## DIAGNOSTIC CHALLENGE • DÉFI DIAGNOSTIQUE

## Answer

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The correct answer is D. A left pleural catheter should be placed. The diagnosis is simultaneous bilateral spontaneous pneumothorax (SBSP).

The contralateral pneumothorax was missed by the emergency physician (and humble author), but noted by the radiologist. The patient returned for urgent reassessment, and had a left pleural catheter inserted. Both catheters were attached to suction and a water seal device. Despite 5 days of suction in hospital, the patient continued to have bilateral air leaks. As a result, he underwent bilateral thorascopic bullectomy and mechanical pleurodesis. The pathological analysis of the removed bullae was unremarkable. The patient had an uneventful postoperative course.

Simultaneous bilateral spontaneous pneumothorax is an uncommon condition that appears to be relatively refractory to standard treatment measures. Apart from isolated case reports, there is only 1 prior study of SBSP, a retrospective series of 12 patients identified over a 20-year period. In this series, all patients failed conservative treatment and required surgical management.<sup>1</sup>

Primary spontaneous pneumothorax (PSP) typically occurs in patients without underlying lung disease. According to the American College of Chest Physicians, at least two-thirds of patients with PSP can be treated successfully without large-bore chest tubes.<sup>2</sup> However, up to one third

of these patients will have ipsilateral recurrences, and 5% to 15% will have a contralateral recurrence.<sup>3</sup> There is much debate in the literature as to the significance of the small apical bullae that are frequently found bilaterally on spiral computed tomography in patients with PSP.

The main teaching point of this case is that patients often have more than one abnormality on x-ray. This author will hopefully return to his systematic method of reading chest radiographs.

Competing interests: None declared.

## References

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