagnosis of coronary artery disease and may manifest as chest pain, myocardial infarction or sudden death, but in most cases are asymptomatic. Such patients may benefit from individualized medical or surgical therapy. This article describes the case of a young adult with typical chest pain, diagnostic approach and treatment of a myocardial bridge.

Keywords: intramyocardial coronary artery; myocardial bridge; chest pain; myocardial ischemia; sudden cardiac death

Introduction

Chest pain is any pain in the thorax, when reported brings a whole load of doubts about its cause and the potential risk of death. It can have multiple etiologies with varying potential for life-threatening conditions. Myocardial Bridge (PM), although quite prevalent, has been neglected as one of the causes of chest pain. PM is a congenital anomaly where a segment of a coronary artery is involved by bundles of myocardium, which can lead to compression of this tunneled segment during the cardiac cycle.

Objective: Report of a case diagnosed and treated for PM with the aim of making this disease remembered in the differential diagnosis of chest pain.

Diagnosis, Clinical Evolution and Treatment: Male, Caucasian, 31 years old, born in ERJ, came to my office in October 2018 with a typical history of angina pectoris. He reports that this pain started 1 day ago during soccer practice. Denies: smoking, SAH, diabetes mellitus, dyslipidemia, sedentary lifestyle, family history of CVD. Normal physical exam. ECG: NDN. He was referred to the emergency room where he underwent a Chest X-ray and markers of myocardial necrosis in the blood test. These exams were also normal. In view of the persistence of the typical symptomatic picture of angina and because his health plan did not authorize the performance of computed tomography of the coronary arteries, he was referred to perform

myocardial perfusion scintigraphy. This demonstrated ischemia in the anterior part of the LV. He was referred for coronary angiography, which diagnosed a bridge in the middle third of the anterior descending artery, not identifying any obstructive CAD. The patient evolved refractory to clinical treatment with beta-blockers and antiplatelet agents and was then referred to surgery where a supraarterial myotomy was performed. He became asymptomatic and 6 months later he underwent a new scintigraphic examination which no longer showed the ischemic area. He was then cleared to return to football.

Discussion: It is believed that this anomaly is quite common, however its prevalence will vary as a result of the means used for its identification (cineangiocoronariography, computed coronary angiotomography or necropsy).

Conclusion: We should suspect this diagnosis in all young patients without risk factors for cardiovascular disease, with suggestive chest pain. This condition is more prevalent than we imagine and some may develop into a heart attack or sudden death if not diagnosed early.

Note: The figures below are illustrative and do not correspond to the reported case.



Figure 1: Anatomical specimen demonstrating a myocardial bridge.

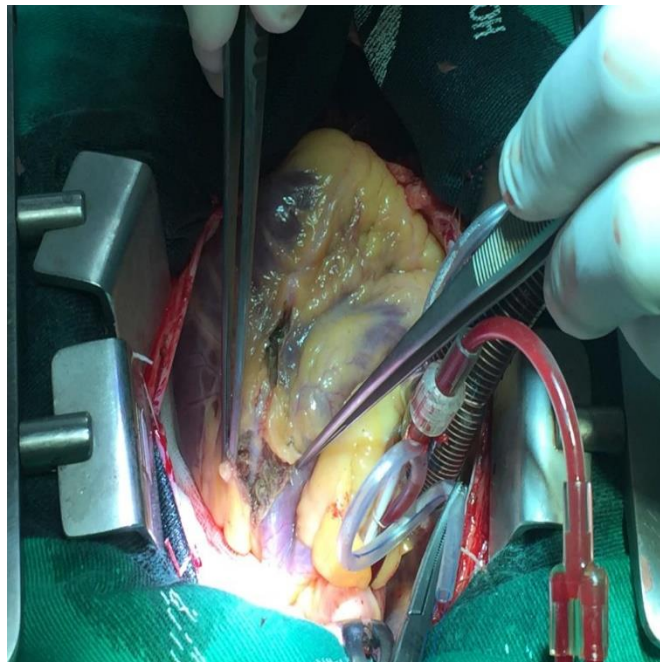


Figure 2: Surgical act of a supraarterial myotomy.

Conflict of Interests: None.

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