The correct answer is Left main coronary artery stenosis

This patient underwent urgent coronary angiogram, which revealed a critical stenosis (90%) of the distal left main coronary artery (figure 2). Afterwards, he underwent emergent CABG. Unlike ST-segment elevation, ST-segment depression on ECG does not localize ischemia.¹ However, certain ST-segment depression patterns correlate with diffuse ischemia related to left main or three-vessel CAD. Our patient had ST-segment depression in eight leads, combined with ST-segment elevation in aVR and V1 is associated with a 75% predictive accuracy for left main disease.² Many clinicians do not pay attention to lead aVR, often called “the forgotten lead”. However, it has been shown that this lead is very useful in diagnosis of multiple clinical conditions, including ventricular arrhythmias, pericarditis, tricyclic antidepressant toxicity, and left main disease.³

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References:

Figure legends:

Figure 1: 12-lead ECG showed sinus rhythm with poor R wave progression. There is clear ST segment depression in leads I, II, III, aVF, and V3-V6. The ST segment elevation is more prominent in lead aVR compared to lead V1. A characteristic ECG pattern of global ischemia.

Figure 2: Right anterior oblique view of the left coronary angiogram shows severe stenosis (90%) at the distal left main (LM) coronary artery (arrowhead). LM; left main, LAD; left anterior descending, OM: obtuse marginal, D1; first diagonal.