

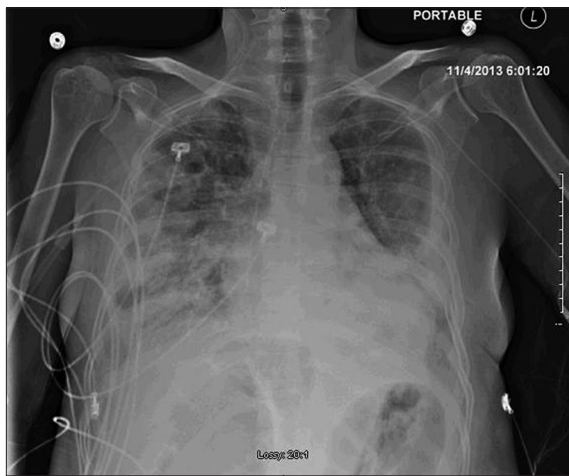
## Mobile vegetation leading to septic pulmonary embolism

Sir,

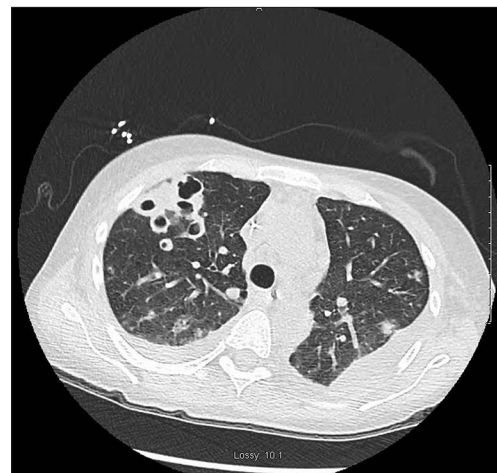
A 42-year-old Caucasian female with a prolonged history of intravenous (IV) methamphetamine abuse presented with high-grade fever, progressively worsening productive cough, dyspnea, myalgia, arthralgia and intermittent confusion for 1 week. The initial laboratory assessment showed leukocytosis, thrombocytopenia, and acute kidney injury. Chest X-ray showed bilateral lower lobe consolidation with small cavities surrounded by focal infiltrates in the right lung [Figure 1]. Computed tomography of the chest confirmed the presence of multiple cavitory pulmonary nodules suggestive of septic embolization [Figure 2]. Because of a high index of suspicion for infective endocarditis, a transthoracic echocardiogram was obtained, which showed a 3.6 cm × 2.6 cm vegetation on the tricuspid valve and 2.5 cm × 1.6 cm vegetation on the tricuspid annulus, accompanied by severe tricuspid regurgitation. Trans-esophageal echocardiogram demonstrated multiple, large multilobulated, mobile vegetation on the tricuspid valve, with the largest being

3.7 cm × 2.5 cm in size [Figure 3]. Blood cultures were positive for methicillin-resistant *Staphylococcus aureus*. The patient was initially treated with vancomycin and ceftriaxone. However, the patient failed to improve clinically and, eventually, underwent tricuspid valve excision, right ventricle/tricuspid valve debridement and tricuspid valve replacement. The post-operative course was uneventful and the patient made a satisfactory recovery.

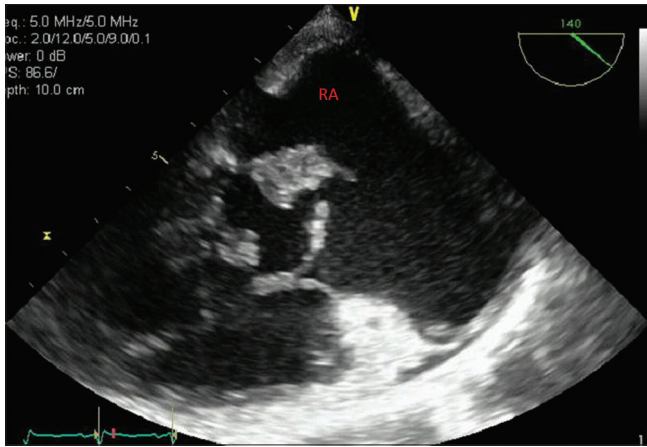
Septic pulmonary embolism (SPE) is a rare and serious disorder that usually presents with non-specific clinical features including fever, pulmonary symptoms and peripheral nodular lung infiltrates with or without cavitation.<sup>[1,2]</sup> Major risk factors are IV drug abuse, indwelling catheters, tricuspid valve endocarditis, head and neck infections and immunocompromised state. Early diagnosis of the infectious source and appropriate use of anti-microbial therapy is critical in the management because untreated SPE can lead



**Figure 1:** Chest radiography showing bilateral lower lobe consolidation with small cavities within focal infiltrates in the right lung



**Figure 2:** Computed tomography of the chest showing numerous cavitory pulmonary nodules located peripherally, representing septic pulmonary emboli in the right lung



**Figure 3:** Trans-esophageal echocardiogram with mid position view showing a 3.6 cm × 2.6 cm-sized mobile vegetation in the right atrium attached to the tricuspid valve. RA: Right atrium

to the development of pulmonary abscesses and empyema.<sup>[3]</sup> This vignette highlights how multiple peripheral nodular opacities, often with cavitation, are suggestive of pulmonary septic emboli in the setting of infective endocarditis.

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