PO 40 - LEFT TO RIGH TRANSMEDIASTINAL GUNSHOT WOUND – A CASE REPORT

Jardim Silva A.[1], Santos A.[1], Valente F.[1], Pereira A.[1], Carrilho A.[1]

[1]Centro Hospitalar Lisboa Central

Background: Transmediastinal gunshot wounds are associated with life-threatening situations due to possible vital organs damage. Overall mortality is 78.9% and 24.3% for those who reach the hospital.

Case Report: A 30-year-old man was brought to the emergency room (ER) after a chest gunshot wound with a 1 cm bullet entrance on the anterior left 3rd intercostal space without exit hole. He was polypneic with O2 saturation of 98% under high-flow face mask, heart rate of 140bpm and MAP of 70 mmHg. He had no breath sounds in the right hemithorax and asymmetric thoracic expansion. Computed tomography (CT) angiogram revealed a massive right hypertensive hemothorax, hemopericardium and projectile located in 7th right rib. Intubation was performed under rapid sequence in the ER. Then, he was submitted to an emergency thoracotomy, under TIVA. Perforations of the right atrium, pulmonary vein and lung were identified and corrected. During surgery, vasopressor support was needed. Basal haemoglobin level was 11 g/L. Tranexamic acid perfusion was started (after 1g bolus), 3 blood units were transfused and haemostasis control was guided by thromboelastometry. Surgery lasted 120minutes with estimated blood loss of 1000mL. The patient was transferred to ICU, ventilated and hemodynamically stable. Extubation occurred 48h later. On the 5th day he was discharged, after an uneventful post-operative course.

Discussion: Transmediastinal gunshot wound are associated with life-threatening situations. Clinical evidence states that in stable patients, before definitive treatment, diagnostic imaging techniques should be performed. Anaesthetic management must take into account the high possibility of major trauma and massive bleeding of multiple organ. In this case, a rapid diagnostic was performed. CT angiogram was crucial to identify the location and extension of internal injuries before proceeding to emergency surgery. Considering all circumstances, a prompt anaesthetic induction in the ER was chosen, successfully anticipating patient exhaustion and collapse.

Learning Points: Transmediastinal gunshot wounds requires a prompt diagnosis and treatment. Immediate imaging techniques could be of major value in hemodynamically stable patients.