response to anticoagulation and the presence of a massive unilat-
eral perfusion defect on the pulmonary scintigraphy should prompt
clinicians to reconsider the diagnosis.

The 2 non-invasive tests that can differentiate between clots and
masses are MRI with gadolinium contrast and PET-CT: in the MRI,
tumor tissue captures contrast material, while a clot does not. It
has also been demonstrated recently that an increase in 18-fluo-
oro-2-deoxy-D-glucose uptake in a filling defect on PET-CT is suggestive
of malignancy.

The definitive diagnosis is reached by a pathology study, gener-
ally by autopsy, biopsy, or directly during the surgical act. Diagnosis
by EBUS-TBNA, while unusual, has been described previously
with good results, and can be proposed as a feasible technique
differentiating between a clot and a tumor. The major risk of this
technique is bleeding, particularly in patients with pul-
monary hypertension, and this risk is increased even further by
enlarged bronchial arteries which may be associated with proximal
obstruction of the pulmonary arteries. However, the probability of
bleeding is minimized by using color Doppler combined with
real-time ultrasonography to avoid puncturing areas of high blood
flow. To date, no serious complications have been reported with
the use of the EBUS-TBNA in this context. For this reason, EBUS-
TBNA is being accepted as a new safe, minimally invasive technique
for the diagnosis of mediastinal tumors, including tumors of the
pulmonary artery. The treatment of choice is complete surgical
resection, and if the tumor is unresectable, prognosis is grim.

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bronchial needle aspiration of pulmonary artery tumors: a systematic review

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in 5 patients (0.7% of all those studied), bronchogenic cysts were associated with malignancies: 1 squamous cell, 1 adenocarcinoma, 2 bronchoalveolar carcinomas and 1 large-cell anaplastic carcinoma. It was not stated whether the indication for surgical resection was due to the detection of malignant transformation or whether malignant cells were an incidental finding, but in all cases the carcinoma was found in the cyst wall. To the best of our knowledge, this is the first case of bronchogenic cysts associated with an enteric adenocarcinoma and, in this case, malignant degeneration was the reason for surgical resection. Although there is scant evidence on carcinogenesis in a bronchogenic cyst, some studies suggest that unstable epithelial cells in the cyst wall could have malignant potential and lead to the malignant degeneration.

Surgical excision of bronchogenic cysts has historically been performed for 3 main reasons: (1) to confirm diagnosis; (2) to prevent development of symptoms and/or complications and to pre-empt the possibility of surgery on complex inflammatory lesions; and (3) to avoid any potential for malignant degeneration. However, in the reported case, no surgical treatment was requested until the malignant transformation was discovered 12 years later. Nowadays, the evidence for conservative management of asymptomatic bronchogenic cyst is very limited, and we must take into consideration that approximately 45% of patients who are asymptomatic at the moment of diagnosis will eventually develop symptoms or complications, and there is a risk of secondary tumours arising from a bronchogenic cyst.

In conclusion, we report the first case of a patient with an enteric adenocarcinoma arising from a longstanding bronchogenic cyst. We consider that surgical excision of bronchogenic cysts should be recommended even in asymptomatic patients, the aim being to preclude malignant degeneration, prevent complications or the development of symptoms, and to confirm diagnosis. Conservative management should be offered only if close long-term follow-up can be guaranteed.

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