A 70-year-old woman was hospitalized for dyspnea and chest pain. After radiological examinations and bronchoscopy, she was diagnosed with a stage IV small-cell carcinoma of the lung.

Collaterally, chest CT showed an hypodense pleural sessile mass, with smooth, well defined borders and homogeneous fat attenuation of approximately −100 HU; it showed no enhancement after intravenous contrast material administration (Fig. A).

The lesion was suggestive for pleural lipoma.

At the next CT examination pleural effusion, due to a primary disease progression, was detected. The mass, floating into pleural effusion, had now a polypoid appearance and was inserted into the parietal pleura with a small pedicle (Fig. B,C).

Comment

Most patients with pleural lipoma are asymptomatic until incidental detection at radiological examinations; the rare cases with symptoms in bulky masses may include nonproductive cough, back pain, dyspnea. Definitive diagnosis is made at CT when the lesion in question shows an homogeneous fat attenuation of approximately −100 HU, smooth borders abutting on the lungs, tapering or obtuse margins with the pleural surface and contact with the pleura with at least one quarter of the mass's circumference. A pedicle is rarely visible. Biopsy is recommended for those lesions with an non-homogeneous density (for the risk of atypical lipomatous tumors and liposarcomas). Another pedunculated neoplasm which enters into the differential diagnosis with lipoma is the localized fibrous tumor of the pleura. However, the fibrous tumor has not the peculiar fat attenuation.

1. University of Turin, Department of Clinical & Biological Sciences, Radiology Unit, San Luigi Hospital, Orbassano (Torino), Italy.