metaplasia/dysplasia or clonal patches.\textsuperscript{4} We speculate that the molecular changes in the airway epithelium of an affected bronchiole in the context of constrictive bronchiolitis might account for the increased risk of developing non-small-cell lung carcinoma in our patient, although this association requires further confirmation. In conclusion, constrictive bronchiolitis should be included as a differential diagnosis of DCLD and it is speculated that it may determine an increased risk of lung cancer.

References

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Calcified Pulmonary Nodules in an Oncological Patient

Nódulos pulmonares calcificados en un paciente oncológico

Dear Director:

A 50-year-old female patient underwent thoracic and abdominal computed tomography examinations for oncological follow-up.

The images showed multiple lung nodules, some of which were calcified (Fig. 1A and B), a calcified hepatic mass, and an expansive osteolytic lesion with internal foci of calcification on the ischiopubic ramus of the right hip (Fig. 1C). The patient had undergone colonoscopy 3 years previously due to rectal bleeding, which showed an exophytic and stenosing rectal lesion. The biopsy findings were compatible with well-differentiated tubular adenocarcinoma. Surgical resection confirmed the anatomopathological

Fig. 1. Chest computed tomography with axial (A) and coronal (B) reconstruction showing multiple pulmonary nodules, some with calcification (arrows). Note also in B a calcified mass in the right lobe of the liver (arrowheads). In C, computed tomography of the pelvis with coronal acquisition MIP reconstruction, showing an osteolytic lesion with internal foci of calcification (arrows) and invasion of surrounding soft tissue. In D, histological section of the pulmonary nodule demonstrating atypical neoplastic glands infiltrating the connective tissue amid desmoplastic stroma. Note also the amorphous basophilic material, compatible with extracellular deposition of calcium adjacent to the neoplastic process (arrows; hematoxylin and eosin stain, × 100).
diagnosis and identified vascular and perineural invasion with metastasis to the peritumoral lymph nodes. The patient started chemotherapy at that time. Our main question was whether the new lesions were metastases of the rectal tumor or corresponded to a new tumor (e.g., bone sarcoma with pulmonary and hepatic metastases), which would imply the need to change the treatment strategy. Biopsies of the bone lesion and a pulmonary nodule were performed, and showed metastatic adenocarcinoma with a tubuloacinar pattern (Fig. 1D).

Calcification of a pulmonary nodule is usually suggestive of its benign nature—such nodules are most commonly granulomas and less commonly hamartomas—but calcification and ossification can also occur in malignant lesions. Multiple pulmonary nodules have numerous etiologies, but the diagnostic possibilities are considerably reduced when these lesions show calcification. The main diagnostic considerations are calcified pulmonary metastases, amyloidosis, hyalinating granulomas, epithelioid hemangioendothelioma, necrobiosis nodules, and multiple chondromas. Amyloidosis, in its nodular form, is usually asymptomatic. The definitive diagnosis is made by histopathology, on the basis of the finding of deposition of amyloid, which stains with Congo red and shows apple-green birefringence under polarized light. Hyalinating granulomas are rare fibrotic pulmonary lesions, usually associated with autoimmune phenomena related mainly to exposure to mycobacterial or fungal antigens. Epithelioid hemangioendothelioma is a rare multifocal pulmonary neoplasm of endothelial origin. It is considered to be a sarcoma of low aggressiveness. Necrobiosis nodules can develop in patients with pseudo-malignant granulomas of rheumatoid arthritis. Calcification in pulmonary chondromas is a common radiological finding. The association of these chondromas with gastrointestinal stromal tumors and extra-adrenal parangangiomas is known as the Carney triad.1–3

The calcification of pulmonary metastases is very uncommon. The tumors that most commonly give rise to calcified metastases are sarcomas (osteosarcoma, chondrosarcoma, synovial sarcoma, and giant cell tumor of the bone), carcinomas (particularly mucinous and papillary adenocarcinomas), and treated metastatic choriocarcinoma. Several mechanisms are responsi-

References


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Changes in the Melting Peak of Hybridization Probes Used for Genotyping in Alpha-1 Antitrypsin Deficiency Do Not Always Imply Errors

Las alteraciones en el pico de fusión de las sondas de hibridación usadas para el genotipado en la deficiencia de alfa-1 antitripsina no siempre implican errores

To the Editor,

Molecular analysis of the gene that encodes alpha-1 antitrypsin (AAT; SERPINA1 gene) is the gold standard for the identification of allelic variants.1 The different molecular methods that can be used for this purpose include hybridization probes or HybProbes,2 which provide real-time PCR tracking. Once the amplification process is complete, these probes identify the genetic variants present

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