

# Unexpected Diagnosis of Pseudoaneurysmal Pulmonary Artery Sarcoma in a Patient with Acute Chest Pain

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A 64-year-old man without medical history of cardiovascular disease was admitted to our emergency department with acute chest pain. The initial chest radiograph showed a prominent enlargement of the pulmonary trunk. Troponin I and D-dimer levels were within normal limits. Electrocardiograph showed atrial fibrillation. Echocardiography revealed a moderately reduced left ventricular function and aneurysmatic protrusion of the pulmonary trunk. Subsequent electrocardiograph-gated dual-source computed tomography demonstrated an irregular shaped aneurysm with a free floating soft-tissue attenuating mass within the vascular lumen (Figures 1, 2). The suspected diagnosis was an aneurysm of

the pulmonary trunk with questionable perforation, and the patient was referred for urgent cardiac surgery. Intraoperative findings revealed a tumor of the pulmonary trunk with a free floating tumor mass. The patient underwent a valve conserving surgical resection with an allograft replacement of the pulmonary trunk. Histopathology finally showed a poorly differentiated intimal leiomyosarcoma of the pulmonary artery (pT2b, pN0, pMx, R1).

Primary pulmonary artery sarcoma is a rare vascular malignancy. Even after radical surgery resection, the prognosis is poor because of the tendency of embolic metastasis.<sup>1,2</sup> The typical clinical presentation and radiologic findings often mimic tromboembolic disease. An aneurysmatic appearance of pulmonary artery sarcoma is extremely rare.<sup>3</sup> Six months after radical surgery, our patient is still alive and well without evidence of metastasis.

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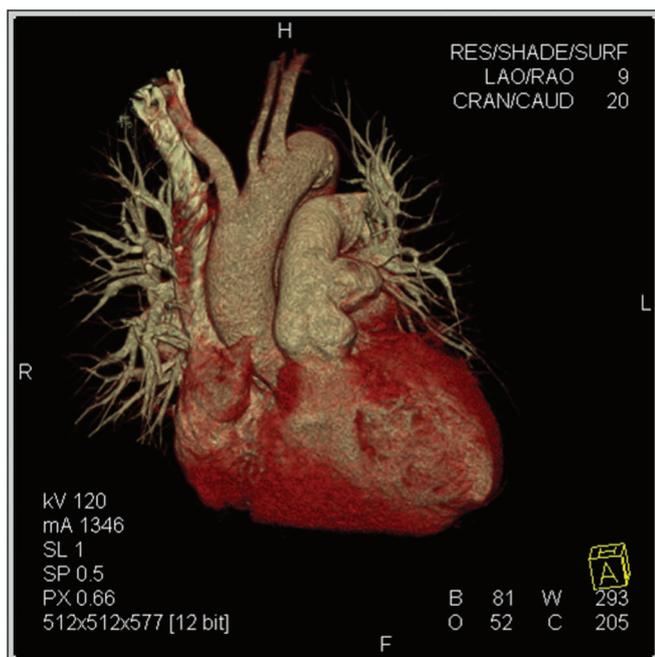
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**FIGURE 1.** Electrocardiograph-gated dual-source computed tomography scan showing formation of a pseudoaneurysm of the pulmonary trunk floating hypodense masses representing sarcoma.



**FIGURE 2.** 3D volume-rendering of the dual source CT showing the pseudoaneurysmatic pulmonary artery sarcoma of the pulmonary trunk.