

## QUESTION

A 65-year-old male with a long history of hypertension and hyperlipidemia presents to the emergency department with acute onset of chest pain and shortness of breath. The patient reports the pain is a heavy, squeezing sensation in the center of his chest, lasting for about 20 minutes. He has no known allergies and is currently on lisinopril and atorvastatin. His vital signs are: temperature 37.8°C, heart rate 110 bpm, blood pressure 180/100 mmHg, respiratory rate 22 breaths per minute, and oxygen saturation 92% on room air. Physical examination reveals clear lungs, normal heart sounds, and no lower extremity edema. An electrocardiogram (ECG) shows ST-segment depression in leads II, III, and aVF, and ST-segment elevation in leads V1, V2, and V3. Arterial blood gas analysis shows pH 7.35, PaO<sub>2</sub> 85 mmHg, PaCO<sub>2</sub> 40 mmHg, and HCO<sub>3</sub><sup>-</sup> 24 mmol/L. Troponin I is elevated at 0.15 ng/mL.

Parameter	Value	Reference Range
Heart Rate	110 bpm	60-100 bpm
Blood Pressure	180/100 mmHg	90-120/60-80 mmHg
Respiratory Rate	22 breaths/min	12-20 breaths/min
Oxygen Saturation	92% on RA	95-100% on RA
ECG ST-segment	ST depression in II, III, aVF; ST elevation in V1, V2, V3	Normal
Troponin I	0.15 ng/mL	<0.04 ng/mL

ECG: ST-segment depression

ECG: ST-segment depression in leads II, III, and aVF; ST-segment elevation in leads V1, V2, and V3.

## ANSWER



ECG: ST-segment depression in leads II, III, and aVF; ST-segment elevation in leads V1, V2, and V3.