A 54-YEAR-OLD MAN WITH A HISTORY OF SMOKING PRESENTED WITH ACUTE chest pain at another hospital, where a chest radiograph was obtained as part of diagnostic testing. A mass in the right lung was incidentally detected on the radiograph. He was referred to this hospital, where computed tomography of the chest revealed a soft-tissue mass in the right lower lobe that was in contact with the posterior chest wall (Panel A, arrow). Since the contact area exceeded 5 cm in length, there was concern about chest-wall invasion. A cine magnetic resonance imaging scan, obtained with the use of a real-time echo technique (with a 1.5-T system; slice thickness, 8 mm; recovery time, 1 msec; echo time, 2.4 msec; and flip angle, 45 degrees), revealed that the mass moved upward and downward freely with respiration (Panel B, arrow; see video), ruling out the possibility that the mass had invaded the parietal pleura and changing the diagnosis of the tumor from stage IIb to stage Ib. Right lower lobectomy was performed, and pathological examination confirmed that the mass was an adenocarcinoma, with no invasion into the visceral pleura and no nodal involvement. The treatment was considered a surgical cure, and 11 months later, there was no evidence of recurrence.

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