

CASE STUDY - TRAUMA - CAR ACCIDENT

23 yo wm unrestrained driver in high speed t-bone MVC on drivers side. Unresponsive initially at the scene, then increase to GCS 13. Arrived in trauma center GCS 13, HR 120, BP 110/55, SaO2 94% on face mask, moaning loudly somewhat combative.

Physical exam reveals:

Facial abrasions and lacerations, tympanic membranes clear and pupils round and reactive

Neck & back unevaluable

Chest tenderness on left with decreased breath sounds.

Abdomen slightly distended and tender left greater than right,

Pelvis stable.

Obvious deformity Left thigh with good distal pulses.

TRAUMA MANAGEMENT:

1. What are the management priorities? (Hint: ABCDE)
2. What injuries are you looking for / concerned for? (Hint: assess head, chest, abdomen, neck / back, extremities)
3. What additional studies do you want to obtain? (Hint: xrays, CTs, labs)
4. What safety measures are on the following picture?



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X-RAYS, SCANS, AND BLOOD WORK REVEAL: (5 INJURIES)

CXR: Left rib fractures with a hemopneumothorax.

Pelvis xray: no fracture

Left femur: minimally displaced midshaft fracture

Back films: no fracture

CT head: small temporal epidural hematoma

CT neck: negative

Chest CT: Left pulmonary contusion with small hemopneumothorax. Properly placed chest tube.

CT abdomen & pelvis: Grade 3 splenic laceration without a blush and moderate hemoperitoneum

Hemoglobin 13.3 Hematocrit 40

Questions / Tasks:

1. Identify each injury and list treatment options.
2. What are the management priorities in order of importance?
3. What are basic care measures should be instituted? (Hint: nursing, respiratory, physical therapy, dietary)
4. What follow-up studies should be done? (Hint: xrays, labs)
5. For each injury, list the normal physiology for that organ system and the pathology associated with injury.
6. For each injury, what are the common complications and their degree of likeliness?
7. What is the overall expected length of stay? Overall prognosis - short and long-term?
8. What education can be to the patient as measures to prevent this from happening in the future?
9. List three basic safety measures should be instituted in the hospital system to assure no harm comes to the patient during his stay?

Appropriate studies

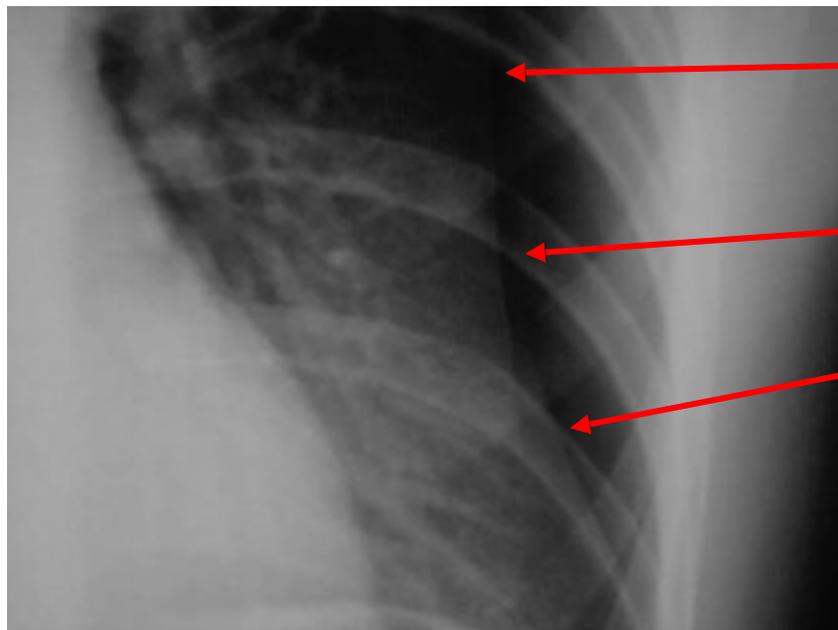
CXR: Left rib fractures with a pneumothorax.



Red arrows indicate subcutaneous emphysema.

Green arrows indicate rib

follow-up film:



Red arrows indicate the pleural edge of the pneumothorax.

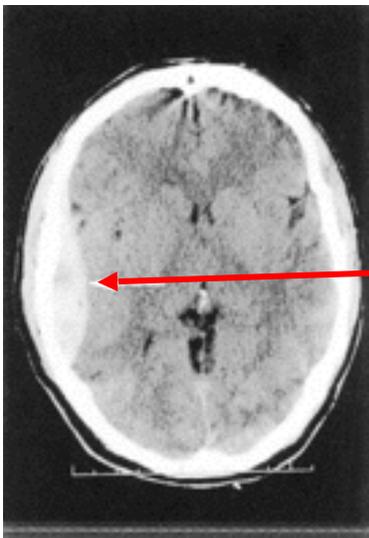
Pelvis xray: no fracture



Left femur: minimally displaced midshaft fracture



CT head: small temporal epidural hematoma

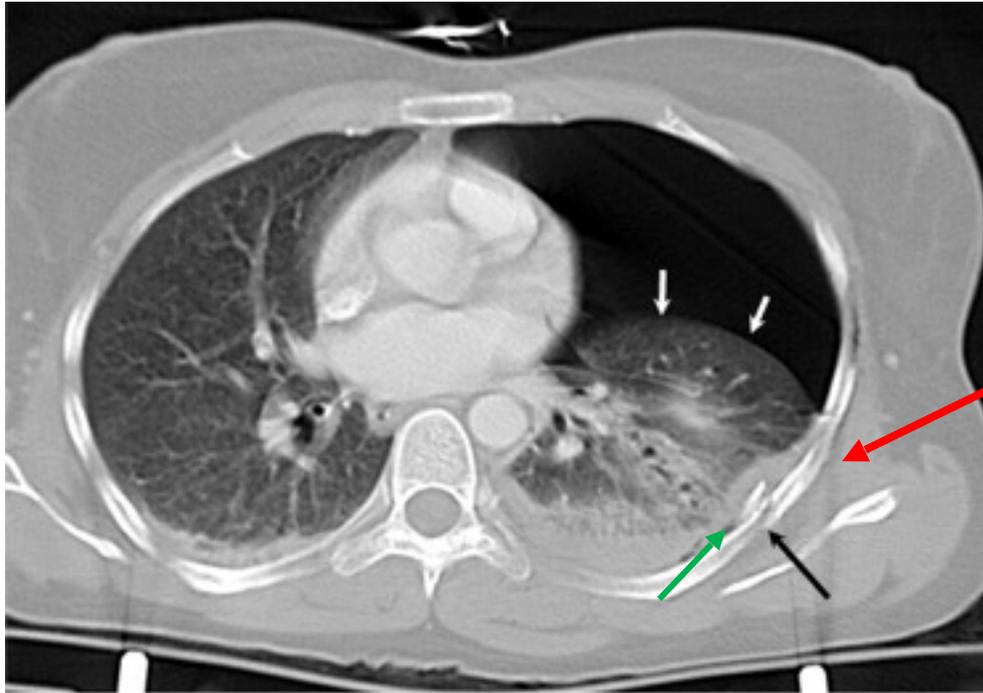


Red arrow indicates R temporal hematoma.

Back films: no fracture

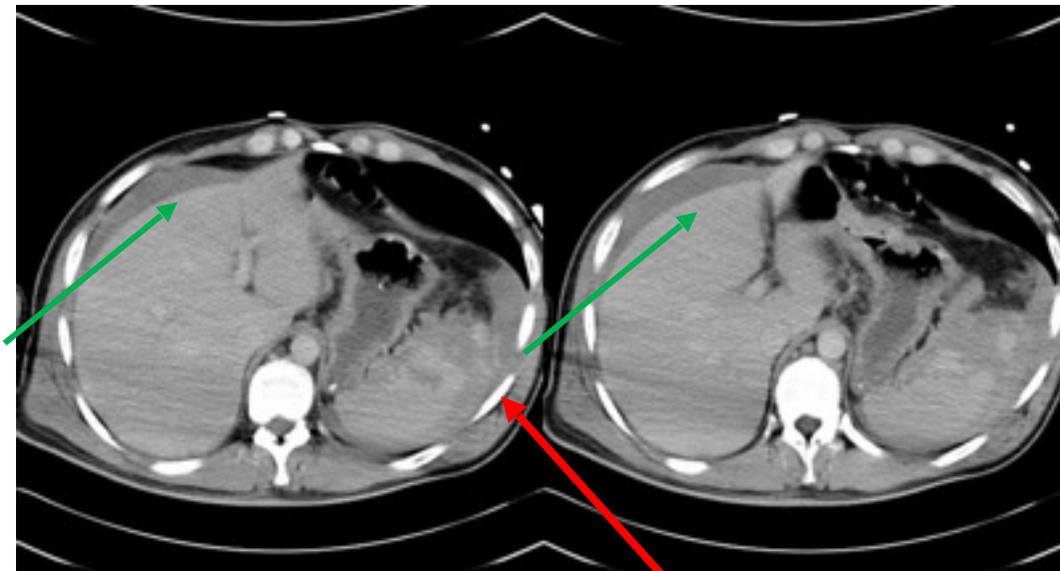
CT neck: negative

Chest CT: Left pulmonary contusion with rib fracture and hemopneumothorax.



White arrows show the edge of the lung, indicating the pneumothorax. Black arrow shows the rib fracture. Red arrow indicates the pulmonary contusion. Green arrow indicates the small hemothorax.

CT abdomen & pelvis: Grade 3 splenic laceration without a blush and moderate hemoperitoneum



Red arrow indicates splenic injury. Green arrow indicates hemoperitoneum (free fluid).