Wandering Pleural Mesothelial Fatty Cyst

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Figure 1. (A) Computed tomography (CT) on presentation, demonstrating lobulated mass adjacent to right atrium. (B) Lung windows on CT as part of follow-up CT/positron emission tomographic (PET) imaging, demonstrating new lesion in right major fissure. (C) PET imaging of lesion in right major fissure, with standard uptake value of 2.5. (D) Follow-up CT (3 months from the initial CT), demonstrating lesion no longer present in major fissure, but adjacent to right atrium. (E) Thoracoscopic view of lobulated mass attached to pericardial fat by stalk. (F) Gross pathological image of excised mass. (G) Calretinin staining of sectioned specimen (magnification $\times 40$).

A 50-year-old nonsmoking man with chronic cough underwent computed tomography of the chest, which revealed a lobulated mass abutting the pericardium overlying the right atrium (Figure 1A). Surprisingly, a subsequent positron emission tomogram showed that the mass was no longer present in the mediastinum; instead, a lobulated mass of similar soft tissue density was demonstrated in the right major fissure (Figure 1B). This mass was moderately fluorodeoxyglucose-avid, with a standard uptake value of 2.5 (Figure 1C), raising concern for malignancy. To reconcile the discrepancy between the prior imaging studies, a third computed tomography scan was obtained. Interestingly, this showed that the mass in the major fissure had disappeared and the lesion adjacent to the heart had reappeared, although its configuration was somewhat different (Figure 1D). The patient underwent video-assisted thoracoscopy, which revealed a mobile cystic lesion with a stalk, arising from the mediastinal fat pad at the diaphragmatic reflection (Figure 1E). The lesion was resected, using a stapling device (Figure 1F). Histopathology demonstrated a cystic mass containing large amounts of fat and lined by calretinin-positive mesothelial cells (Figure 1G).

Pleural mesothelial fatty cysts are rare (1, 2) but can migrate, as they may be attached to the pleural surface by a stalk, allowing them to shift position within the pleural space, as demonstrated by serial imaging in this case. Fluorodeoxyglucose uptake on positron emission tomogram scanning added to the diagnostic uncertainty before surgical resection in our case. When a confident diagnosis can be made on the basis of imaging, mesothelial cysts can be observed without resection. However, when the diagnosis is uncertain or the patient is symptomatic, the lesion may be easily resected by minimally invasive thoracoscopy. ■

Author disclosures are available with the text of this article at www.atsjournals.org.

References

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