ECG #33

A 40-year-old man presents to the emergency department reporting exertional chest pain with associated dyspnoea, ongoing for the past 2 ½ hours.

Describe and interpret his initial 12-lead electrocardiogram:

Show solution

DESCRIPTION:

- Ventricular rate 91 bpm
- Sinus rhythm
- Normal PR interval 174 ms
- Normal QRS axis (23°)
- Normal QRS duration 96 ms
- Widespread ST-segment elevation in the anterior precordial leads (V2-5) and lateral leads (I, aVL) with associated upright tall/hyperacute T waves
- Reciprocal ST-segment depression in the inferior leads (II, III, aVF)
- Normal QTc 423 ms
- Voltage criteria for left ventricular hypertrophy?

INTERPRETATION:

Diagnostic for anterolateral ST-segment elevation myocardial infarction, most likely the result of an acute left anterior descending coronary artery occlusion.

Emergency coronary angiography revealed a thrombotic subtotal occlusion of the proximal left anterior descending coronary artery (TIMI II) which was successfully stented.

Closer inspection of this ECG revealed that the amplitude had been increased to 20 mm/mV (from the standard 10 mm/mV).