

Management of acute abdominal wall hernia resulting from a traffic accident

MM.J. Torres-Jurado¹, J. Trujillo-Díaz², J.R. Gómez-López², A. Benítez-Riesco², J.C. Martín-Del Olmo²

¹University Hospital of Salamanca, Salamanca (Spain)

²Medina del Campo Hospital, Valladolid (Spain)

INTRODUCTION



•Post-traumatic hernias following blunt abdominal trauma (e.g., traffic accidents) often involve complex abdominal wall defects.



•Laparoscopic surgery is emerging as a valuable approach in trauma cases due to its minimally invasive benefits.



•This case highlights a successful laparoscopic repair using biological mesh in a hemodynamically unstable patient.



CT image shows dilated small bowel loops with a transition point in the right lower quadrant

MATERIAL & METHODS



40-year-old male with multiple trauma injuries from a motor vehicle accident.



Presented with signs of peritonitis and hemodynamic instability.



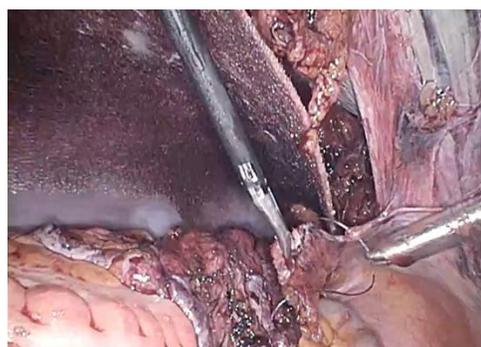
Emergency surgery was performed via a laparoscopic approach.



Intraoperative image showing rupture of the abdominal wall musculature with herniation of bowel loops through the defect.



Intraoperative view of reduced incarcerated bowel with serosal injury and visible preperitoneal mesh.



Laparoscopic view of biological mesh placement in the preperitoneal space with peritoneal closure to reinforce the abdominal wall defect.

RESULTS

- Hemoperitoneum and a small bowel perforation were identified laparoscopically.
- Enterorrhaphy was performed to repair the bowel.
- A biological mesh was placed in the preperitoneal space to reinforce the abdominal wall defect and close the peritoneal breach.
- The postoperative course was uneventful: no infection, no hernia recurrence and discharged after 1 month in stable condition.

CONCLUSION

- Post-traumatic hernias are complex but manageable via laparoscopic repair. Biological mesh can be used effectively even in potentially contaminated fields.
- Minimally invasive techniques provide faster recovery, reduced infection risk, and restoration of abdominal function. Laparoscopy is a promising tool for trauma-related abdominal wall reconstructions.