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## Recognizing Infective Endocarditis in the Emergency Department

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A 52-year-old Caucasian male presented to the emergency department complaining of nontraumatic painful swelling and redness of the distal left fourth finger for 2 days, associated with malaise and subjective fever. The patient denied medical history, drugs, tobacco, or alcohol use. [West J Emerg Med. 2012;13(1):92–93.]

On physical exam, temperature was 100.8°F. Heart rate was 118 with normal blood pressure and respirations. The patient had significant tenderness to pulp of finger with good capillary refill and without fluctuance (Figure 1). Cardiac exam revealed 3/6 pansystolic murmur heard loudest at the left sternal border with transmission to the apex and into the cardiac base. The patient specifically denied history of heart murmur. Upon further questioning, the patient admitted to dental work done 3 weeks prior to presentation resulting in a tooth abscess requiring oral antibiotics.

The patient had a white blood count of 16. A transthoracic

echocardiogram was performed showing a 9-mm vegetation on the mitral valve consistent with infective endocarditis (IE) (Figure 2). The patient had 1 set of blood cultures drawn and was treated with appropriate intravenous antibiotics. Several sets were drawn on subsequent days, all of which showed no growth, likely secondary to partial treatment from oral antibiotics. Patient was treated empirically for a total of 6 weeks. He underwent surgical repair of leaflet due to concern of septic embolism after only 2 weeks of treatment. Patient fully recovered.

Infective endocarditis affects 10,000 to 20,000 people

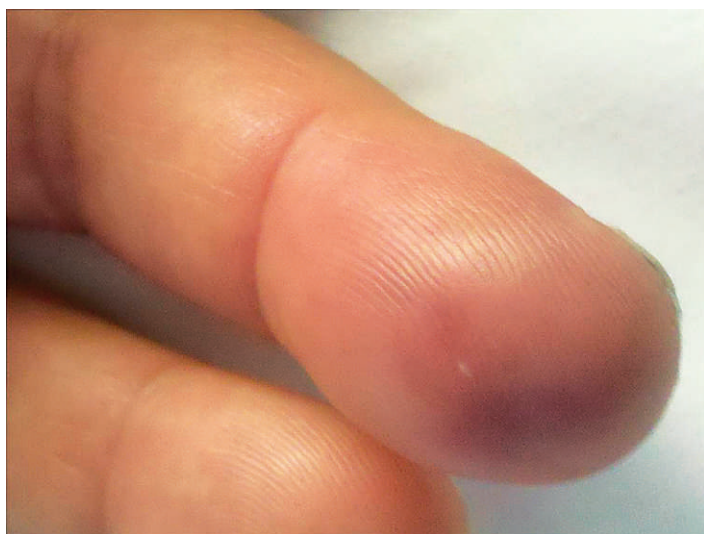


Figure 1. The Osler node on the patient's fourth digit.

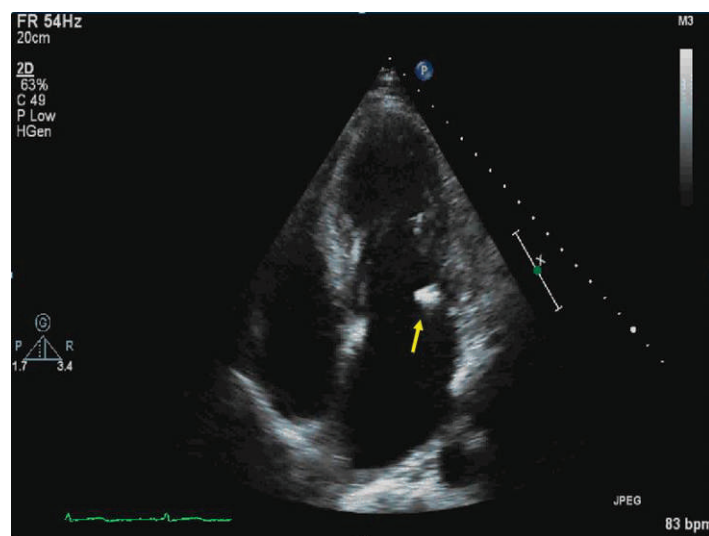


Figure 2. The vegetation on the mitral valve leaflet (arrow).

annually in the United States.<sup>1</sup> Patients can present with fever, fatigue, malaise, night sweats, and weight loss. On exam, a new murmur or change in existing one are clues to making a preliminary diagnosis in the emergency department.<sup>1,2</sup> Janeway lesions or Osler nodes can support clinical suspicion of IE.<sup>1,3</sup> In a prospective cohort study, the International Collaboration on Endocarditis reported 3% of 2,648 adult patients with IE had Osler node.<sup>2</sup> Infective endocarditis is diagnosed according to the Duke Criteria and the mainstay of treatment is Ivantibiotics.<sup>3</sup>

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