

Where is the primary? A rare form of lung cancer

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CASE

A 61-year-old man was found to have a right upper lobe pulmonary nodule during annual low dose computed tomography (CT) screening for lung cancer. Endobronchial biopsy and evaluation of the mediastinal lymph nodes did not show any malignant cells. A positron emission tomography (PET) scan of the

whole body showed a metabolically active mediastinal lymph node and a centimeter-sized lymph node in the right anterior triangle of the neck. Excisional biopsy of this lymph node in the neck showed metastatic adenocarcinoma, and CancerTYPE ID (Biotheranostics, Inc., San Diego, CA) analysis indicated that the tumor was likely pancreaticobiliary (90% probability) in origin.

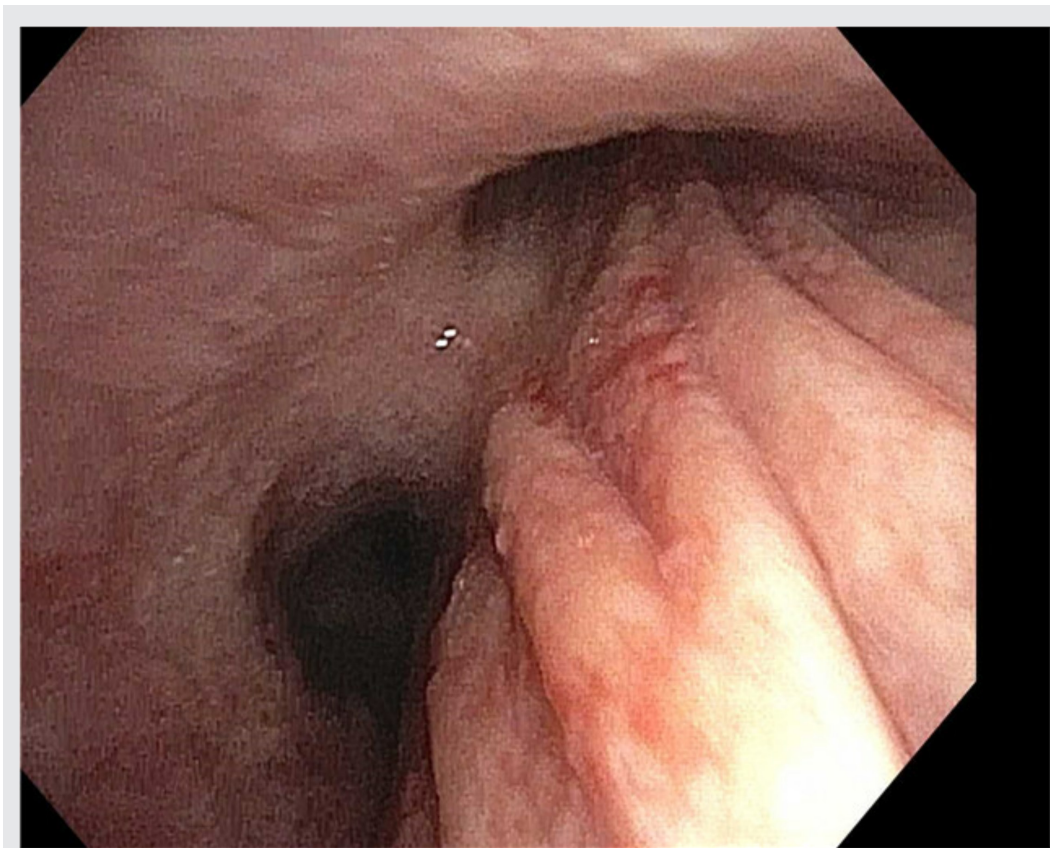


Figure 1. Left main bronchus with a cobblestone mucosa.

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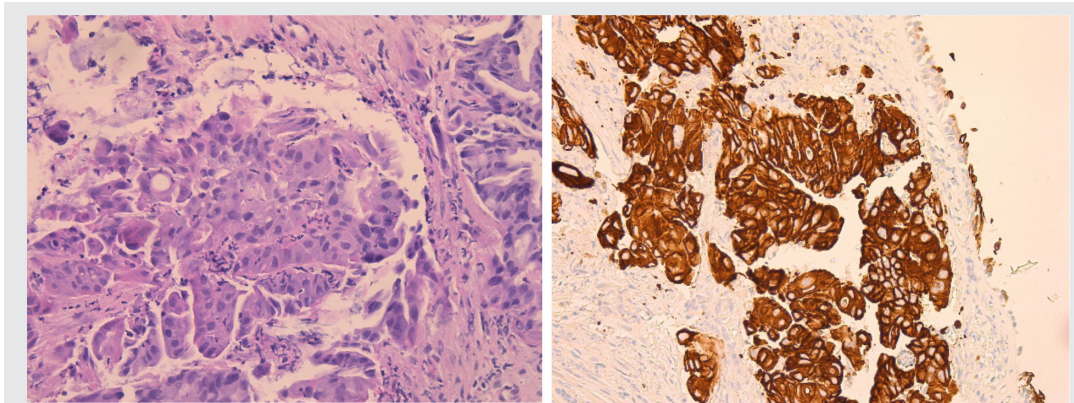


Figure 2. Left Image at 200x; Histomorphologic features of pulmonary enteric adenocarcinoma: high columnar cells with eosinophilic cytoplasm that are arranged in irregular glandular lumens with focal mucin and necrosis. Right image; CK7 immunohistochemical stain.

Endoscopic investigations in the gastrointestinal tract and CT of the abdomen did not reveal any gross abnormalities in the gallbladder or the pancreas. The patient was started on chemotherapy, but a month later, he developed an unremitting dry cough that interfered with his day to day life. He underwent bronchoscopy which revealed a normal trachea and right mainstem bronchus. The left mainstem bronchus had a cobble appearance (Figure 1).

Biopsies were taken from the mucosa. Pathology showed enteric type lung adenocarcinoma (Figures 2 and 3).

DISCUSSION

Pulmonary enteric adenocarcinoma is an extremely rare type of non-small cell lung cancer. Almost 51% of these patients present with cough, and a literature review reports a male predominance. These tumors have malignant characteristics on imaging and pathology, have a poor prognosis, and are treated like other lung adenocarcinomas. There is no specific treatment, but since the KRAS mutation is the predominant gene mutation, a targeted therapy toward mutation provides one possible approach.¹

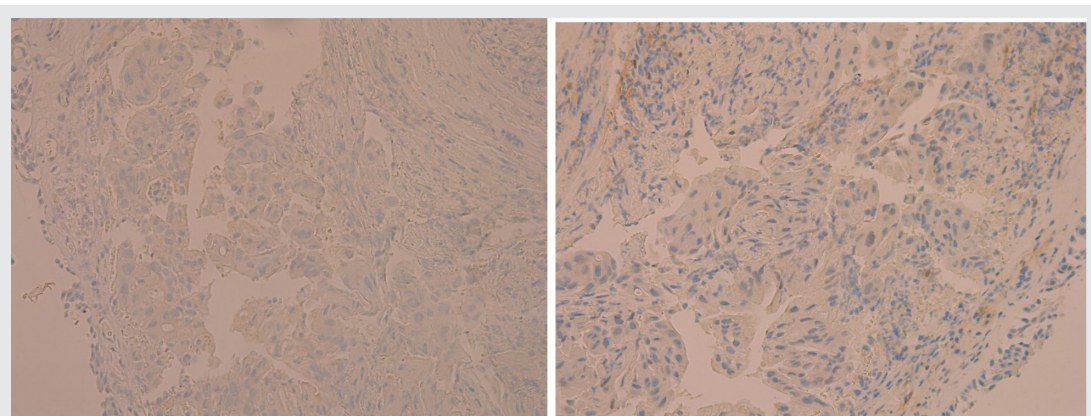


Figure 3. Left image; Negative staining for TTF-1 (Pulmonary marker), Right image; negative staining for SATB-2 (Lower GI marker).

Keywords: enteric adenocarcinoma, metastasis

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