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SESAP Critique  
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Category 6, Items 30 and 31

Knowing priorities is key for optimal management of multiple trauma patients. A patient who is hemodynamically labile in the trauma setting has hemorrhagic shock until proven otherwise. With the exception of brisk bleeding from an open wound, three body cavities in which blood loss can result in hemodynamic lability are the chest, abdomen, and pelvis. Although this patient has several major problems, including a blown left pupil, a widened mediastinum, an unstable pelvic fracture, and a possible spinal cord injury, a systematic approach is imperative.

This patient has been intubated and breath sounds are equal bilaterally, which is not consistent with a tension pneumothorax or massive hemothorax. The primary survey should emphasize the patient's circulatory status to determine the cause of his hemodynamic lability. With the chest cavity essentially ruled out for containing any significant blood loss, a diagnostic peritoneal tap/lavage (open, supraumbilical approach) would be the most expeditious method to determine the site of blood loss. The aspiration of nonclotting blood would be diagnostic for intra-abdominal bleeding and would dictate that the patient be taken to the operating suite for exploration. However, if the patient does not have gross blood on diagnostic peritoneal aspiration, angiography to identify the probably active arterial bleeding from the pelvic fracture should be considered. Embolization plays a pivotal role in the management of arterial bleeding from a pelvic fracture.

In the hemodynamically labile patient, computed tomographic (CT) scan has no role in the evaluation of suspected abdominal injury. Immediate operation would be inappropriate unless there is confirmation of active intra-abdominal bleeding. This patient's clinical presentation is highly suggestive of an intracranial injury. Although he has a blown pupil, his hypotension should not be attributed to his head injury. Traumatic aortic disruption causes exsanguination and death, not hypotension. Although a cervical fracture could result in spinal cord injury and subsequent neurogenic shock, initial management to rule out a hemorrhagic source is still required.

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