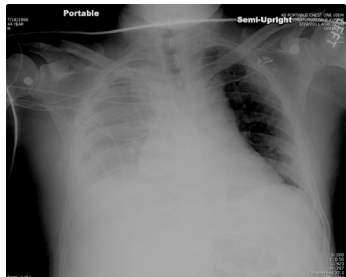


CXR on DAY 3



- Hmm....not really drained.
- Well, let's get a CT scan....

CT on Day 3



- Looks like VATS is in order.

EAST Guidelines-Feb 2011

- Level II Recommendation:
 - CT of the chest is indicated in patients with persistent opacity on chest radiograph after tube thoracostomy to determine whether significant undrained fluid exists
- Level I recommendation:
 - Persistent retained hemothorax, seen on plain films, after placement of a thoracostomy tube should be treated with early VATS, not a second chest tube

Pearls...

- Retained hemothorax evident on plain X-ray following placement of initial chest tube may lead to empyema in 33%. Patients with higher ISS may benefit most from evacuation. (Class III)

◦ Karmy-Jones, et al. Can Respir J. 2008;15:255–258.

Pearls...

- Patients with retained hemothorax estimated to be >500 mL on CT scan by postinjury day 2 should be considered for early VATS. Surgery done before postinjury day 3 results in significant reduction of operative difficulty, contamination/infection of hematoma, and hospital length of stay. (Class II)

◦ Vassiliu, et al. Am Surg. 2001;67:1165–1169.

Pearls...

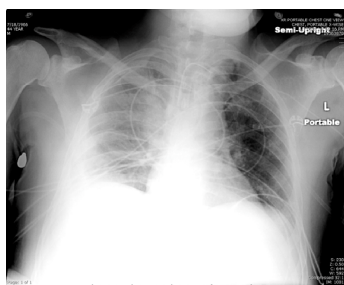
- In patients with retained hemothorax within 72 h of initial chest tube drainage, VATS was associated with significantly shorter duration of chest tube drainage, shorter postoperative length of stay, and lower hospital costs compared with second tube thoracostomy. Ten of 24 patients randomized to chest tube failed and required surgery. Study protocol terminated early secondary to clear benefit of VATS. Small sample size. (Class I)

◦ Ann Thorac Surg. 1997;64:1396–1400; discussion 1400–1401.

VATS Procedure



CXR on Day 10



In Summary...

- Patients with a hemothorax should have it drained with a chest tube
- If CXR not clear, consider CT scan by hospital day 3
- Consider VATS by day 5