

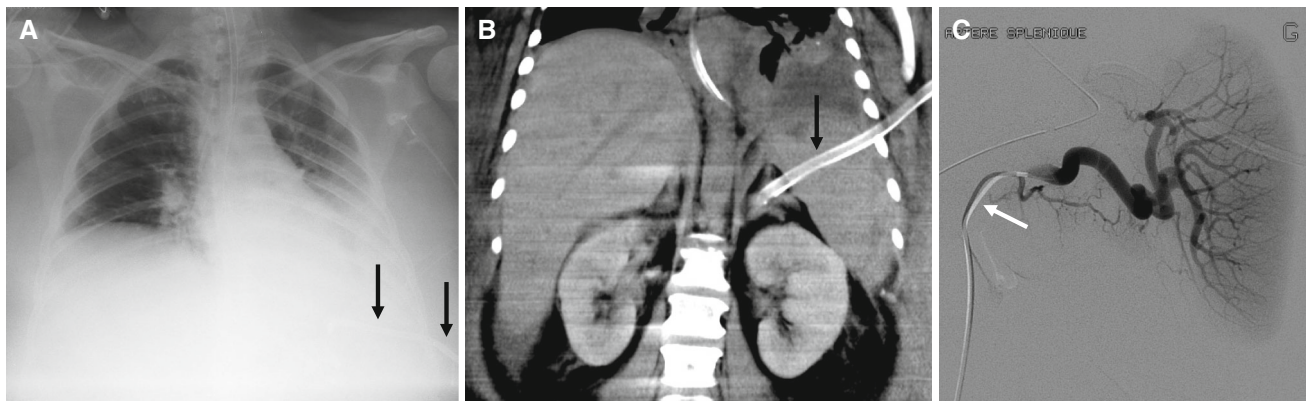
## A place that is easier to get into than to get out of!

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Received: 8 April 2016/Revised: 9 April 2016/Accepted: 19 April 2016/Published online: 26 April 2016  
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Abdominal visceral injuries secondary to chest tube misplacement are associated with significant morbidity. We report the case of a 41-yr-old morbidly obese (body mass index  $45 \text{ kg}\cdot\text{m}^{-2}$ ) woman who was admitted to our

intensive care unit (ICU) three weeks after sleeve gastrectomy. She exhibited respiratory distress and signs of sepsis. Chest radiography followed by thoracic ultrasonography (US) revealed a pleural empyema. A left



**Figure** A radiographic image (panel A) of the 41-yr-old morbidly obese patient with a chest tube (black arrow) that appears to have been accidentally placed in the abdominal cavity. A computed tomographic image (panel B) confirmed that the chest tube (black arrow) had traversed the peritoneum and was present in the splenic

parenchyma. In the radiology suite, a catheter (white arrow) was positioned in the splenic artery, which was then prepared for embolization should bleeding occur during removal of the misplaced chest tube.

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chest tube placed in the ICU with the assistance of a nurse was used to retract excessive lateral thoracic wall adipose tissue. Because of poor-quality US imaging, the chest tube was placed without imaging, using an integrated metal trocar to guide it through the overlying adipose tissue and into the pleural space (20 cm marking at the skin) without apparent resistance. As no pleural fluid was noted in the chest tube, however, the procedure was stopped, and a chest radiograph was obtained. The radiograph suggested an abdominal location of the chest tube, so computed

tomography (CT) was performed. Coronal CT reconstruction confirmed the abnormal course of the tube, which had been passed into the splenic parenchyma.

After an operating room was prepared for possible emergency laparotomy, an interventional radiologist placed a catheter in the splenic artery to perform immediate selective splenic artery embolization should bleeding occur while removing the tube. The chest tube, however, was removed in the radiology suite slowly and successfully (without bleeding) (Figure). The patient left the ICU four weeks after admission.

Emergency chest drainage in obese patients is difficult. Fingert dissection should always be preferred to rigid trocar-assisted chest tube insertion. To ensure safe removal of an abdominally malpositioned chest tube, we propose prior preparation for a possible emergent operation and/or splenic artery embolization.

**Conflicts of interest** None declared.

**Editorial responsibility** This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.