

# A Case Of Myocardial Infarction with Non Obstructive Coronary Arteries (MINOCA)

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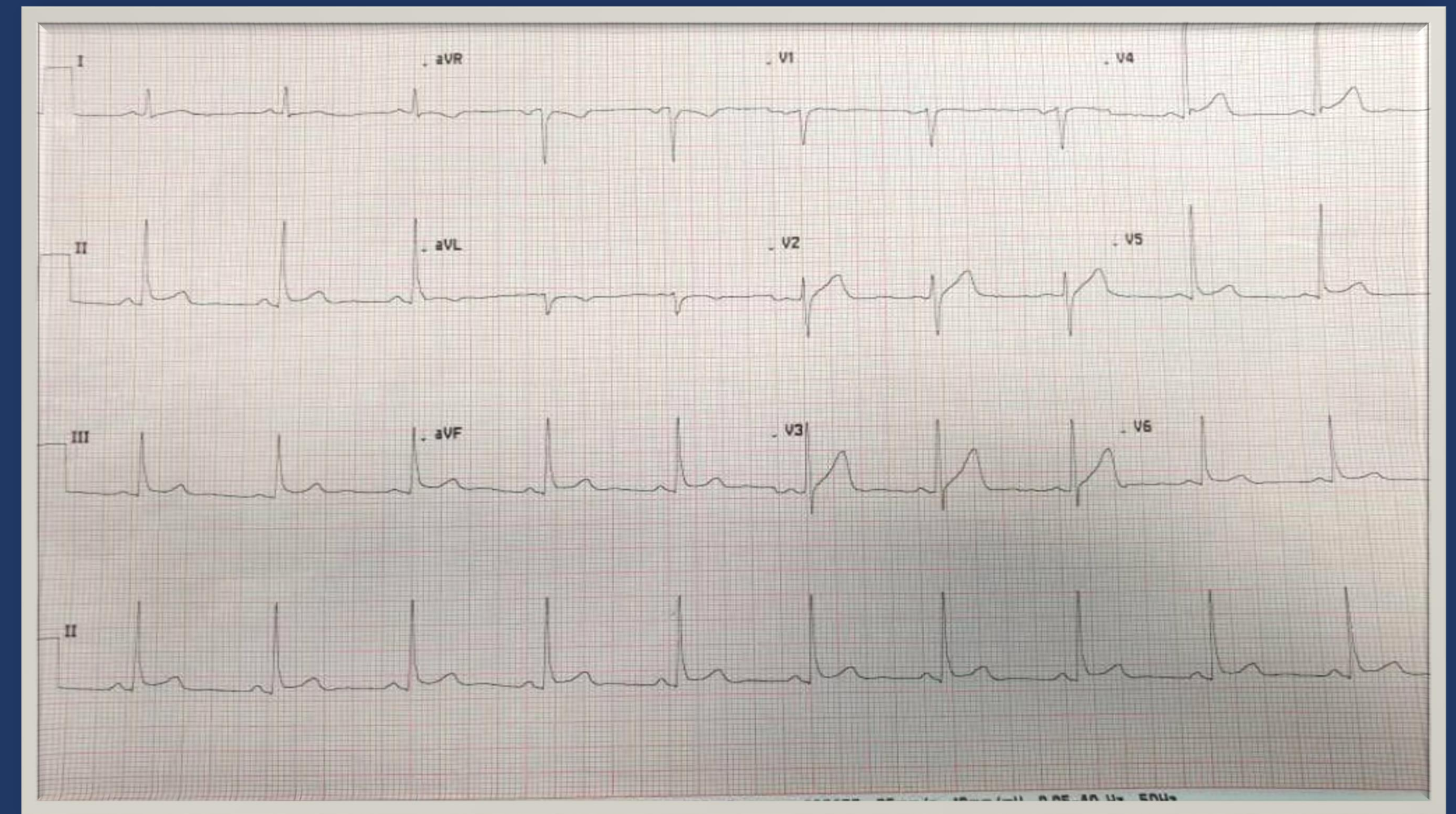
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## INTRODUCTION

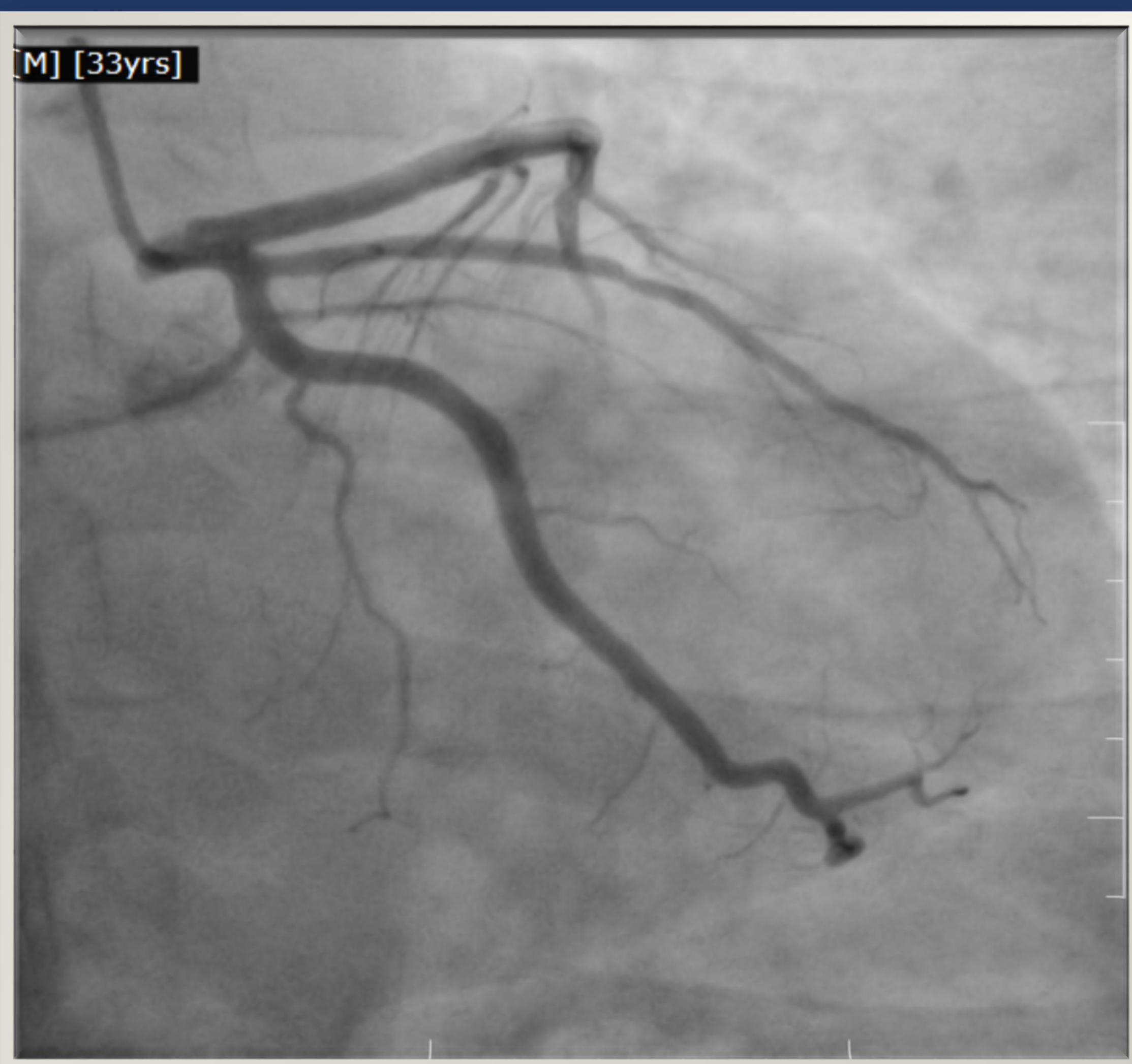
Myocardial Infarction with Non-obstructive Coronary Arteries (MINOCA) is defined as presence of acute myocardial infarction criteria, absence of obstructive coronary artery diseases (>50% stenosis) and no overt cause for the clinical diagnosis at the time of angiography. The population level incidence of MINOCA is approximately 5% to 8.2%. The most common pathophysiology is due to plaque disruption (25%) and stress cardiomyopathy (25%). Other causes include myocarditis.

## CASE REPORT

A 33 years old gentleman with no previous medical illness presented with sudden central crushing chest pain with prostration and shortness of breath. His blood pressure was 142/99mmhg, pulse rate 75/min. Lungs was clear. ECG showed sinus rhythm with a slight ST elevation in V2-V3 and T wave inversion in AVL. Troponin T was elevated (1211ng/L). Patient was treated for NSTEMI. Angiogram shows mild disease on obtuse marginal branches. Diagnosis of MINOCA was made. Cardiac Magnetic Resonance Imaging (CMRI) was suggestive of anteroseptal infarct. He was discharge with dual antiplatelet, Angiotensin Converting Enzymes Inhibitors (ACEI) and Statins.



ECG: Sinus rhythm with slight ST Elevation in V2-V3 and T inversion in AVL



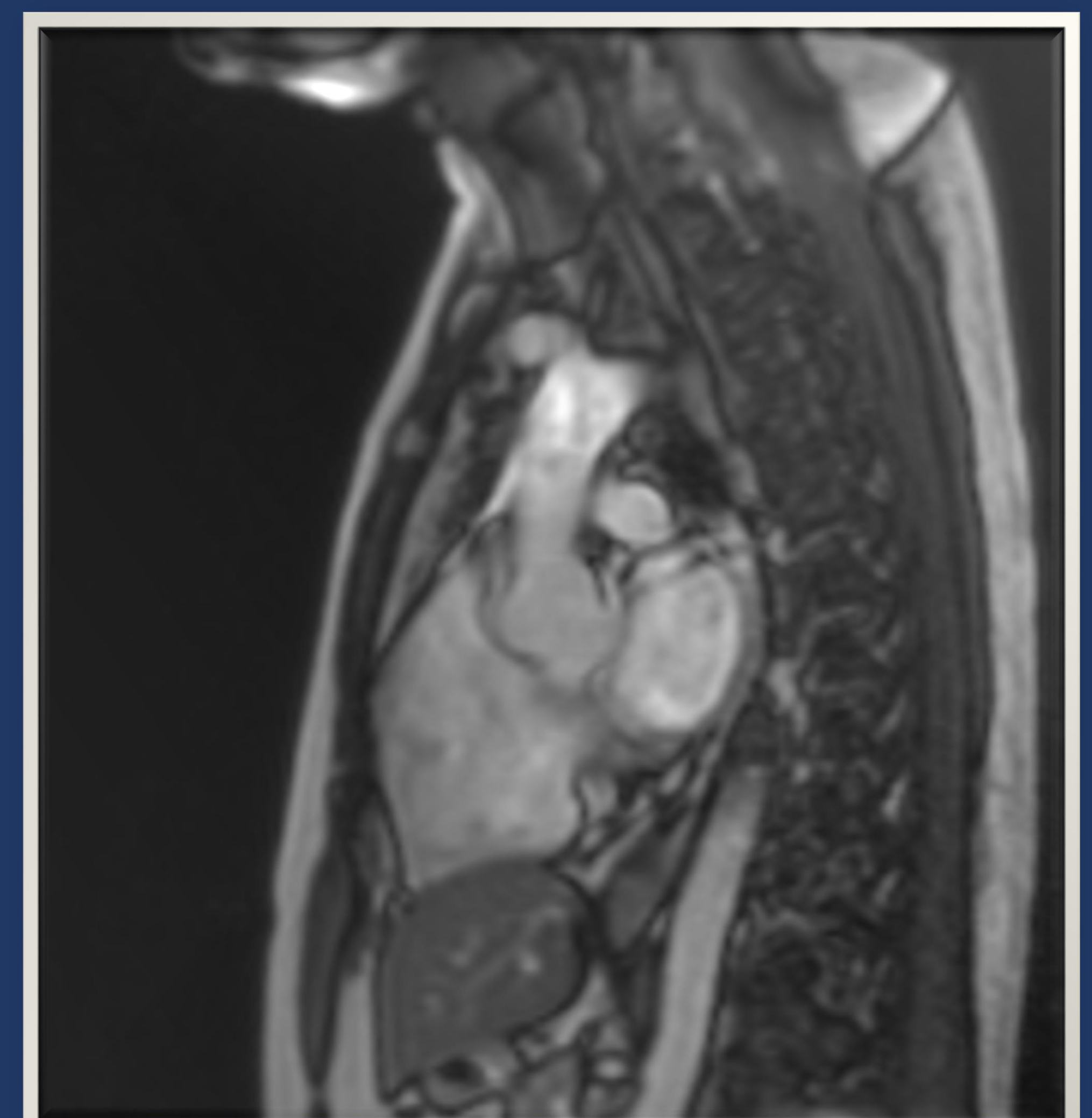
Angiogram: Mild disease on obtuse marginal branches

## DISCUSSION

The diagnosis of MINOCA was coined with an emphasis to investigate the underlying causes and to improve the management. The most common modalities are CMRI because of its abilities to detect common diagnosis. CMRI are able to identifies the underlying cause for 87% of the MINOCA patient. In our case, the cause of MINOCA was able to be determine by CMRI. Currently, there is no recommended therapy for MINOCA. In SWEDEHEART Registry found that there is reduced hazard ratio of MACE with statins and angiotensin converting enzymes inhibitors angiotensin receptor blockers with beta blockers. However, it is not a randomized study and have several limitations. Our patient was started with Statins and ACEI upon discharge. In conclusion MINOCA remains a challenging diagnosis in clinical practice.

## REFERENCES

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Cardiac MRI: Anterior septal infarct (septal region) with EF 58%