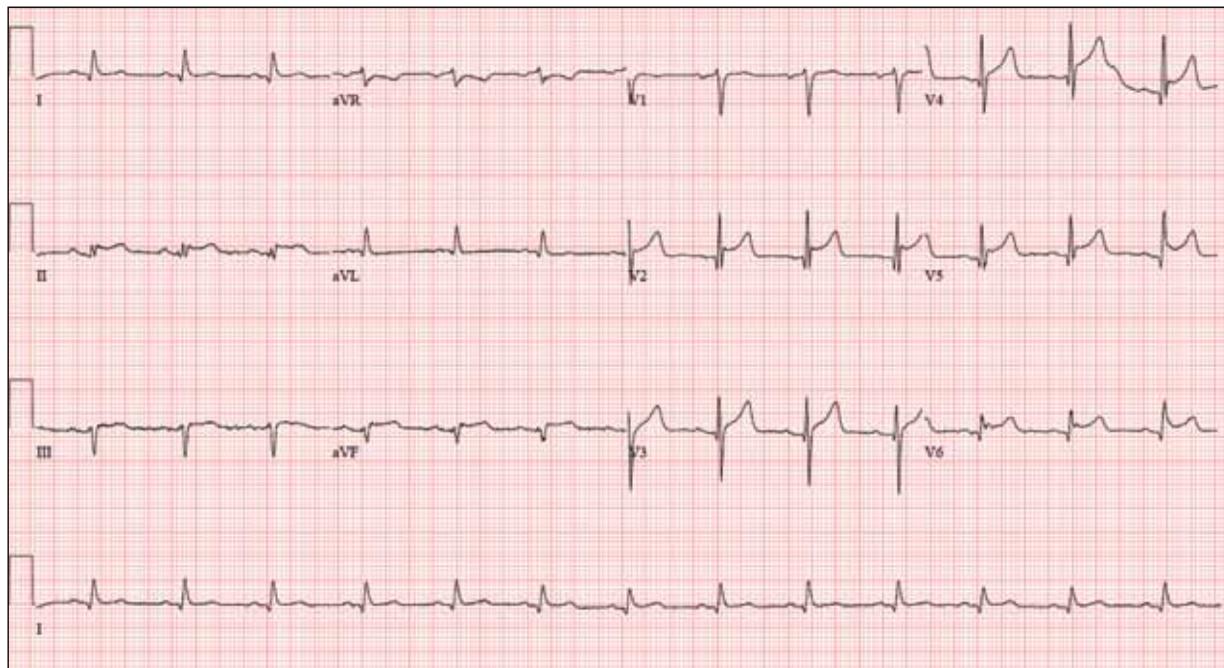


Man Collapses While Playing Basketball



A 46-year-old man is playing intramural basketball when he suddenly collapses on the court. Bystander CPR is begun; the patient is revived immediately without need for cardioversion or defibrillation. He regains consciousness before EMS arrives and, although he does not recall collapsing, he is able to tell them that he has been experiencing chest discomfort all morning (but didn't mention it to anyone).



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The patient is transported in stable condition to the emergency department (ED) via BLS ambulance. The total time from his collapse to hospital arrival is 77 minutes, due to the rural location of the high school where he was playing.

When you see the patient in the ED, you learn that he has no prior history of cardiac symptoms. He specifically denies chest pain, shortness of breath, dyspnea on exertion, or peripheral edema, although with additional questioning, he admits to having ongoing substernal pressure. There is no history of hypertension, diabetes, hyperlipidemia, or thyroid disorder. Surgical history is remarkable for a left anterior cruciate repair that he underwent while in high school.

He is employed as an assistant

principal at a local high school, is married with two children, and is active in his community—a fact borne out by the volume of well-wishers in the waiting area, inquiring about his status. He does not smoke, drinks two or three beers on the weekend, and does not use recreational drugs, although he admits he tried marijuana in college and didn't care for it.

He is not taking any routine prescription or holistic medications and has no known drug allergies. He reports taking ibuprofen on occasion but adds that he hasn't taken any in the past three weeks.

Review of systems is remarkable for a recent cold. He says he has a residual cough and runny nose but does not feel like he's currently sick. He considers himself to be very healthy and a role

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ANSWER

The radiograph shows an enteric tube passing through the gastrointestinal tract. However, it extends low into the left lower quadrant, loops around the right lower quadrant, and then heads up toward the left upper quadrant. Such a course is atypical and concerning for displaced position.

The radiologists concurred, and it was decided to instill some water-soluble contrast and repeat the KUB for further evaluation. That image is shown here. Note that the contrast does not appear to be in the stomach, as no gastric folds are visible. It accumulates in the left upper quadrant, under the diaphragm. Such a finding is concerning for possible gastric perforation.

The tube was promptly withdrawn, and urgent surgical consultation was obtained. **CR**



ECGCHALLENGE

model for the students and faculty at his school.

Physical exam reveals a blood pressure of 142/84 mm Hg; pulse, 84 beats/min; respiratory rate, 18 breaths/min; and O₂ saturation, 99% on 2 L of oxygen. His weight is 189 lb and his height, 74 in.

He appears anxious and apprehensive but is alert and cooperative. Pertinent physical findings include a regular rate and rhythm, clear lungs, a soft, nontender abdomen, and no peripheral edema or jugular venous distention. The neurologic exam is intact.

Specimens are drawn and sent

to the lab for processing. While awaiting the results, you review the ECG taken at the time of arrival. It shows a ventricular rate of 80 beats/min; PR interval, 162 ms; QRS duration, 106 ms; QT/QTc interval, 370/426 ms; P axis, 51°; R axis, -20°; and T axis, 70°.

What is your interpretation of this ECG?

ANSWER

The correct interpretation is normal sinus rhythm with an acute anterior MI (STEMI) and inferolateral injury. In the absence of left ventricular hypertrophy and

left bundle-branch block, an acute anterior MI manifests with new ST elevations ≥ 0.1 mV, measured at the J point in leads V₂-V₃. Inferolateral injury is indicated by ST elevations in leads II, III, and aVF, as well as ST elevations in leads V₄-V₆.

Laboratory findings confirmed the diagnosis of a new infarction, and cardiac catheterization revealed significant blockage in the proximal left anterior descending and circumflex coronary arteries. These were treated percutaneously, and the patient recovered without sequelae. **CR**