### POSTER NO.217

# WE WANT HIM ALIVE! PENETRATING GUNSHOT INJURY

Y X GAN<sup>1</sup>, K B AHMAD IBRAHIM ,S SYAFIZA, R S SRI, A W MAHATHAR <sup>1</sup>HOSPITAL KUALA LUMPUR, KUALA LUMPUR, MALAYSIA



#### **INTRODUCTION**

The extent of injuries due to gunshot depends on the ballistic properties of the bullet (energy, type, and stability) and the medium crossed. Gunshot wound at the thoracoabdominal region is commonly associated with life-threatening multisystemic injuries leading to high mortality and morbidity. In the presence of hemodynamic instability, emergent surgical intervention is warranted. However, in stable patients Computed Tomography (CT) imaging is a feasible option and may play a crucial role.

#### **CASE DISCRIPTION**

We present a case of a criminal who was shot 3 times with a handgun by police officer from short distance with the aim of not to kill him as he is a wanted suspect to solve 40 armed robbery cases.

Upon receiving prehospital notification, trauma team was activated prior to patient's arrival. Primary survey revealed two entry wounds over the right thoraco-abdominal region with no exit wound seen and another through and through wound over his right forearm. Air entries were equal bilaterally and abdomen was tender over right upper quadrant.

Extended FAST showed minimal free fluid at the Morrison's pouch. He was intubated, and we proceed with primary x-ray followed by CECT Thorax, Abdomen and Pelvis as he remained hemodynamically stable





CT imaging demonstrated presence of two bullets; located over the left lobe of liver and left 9th intercostal space with surrounding hematoma associated with bilateral lower lobe pneumothorax, suspected right diaphragm defect and pneumoperitoneum with suspicion of bowel wall defect. X-ray showed comminuted fracture over the mid shaft of right radius.

He subsequently underwent a combine operation of exploratory laparotomy, sigmoid colectomy, double barrel stoma and left diaphragmatic repair as well as wound debridement, radial artery & muscle repair of right forearm under both surgical and orthopedics team. Intraoperative findings were almost similar to CT findings. He was discharged well after 15 days.

## **DISCUSSION**

In a gunshot injury, external wounds do not correlate well with internal injury as bullet trajectory is often unpredictable especially at the anatomical junctions. Penetrating trauma to the abdomen often results in both superficial and internal injuries. Skin wounds may not reveal the full extent of the injury in deeper tissues. It often causes damage to internal organs resulting in shock and infection. The severity depends on the body organs involved, the characteristics of the object, and the amount of energy transmitted. In hemodynamically stable patient, CT is a useful tool to delineate the extent of the injury and provides useful information to guide surgical intervention

### CONCLUSION

Evaluation with CT imaging should be considered following gunshot injuries in a carefully selected group of patients as it may provide precious information regarding the patient care plan.

## **ACKNOWLEDGEMENT AND CONFLICT OF INTEREST**

The authors are grateful to the patient for consenting to have his case presented here. The authors declares that there is no conflict of interest or funding. We certify that the submission is original work and is not under review at any other publication.

### **REFERENCES**

- 1. Gunshot Wound Practical Aspects of Firearms, Ballistics, and Forensic Techniques, Third Edition By M.D. DiMaio
- 2. Maiden N. Ballistics reviews: mechanisms of bullet wound trauma. Forensic Sci Med Pathol. 2009
- 3. Fallouh HB, Venugopal PS, Newton A. Occult gunshot wounds in the emergency department. Lancet