Abstract for Case Report

Authors:

Sharifah Khairun Nisa Al Idrus Binti Wan Mohamad, Mohd Hatif Bin Kamail, Ammar Bin Adnan

Emergency Department, Sarawak General Hospital, Kuching, Sarawak, Malaysia

**Title: From Shallow Wound to Deep Trouble: A Case of Liver Artery Laceration**

**Background**

Penetrating trauma, particularly stab wounds to the abdomen, represents a significant challenge in emergency and trauma departments. Such injuries can result in substantial internal damage, even when external wounds appear minor. Rapid and accurate assessment is crucial, as delays in intervention can lead to increased morbidity and mortality. Early evaluation and referral to the primary surgical team are essential in managing penetrating abdominal trauma.

**Case presentation**

A 64-year-old male presented to the emergency department following an assault resulting in a stab wound to the abdomen. The patient was hemodynamically stable with a hemoglobin level of 13.9 g/dL. Physical examination revealed a 1 cm deep laceration in the epigastric region. An initial Extended Focused Assessment with Sonography for Trauma (EFAST) identified minimal free fluid in the hepatorenal angle. An early referral was made to the surgical team. However, while awaiting a CT scan, the patient’s condition worsened, marked by an increase in drowsiness, a drop in hemoglobin to 10g/dl and metabolic acidosis. A repeated EFAST showed large amount free fluid at hepatorenal angle, demonstrating the potential for rapid progression in cases of internal bleeding. Subsequent CT imaging identified a grade 4 liver injury with active arterial bleeding from a pseudoaneurysm in the left hepatic artery. An emergency exploratory laparotomy was performed, during which the patient received 3 pints of packed red blood cells, 2 units of fresh frozen plasma, and 2 units of platelets, with an estimated blood loss of 1.8 liters.

**Discussion**

This case illustrates the potential severity of seemingly minor abdominal stab wounds, particularly when involving vascular structures such as the liver. Despite the superficial nature of the initial injury, a stab wound can result in significant internal bleeding if an artery is compromised. Serial EFAST examinations provided crucial, real-time information that guided clinical decision-making and facilitated the timely identification of worsening internal bleeding.

**Conclusion**

In conclusion, this case underscores the importance of recognizing the potential severity of liver injuries, even from seemingly minor stab wounds.

Keywords;

Liver artery laceration, Penetrating abdominal trauma

No financial interest or disclosure

Word count excluding title and keywords: 328