

TRANSECTED THORACIC VETEBRAL FRACTURE WITH VETEBRAL ARTERY INJURY : A CASE REPORT

¹Siek IM; ¹Farid T; ¹Lidawati A; ²Kamalruzaman A;

¹Orthopedic Department, Hospital Enche Besar Hajjah Khalsom, Johor

INTRODUCTION:

Vertebrae fractures are common and comprising 10-15% of all trauma. However, spinal fractures rarely cause hemothorax, accounting for 0.9% of all hemothorax cases. We report a rare case of transcatheter arterial embolization (TAE) with successful outcomes for hemothorax caused by transected vertebral fracture with vertebral arterial transection.

REPORT:

A 59-year-old man alleged motor vehicle accident sustained T9/T10 transected spinal injury ASIA Impairment Scale C with adjacent mild to moderate right hemothorax .(FIGURE 1) CTA thorax showed pooling of contrast within in arterial phase and subsequent delayed phase in keeping with active bleeding at T10/T11 level. (FIGURE 2) The hemothorax was caused by bleeding from the vertebral arterial transection. However his vital signs were stable and was for treated with conservative management. No tube thoracostomy was done.

Intravenous methylprednisolone was commenced for a day to reduce the cord oedema. Unfortunately, patient developed hypovolemic shock with disseminated intravascular coagulation (DIVC) post trauma day two. Patient was planned for urgent haemostasis procedure .Thus, a successful transcatheter arterial embolization (TAE) was performed. Definitive surgical spinal fixation was done one week later.



FIGURE 1: CORONAL AND SAGITTAL VIEW OF CT SCAN (ARROW)

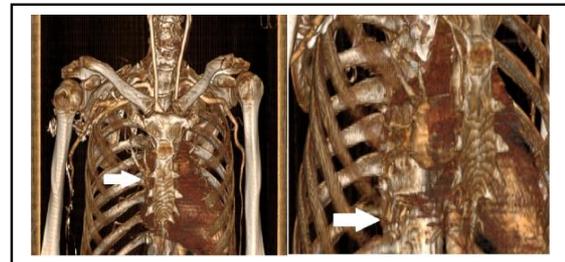


FIGURE 2: CTA SHOWED HEMATOMA AT T10/T11 LEVEL(ARROW)

CONCLUSION:

Spinal fractures causing hemothorax could present as a life threatening injury. TAE, a relatively safe procedure, may be an effective strategy to prevent hemothorax rebleeding until surgical spinal fixation is performed. Hence, prompt detection following by early stabilization could prevent considerable morbidity and mortality.

REFERENCES:

1. Inaba et al., J Trauma 2011; 70(1):174–9.
2. Simon et al., [Updated 2022 Jul 18]. In: StatPearls. Treasure Island (FL) 2022
3. Ninomiya et al., Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine (2020) 28:92
4. Mastsunaga et al., *Journal of Medical Case Reports* (2022) 16:332