CASE 2: COMPLICATED HEART FAILURE IN A RESOURCE-POOR SETTING

By Robin Tittle, MD, ACP Resident/Fellow Member; Varun Verma, MD; and Pierre Jacquelin Auguste, MD

THE PATIENT
A 70-year-old woman with no known medical history presented to a district hospital in Hinche, in Haiti’s Central Plateau, with symptoms of dyspnea and lower-extremity edema. Her family reported that the symptoms had been present for 8 days. On admission, she had a blood pressure of 80/40 mm Hg, a heart rate of 110 beats per minute, and oxygen saturation of 93% on 4 L of supplemental oxygen. Her physical examination revealed bibasilar crackles and 3+ pitting edema of her lower extremities extending to the thighs. IV furosemide and dopamine were started for presumed cardiogenic shock secondary to previously undiagnosed heart failure.

On the third hospital day, a bedside ultrasound was performed and revealed severely reduced global systolic function and a large mobile mass within the left ventricle (see Figure 1, below). The images were reviewed remotely by a cardiologist, and suspicion of intra-ventricular thrombus was confirmed. Therapeutic doses of subcutaneous heparin were begun, and the patient was transitioned to warfarin for ongoing anticoagulation. Repeat ultrasound 6 weeks after presentation demonstrated no residual clot.

THE DIAGNOSIS
Decompensated heart failure is a common inpatient diagnosis in all parts of the world, including Haiti. Complications such as intra-ventricular thrombus probably occur more frequently but are rarely diagnosed due to limited diagnostic capabilities. Left ventricular thrombus can occur as a complication of systolic heart failure or following myocardial infarction. Echocardiography is the diagnostic tool of choice, with an estimated sensitivity of 85% to 90% and a specificity of 95%. Patients with evidence of a mobile thrombus, as in this case, have a higher risk of embolization. For thrombi with an elevated risk of embolization, treatment with heparin followed by at least 3 months of warfarin is recommended. Death or severe morbidity is often the consequence of embolization from the left ventricle, and appropriate treatment relies on prompt diagnosis.

PEARLS
- Bedside ultrasound can be effectively applied to evaluate cardiac, abdominal, pulmonary, and vascular conditions in real time.
- Transthoracic echocardiography is the diagnostic treatment of choice for left ventricular thrombosis, with mortality and morbidity best mitigated by rapid diagnosis and treatment.

CASE 3: NEUROLOGIC AND DERMATOLOGIC SYMPTOMS IN A TRAVELER RETURNING FROM SOUTHEAST ASIA

By Phuoc Le, MD

THE PATIENT
A 65-year-old man with a history of idiopathic hydrocephalus who had recently received a ventriculoperitoneal (VP) shunt presented with subacute confusion, headache, and ataxia. He was originally from California and had recently returned after 30 years living in India and Southeast Asia working as an adventure tour guide. He was diagnosed with hydrocephalus 2 years prior when he presented to a hospital in Goa, India, with similar symptoms. After placement of the VP shunt, his symptoms resolved, only to recur in the past several months. He did not report fevers, chills, cough, rash, joint pain, or seizures. He noted multiple small “bumps” in random distribution on his arms and legs. He also described a 20-pound weight loss over several months, along with poor appetite.

On examination, the patient was oriented only to person. Other pertinent findings included a lack of lymphadenopathy, unremarkable cardiopulmonary examination, and numerous palpable small subcutaneous nodules on the upper and lower extremities that were nonerythematous and nontender. There was no associated rash. Cranial nerve evaluation revealed no focal deficit, and the remainder of his neurological exam was normal except for a slow gait. There was a palpable VP shunt along the right neck.

Laboratory examinations were normal, including complete blood count and basic chemistries, thyroid-stimulating hormone, rapid HIV test, and rapid plasma reagin. VP shunt series revealed no evidence of shunt malpositioning but did show multiple small ($\leq$1 cm) calcified subcutaneous lesions in the chest, neck, and abdomen (see Figure 2, next page). CT and MRI of the brain revealed multiple extra-axial and subarachnoid cystic lesions consistent with neurocysticercosis (see Figure 3, next page). The hydrocephalus was stable from prior imaging. Serology for cysticercosis ultimately returned positive.