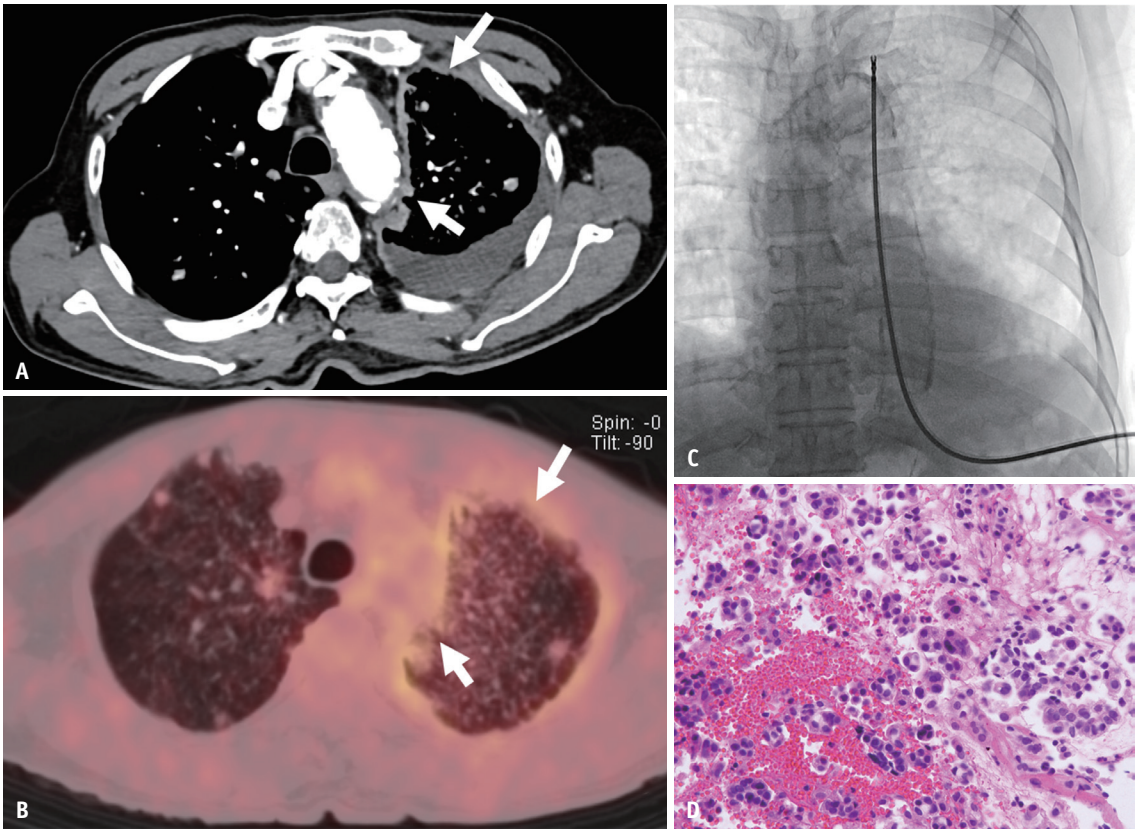
SUPPLEMENTS

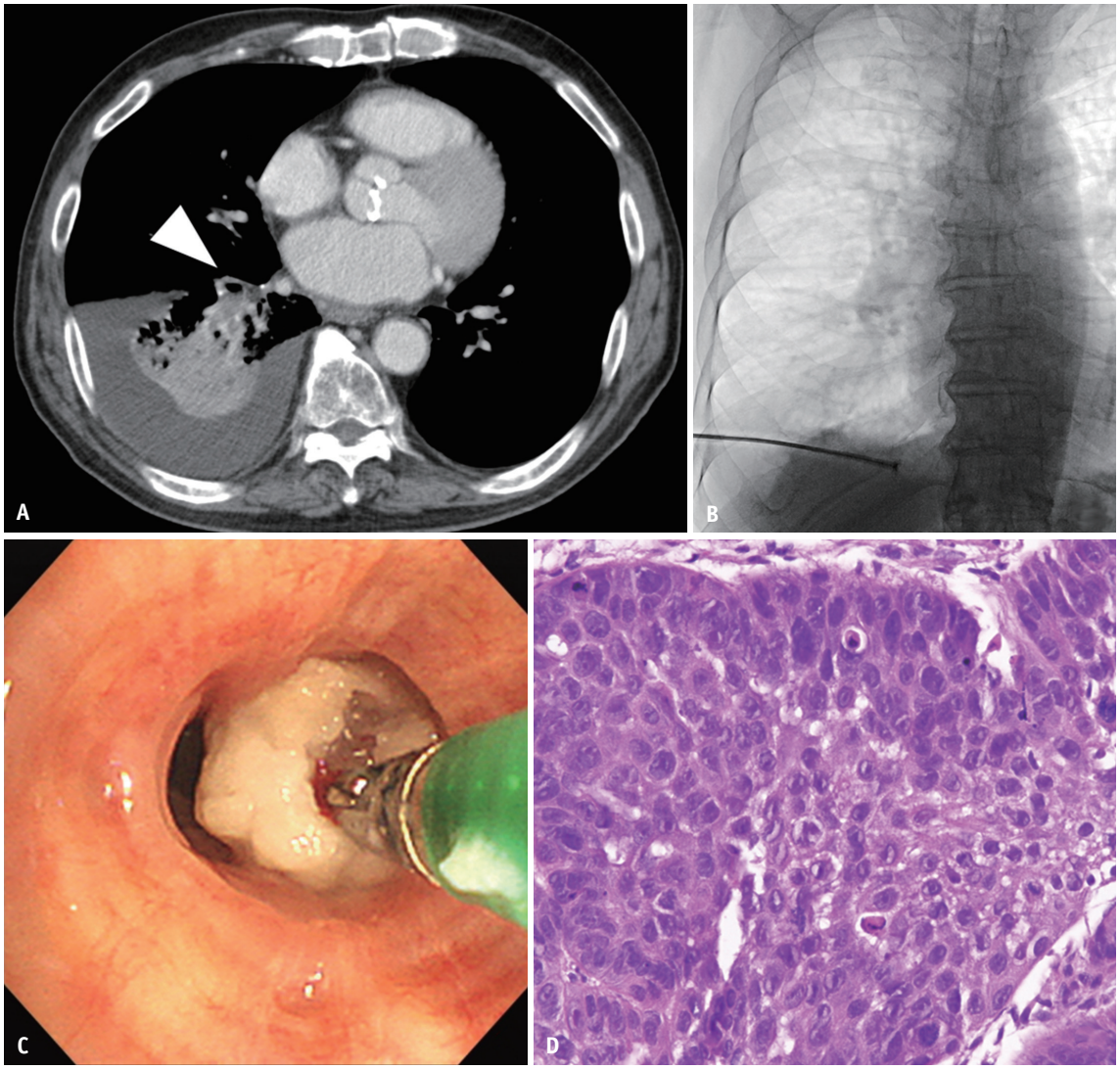
Supplementary Table 1. Final diagnosis in the eight patients with false-negative PTPFB results

	CT result	PTPFB result	Cytologic result	Final diagnosis
Patient 1	Suspected malignancy	Calcification	Possible adenocarcinoma	Lung cancer
Patient 2	Suspected malignancy	Soft tissue with a few fibrous nodules	Suspected malignancy	Lung cancer
Patient 3	Indeterminate	Focal mesothelial proliferation	Negative for malignancy	Lung cancer
Patient 4	Suspected malignancy	Chronic inflammation with mesothelial cells and fibrosis	Possible adenocarcinoma	Renal cell carcinoma
Patient 5	Suspected malignancy	Some atypical cell infiltration	Negative for malignancy	Malignant pleural mesothelioma
Patient 6	Suspected malignancy	Inflammation with mild fibrosis	Negative for malignancy	Lung cancer
Patient 7	Suspected malignancy	Chronic inflammation with reactive mesothelial hyperplasia	A few atypical cells	Lung cancer
Patient 8	Indeterminate	Chronic inflammation	Negative for malignancy	Esophageal cancer

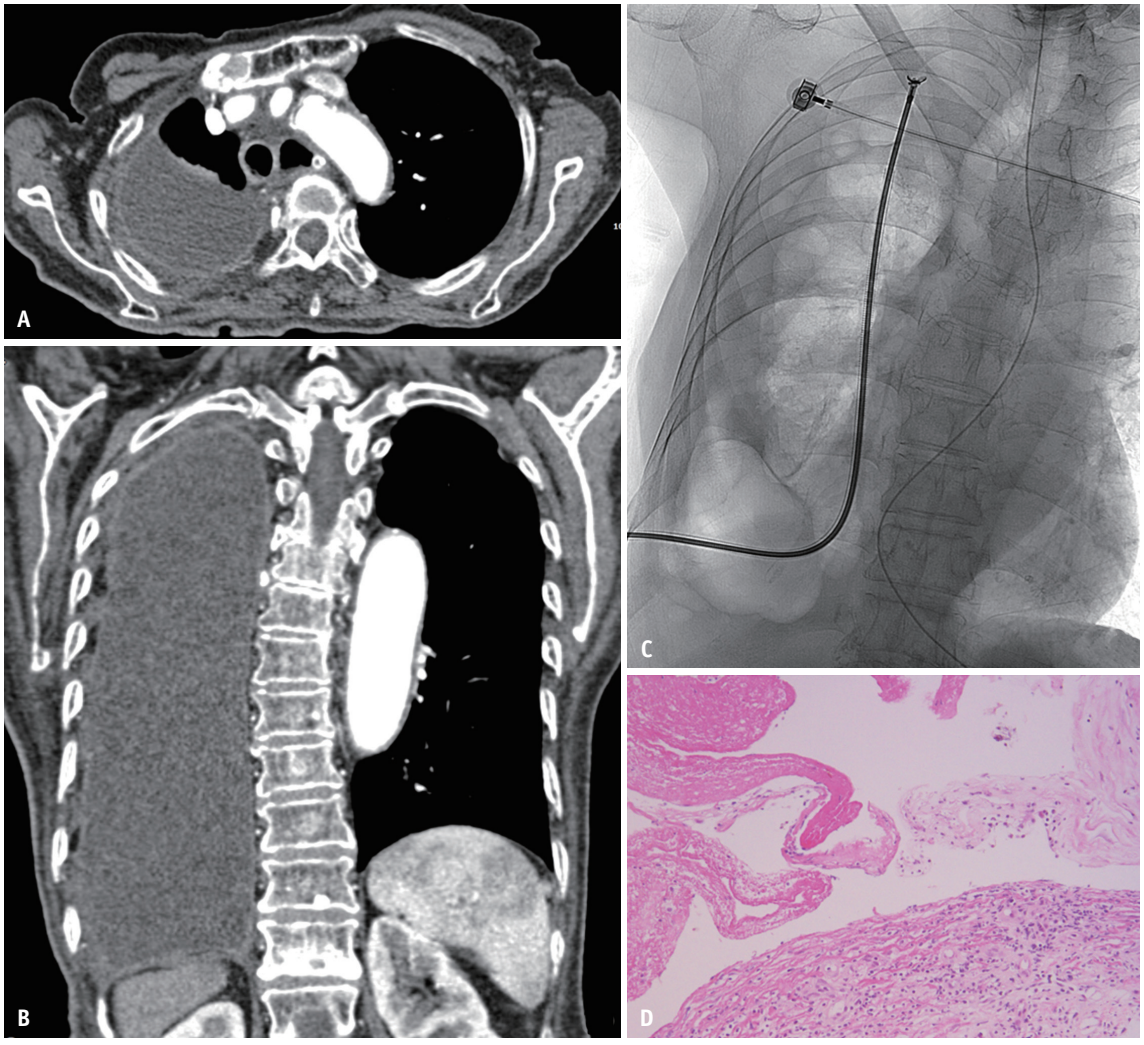
PTPFB = percutaneous transthoracic pleural forceps biopsy



Supplementary Fig. 1. An 81-year-old male on medication for diabetes mellitus and hypertension presented to the outpatient department with dyspnea. **A:** Axial contrast-enhanced CT image showing diffuse thickening and enhancement of the left pleura (arrows) with moderate left pleural effusion. **B:** Axial ^{18}F-fluorodeoxyglucose PET image showing a mild diffuse increase in pleural uptake (arrows). Multiple bilateral lung nodules are also observed. **C:** Fluoroscopy-guided percutaneous transthoracic pleural biopsy of the left upper thorax. **D:** Photomicrographs (hematoxylin and eosin stain, x 200) showing atypical glandular proliferation on a bloody background suggestive of adenocarcinoma.



Supplementary Fig. 2. An 83-year-old male with dyspnea and hemoptysis admitted to the emergency department. **A:** Axial contrast-enhanced CT showing a lesion (arrowhead) occupying the endobronchial space with atelectasis. Moderate pleural effusion is also observed. **B:** Fluoroscopy-guided percutaneous transthoracic pleural biopsy of the right lower thorax. The biopsy results indicate focal mesothelial proliferation without evidence of malignancy (not shown). **C:** Bronchoscopy showing a lobulated, contoured, whitish endobronchial obstructive lesion in the right lower anterior segmental bronchus. A bronchoscopy-guided biopsy is performed. **D:** Photomicrographs (hematoxylin and eosin stain, x 400) showing atypical squamous epithelium with intercellular bridges and abundant mitotic cells, suggestive of moderately differentiated squamous cell carcinoma.



Supplementary Fig. 3. An 87-year-old female presenting with fever and a history of pelvicoscopic salpingo-oophorectomy for left ovarian cancer eight years previously. **A, B:** Axial and coronal contrast-enhanced CT images showing diffuse pleural thickening with enhancement. A large, right-sided pleural effusion is observed. **C:** Fluoroscopy-guided percutaneous transthoracic pleural biopsy of the upper right thorax. **D:** Photomicrographs (hematoxylin and eosin stain, x 2400) showing fibrinoid exudates and chronic inflammatory cell infiltration.