Aneurysmal Pulmonary Artery Arising from the Descending Aorta

Kazuyuki Yamaguchi¹, Shigenori Kanazawa¹, Yoshimi Kinoshita², Yukihiro Yoshikawa¹ and Shosaku Nomura４

Key words: sequestration, bronchography, angiography

(DOI: 10.2169/internalmedicine.47.0578)

Case Report

Pulmonary sequestration is a congenital anomaly in which a systemic circulation artery supplies a lung parenchyma. This malformation is classified into three types by Pryce, based on the pathological pattern. Pryce type I pulmonary sequestration is rare (1). Three-dimensional (3D) multi-detector row computed tomography (CT) has changed how we image thoracic anatomy and disease in evaluations of systemic and pulmonary vasculature and the tracheobronchial tree (2). Here we present a case of Pryce type I pulmonary sequestration accompanied with an aneurismal aberrant artery diagnosed by CT.

A 50-year-old male suffered from a brain aneurysm (left VA-PICA, diameter 4-5 mm) and hypertension (175/114 mmHg) and had been treated with an anti-hypertensive. Seven months later, he complained of left flank pain.

¹Department of respiratory Medicine, Tesseikai Neurosurgical Hospital, Shijyonawate, ²Department of Neurology, Kansai Medical University, Moriguchi, ³Department of Neurosurgery, Tesseikai Neurosurgical Hospital, Shijyonawate and ⁴Division of Hematology, Kishiwada City Hospital, Kishiwada

Received for publication September 4, 2007; Accepted for publication September 14, 2007

Correspondence to Dr. Kazuyuki Yamaguchi, qafk3sbk9@star.ocn.ne.jp
Urolithiasis was found along with a tumorous left pulmonary lesion. He had no respiratory symptoms apart from a history of a single event of blood in sputa many years previously. Tumor makers (SLX, CEA, CYFLA, NSE) were within normal ranges. BUN and CRE were slightly elevated because of dehydration. An enhanced CT scan performed after relief of urolithiasis showed that a large vessel arose from the descending aorta with the deletion of the left lower pulmonary arteries and dilated left lower pulmonary veins. The suspected tumor was an aneurismal change of an aberrant artery. CT bronchial virtual endoscopy showed left basal bronchus (Picture 1). Therefore, this was determined to be a case of Pryce type I pulmonary sequestration.

Pulmonary sequestration is a relatively rare disease; whereas, an aneurismal change of an aberrant vessel is rare (3). In the past, angiography and bronchography were necessary for the diagnosis of pulmonary sequestration and its type. However, we think that 3D conformational CT scanning is useful for the diagnosis of this disease. In this case, the patient suffered from hypertension complicated with a brain aneurysm. In such a case, there may be a risk of aneurismal change of an aberrant artery. Though in this case we thought that an operation was called for, the patient refused an operation and further examinations.

References


© 2008 The Japanese Society of Internal Medicine
http://www.naika.or.jp/imindex.html