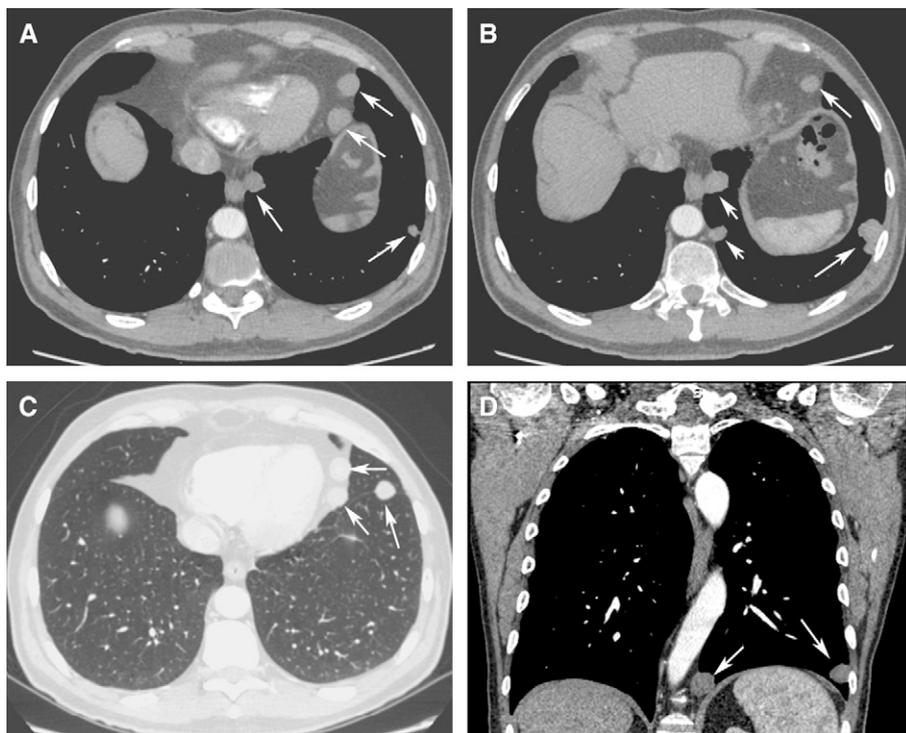


## Thoracolithiasis: A Rare Cause of Multiple Nodules

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**Figure 1.** Axial chest computed tomographic images obtained with (A and B) mediastinal and (C) lung window settings, and (D) a coronal reconstruction showing several homogeneous rounded nodules in the left hemithorax (arrows).

A 58-year-old asymptomatic man was referred to our hospital for further evaluation of “multiple pulmonary nodules” observed on a chest X-ray obtained during a routine physical examination. His laboratory test results were unremarkable. Chest computed tomography revealed several noncalcified, rounded nodules in the left hemithorax (Figure 1). The leading radiographic diagnosis was metastatic cancer, and therefore tissue diagnosis was recommended. The result of a computed tomography-guided needle biopsy was nondiagnostic, prompting a surgical biopsy. Video-assisted thoracoscopic surgery was performed and revealed various milky-white “pearl-like” nodules, which were free and mobile in the pleural cavity (Figures 2A and 2B). In total, 14 nodules were removed with forceps. Histopathologically, the nodules consisted of laminated layers of collagen fibers around centers composed of necrotic adipose tissue (Figures 2C and 2D). The diagnosis was thoracolithiasis. The patient’s postoperative recovery was uneventful.

Thoracolithiasis is a rare benign condition in which one or more mobile free bodies with or without calcification exist in the pleural space. Thoracoliths can be

distinguished from other lesions by their mobility and calcification. The imaging-based differential diagnosis includes granuloma, hamartoma, calcified metastasis, and gallstones in the pleural cavity. Noncalcified nodules may mimic neoplasms, particularly pleural tumors and metastasis (1–4).

In conclusion, our patient had 14 noncalcified nodules. The majority of thoracolithiasis cases reported in the English-language literature describe patients presenting with solitary and calcified nodules. To our knowledge, this is the first report of a patient presenting with multiple thoracoliths. ■

**Author disclosures** are available with the text of this article at [www.atsjournals.org](http://www.atsjournals.org).

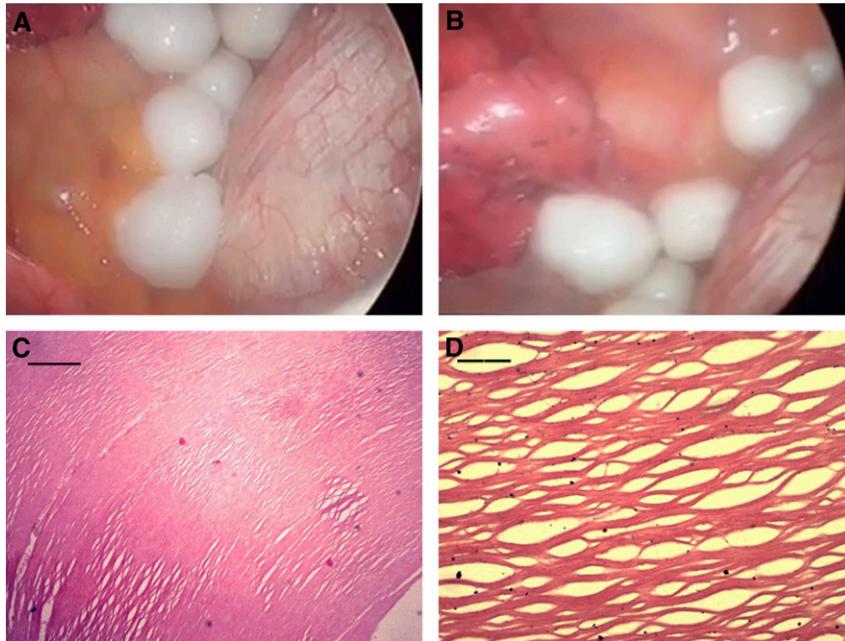
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**Figure 2.** (A and B) Images taken during surgery demonstrate the presence of numerous free and mobile milky-white nodules in the left pleural cavity. (C) Histopathological examination showed thick, hyalinized fibrous tissue that covered a core of fatty necrosis (hematoxylin and eosin stain; scale bar, 500  $\mu\text{m}$ ). The characteristic “basket-weave” configuration of laminated hypocellular mature collagen is shown in D (hematoxylin and eosin stain; scale bar, 100  $\mu\text{m}$ ).

## References

1. Peungjesada S, Gupta P, Mottershaw AM. Thoracolithiasis: a case report. *Clin Imaging* 2012;36:228–230.
2. Kim Y, Shim SS, Chun EM, Won TH, Park S. A pleural loose body mimicking a pleural tumor: a case report. *Korean J Radiol* 2015;16:1163–1165.
3. Kinoshita F, Saida Y, Okajima Y, Honda S, Sato T, Hayashibe A, *et al.* Thoracolithiasis: 11 cases with a calcified intrapleural loose body. *J Thorac Imaging* 2010;25:64–67.
4. Bhayana R, Chen YA, Deva DP. Bilateral mobile thoracolithiasis. *J Radiol Case Rep* 2014;8:16–20.