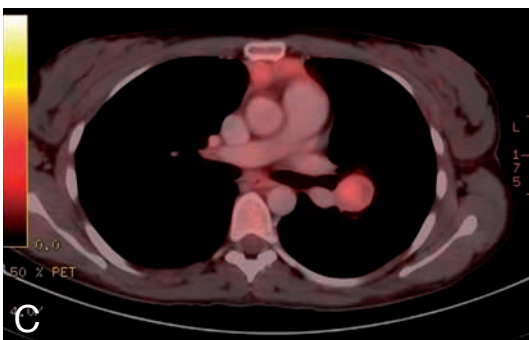
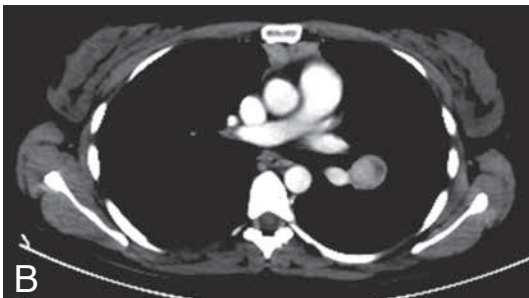
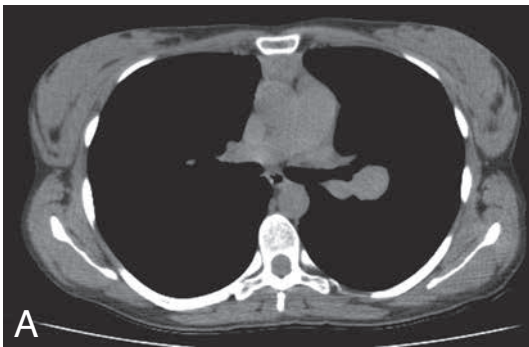


IMAGES IN CLINICAL RADIOLOGY



Sclerosing hemangioma of the lung

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A 28-year-old woman was referred to the radiology department for further work-up of an incidental finding of a nodular lesion on a routine x-ray of the chest. At the time of presentation, the woman was in excellent condition and had an unremarkable personal medical history. The chest x-ray demonstrated a well-defined lesion measuring 25 mm, confined to the left pulmonary hilum. Based on the patient's age and x-ray findings, a bronchogenic cyst was suspected. A CT scan of the chest was performed to confirm the presumptive diagnosis, revealing a well-defined lesion with homogeneous soft tissue density (50 Hounsfield Units), without calcifications or fatty components (Fig. A). The lesion showed inhomogeneous enhancement after intravenous contrast administration, excluding a bronchogenic cyst with dense contents (Fig. B). An FDG PET-CT scan showed isolated increased tracer uptake in the lesion (Fig. C). The imaging findings were indeterminate and a differential diagnosis of pulmonary carcinoid or large hamartoma was suggested. After complete surgical excision of the lesion, histological analysis revealed a sclerosing hemangioma.

Comment

Sclerosing hemangioma is a rare benign lung tumor with female predominance. Although rare, sclerosing hemangiomas are the second most common benign lung tumor, after hamartomas. Because of the histological appearance with predominantly hemorrhagic component, these lesions were initially interpreted as hemangiomas. More recent immunochemical analysis demonstrates that these neoplasms are derived from primitive respiratory epithelium. Therefore, sclerosing hemangioma is in fact a misnomer, whereas sclerosing pneumocytoma is more appropriate. In rare cases, malignant degeneration of these lesions has been described, without apparent effect on long term outcome.

Clinically, these lesions are most often incidentally found in asymptomatic patients. Possible symptoms such as cough, dyspnea, pain or hemoptysis are caused by local mass effect on adjacent structures.

Imaging typically demonstrates a well described round or ovoid lesion of variable size. A CT scan of the chest may demonstrate varying areas of attenuation in the lesion and in some cases there are peripheral calcifications, but enhancement is typical. These findings can also be seen in carcinoid, hamartoma, teratoma or inflammatory lesions. On FDG PET imaging, sclerosing hemangiomas show low to moderate FDG uptake, relative to the size of the lesion. The FDG PET findings can be misleading and can be interpreted as malignant, especially in patients with already documented malignancy or high risk patients.

The diagnosis can be suggested on basis on clinical presentation and imaging, but sclerosing hemangioma is essentially a histological diagnosis. A limited but complete resection of the lesion is the management of choice.

Reference

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