**The Clinical Case Report: Case of Traumatic Blunt Thoracic Aortic Injury.**

Wan Noorulfaten Azreen Wan Hussin1 , Mohd Johar Jaafar1 and Dharmendra Ganasagaran2

1 Department of Emergency Medicine, Hospital Canselor Tuanku Muhriz (HCTM), Wilayah Persekutuan Kuala Lumpur, Malaysia.

2 Department of Surgical, Hospital Sultanah Aminah , Johor, Malaysia

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**Introduction**

Blunt thoracic aortic injury (BTAI) is the second leading cause of death in trauma.The mechanism includes rapid deceleration, either from a high-velocity impact or a fall from a significant height.

**Case report**

A- 44-year old gentleman without comorbidities involved in an alleged motor vehicle accident involving motorbike and Hilux. He sustained polytrauma involving head and chest besides eye injury, abrasion wound and pain over the left chest and left knee. He went to the private hospital before was sent over to Hospital Sultanah Aminah. Primary survey was clear and extended fast was negative. Haemodynamically he was stable with BP of 103/79mmHg, HR86 bpm and saturation of 99%. The Hb level was 10.6g/dL. There are fractures of the 1st, 2nd , and 11 left rib with minimal haemothorax on the chest radiograph. Pelvis radiograph shows fracture of the left posterior acetabular wall. CT brain shows a right frontal extradural haemorrhage with facial bone fractures and from the CT thorax, he sustained blunt thoracic vascular injury with pseudoaneurysm of the proximal aorta with mediastinal haematoma. He was managed by emergency, trauma and orthopaedic team and discharged well after 7 days.

**Discussion**

Blunt thoracic aortic injury (BTAI) is a serious condition that can rapidly lead to death. The approach for traumatic chest pain is to look for life-threatening conditions in the primary and secondary survey. Clinically, patients may present with bilateral hyposphygmia of femoral pulses, arrhythmia, hypotension and tachycardia. Chest radiograph may shows widened mediastinum, indistinct aortic knuckle, apical cap, left pleural effusion, tracheal deviation and rib fractures. A normal chest radiograph does not exclude BTAI due to their low sensitivity. CT angiography is the gold standard for the diagnosis. ECG gated computed tomography angiogram and trans-oesophageal echocardiography are an alternative imaging. The clinical presentation, hemodynamic status, and the grade of aortic injury are the determinants of the treatment. Definitive treatment includes endovascular stenting, open surgery, and conservative management are an option.

Conclusion

BTAI is the serious condition that can lead to death but it commonly missed in emergency department. Thus a high index of suspicion are crucial in managing traumatic chest injury patients.