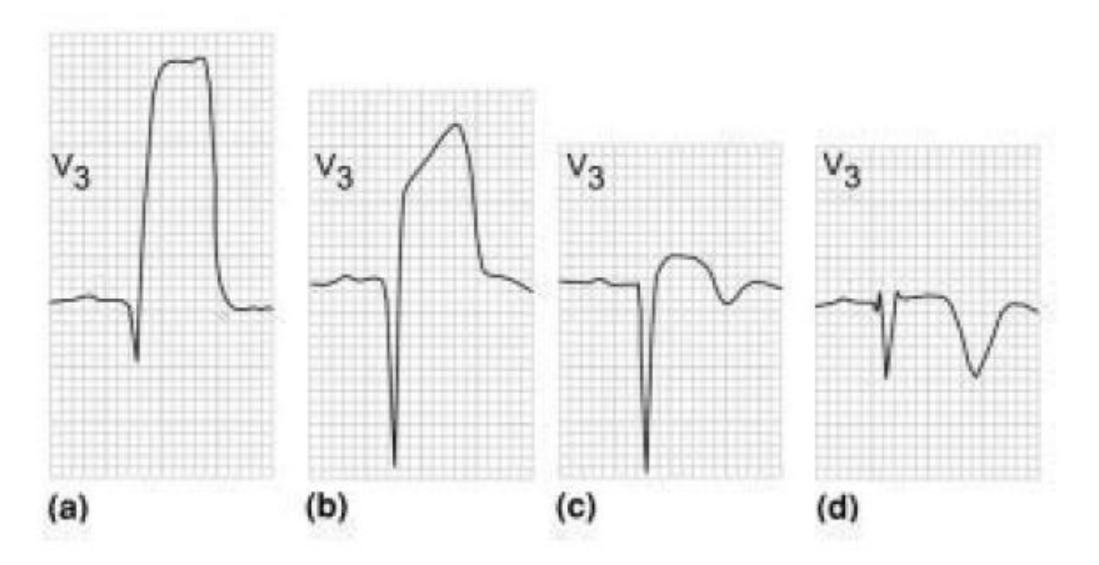


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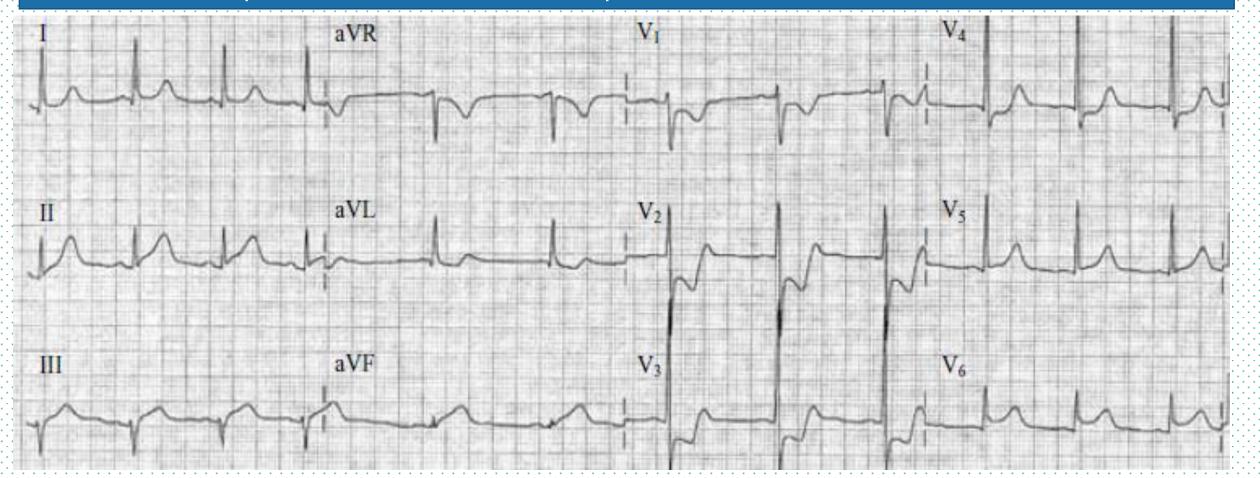
Dr. Saeed Nareghi



After the complete occlusion, the ischemia occurs first in the subendocardium producing a taller T wave, but the ischemia soon becomes transmural and homogeneous (ST elevation). With persistent occlusion of an epicardial coronary artery the ST elevation evolves from an initial concave upward to a convex upward pattern. Finally, this is usually followed by a Q wave of necrosis and an inverted T wave

Clinical background

A 52-year-old man is presented with clinical characteristics of acute coronary syndrome (ACS). Initially, non STEMI was considered as the most striking ST change was ST depression in V1–3. However, the presence of mild ST elevation in II, III, and VF and also in V5–6 suggested a STEMI. There is also isodiphasic ST in I and small ST depression in aVL.

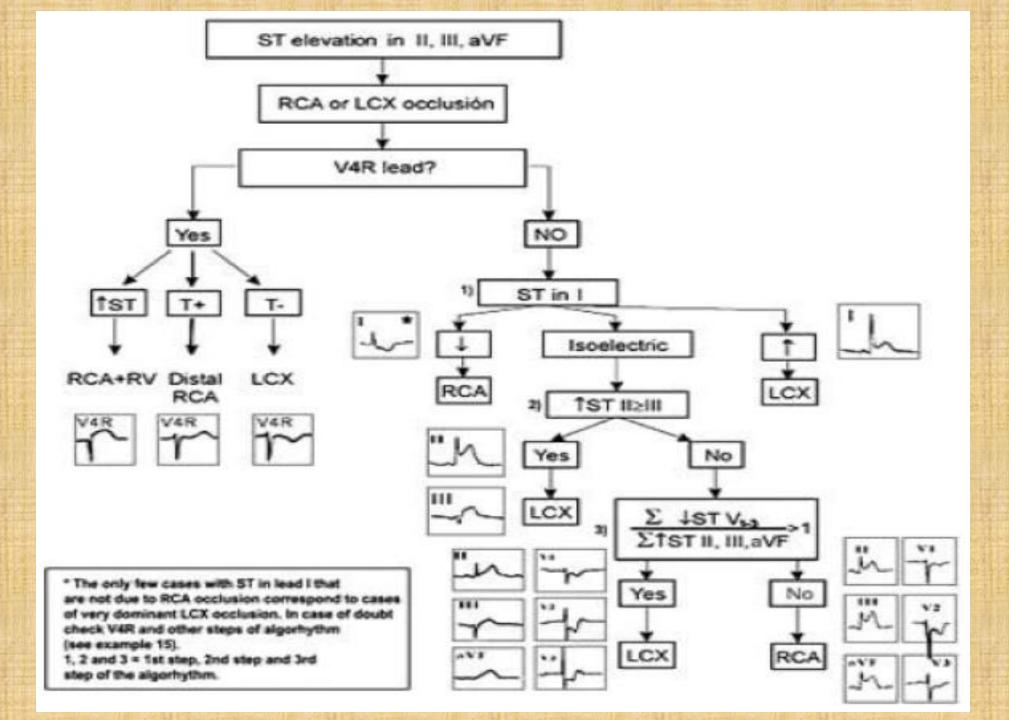


Which is the culprit artery of this ACS?

a Non-STEMI due to LAD subocclusion

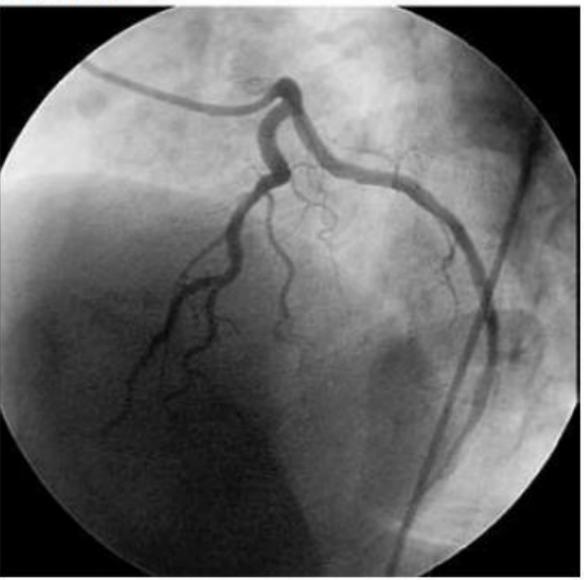
b STEMI due to LCX proximal occlusion

c STEMI due to RCA occlusion



Pre-PCI





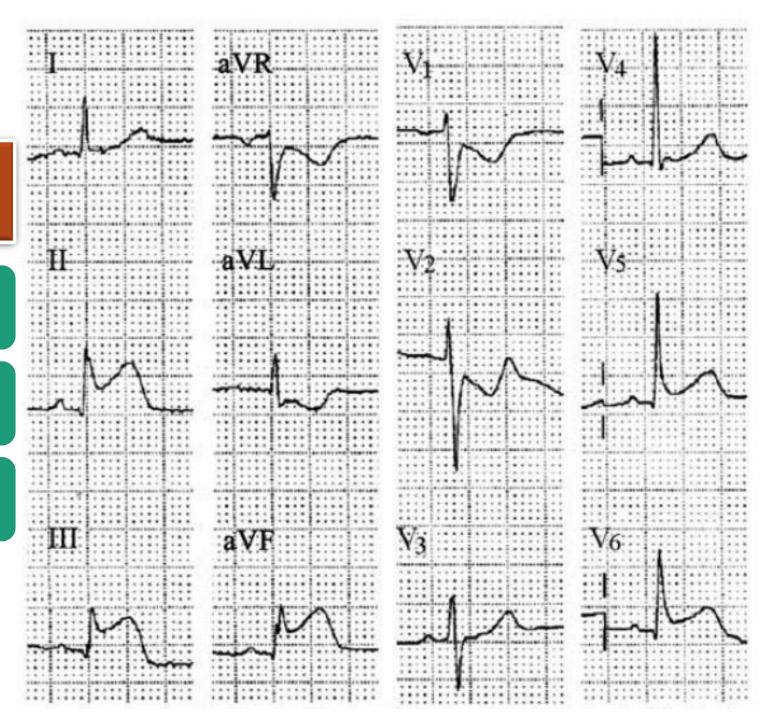
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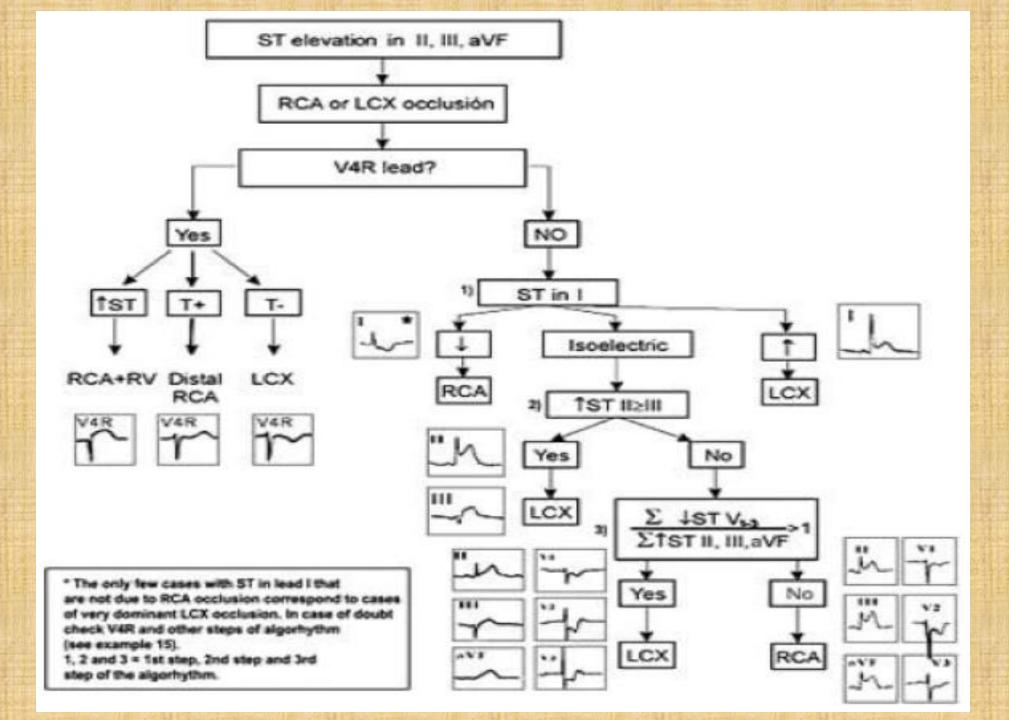
Which is the culprit artery of this STEMI?

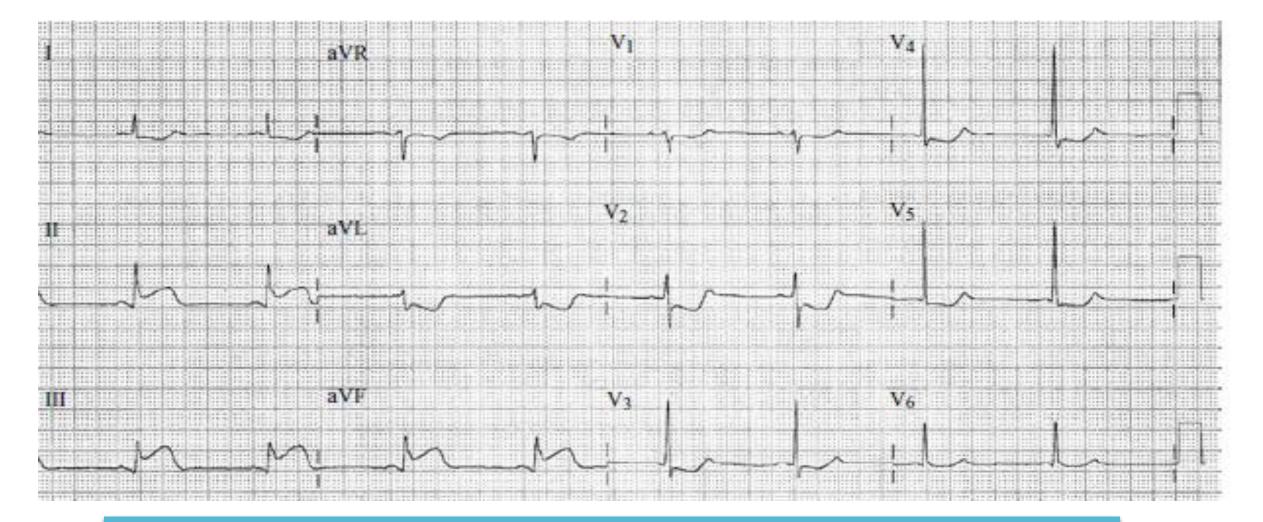
a Proximal dominant RCA

b Distal dominant RCA

c LCX

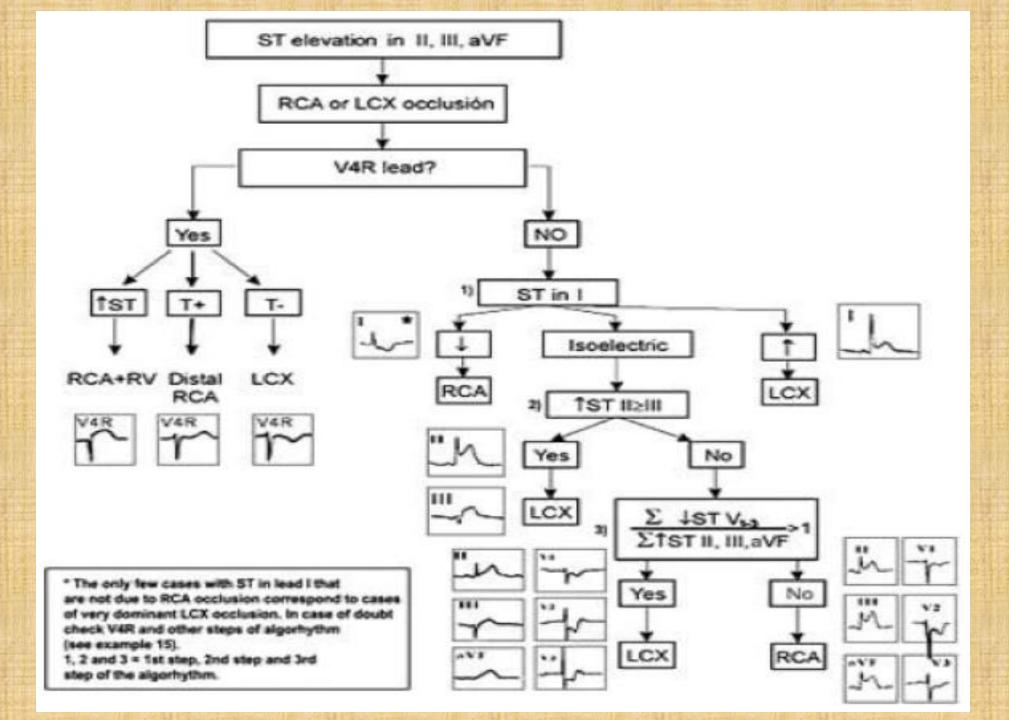




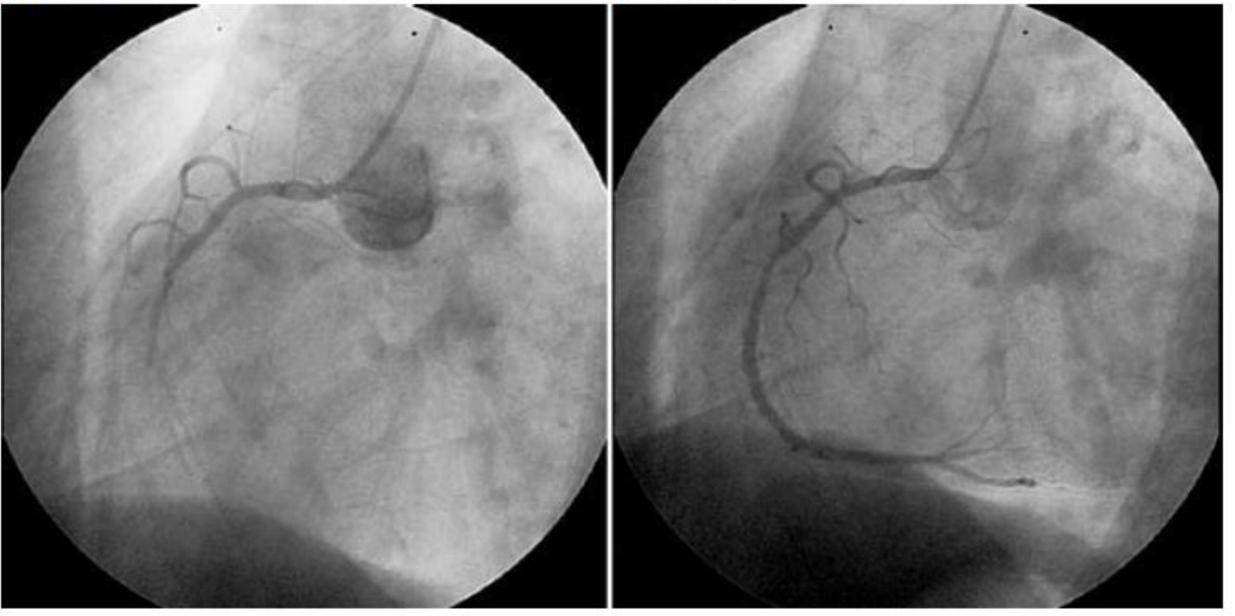


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Which is the culprit artery of this STEMI?
a Proximal and dominant RCA
b Distal and short RCA
c LCX



Pre-PCI

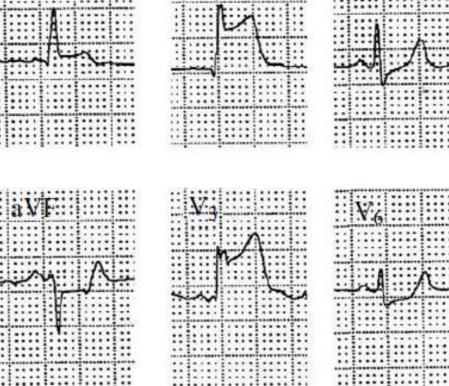


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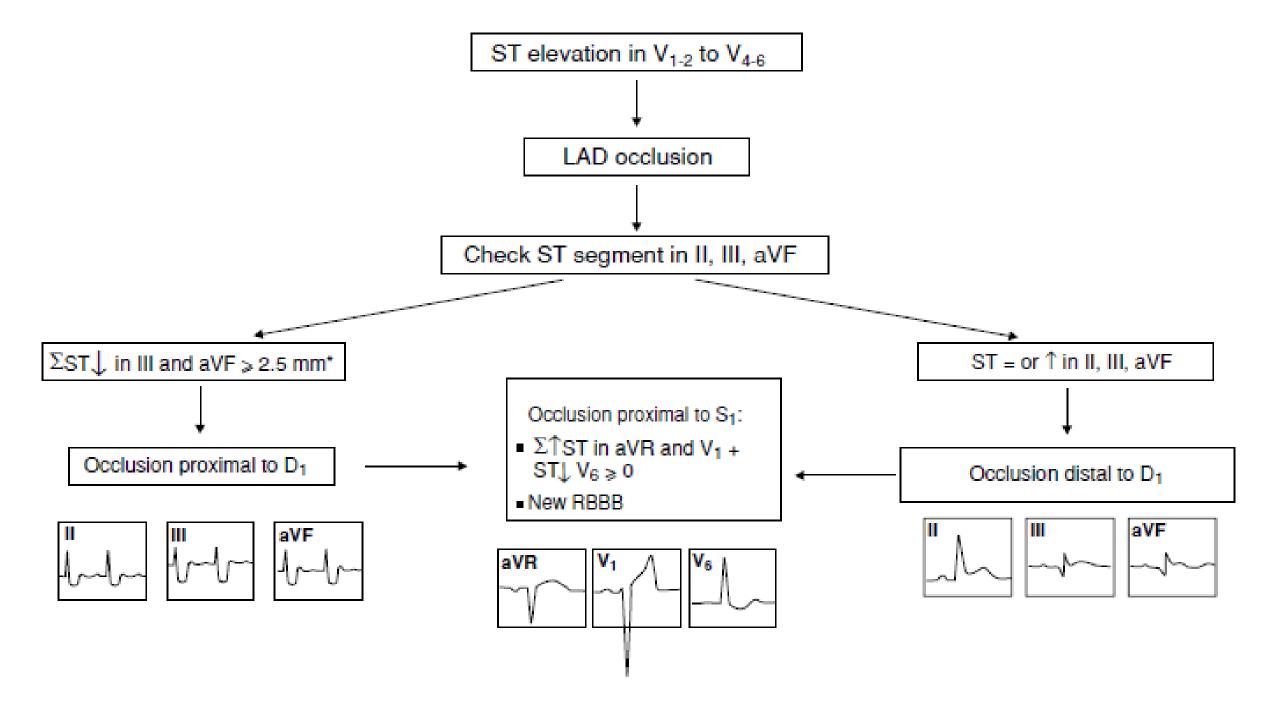
b LAD distal to S1 and D1

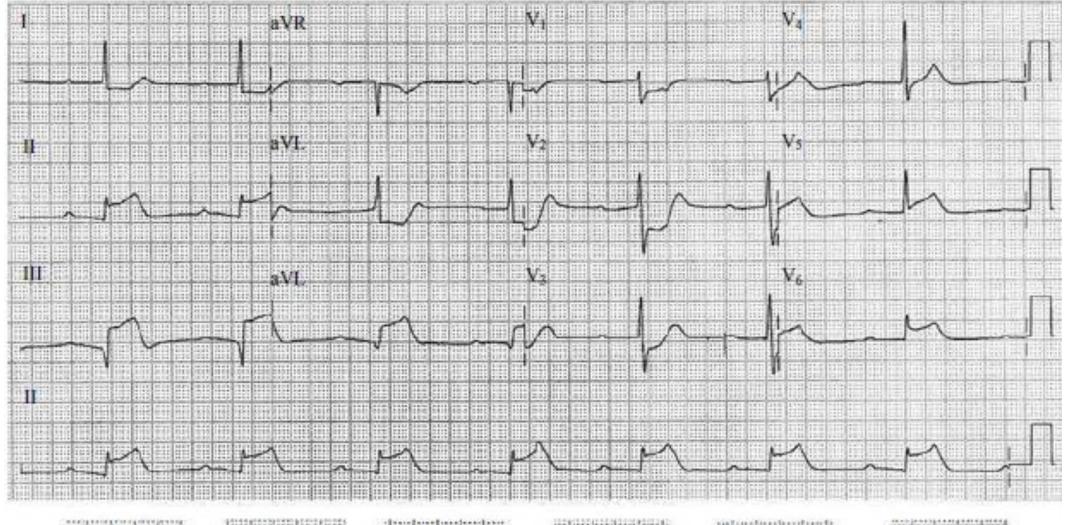
c LCX



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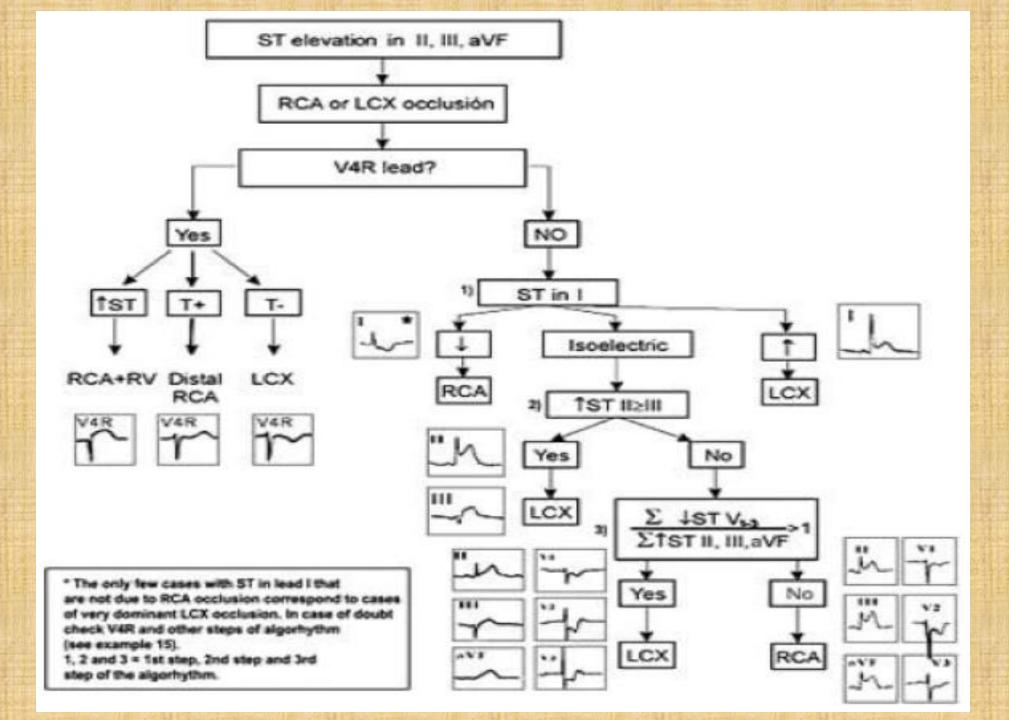
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Which is the culprit artery of this STEMI?

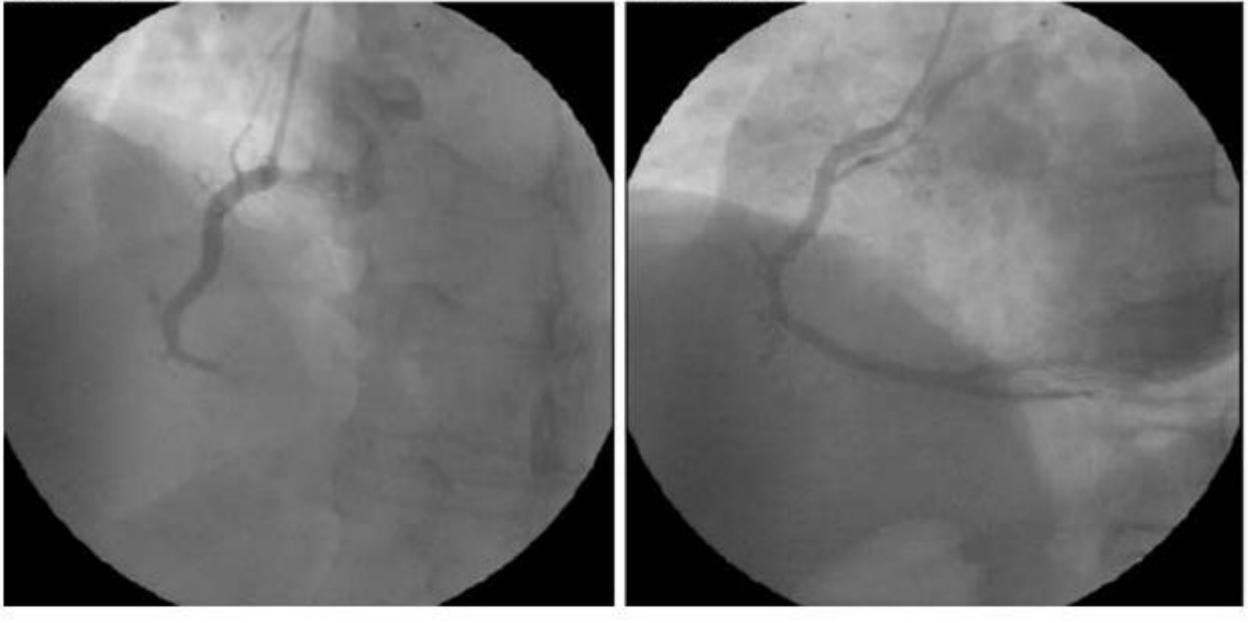
a Proximal occlusion of dominant RCA

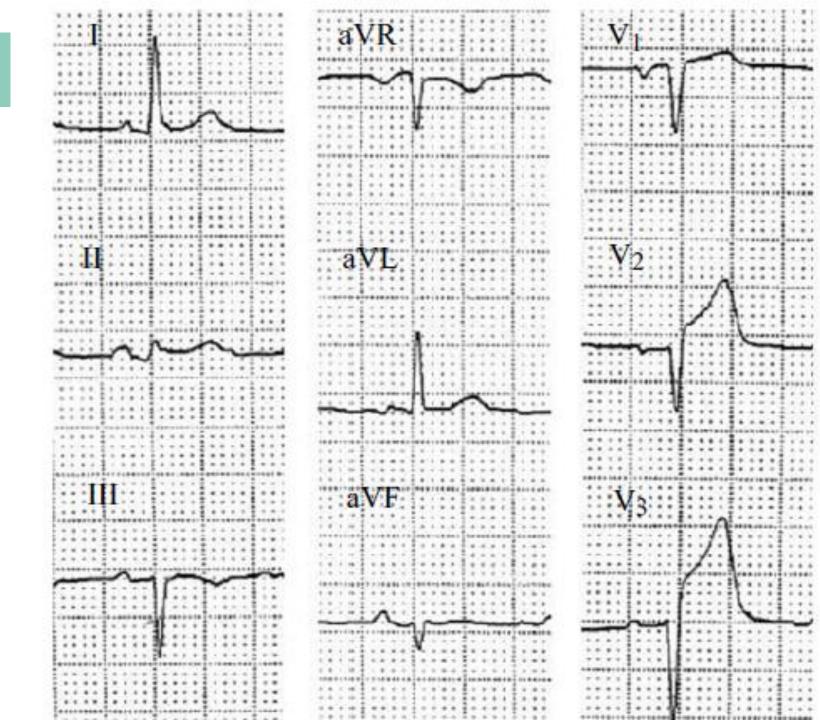
b Nonproximal occlusion of very dominant RCA

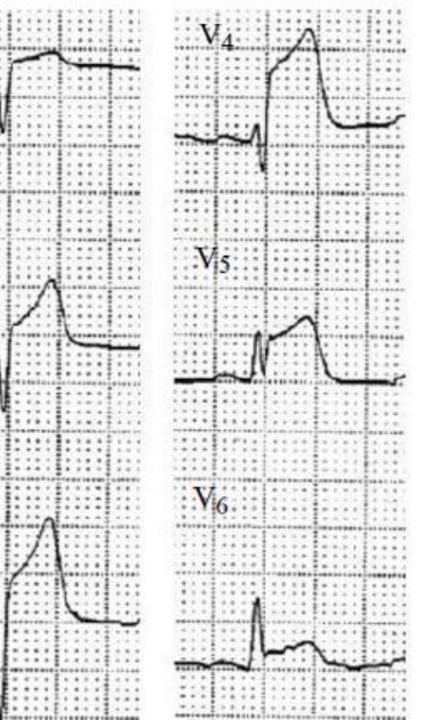
c Proximal LCX









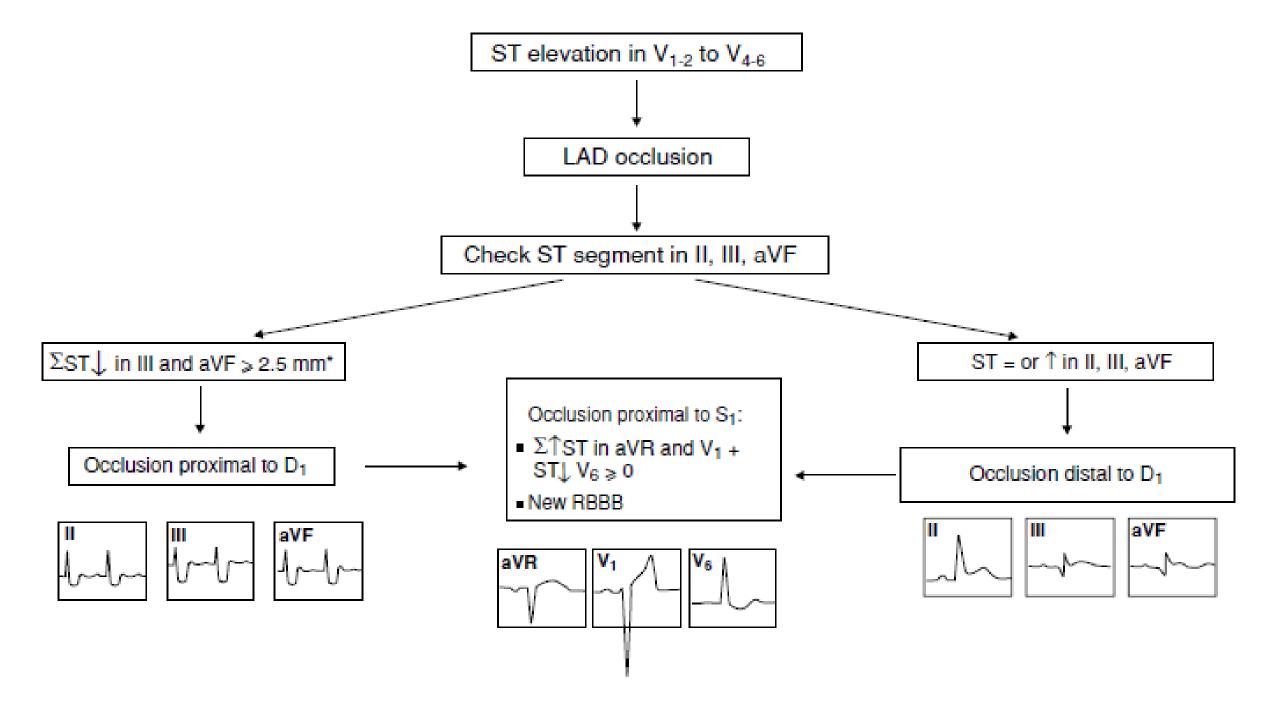


Which is the culprit artery of this STEMI?

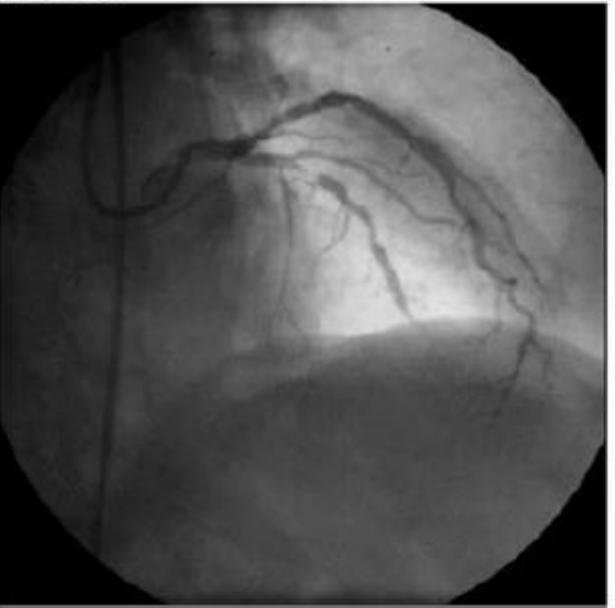
a LAD proximal to D1 and S1

b LAD distal to D1 and S1

c LAD proximal to D1 and distal to S1



Pre-PCI





(a) At entrance

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(b) 18 hours later

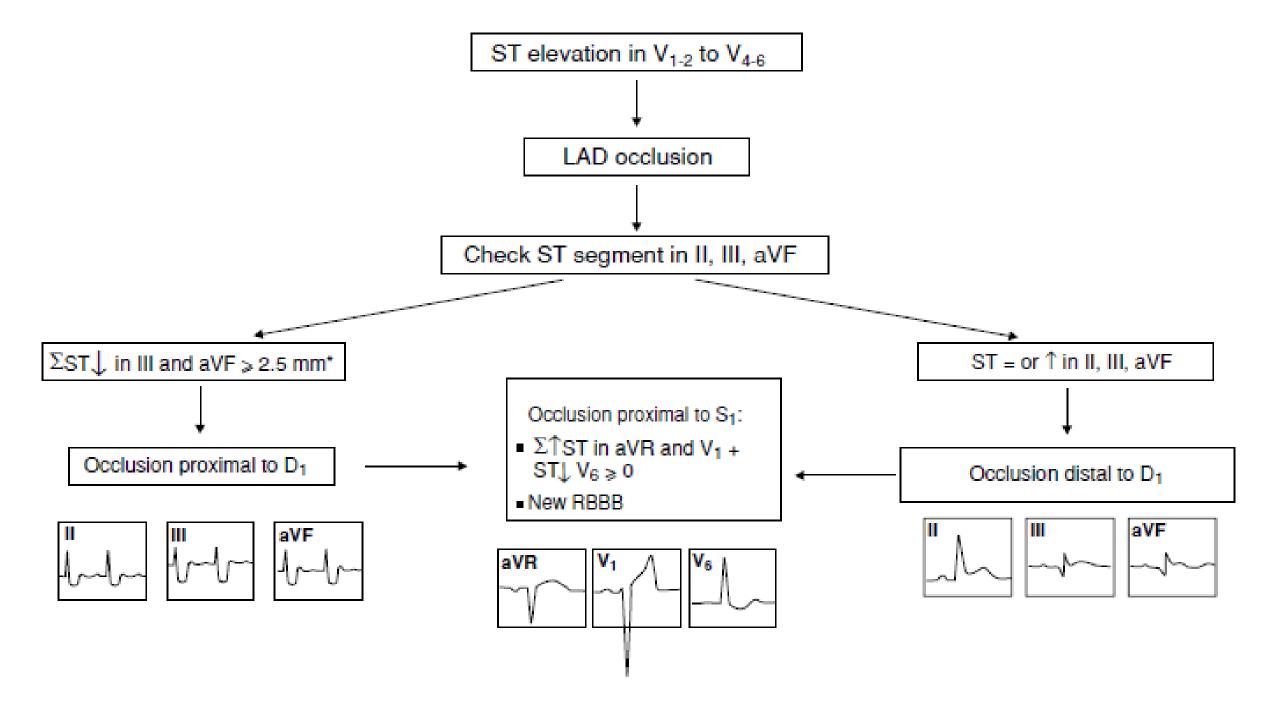
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Which is the culprit artery of this STEMI?

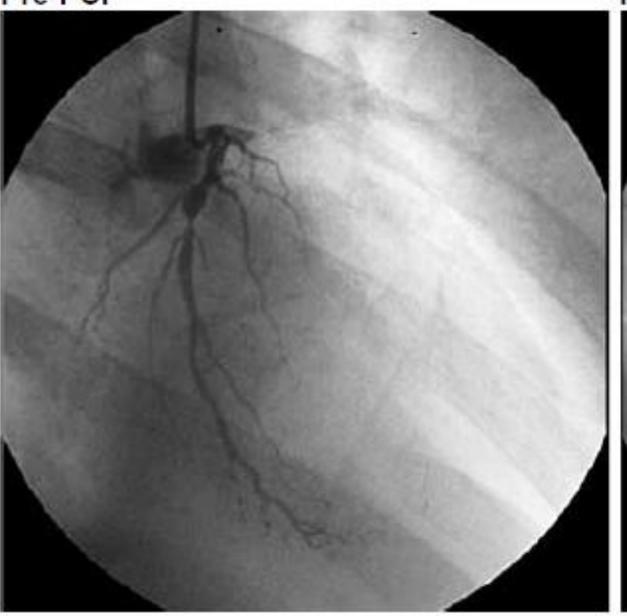
a LAD proximal to D1 and S1

b LAD distal to D1 and S1

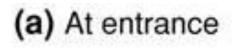
c Subocclusion of LAD involving diagonal branches

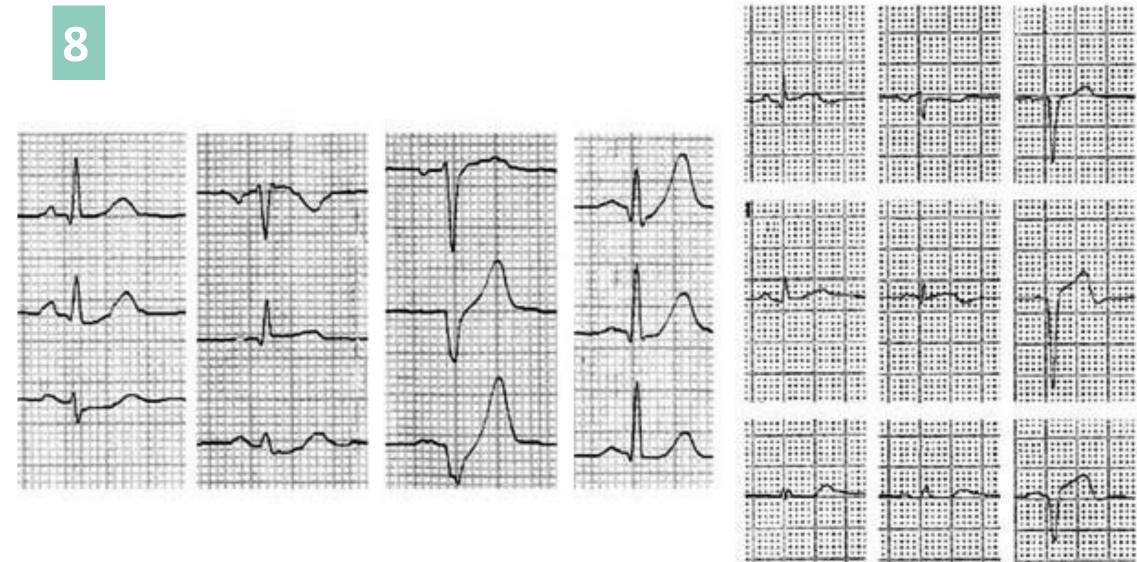


Pre-PCI









(b) 18 hours later

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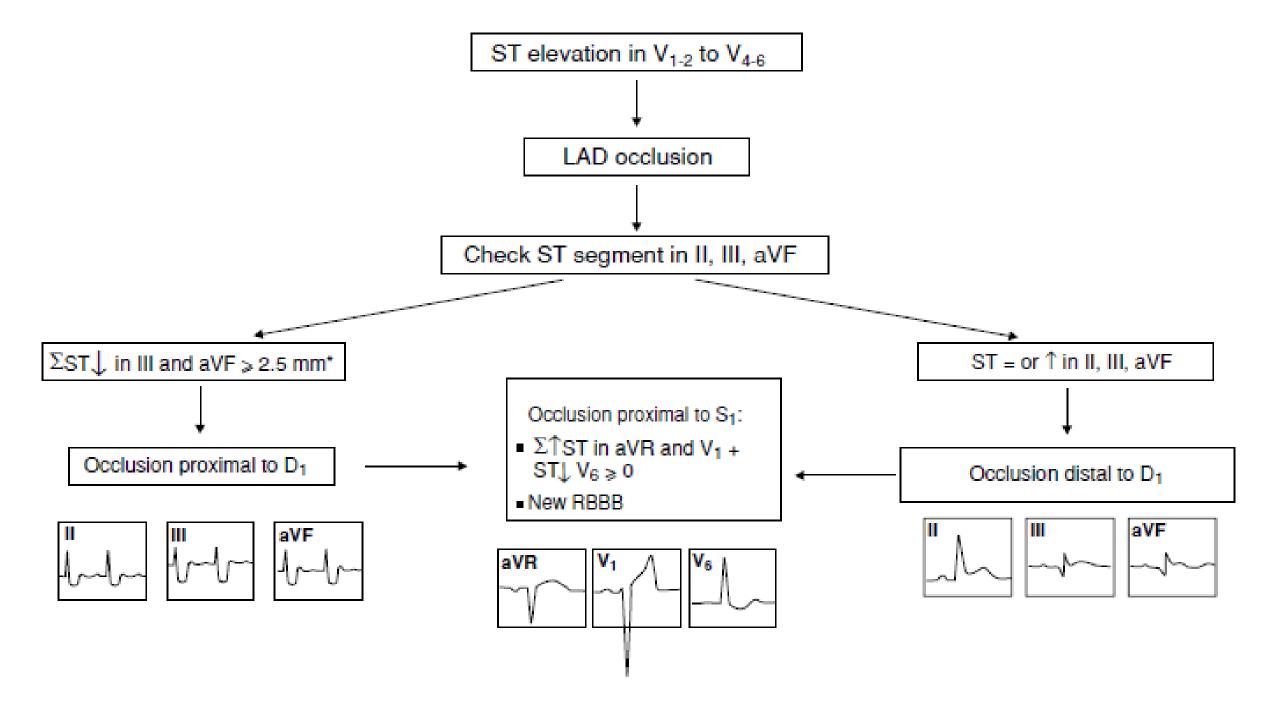
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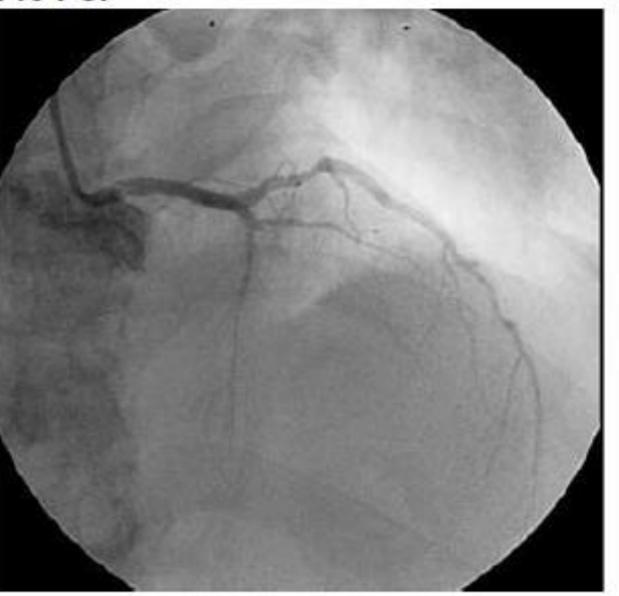
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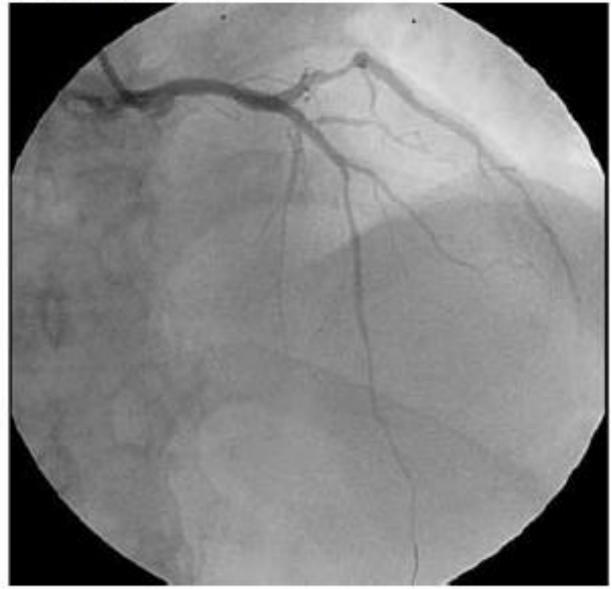
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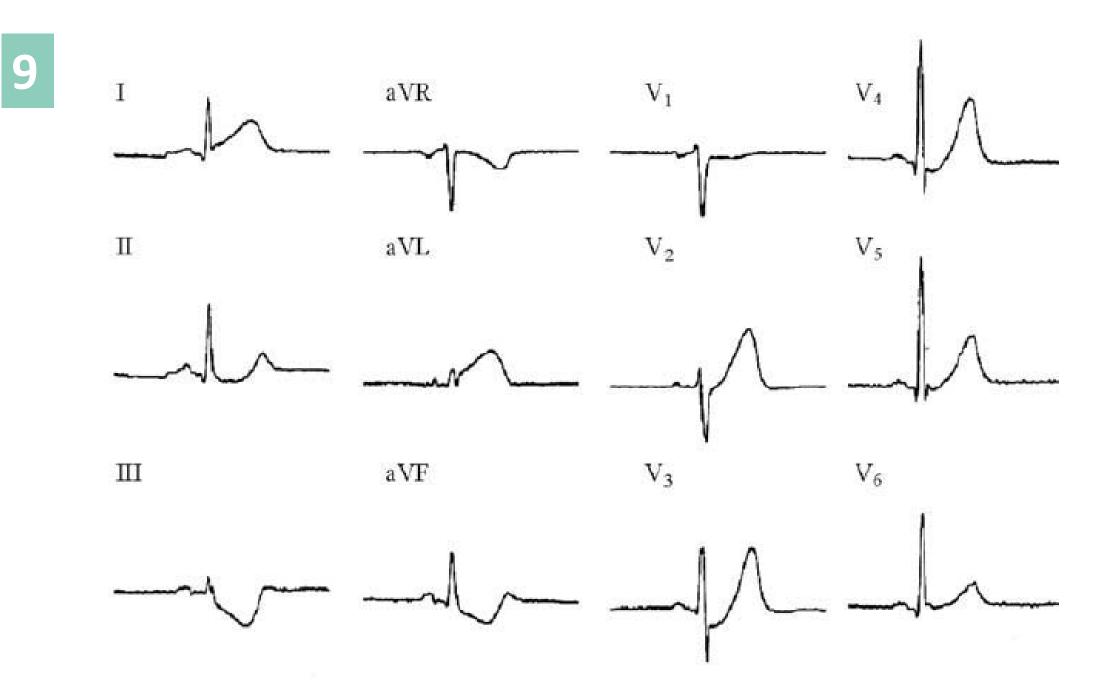
Which is the culprit artery of this STEMI?
a Proximal LAD to D1 and S1
b Distal LAD to D1 and S1
c Subocclusion of LAD including the septal



Pre-PCI







Which is the culprit artery of this STEMI?

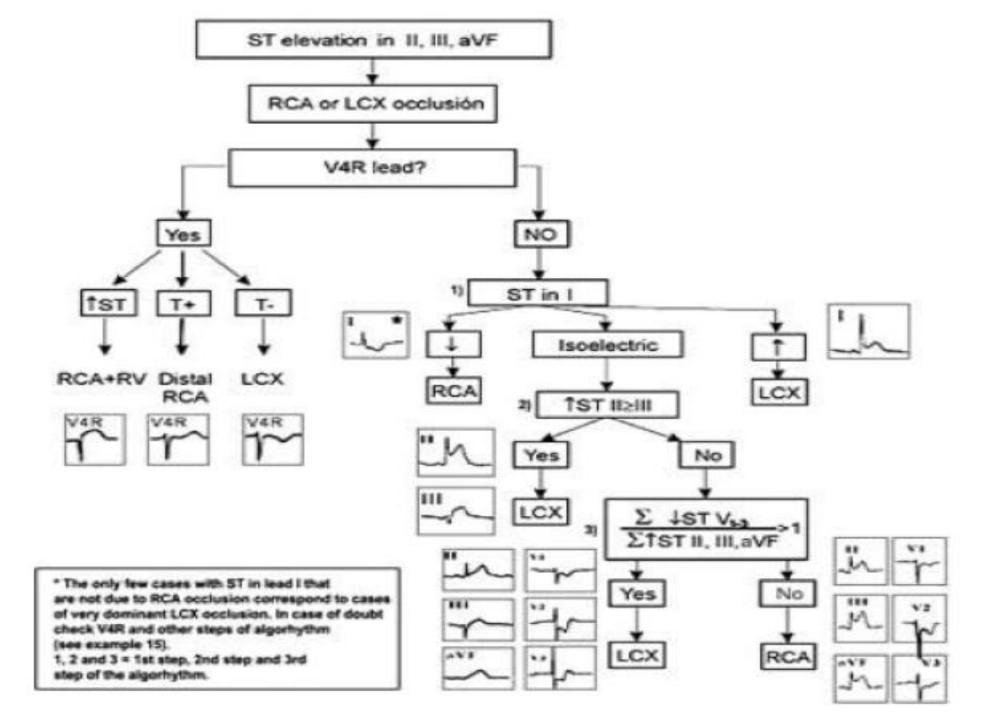
a Distal LAD
b OM
c diagonal (D1–D2)



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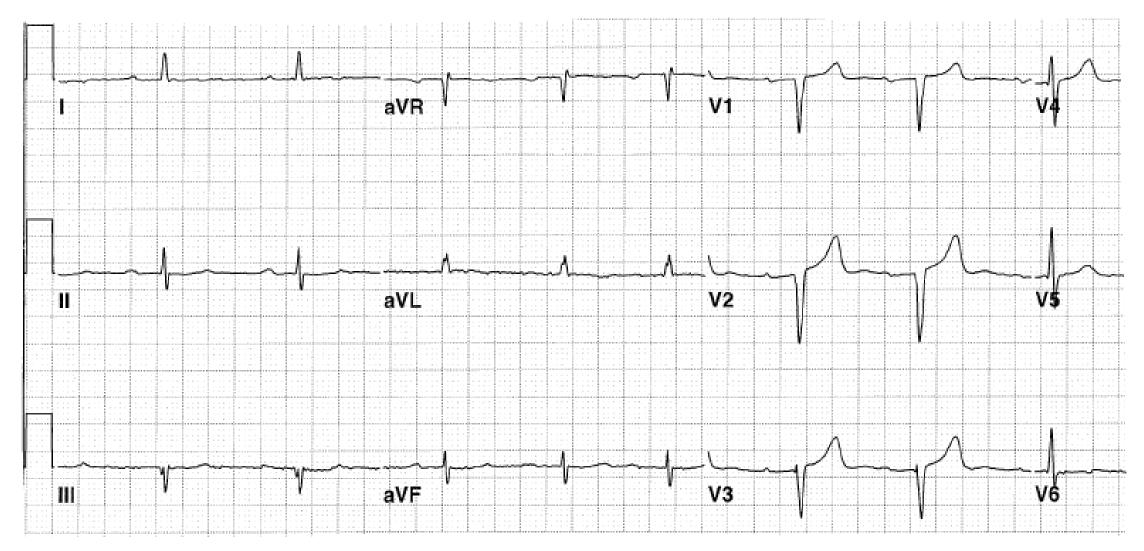
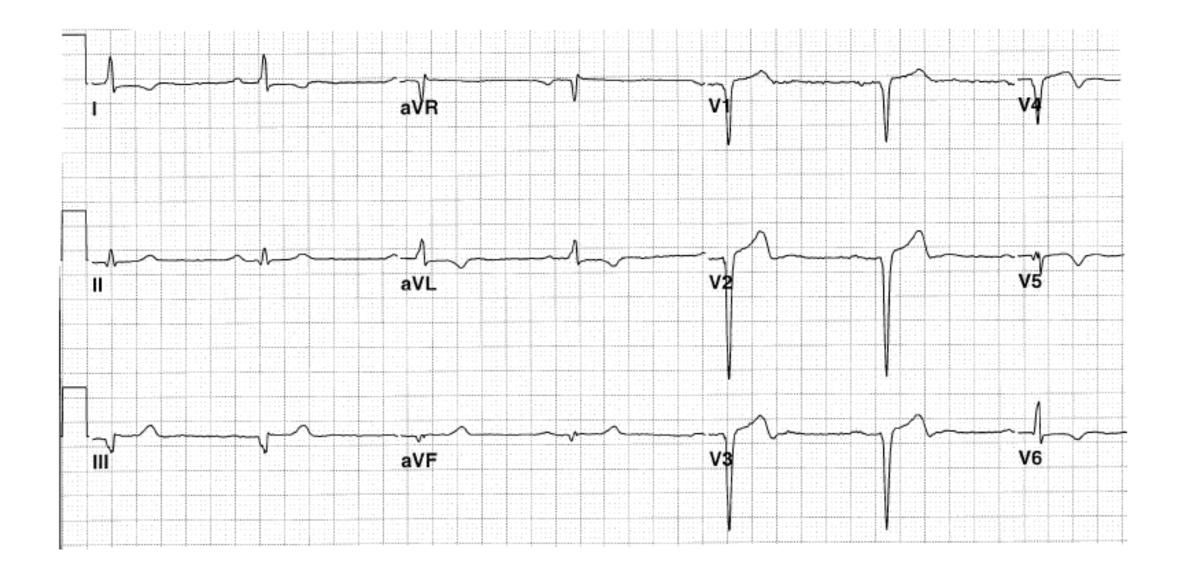
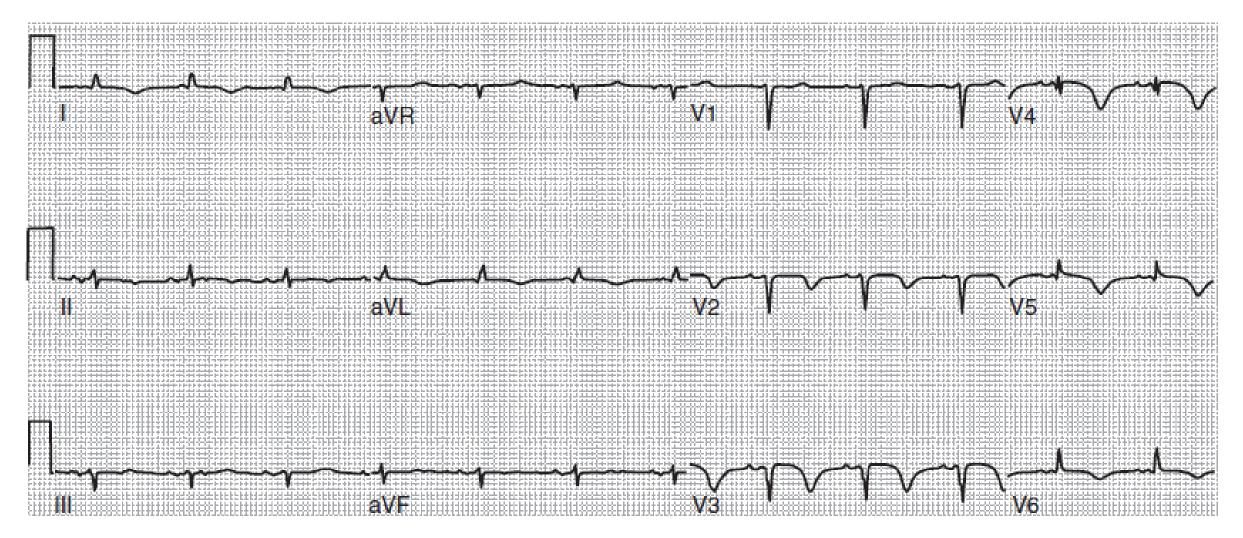


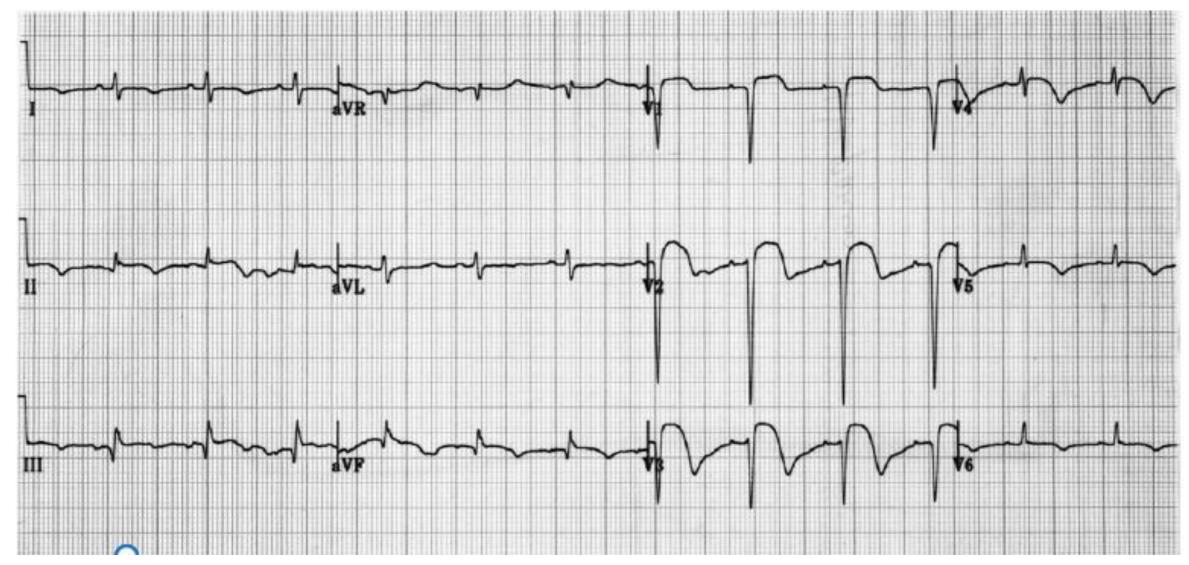
Figure 8–1 ECG of an obese 76-year-old man who has no evidence of structural heart disease and shows normal left ventricular function on the echocardiogram. Note the Q wave in lead III and QS pattern in leads V_1 and V_2 (i.e., poor R wave progression).



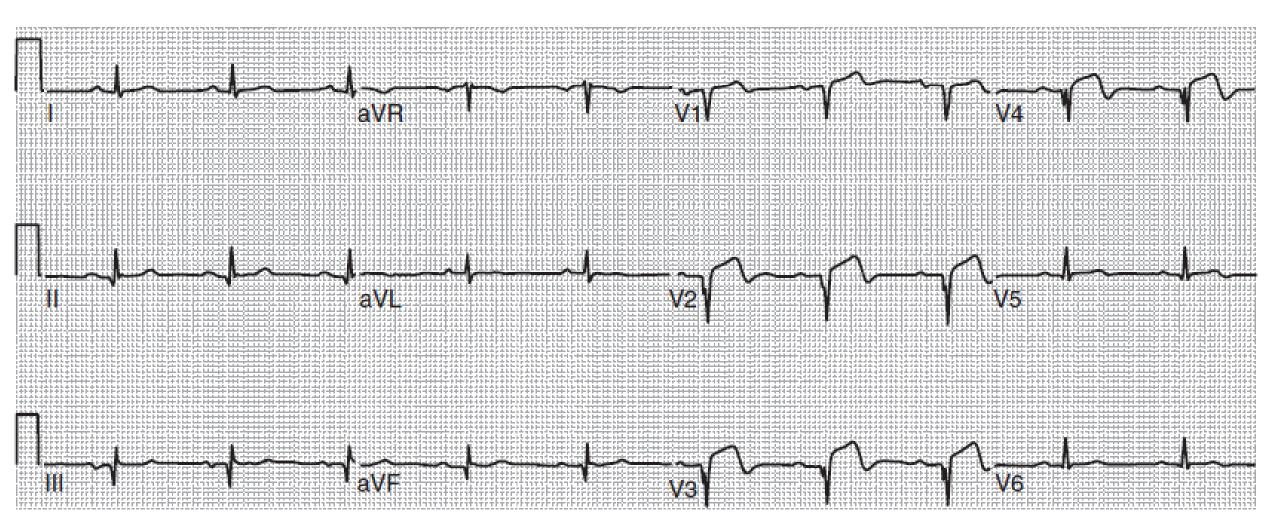
ECG of a 65-year-old man with an anterior infarction involving the inferior wall, attributed to occlusion of the left anterior descending artery "wrapping" around the apex.



ECG of a 77-year old man with anterior myocardial infarction (MI) caused by ostial occlusion of the intermediate branch without major obstructions in other major coronary arteries. There was mid-anterolateral dyskinesis with contractile apex. Abnormal Q waves are present in the leads V_2 and V_3 with decreased R amplitude in leads V_4 – V_5 and diffuseT wave abnormalities.



Acute anteroseptal and inferior myocardial infarction related to cocaine use. The patient is a 30-year-old woman known to be a cocaine user. She developed severe chest pain; the ECG recorded 90 minutes after the onset of pain reveals ST segment elevation in the anteroseptal and inferior leads (not shown). Coronary arteriogram reveals complete thrombotic occlusion of the proximal left anterior descending artery. Percutaneous transluminal angioplasty was performed with satisfactory results. The visualized artery was long and wrapped around the apex of the heart



ECG type 1 pattern of anterior myocardial infarction in a 55-year-old man with occlusion of the left anterior descending coronary artery distal to the first septal perforator and diagonal branch and no major obstructions in other large coronary branches. Note the Q wave in leads V₂–V₄. The narrow q waves in the inferior leads are normal for this patient's body build

