

WHEN A SHOT RANG OUT: EMERGENCY MANAGEMENT OF ABDOMINAL GUNSHOT WOUNDS

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INTRODUCTION

Gunshot wounds to the abdomen vary from minor injuries to severe, life-threatening conditions, depending on the anatomical structures the bullet penetrates. Effective management is crucial for patient survival.

CASE DESCRIPTION

A 41-year-old male customs officer accidentally shot himself in the abdomen while handling a colleague's pistol. On arrival at the emergency department, the patient was alert with a full Glasgow Coma Scale score but in haemorrhagic shock (blood pressure 84/51 mmHg, heart rate 82). Physical examination revealed two entry wounds on the anterior abdomen and two exit wounds on the posterior aspect. A FAST (Focused Assessment with Sonography in Trauma) scan showed intraperitoneal free fluid. The trauma team activated, and resuscitation commenced with intravenous tranexamic acid and one pint of crystalloid fluids, followed by blood transfusions under a massive transfusion protocol (MTP). Emergency exploratory laparotomy as part of damage control surgery (DCS) evacuated 1.3 liters of blood in the peritoneal cavity and resected a 10-centimeter segment of multiple perforated small bowel. Re-laparotomy 48 hours later resulted in further 20-centimeter small bowel segment resection. The patient was discharged well after 10 days.

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DISCUSSION

This case illustrates the complexities of managing high-energy ballistic trauma, which leads to severe tissue disruption and massive blood loss. Initiating damage control resuscitation (DCR) early was pivotal in stabilizing the patient. The DCR approach focused on permissive hypotension, minimizing crystalloid use, and prioritizing balanced blood product transfusion—administering packed red blood cells, fresh frozen plasma, and platelet to restore circulating volume while mitigating the risk of dilutional coagulopathy. Despite the successful outcome, potential areas for improvement include optimizing pre-hospital care to ensure early activation of blood products and advanced resuscitation measures prior to hospital arrival.

CONCLUSION

Timely interventions, including rapid assessment, bedside ultrasound, and DCR with MTP and DCS, are essential to minimize complications and ensure positive outcomes in abdominal gunshot injuries.

Figure 1: Image showing two exit wounds from abdomen

