PP130 FINDING THE LEAKING PIPE: COVERT TRAUMATIC THORACIC AORTIC INJURY

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Introduction:
Blunt Traumatic Aortic Injury (BTAI) is the second common cause of mortality in trauma patient. The mortality of BTAI is mostly within first peak of trimodal death in trauma(80% cases).

Case description:
31-year-old gentlemen alleged fall from 3-story-height building, in seating position. Upon arrival of Pre-Hospital Care(PHC)on scene, primary survey was commenced and noted patient was hypotensive despite of no open wound, hence Trauma Alert was activated. On arrival to base, patient complained of persistent left sided chest pain and low back pain. However primary and secondary survey did not point towards any life-threatening or hidden injury. Due to persistent hypotension and tachycardia, permissive hypotension resuscitation(PHR) commenced. Patient was sent for Pan-Computed Tomography(CT) rather than damage control surgery despite of the patient's hemodynamic instability and the finding is thoracic transection at isthmus measuring 2.4cm(neck)x1.5cm(height)x2.3cm(width) with minimal left hemothorax. Patient then admitted to ward and chest tube was inserted for worsening hemothorax. The transection of aorta was treated conservatively. Patient was discharge well after 24 days and given follow-up under cardiothoracic.

Discussion:
BTAI requires high index of suspicion based on mechanism of injury, hemodynamic instability and associated injury in thoracic. There are no clinical sign or examination finding which sufficiently sensitive or specific to detect BTAI, so appropriate investigation should assist. Chest X-Ray(CXR) finding will show indirect sign of aortic injury, however it is not reliable as a screening tool. Therefore, it is warranted for further management if CXR findings is suspicious BTAI. Transesophageal echocardiography(TEE) is the best choice to detect BTAI in persistent unstable patient, meanwhile CT chest-Angiography is the option if lack of specialty in echocardiography or in stable patient. Unstable patient without apparent injury warrant for surgical thoracotomy if only extra-thoracic injury has been ruled-out. In view of this patient sustained undifferentiated cause of hypotension in trauma, thus imaging modality is the best option.

Conclusion:
Following unstable blunt trauma, adequate resuscitation as per ATLS approach and rule-out common life-threatening injury. Decision of immediate surgery or diagnostic imaging depend on degree suspicion of injury which include mode and dynamic of injury.

Keywords: blunt trauma, aortic injury