

Cardiopulmonary cement embolism after vertebroplasty

A 69-year-old woman, affected by osteoporosis, hyperthyroidism, and atrial fibrillation, presented with dyspnea and sudden chest pain radiating to the neck, shoulders, and arms immediately after an L2 vertebral body augmentation. An emergency electrocardiograph revealed atrial fibrillation with rapid ventricular response, promptly treated with propafenone, and a transthoracic echocardiography showed a hyperechogenic lobulated trabecula in the right ventricle and moderate pericardial effusion (Figure, inset). The chest computed tomography scan revealed bone cement embolism in segmental and subsegmental arteries of the right upper and lower pulmonary lobes, lung infarction, and intracardiac calcifications (Figure). The patient experienced intractable chest pain, hardly controlled with opioids, likely because of endothelium, pulmonary, and cardiac parenchyma thermal damage. She recovered from the dyspnea and chest pain within 10 days and was discharged with antiplatelet drugs.

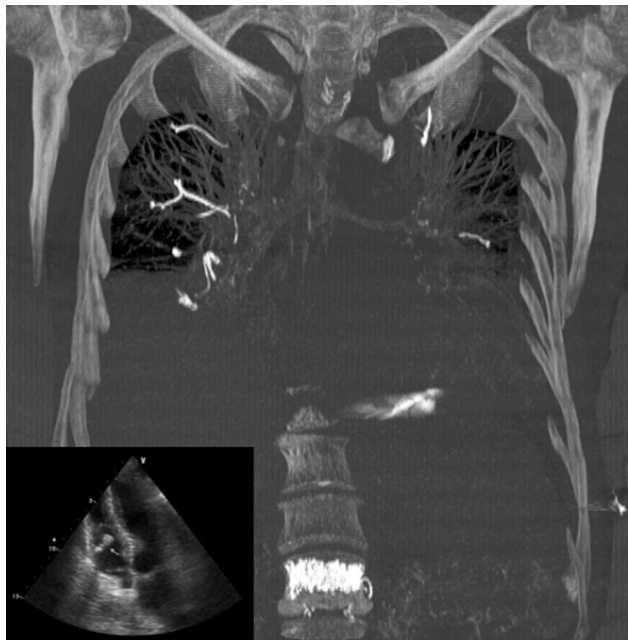


Figure. Coronal maximum intensity projection of the thoracic computed tomography scan, revealing multiple cement emboli in the right ventricle, in segmental and subsegmental arteries of the right upper and lower lobes, and in segmental arteries of the left lower lobe. *Inset*, apical four-chamber view in a transthoracic echocardiogram. Note the hyperechogenic foreign body in the right ventricle (arrow).

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