

## 028. Traumatic Diaphragmatic Rupture with Unstable Hemodynamic: A Case Report of a Rare Surgical Trauma Emergency

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### ABSTRACT

**Background:** Traumatic diaphragmatic rupture (TDR) with unstable hemodynamics is a life-threatening condition often masked by other injuries, necessitating timely diagnosis and treatment. This case report illustrates the significance of rapid response and resuscitation in managing a 17-year-old female patient with TDR following a severe traffic accident. **Case:** A 17-year-old female patient was admitted after a motorcycle accident, arriving at the hospital 4 hours and 10 minutes post-incident. She displayed respiratory distress (SpO<sub>2</sub>: 80% on FM) and severe hemodynamic instability (BP: 70/40 mmHg, HR: 121 bpm). Grade IV traumatic diaphragmatic rupture (AAST) was confirmed alongside multiple injuries. Resuscitation began with intubation, 1 L of crystalloid fluid, and a 1-unit PRC transfusion. Initial management improved her BP to 80/60 mmHg; however, it later dropped to 60/40 mmHg. A FAST Ultrasonography (USG) revealed free echogenic fluid in the hepatorenal space, prompting emergency exploratory laparotomy. Intraoperatively, a diaphragmatic rupture was identified, with herniation of the liver, stomach, and colon. Surgical interventions included diaphragmatic repair and chest tube insertion. Postoperatively, the patient required vasopressors (dobutamine and epinephrine) to stabilize her hemodynamics (BP: 100/60 mmHg, HR: 83 bpm). **Conclusion:** Early diagnosis and aggressive resuscitation are vital in managing TDR with unstable hemodynamics, underscoring the necessity for rapid assessment and intervention.

**Keywords:** Traumatic Diaphragmatic Rupture, Multiple Trauma, Hemodynamic Instability, Surgical Intervention, Case series

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