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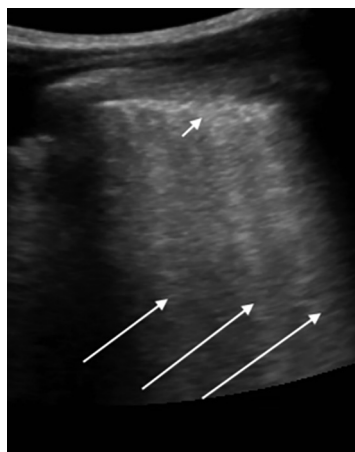
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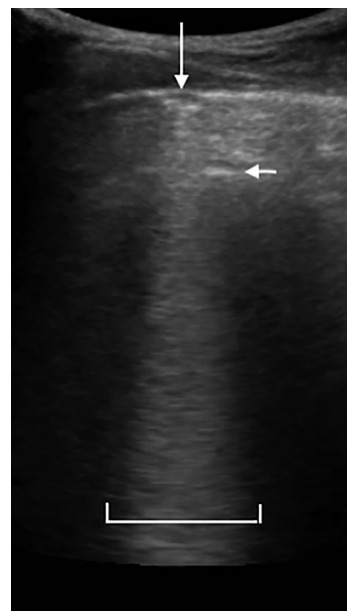
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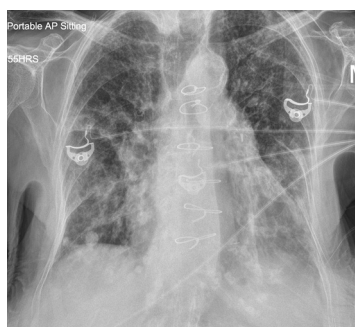
<https://doi.org/10.1016/j.annemergmed.2020.07.002>



**Figure 1.** Lung ultrasonography of the right upper posterior zone, demonstrating thickened irregular pleural line (short arrow) and B lines (long arrows). The emergency physician used a curvilinear probe (Sonosite C-60, 5 to 2 MHz; Sonosite, Bothell, WA) with a horizontal probe orientation with multibeam and tissue harmonic imaging presets off. The physician used the 12-zone technique.<sup>1</sup> The most noteworthy findings were in the right upper posterior zone and the left lower posterior zone.



**Figure 2.** Lung ultrasonography of the left lower posterior zone, demonstrating skip lesion of subpleural consolidation (vertical arrow) but minimal pleural discontinuity. Also note the B line (bracket) with A lines (short arrow) denoting surrounding normal lung tissue. Probe setting same as above.



**Figure 3.** Chest radiography showing interstitial infiltrate.

[Ann Emerg Med. 2021;77:e65-e66.]

A 91-year-old woman with emphysema, heart failure, and remote coronary artery bypass grafting attended the emergency department (ED) with cough, fever, and dyspnea for 3 days. She lived with her son, who had recently tested positive for novel coronavirus disease 2019 (COVID-19). On examination, she had normal mentation, a temperature of 38.8°C (101.8°F), a pulse rate of 110 beats/min, a respiratory rate of 28 breaths/min, and oxygen levels of 91% on room air. On auscultation, she had bilateral coarse inspiratory crackles. The emergency physician performed bedside lung ultrasonography; the most prominent findings were in the right upper posterior lung zone (Figure 1, Video 1) and left lower posterior zone (Figure 2, Video 2). Then the physician obtained a confirmatory chest radiograph (Figure 3).

*For the diagnosis and teaching points, see page e66.*

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## IMAGES IN EMERGENCY MEDICINE

*(continued from p. e65)***DIAGNOSIS:**

*COVID-19 lung infection.* The flocked nasopharyngeal swab demonstrated a positive test result (Cobas Roche 6800 reverse transcriptase–polymerase chain reaction; Roche Canada, Mississauga, Ontario, Canada) within 6 hours.

Ultrasonography is a rapid, repeatable test that minimizes patient transfer and infection concerns. Key features include a thickened, irregular pleural line, “skip” lesions caused by subpleural effusions, and B lines caused by thickened subpleural septa.<sup>2-6</sup> There are no unique ultrasonographic findings in COVID-19, and comorbidities (eg, heart failure) may have similar appearance; as such, the optimal ED utility remains unclear.<sup>4,5</sup> However, bilateral B lines appear to be one of the strongest clinical predictors of COVID-19 in undifferentiated ED patients,<sup>4</sup> and ultrasonographic findings appear correlated with computed tomographic findings in ill patients.<sup>2</sup>

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