INFERIOR WALL MYOCARDIAL INFARCTION AND MYOCARDIAL BRIDGING OF LEFT ANTERIOR DESCENDING CORONARY ARTERY IN A YOUNG PATIENT – CASE REPORT –

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Introduction

Myocardial bridging is considered a relatively benign condition, but serious complications such as angina pectoris, myocardial infarction, stress cardiomyopathy, ventricular arrhythmia, and sudden cardiac death can still occur.

In rare cases, acute myocardial infarction and myocardial bridging may occur as a distinct feature in one patient.

We describe a young man with acute myocardial infarction on inferior wall associated with myocardial bridging of the left anterior descending coronary artery, who was diagnosed and evaluated by electrocardiography, echocardiography, and coronary angiography, treated with coronary bypass grafting and surgical myotomy.

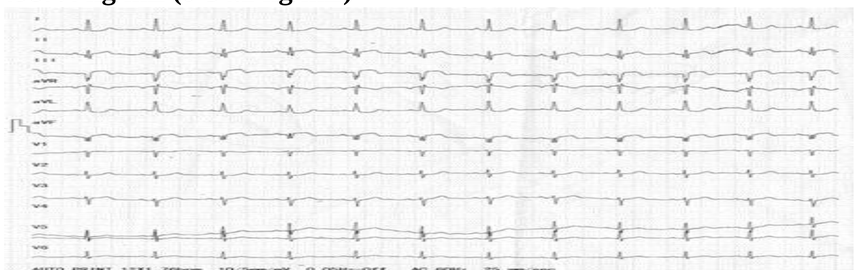
Case Report

- A 40-year-old man called the emergency room for chest pain, pain in the left upper arm, with difficulty breathing and malaise, for the last three days.

- His vital signs were: arterial blood pressure TA=140/90mmHg, heart rate SF=98/min, respiratory rate of 18 breaths/min and oxygen saturation 98%.

- A rapid test for acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was negative.

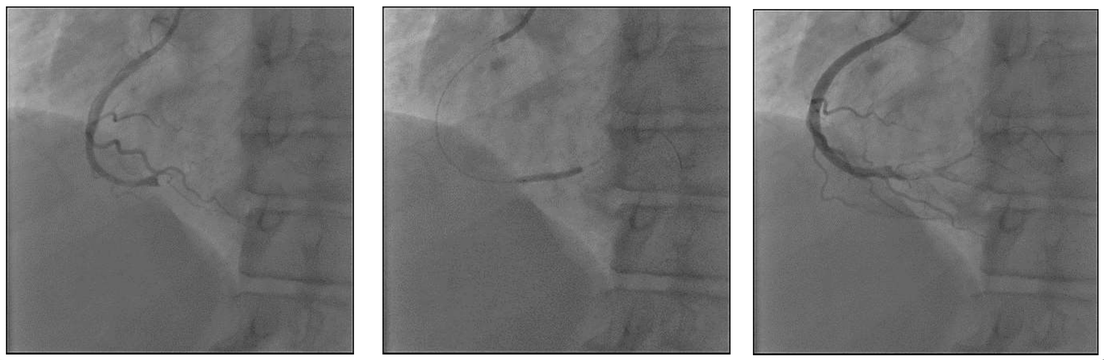
- Diagnostic tests included CK=641 (29-200 U/L), CK-MB=84.99 U/L (normal < 25 U/L), and hs troponin=4987.4 ng/mL (0-34.2 ng/mL)



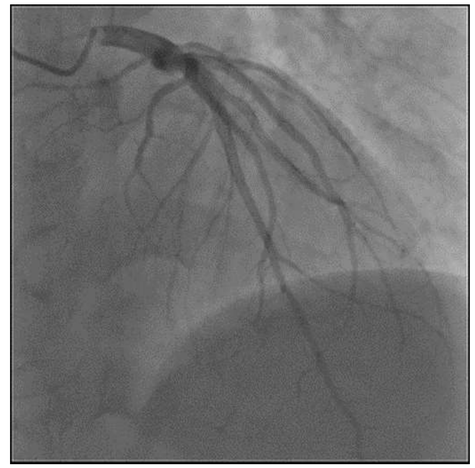
Normal dimensions of the left ventricle (LVDd=55mm, LVDs=39mm) with proper systolic function and diastolic function with normal kinetics and EF 60%.
Hypokinesia of the inferior wall and base of the interventricular septum.
Normal dimensions of right ventricle = 24mm, left atrium = 37mm, ascending aorta = 38mm.
Mild mitral and tricuspid regurgitation.

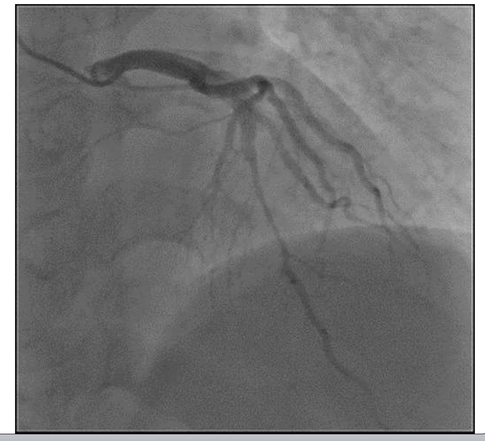
TRA(r). RD2. (G.C. JR 4.0, 6F; D.C. JL 3.5; 5F). LMN: b.o. TIMI 3 LAD: mid massive muscle bridge TIMI 3
Cx: b.o.TIMI3 RCA: mid/dist 100% thrombus, TIMI 3
Intervention (G.C. JR 4.0, 6F; FloppyMS): Thromboaspiration: Elliminate catheter 6F, NoII POBA to RCA mid/dist: balloon 2,5x20mm,12atm, NoI
RESULT: RCA mid/dist 100% → 50% TIMI 3

POBA of the right coronary artery with final result



Coronary findings (LAD in diastole and in systole)





Conclusions

Diagnosis and appropriate treatment of this pathology are important.

The patient was referred to a cardiac surgery facility where coronary artery bypass ACBPx1 (LRA-PDA) was performed, as well as LAD surgical myotomy.