**HIDDEN BLEEDER: A CASE OF TRAUMATIC FLAIL CHEST COMPLICATED WITH OCCULT HAEMOTHORAX**

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**Introduction**: Flail chest complicated with haemothorax is a common complication after blunt chest trauma. This is a potentially life-threatening condition due to possible ventilatory and circulatory compromise. We report a case of a large segment flail chest with occult haemothorax.

**Case Description:** A 56-year-old male, who was a motorcyclist, sustained a traumatic chest injury after being hit by a lorry trailer. He was on warfarin for chronic rheumatic heart disease. He was brought to the emergency department with dyspnoea, left-sided chest pain and paradoxical breathing. Initially, he was normotensive and saturating under a non-rebreather mask 15L/min. Chest X-ray showed segmental fracture of left 1st to 6th rib with bilateral lung contusion. Serial extended focused assessment with sonography in trauma (EFAST) revealed no positive finding. Subsequently, the patient developed hypotension despite ongoing blood transfusion. After a left chest drain was inserted, 300 ml of blood was drained and his blood pressure improved. Chest drain was kept for four days and a total of 1100 ml of blood was drained. He was discharged well without requiring thoracotomy.

**Discussion:** Flail chest is frequently associated with other pathologies such as haemothorax and pneumothorax which lead to higher mortality. Although EFAST has high sensitivity in detecting haemothorax, its effectiveness is limited by the body habitus of the patient and ultrasound is operator-dependent. Computed tomography of thorax has better sensitivity for haemothorax but it is not suitable for hypotensive trauma patients. Chest drain insertion in such a situation has both diagnostic and therapeutic purposes for occult haemothorax. Most guidelines recommend chest drain for all traumatic haemothoraces regardless of the size because blood clots in the pleural space can act as a local anticoagulant by releasing fibrinolysins from their surface. Only occult haemothorax with less than 300 ml is possible to be managed conservatively.

**Conclusion:** In a patient with flail chest, emergency providers should have a high index of suspicion for other associated thoracic injuries. In the absence of other obvious source of bleeding, chest drain should be considered for hypotensive patients with flail chest as early intervention for occult haemothorax may reduce mortality.

**Keywords:** Flail chest, haemothorax, thoracic trauma