

**PP129 ST ELEVATION IN aVR:
NOT JUST A SIMPLE ACS!!**

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In this case, we believe that patient was having type A aortic dissection based on bedside echo finding and ECG pattern. Emergency physician must broaden their differentials, as ST elevation in lead aVR is associated with many other different conditions. Failure to identify the correct diagnosis might lead to morbidity and mortality.

INTRODUCTION:

ST elevation in aVR with ST-segment depression in multiple other leads is a strong predictor for acute coronary syndrome (ACS). However, ST elevation in aVR can be associated with many different conditions, not just ACS!

CASE REPORT:

A 31 years old gentleman, ex-smoker with no known medical illness, presented with worsening chest pain for the past one week, describe as heaviness in nature with pain score 9/10. The pain radiate to the back, associated with difficulty in breathing and profuse sweating. Echocardiography (ECG) showed ST elevation in lead aVR with multiple ST depression at lead II, III, V4-V6. CXR showed cardiomegaly with possible widened mediastinum. Serum creatinine kinase 1085. He was initially treated as high risk non-ST elevation MI and was referred to cardiology team for further evaluation and admission.

During review by cardiologist, bedside echo was done which show aortic root dilatation with intimal flap. Impression was revised TRO aortic dissection. The patient was then planned for CT angiography thorax but unfortunately, patient asystole at the emergency department and succumbed to death despite aggressive resuscitation

DISCUSSION AND CONCLUSION:

ST-segment elevation in aVR reflects global subendocardial ischemia of left ventricle. In a patient presented with signs and symptoms of acute cardiac ischemia as in this patient, ST elevation in aVR often indicates left main coronary artery (LMCA) stenosis/occlusion, proximal left anterior descending (LAD) occlusion and severe triple vessel disease. However, any cause of severe generalized global ischemia can show similar ECG pattern. These includes severe anemia, type A dissection, massive PE, sodium channel blocker toxicity, severe hypokalemia and early post arrest