A 68-year-old woman experienced frequent episodes of intermittent abdominal pain 6 months before admission. Because of increasing abdominal pain, she was admitted to our hospital. A computed tomography (CT) scan of the chest and abdomen revealed an enlarged and saccular-shaped thoracoabdominal aorta of 5.3 cm in diameter. No abnormality was seen in the lung aside from the periaortic mass. Laboratory studies revealed a white blood cell count of 7000/µl and a C-reactive protein level of 5.36 mg/dl (normal laboratory range <0.1). The suspected diagnosis was an infected thoracoabdominal aortic aneurysm. All blood bacteriological cultures were negative. The patient was treated conservatively by administration of analgesics, antihypertensive drugs, antibiotics, and heparin. Nevertheless, 3 months after admission, the diameter of the thoracoabdominal aorta reached 6.3 cm (Figure 1). As the patient experienced three attacks of thromboembolism of the legs, an emergency thrombectomy was performed. A pathological examination revealed no malignant cells in the removed thrombus. Subsequently, the patient was transferred to another hospital and underwent a surgical resection with an allograft replacement of the thoracoabdominal aorta, the celiac artery, the superior mesenterial artery, and the bilateral renal artery. A partial resection of the lower lobe of the left lung was also performed because a
portion of the tumor was localized in the left lung. Macro-
scopically, the mass surrounding the resected aorta was solid,
and there was no bleeding into the mass. Histopathology
finally revealed a mass surrounding the aorta and that the
intrapulmonary tumor was a pulmonary large cell carcinoma.
The tumor had invaded the wall of the aorta, and tumor cells
were found in the mural thrombus of the resected aorta. The
tumor had also caused intravascular obstruction and stenosis
of branches of the resected abdominal aorta. It was also
revealed that the resected margin of the aorta was positive for
tumor cells.

The chest CT findings of pulmonary large cell carcino-
mas are frequently a single, peripheral mass or nodule with an
irregular shape and margins with signs of lobulation. In our
case, the tumor existed in an atypical location and extended
into the mediastinum and surrounded the aorta mimicking an
infected thoracoabdominal aortic aneurysm. The tumor pos-
sessed some CT features specific to an infected aortic aneu-
rysm, such as an atypically located saccular-shaped mass,
rapid progression, and lack of athelosclerotic signs. Fur-
thermore, the patient had repeated attacks of thromboembolism,
probably because tumor cells were migrating into the mural
thrombus in the aorta. This pattern of the tumor presentation
is extremely rare, and symptoms and images obtained before
surgery led to the diagnosis of an infected aortic aneurysm.
An infected aortic aneurysm is an uncommon disease; how-
ever, the imaging characteristics overlap with those of tu-
mors, such as a rapidly expanding mass with heterogeneous
enhancement. Thus, if a thoracoabdominal aortic mass is
encountered that mimics an infected thoracoabdominal aortic
aneurysm, cancers originating from organs surrounding the
aorta, particularly lung cancer, should be included in the
differential diagnosis. The pathological evaluation revealed a
residual tumor in the patient, but no obvious distant metas-
tasis was found immediately after the surgery. The patient
was treated with best supportive care because of the existence
of the allograft beside the residual tumor and her poor
performance status.

REFERENCES
unusual imaging feature, immunophenotype and genetic finding. Pathol