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# The Clinical Picture

## Double trouble: Simultaneous complications of therapeutic thoracentesis



**FIGURE 1.** Radiography at the time of presentation showed opacification of the right hemithorax secondary to hepatic hydrothorax.

**A** 51-YEAR-OLD MAN with end-stage liver disease from alcohol abuse presented with worsening dyspnea on exertion. He had a history of ascites requiring diuretic therapy and intermittent paracentesis, as well as symptomatic hepatic hydrothorax requiring thoracentesis. Chest radiography showed a large right hydrothorax (**FIGURE 1**).

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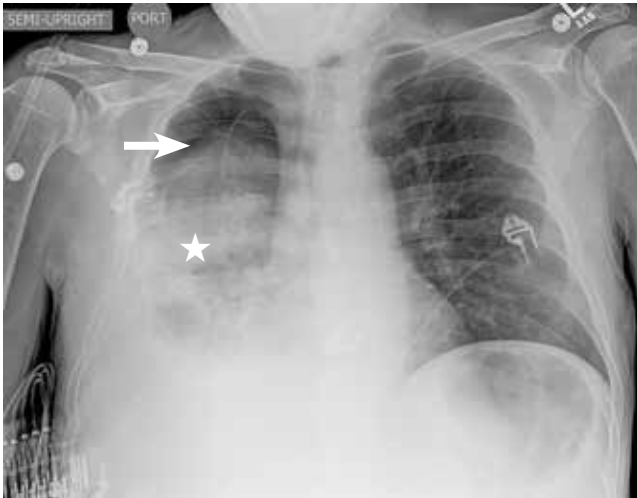
The patient underwent high-volume thoracentesis, and 3.2 L of clear fluid was removed. Chest radiography after the procedure revealed a right-sided pneumo-



**FIGURE 2.** Radiography after high-volume thoracentesis showed pneumothorax (arrow).

thorax (**FIGURE 2**, arrow). The patient was mildly short of breath and was treated with high-flow oxygen. Later the same day, his shortness of breath worsened, and repeat chest radiography showed an unchanged pneumothorax that was now complicated by reexpansion pulmonary edema after thoracentesis (**FIGURE 3**, star). The reexpansion pulmonary edema resolved by the following day, and the pneumothorax resolved after placement of a pig-tail catheter into the pleural space (**FIGURE 4**).

Iatrogenic pneumothorax after thoracentesis occurs in 6% of cases.<sup>1</sup> Iatrogenic reexpansion pulmonary edema after thoracentesis occurs in fewer than 1% of cases.<sup>2,3</sup> Simultaneous pneumothorax and reexpansion pulmonary edema arising from the same procedure appears to be extremely rare. ■



**FIGURE 3.** Radiography done later the same day as FIGURE 2 showed the unchanged pneumothorax (arrow), now complicated by reexpansion pulmonary edema (star).



**FIGURE 4.** Radiography 1 day later showed resolution of the pneumothorax and the reexpansion pulmonary edema.

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