Presentation

A 71-year-old man, who is non-smoker with past medical history notable for hypertension and right lower extremity deep vein thrombosis three years prior, presented with progressive dyspnea on exertion of two weeks duration. He did not have any chest pain; heart rate and blood pressure were normal. His DVT had occurred in the setting of trauma, where he was injured by a falling tree. He was treated with anticoagulation for six months and recovered.

Assessment

Chest X-ray showed mediastinal calcification (Figure A, red arrow). D-dimer was performed, which was elevated to 8.34 mcg/mL. CT angiogram demonstrated pulmonary emboli in the right and left pulmonary arteries. Troponin was not detectable and Brain Natriurietic Peptide (BNP) was mildly elevated at 323 pg/mL. The assessment of the Right Ventricle (RV) was limited on transthoracic echocardiogram, but did not indicate abnormal RV systolic function. CT angiogram also showed enlarged, calcified subcarinal lymph nodes and sub-centimeter calcified nodules (Figure B, Red Arrow). A CT scan 1-year prior showed similar findings, consistent with sequela of granulomatous disease. He was noted to have improvement in his dyspnea with anticoagulation.

Diagnosis

The differential diagnosis for eggshell calcification on Chest X-ray is broad. Infectious process associated with eggshell calcification include fungal infections histoplasmosis, blastomycosis and tuberculosis [1]. Associated occupational exposures include silicosis and coal workers’ pneumoconiosis [2,3]. Associated diffuse parenchymal lung diseases include sarcoidosis, amyloidosis and systemic sclerosis [4].

Management

Eggshell calcifications may be associated with various disease processes. In this case, a history of granulomatous disease was suspected. Dyspnea improved with therapeutic anticoagulation for pulmonary embolism. As per Fleischner society guidelines, further imaging and workup was not indicated [5].
References


