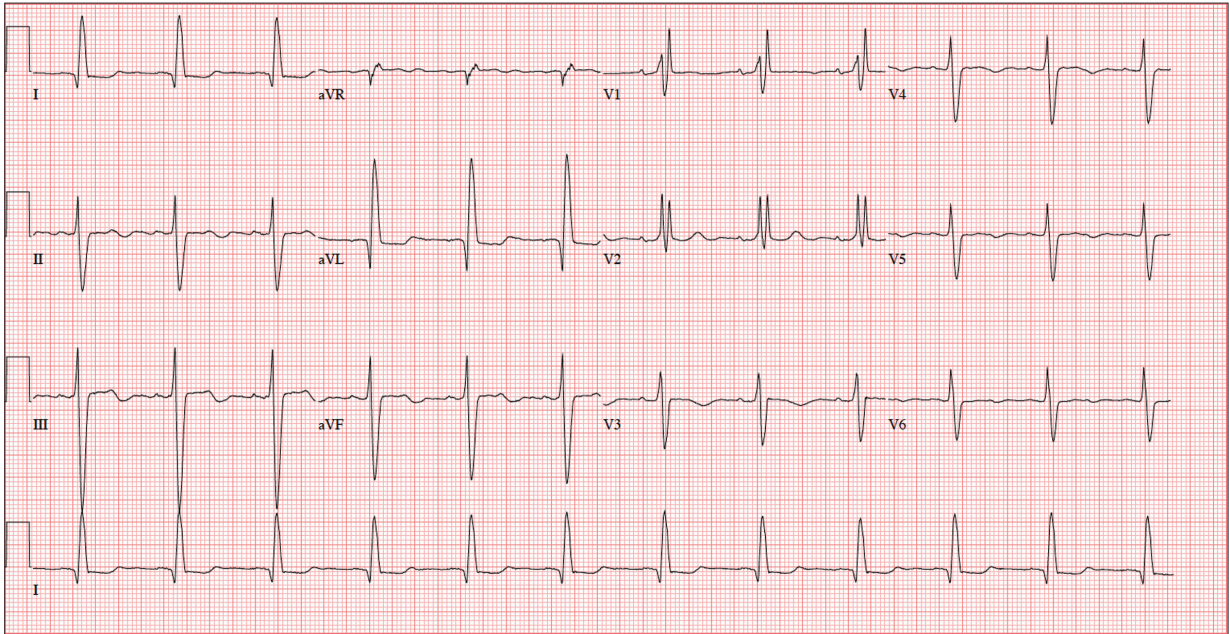


A Visiting Grandma Feels Short of Breath



A 78-year-old woman presents to your urgent care clinic with a four-day history of lethargy. She lives in another state but currently is visiting her granddaughter, who happens to be your clinic manager. She says she felt weak prior to her trip but thought it was probably due to a urinary tract infection (UTI). Yesterday, however, she started feeling short of breath.

The patient denies chest pain, orthopnea, paroxysmal nocturnal dyspnea, or productive cough.



Lyle W. Larson, PhD, PA-C, is clinical faculty in the Department of Medicine, Division of Cardiology, Cardiac Electrophysiology, at the University of Washington, Seattle.

She reports feeling feverish this morning but did not record her temperature, adding that it seemed to subside after she got dressed.

Her medical history is positive for frequent UTIs, a remote cholecystectomy, hypothyroidism, and paroxysmal atrial fibrillation. According to the patient's daughter, who is present, her mother's cardiologist recently mentioned some "funny" findings on an ECG; she didn't really understand his explanation but they were told "not to worry."

The patient, a retired school teacher, lives in an assisted living center. She is independent and has been a widow for 14 years, since her husband died of an acute MI. She has two children who are in good health. She has never smoked, rarely consumes alcohol, and has never used rec-

reational or homeopathic drugs.

Her current medications include warfarin, levothyroxine, and conjugated estrogen. She was taking amiodarone for rhythm control of atrial fibrillation but stopped six months ago when her skin started turning blue. She is allergic to penicillin, which causes a true anaphylactic reaction, according to her daughter.

Review of systems is positive for an infrequent, nonproductive cough, sun sensitivity due to amiodarone use, and infrequent burning with urination. Physical exam reveals a thin, elderly woman in no distress. Her blood pressure is 152/88 mm Hg; pulse, 70 beats/min and regular; respiratory rate, 14 breaths/min⁻¹ with an infrequent, nonproductive cough; O₂ saturation, 94% on room air; and temperature, 99°F. She is 5 ft 4 in tall and weighs 114 lb.

continued on next page >>

“Something Abnormal” on a Chest X-ray

You are doing preoperative orders on a patient scheduled for surgery tomorrow morning. The patient is a 75-year-old woman who was admitted with an acute left subdural hematoma after sustaining a ground-level fall.

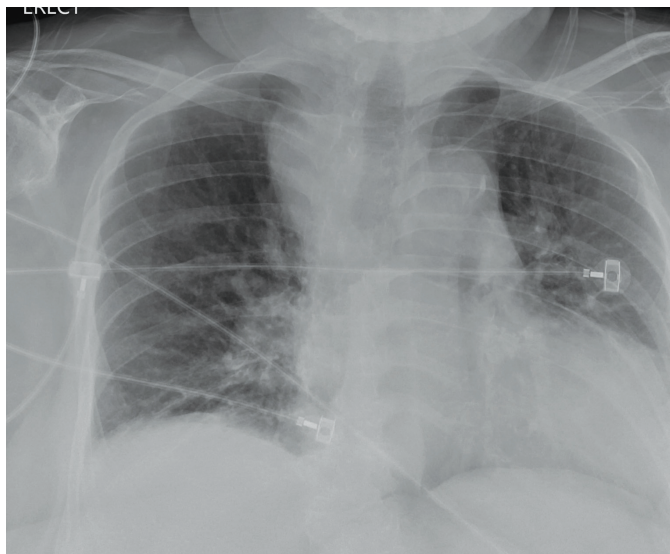
Her medical history is significant for hypertension and diabetes. Social history is unremarkable. She is neurologically intact except for occasional confusion and aphasia. She moves all her extremities well.

As you review her lab results, one of the nurses mentions that the radiology department called about “something abnormal” on the patient’s chest radiograph. You pull up the patient’s portable chest radiograph on the computer to review. What is your impression?

see answer on page 49 >>



Nandan R. Hickad, PA-C, MMSc, practices at the Georgia Neurosurgical Institute in Macon.



ECGCHALLENGE

>> *continued from previous page*

Pertinent findings on physical exam include corrective lenses, pearly white skin with a blue hue on the nose and ears secondary to long-term amiodarone therapy, no evidence of thyromegaly or jugular distention, a regular rate and rhythm with a soft midsystolic murmur of mitral regurgitation, and no extra heart sounds. Her lungs are remarkable for consolidation in the right lower lobe, with crackles that change with coughing. Her abdomen is soft and nontender, and there is no peripheral edema. Her neurologic exam is intact. She is alert, attentive, and very witty in her responses to questions.

Laboratory data include urinalysis findings suggestive of a UTI, a white blood cell count of $9.8 \times 10^3/\mu\text{L}$, and a hematocrit of

35%. A chest x-ray shows evidence of consolidation in the right lower lobe, which the radiologist says is strongly suggestive of pneumonia. An ECG shows a ventricular rate of 71 beats/min; PR interval, 152 ms; QRS duration, 142 ms; QT/QTc interval, 476/517 ms; P axis, 76°; R axis, -48°; and T axis, 161°. What is your interpretation of this ECG?

ANSWER

This ECG shows normal sinus rhythm, a right bundle branch block (RBBB), and a left anterior fascicular block (LAFB). RBBB and LAFB are consistent with bifascicular block.

Criteria for an RBBB include a prolonged total QRS complex of 120 ms or longer and an RSR' complex (“rabbit ears”) in lead V_1 . LAFB criteria include a QRS of normal duration with an S wave

greater than an R wave in leads II, III, and aVF and left-axis deviation (-48° in this case).

The astute reader may question the disparity between RBBB and LAFB, since the criteria for the former include a prolonged QRS interval and the criteria for the latter include a normal QRS interval. It should be noted that the requirements for QRS duration for RBBB vary.

Bifascicular block (RBBB and either LAFB or left posterior fascicular block [LPFB]) is indicative of more advanced conduction system disease. However, it is not an indication for permanent pacemaker placement in an asymptomatic patient.

This patient was treated for a community-acquired right lower lobe pneumonia and a UTI. **CR**