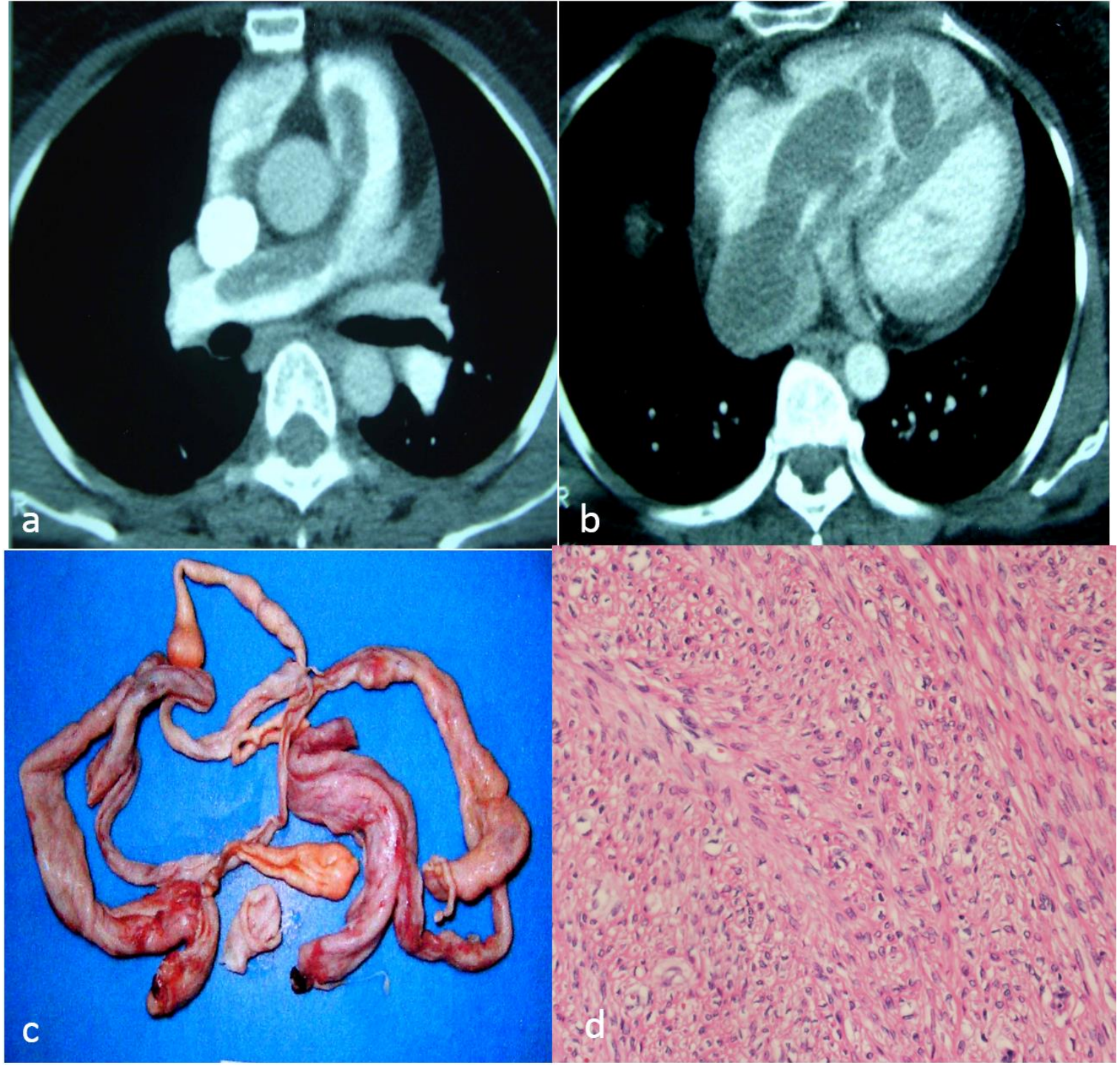
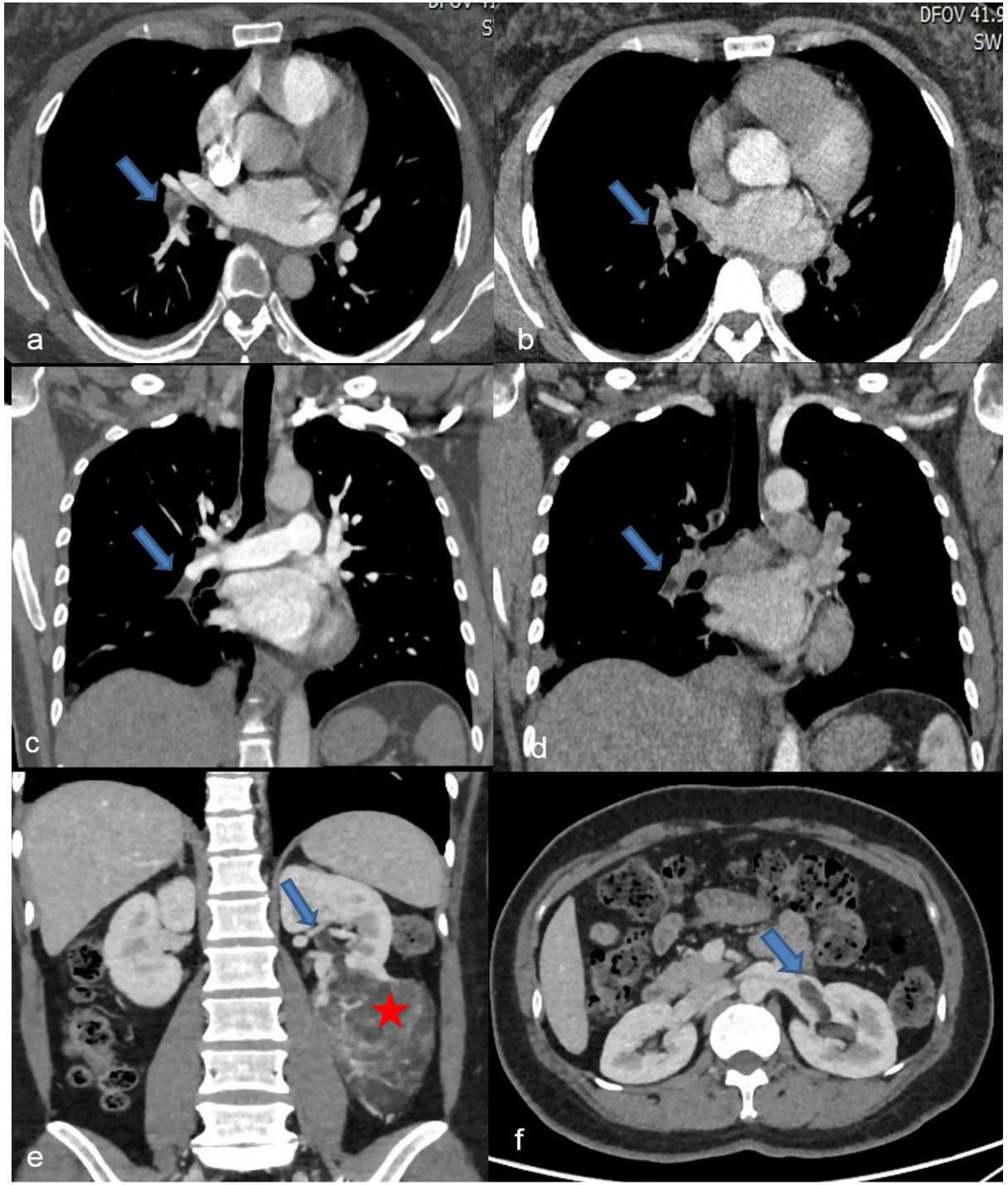
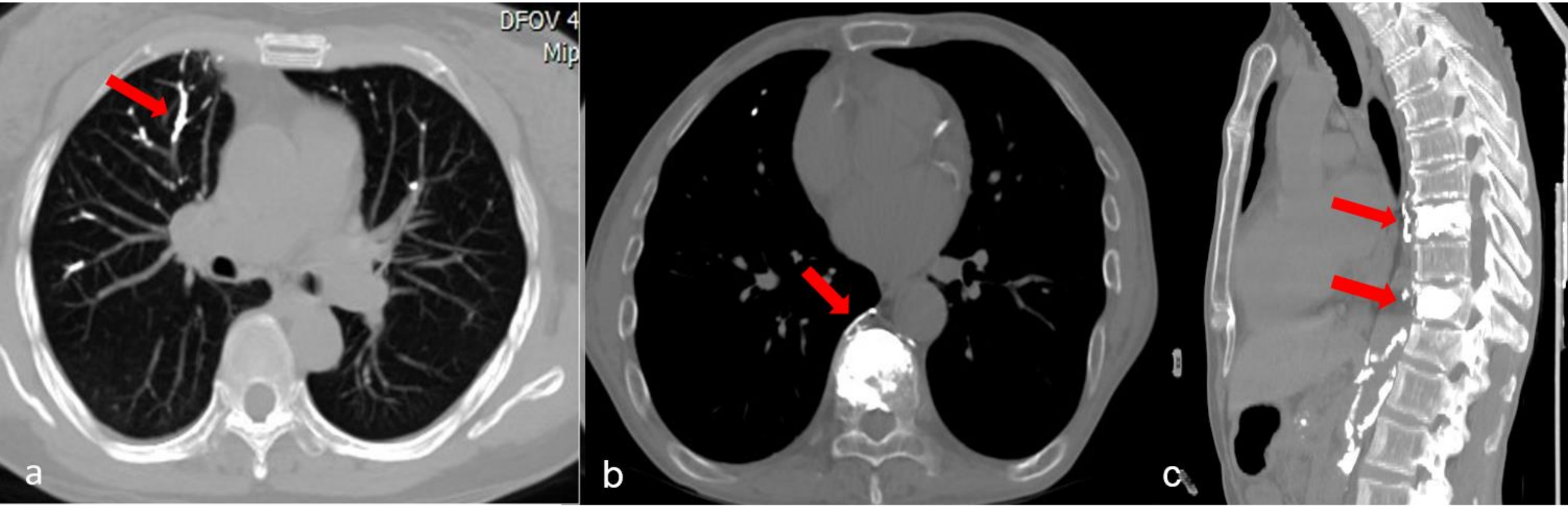


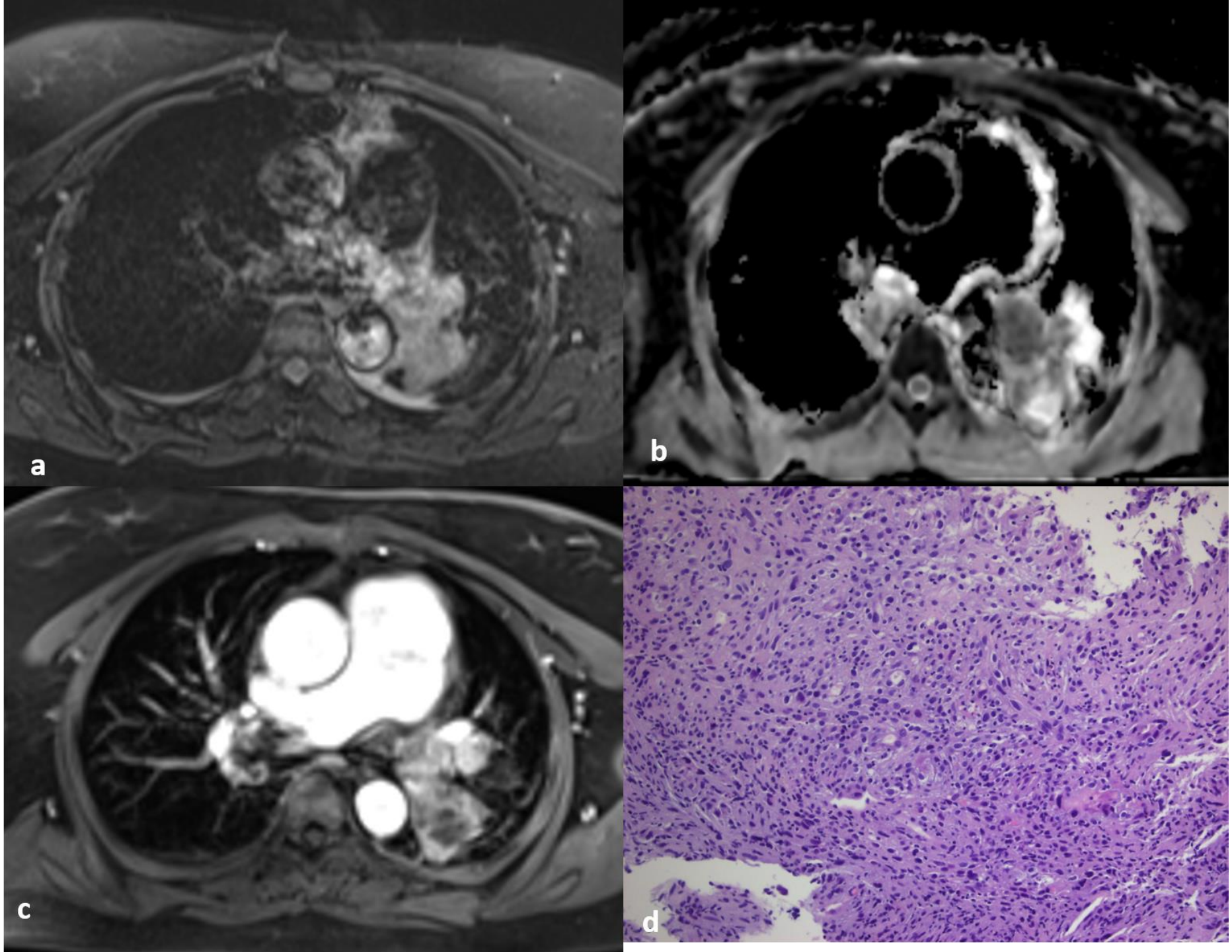
Supplement 1. Axial CTPA findings of pulmonary arterial and right heart leiomyoma in a 43-year-old female: (a) filling defect in main and right pulmonary artery (b) filling defect in right ventricle and inferior vena cav. (c) surgical specimen from the inferior vena cava to the right atrium successfully treated by cardiotomy (d) The tumor consists of mature smooth muscle (hematoxylin-eosin stain; original magnification, ×200).



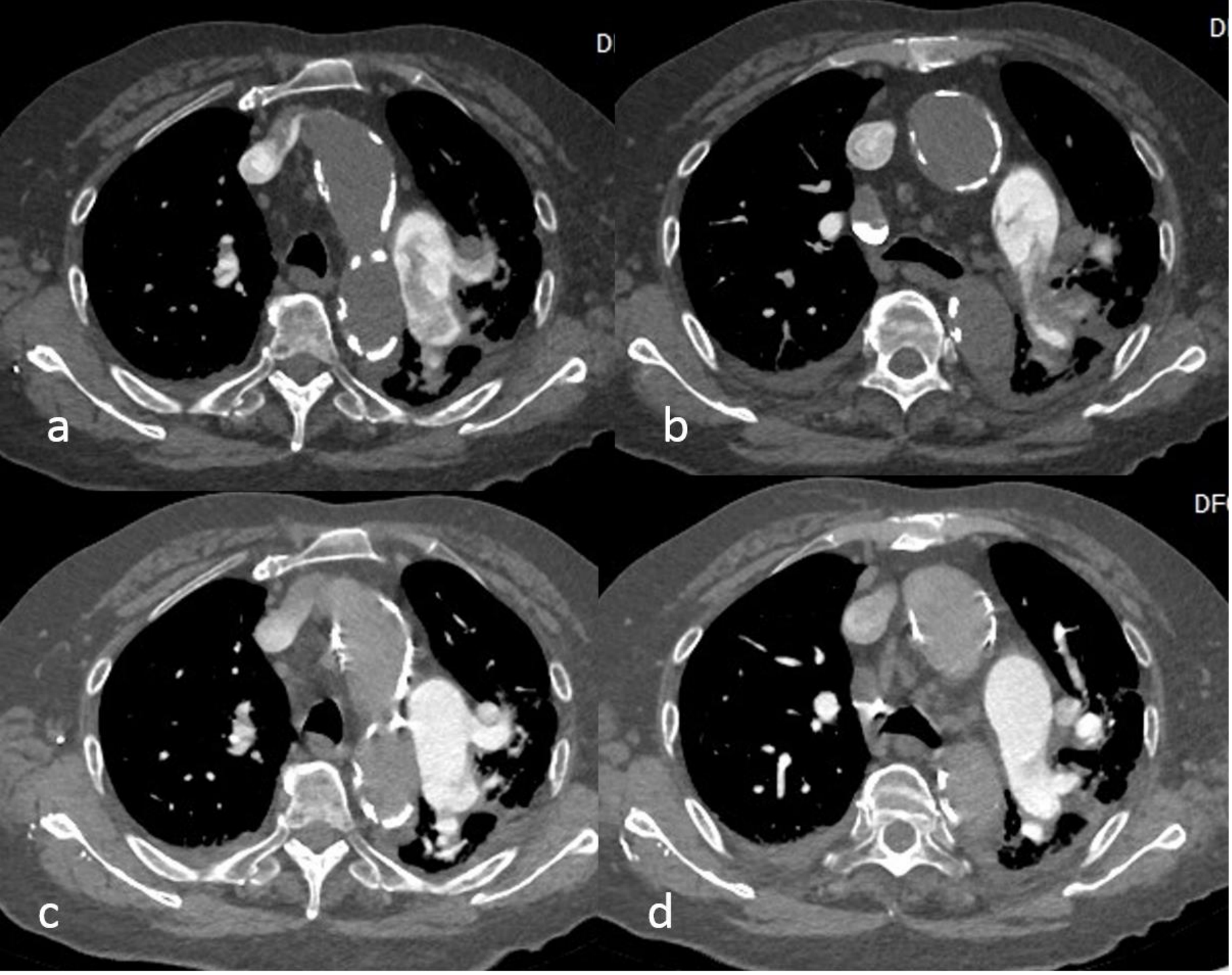
Supplement 2. pulmonary arterial angioleiomyolipoma embolism in a 51-year-old female: (a) Axial CTPA image shows the low-attenuation filling defect in right lower lobe pulmonary artery(blue arrow); (b); Axial CTA image shows the low-attenuation filling defect (CT value=-80HU) in right lower lobe pulmonary artery(blue arrow);(c) Coronal CTPA image shows the low-attenuation filling defect in right lower lobe pulmonary artery(blue arrow);(d) Coronal CTA image shows the low-attenuation filling defect (CT value=-80HU) in right lower lobe pulmonary artery(blue arrow); (e) Coronal abdominal contrast-enhanced CT image shows the low-attenuation filling defect (CT value=-80HU) in left renal vein(blue arrow) and renal angioleiomyolipoma (red star) ;(f) Axial abdominal contrast-enhanced CT image shows the low-attenuation filling defect (CT value=-80HU) in left renal vein(blue arrow).



Supplement 3. CTPA findings of pulmonary arterial cement embolism in a 61-year-old female. (a) Maximum intensity projection of non-contrasted CT (transversal plane) shows multiple linear and branching opacities in pulmonary artery (red arrow). (b) Axial non-contrasted CT shows a high-attenuation linear opacities along the spine and cement injection of vertebroplasty (red arrow). (c) Sagittal non-contrasted CT shows vertebroplasty with cement（red arrow）



Supplement 4. MRI findings of PAS in a 51-year-old female. (a) fat-suppressed T2WI shows a heterogeneous hypertensive filling defect in left pulmonary artery. (b) a heterogeneous hypertensive signal on ADC image (c) a heterogeneous enhancement of filling defect (d) Histopathology demonstrates an abundance of malignant spindle cells with high cellularity and a high nuclear/cytoplasmic ratio (hematoxylin-eosin stain; original magnification, ×200).



Supplement 5. Pulmonary arterial streak artifact on CTPA in a 67-year-old man with pulmonary hypertension. (a and b) ill-defined filling defect in the main and left pulmonary artery. (c and d) In the second phase, the filling defect disappeared, indicating the streak artifact.