

ECG #48

A 49-year-old man presents to the emergency department with an 18-hour history of bilateral jaw pain, increasing over the past few hours with associated chest tightness.

Describe and interpret his initial 12-lead electrocardiogram:



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DESCRIPTION:

- Sinus rhythm with a ventricular rate of 69 bpm
- Normal PR interval (142 ms)
- Normal QRS axis (8°)
- Borderling prolonged QRS duration (102 ms)
- Poor R wave progression
- Subtle ST-segment elevation in the inferior lead (II, III & aVF)
- Subtle reciprocal downsloping ST-segment depression in lead aVL

INTERPRETATION:

- Inferior ST-segment Elevation Myocardial Infarction (STEMI)
- Nonspecific intraventricular conduction delay

CASE PROGRESSION:

- Coronary angiogram:
 - LMCA: Widely patent (unusual take off from high within left sinus).
 - LAD: Chronic total occlusion with the mid vessel with severe proximal disease. Distal vessel fills from mature epicardial collateral from distal

circumflex. Large calibre distal LAD.

- LCx: Non dominant. Two large OM branches. Mild-moderate disease.

RCA: Dominant. Occluded in mid vessel.

PCI of RCA x2 DES.

- Echocardiogram:

- Normal LV size with mild segmental systolic dysfunction (inferobasal akinesis). EF 50%.
- Normal RV size with mildly impaired systolic function.
- Normal sized atria.
- Mildly sclerotic aortic valve with mild AR.
- Mild dilatation of the aortic root.