

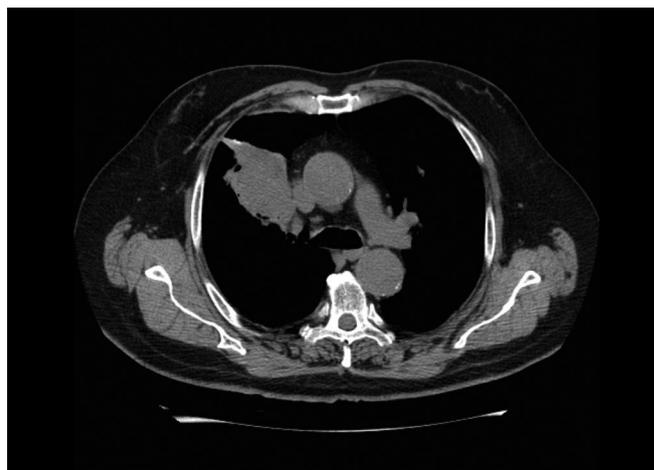
## Intraparenchymal Pulmonary Artery Aneurysm from Ipsilateral Non-small Cell Lung Cancer

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A 67-year-old man with a history of alcoholic hepatitis was admitted for hemoptysis. Preoperative chest computed tomography (CT) scan was acquired before (Figure 1) and after injection of iodinated contrast medium (Figure 2). Axial images and multiplanar reconstructions (Figure 3) disclosed a solid lesion of the right upper lobe containing a round enhancing area. The suspicion of an intralesional aneurysm excluded percutaneous CT-guided lung biopsy. Bronchoscopy was performed without any evidence of intraluminal lesions; bronchoalveolar lavage was positive for neoplastic cells and negative for mycobacterium tuberculosis. Positron emission tomography scan was focally positive on the right upper lobe. The patient was submitted to intrapericardial right upper lobectomy because of a close adhesion of the lesion to the superior vena cava wall; no superior vena cava resection was required to complete lobectomy. Postoperative histologic examination showed an epidermoid carcinoma without nodal involvement.

Pulmonary artery aneurysm is a rare vascular anomaly, frequently associated with congenital heart disease: patent ductus arteriosus followed by ventricular and septal atrial defects are the most common associated congenital anomalies.<sup>1,2</sup> Behçet's disease, generalized vasculitis, infections, and trauma are other clinical conditions often involved in the etiopathogenesis of pulmonary artery aneurysm.

In our patient, the acquisition of CT pre- and postcontrast images demonstrated a round well-circumscribed area



**FIGURE 1.** Axial precontrast CT image of the chest, showing a consolidation of the right upper lobe, corresponding to the known malignancy.

within the malignant lesion, whose contrast enhancement was comparable with the aorta, thus confirming its vascular origin. These findings were very important in the subsequent management of the patient: a percutaneous CT-guided lung biopsy was skipped, as it was considered a procedure at high risk of bleeding, and the diagnosis of malignancy was confirmed by bronchoalveolar lavage.

### ACKNOWLEDGMENTS

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**FIGURE 2.** Axial postcontrast computed tomography (CT) scan of the chest, on the same level as Figure 1, shown with the mediastinum window level, shows a round enhancing area (arrow) within the known malignancy in the right upper lung lobe.



**FIGURE 3.** Coronal reconstructions well display the similar rate of contrast enhancement between the aneurysm and the aortic arch, as well as the spherical morphology of the intratumoral lesion.