



KEMENTERIAN KESIHATAN MALAYSIA
HOSPITAL SULTAN ISMAIL

A NIGHT THAT MAKES TOMORROW'S HEADLINES

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Introduction

The act of terrorism places a unique burden and strain on Emergency Medical Services (EMS) in dealing with the complexity of injuries to the victims and intruders. Preparedness of the emergency department with the unprecedented event may pose a real challenge as one patient may have the combination of both blunt and penetrating injuries that may occur at the same time, thus further complicating the matters.

Case Descriptions

The nation was shocked when two police officer were killed while another was injured in the line of duty at one of the police stations in Johor during early hours of May 2024. They were attacked by an intruder which was later shot to death. The officers were assaulted by the suspect who was armed with a machete and later confiscated a gun from the police officers.

The injured police officer was rushed to hospital with 2 gunshots over the chest and lower abdomen. He was alert and conscious and treatment was initiated in the resuscitation zone. After hours of observation, he developed subcutaneous emphysema and CT thorax revealed the wound trajectory without any bullet or shrapnel.

He underwent wound exploration and washout, intraoperative findings shows both entry and exit wounds with crooked trajectory on the upper back wound 26cm while the lower abdomen 19 cm in length (Figure 1). The police officer was admitted under the surgical team before being discharged a week later.



Figure 1. Patient's wounds trajectory

Discussion

Injuries inflicted during terrorist attacks are always unpredictable and may be crude. Prompt treatment of the injury can prevent lethal consequences.

Gunshot wounds (GSW) result in diffuse soft-tissue damage, muscle loss, haemorrhage, fracture, and severe pain. Terminal ballistic help us to describe the effect of projectiles on living tissue called wound ballistics and the diversity of the bullet projectile which affect the penetration and the extent of tissue damage.

Bullets can be classified into deforming (expanding) or non-deforming (non-expanding). In this patient, the non-deforming bullet type of wound which results in greater penetration but lesser collateral tissue damage (Type C as in Figure 2) hence likely to create exit wounds. The size of entry is transiently larger than the bullet due to high elasticity of the skin, while compared to exit wound it is smaller. The exit wound tends to be larger as the projectiles travel at a high velocity or due to any expansive deformation.

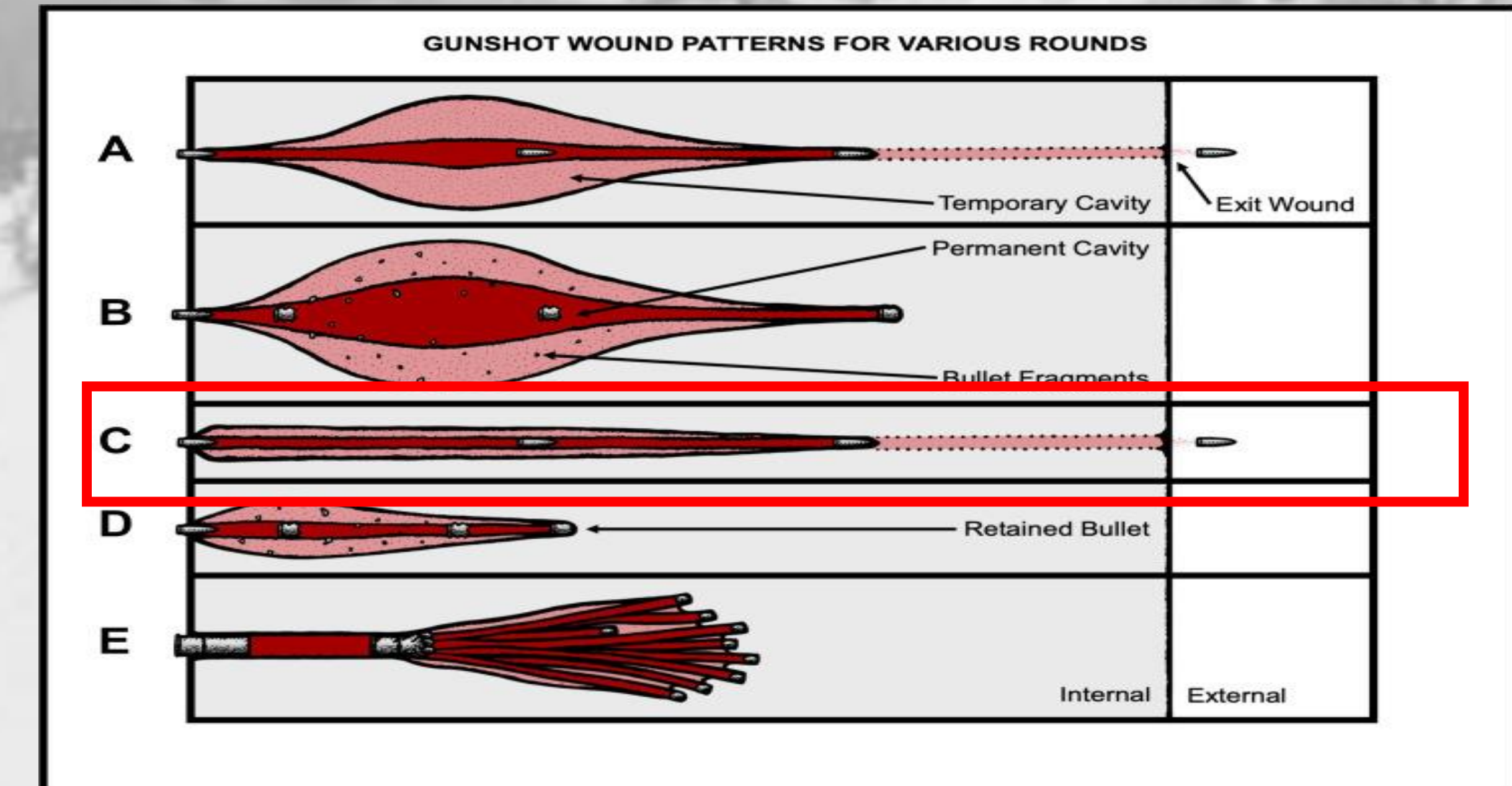


Figure 2. Gunshot wound pattern for various rounds

Conclusion

Preparation of the EMS in dealing with the injuries caused by acts of terrorism must include the well-trained staff and lead by the skilled clinician.

It is an absolute necessity to understand management GSW in view of rising number of GSW injuries which can be complex and pose a challenge to the managing team.

References

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