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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.¹ Iatrogenic reexpansion pulmonary edema after thoracentesis occurs in fewer than 1% of cases.^{2,3} Simultaneous pneumothorax and reexpansion pulmonary edema arising from the same procedure appears to be extremely rare.

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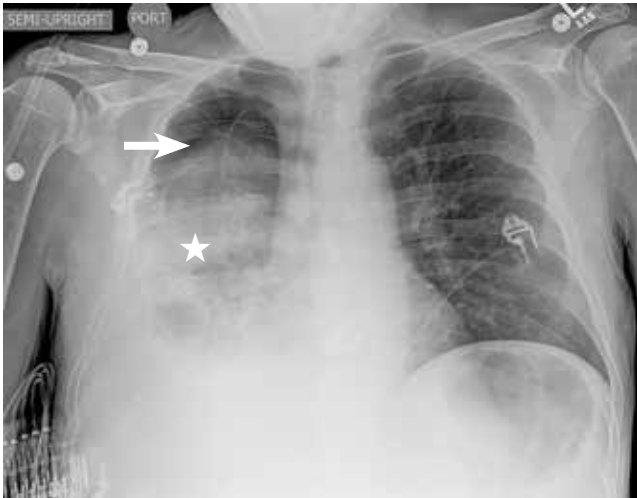


FIGURE 3. Radiography done later the same day as FIGURE 2 showed the unchanged pneumothorax (arrow), now complicated by reexpansion pulmonary edema (star).



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

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