A 34-year-old man was referred to our department because of refractory pneumonia. He had right-sided back pain, a productive cough, and a fever of 1 month’s duration.

Three-dimensional computed tomography (CT) showed pulmonary sequestration combined with an aberrant right subclavian artery. There was an anomalous artery with a maximum diameter of 12 mm arising from the celiac artery (Fig 1, red arrows). It passed under the lower pulmonary vein (Fig 1, blue arrows), ascended with mild kinking, and entered the lower lung lobe. There was a complete lack of pulmonary arterial supply to the basal segment (Fig 1, yellow arrow). Additionally, there was an aberrant right subclavian artery arising from the distal aortic arch (Fig 2, red arrows), which passed between the trachea (Fig 2, yellow arrows) and the esophagus transversely and ran toward the right upper limb.

The anomalous vessel was surgically transected at its origin with a stapler device, and a lower lobectomy was performed. The patient’s postoperative course was uneventful.

In the English literature, we were unable to find any report of an aberrant right subclavian artery combined with pulmonary sequestration. In this case, imaging was conducted with a 64-row multislice CT scanner (Aquilion 64, Toshiba Medical Systems, Tokyo, Japan). Three-dimensional CT provides useful information without the necessity of invasive methods such as angiography in patients with congenital anomalies.