

## Images in Cardiovascular Disease



# Left Main Equivalent Myocardial Infarction due to Acute Subclavian Artery Thrombosis in a Patient with Prior Coronary Bypass

Marta Fonseca , MD, José Maria Farinha , MD, Filipe Seixo, MD, and Rui Caria, MD

Cardiology Department, Centro Hospitalar de Setúbal, Setúbal, Portugal

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#### Address for Correspondence:

**Marta Fonseca, MD**

Cardiology Department, Centro Hospitalar de Setúbal, Rua Camilo Castelo Branco 175, Setúbal 2910-549, Portugal.

E-mail: ms.ferreira.fonseca@gmail.com

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#### ORCID iDs

Marta Fonseca 

<https://orcid.org/0000-0002-7656-0237>

José Maria Farinha 

<https://orcid.org/0000-0001-8456-7263>

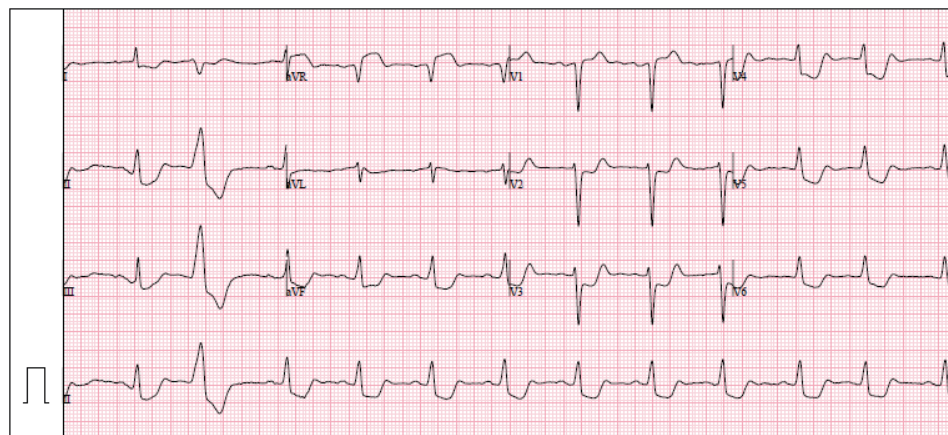
#### Conflict of Interest

The authors have no financial conflicts of interest to report.

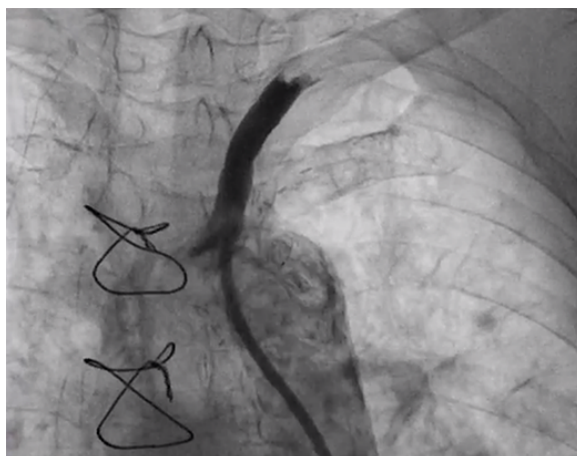
#### Author Contributions

Conceptualization: Fonseca M; Data curation: Fonseca M, Farinha JM, Seixo F; Writing - original draft: Fonseca M; Writing - review & editing: Caria R.

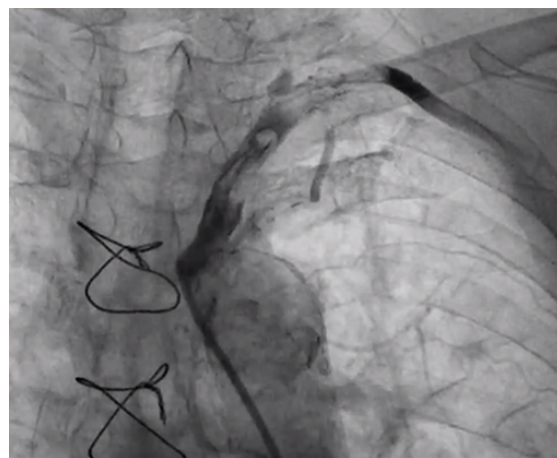
A 74-year-old woman with sub-occlusive left main coronary artery disease and moderate aortic stenosis was submitted to left internal mammary artery (LIMA) grafting to the left anterior descending artery (LAD), saphenous vein grafting to the second obtuse marginal branch, and surgical aortic valve replacement with a bioprosthesis in 2015. Two years ago, she was admitted for acute coronary syndrome (ACS) due to occlusion of the venous graft and received conservative treatment. This time, she presented to the emergency department with left arm coldness and oppressive precordial pain. The electrocardiogram was in sinus rhythm with ST-segment elevation in lead augmented vector right and depression in all other leads (**Figure 1**). A transthoracic echocardiogram showed severe left ventricular dysfunction and normally functioning bioprosthesis. A coronary angiography was performed revealing an occlusive thrombus in the proximal left subclavian artery (**Figures 2 and 3 and Movies 1 and 2**) that was removed by thrombectomy. Both LIMA and the anastomosis to the LAD had no lesions (**Figure 4 and Movie 3**). A stent was not implanted since it could compromise LIMA's ostium. Transoesophageal echocardiography showed no intracardiac thrombus. Autoimmune and prothrombotic screenings were negative. After multidisciplinary decision, the patient was discharged on dual antiplatelet therapy, high-intensity statin and guideline-based heart failure medication. During follow-up, she remained asymptomatic with complete recovery of left ventricular function. Subclavian artery thrombosis is an uncommon ACS presentation in coronary artery bypass grafting patients.<sup>1)</sup> In this case, since LIMA was the only remaining vessel for left coronary artery perfusion, timely diagnosis and treatment were critical.



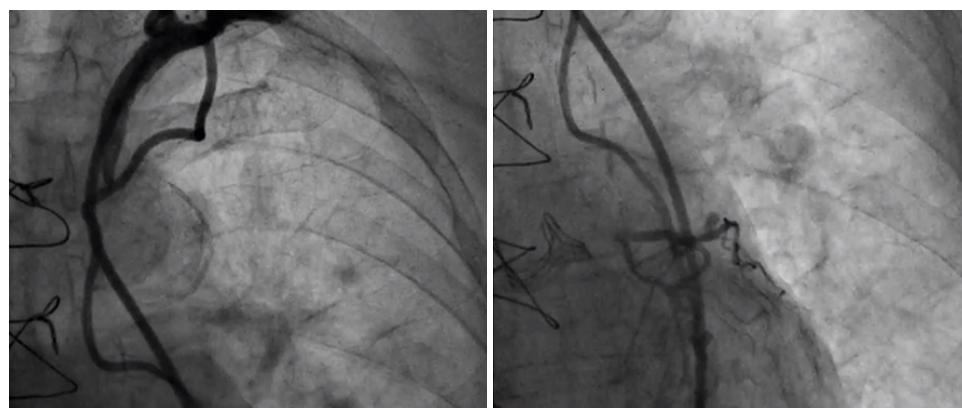
**Figure 1.** Electrocardiogram.



**Figure 2.** Coronary angiography demonstrating occlusion of the left subclavian artery.



**Figure 3.** Coronary angiography demonstrating, after distal positioning of the catheter, evident extensive thrombosis of the left subclavian artery.



**Figure 4.** Coronary angiography after reperfusion.

## SUPPLEMENTARY MATERIALS

### Movie 1

Coronary angiography demonstrating occlusion of the left subclavian artery.

[Click here to view](#)

### Movie 2

Coronary angiography demonstrating, after distal positioning of the catheter, evident extensive thrombosis of the left subclavian artery.

[Click here to view](#)

### Movie 3

Coronary angiography after reperfusion.

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## REFERENCES

1. Wu CH, Sung SH, Chang JC, Huang CH, Lu TM. Subclavian artery thrombosis associated with acute ST-segment elevation myocardial infarction. *Ann Thorac Surg* 2009;88:2036-8.

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