

Pelvic Trauma

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Introduction

This 23 year old woman was racing her friend on the highway when she lost control of her sports car. It veered into a concrete barrier head-on at 130 km / hr. The passenger was found to be dead at the scene by paramedics, and extrication time for the driver was 40 minutes. When found by paramedics, she was unconscious, decerebrating (extending) to pain, and had mid-dilated unreactive pupils. She was intubated by paramedics and brought to your trauma room on a long spine board and semirigid C-collar.

Her airway is secured by the endotracheal tube, and the ventilator is set to hyperventilate her. She is hemodynamically tenuous but her blood pressure responds to 4L of crystalloid and 2 units of type-specific uncrossmatched blood. Her neurologic examination is essentially unchanged from the time of extrication. She has a grossly deformed left arm with an open injury at the mid-portion of her forearm (Grade II). Her left hemipelvis feels unstable to compression and axial load on her left femur.

What are your provisional diagnoses?

Forearm Radiograph:

Pelvic Radiographs:

How would you treat this patient:

A: In the trauma room ?

B: Definitively ?

Management

Tetanus toxoid was administered along with IV Ancef. The forearm wound was covered with sterile gauze and a splint was applied. After a CT scan of her head, which showed a subarachnoid hemorrhage, the patient was taken to the operating room for definitive management of her injuries. The neurosurgical team placed an intracranial pressure monitor and the orthopaedic team proceeded to definitively fix the fractures.

An irrigation and debridement of the open forearm fracture was followed by open reduction and internal fixation of the radial and ulnar fractures.

Forearm Radiograph:

After an external fixator was placed on the pelvis, the patient became hypotensive and was aggressively resuscitated by the anaesthetists. There were no abdominal injuries on the CT scan of the abdomen.

What is your diagnosis?

The patient was taken to the angiography suite for presumed arterial intrapelvic bleeding. Angiograms demonstrated the following:

Angiogram of Pelvic Vessels:

What is the diagnosis above and how is it treated in the angiography suite?

Bleeding was observed from both superior gluteal arteries (SGA), more from the left side than the right. Selective arterial embolization was carried out by the interventional radiologists in the angiography suite.

Angiogram of Pelvic Vessels:

The patient was hemodynamically stable post procedure and returned to the intensive care unit.