Radiology: Cardiothoracic Imaging

IMAGES IN CARDIOTHORACIC IMAGING

Minute Pulmonary Meningothelial-like Nodules

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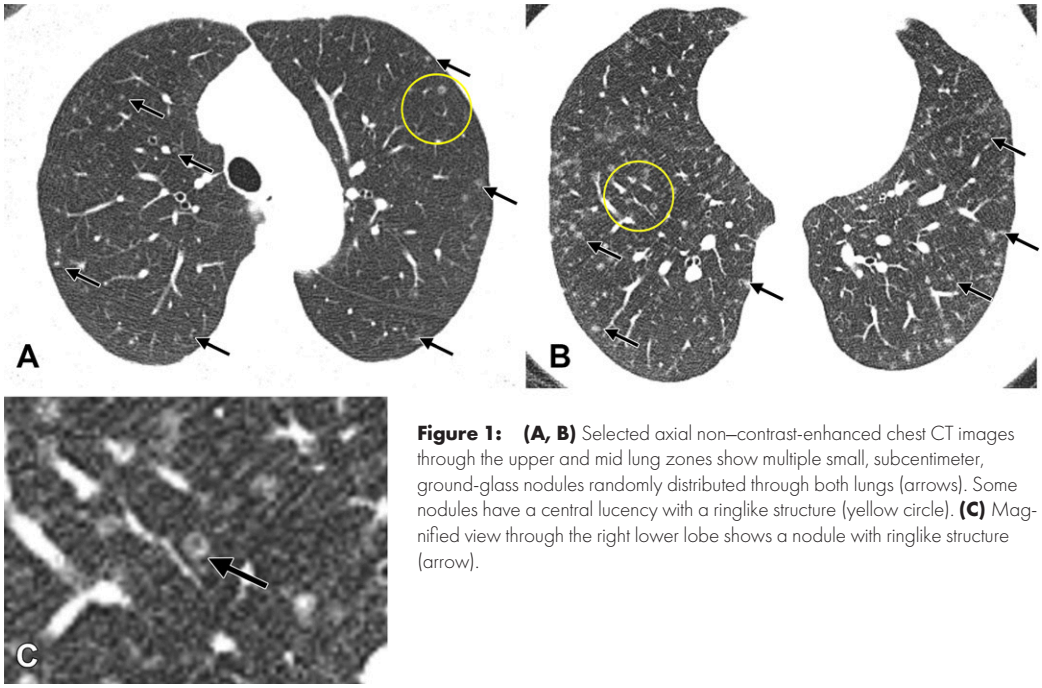

Figure 1: **(A, B)** Selected axial non–contrast-enhanced chest CT images through the upper and mid lung zones show multiple small, subcentimeter, ground-glass nodules randomly distributed through both lungs (arrows). Some nodules have a central lucency with a ringlike structure (yellow circle). **(C)** Magnified view through the right lower lobe shows a nodule with ringlike structure (arrow).

A 63-year-old woman was referred for dedicated chest CT imaging following incidentally discovered pulmonary nodules at an abdominal CT scan performed for evaluation of diarrhea. Chest CT showed numerous small (<6 mm), rounded, ground-glass, randomly distributed nodules with no lobe spared (Fig 1). Some nodules showed central lucencies with a ringlike appearance. Right lower lobe transbronchial cryobiopsy histopathologic findings revealed nodular cellular proliferation expanding the interstitium with whorl-like appearance (Fig 2). Immunohistochemistry with positive staining for epithelial membrane antigen and progesterone receptor, but negative staining for neuroendocrine markers such as synaptophysin, confirmed our diagnosis.

Minute pulmonary meningothelial-like nodules (MPMNs) are characterized by meningothelial-like cellular proliferation within the lung interstitium. Women are more frequently affected during the 6th or 7th decade of life. MPMNs have been reported in association with pulmonary embolism, primary lung neoplasia, and chronic lung or cardiac diseases. MPMNs usually follow a benign, indolent course but may mimic adenocarcinoma in situ, carcinoid tumor and tumorlets, nonfibrotic hypersensitivity pneumonitis, vasculitis, or atypical infection. Tissue sampling is required to establish definitive diagnosis (1–5).

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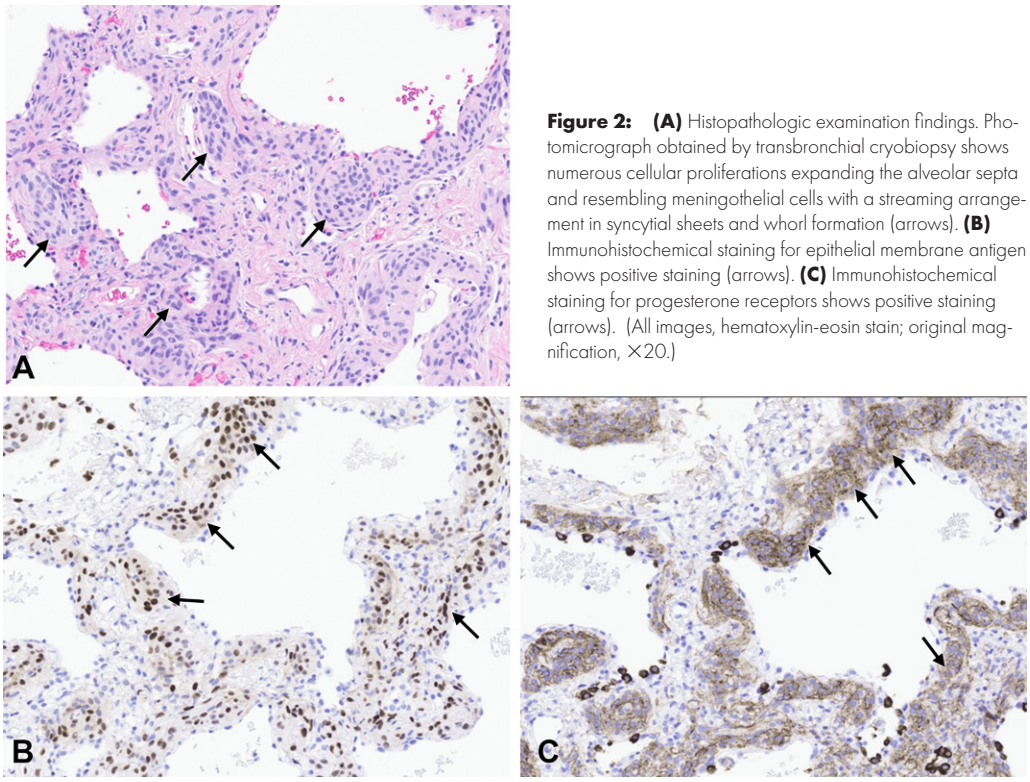

Figure 2: **(A)** Histopathologic examination findings. Photomicrograph obtained by transbronchial cryobiopsy shows numerous cellular proliferations expanding the alveolar septa and resembling meningothelial cells with a streaming arrangement in syncytial sheets and whorl formation (arrows). **(B)** Immunohistochemical staining for epithelial membrane antigen shows positive staining (arrows). **(C)** Immunohistochemical staining for progesterone receptors shows positive staining (arrows). (All images, hematoxylin-eosin stain; original magnification, ×20.)

Keywords

CT, Lung, Nodules, Minute Pulmonary Meningothelial-like Nodules

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