Laparoscopic Repair of Adult Bochdalek Hernia with Intrathoracic Kidney

UMass Medical School | UMassMemorial Health Care

Department of General Surgery

Catherine Bixby MS DO, Benjamin A. Palleiko MD, Richard Perugini MD

INTRODUCTION

- Bochdalek hernia is a type of congenital diaphragmatic hernia in which there is a posterior lateral defect in the diaphragm
- It is infrequently seen in adults and rarely associated with an intrathoracic kidney

CASE SUMMARY

- 48-year-old female with a history of fibroids presented to ED with 12 hours of epigastric pain and nausea
- CT Imaging demonstrated a left-sided Bochdalek hernia containing:
  - •Left kidney and ureter
  - •Pancreatic body and tail
  - •Splenic flexure of the colon
  - •Obstructed stomach

IMAGING AND INTRAOPERATIVE FINDINGS

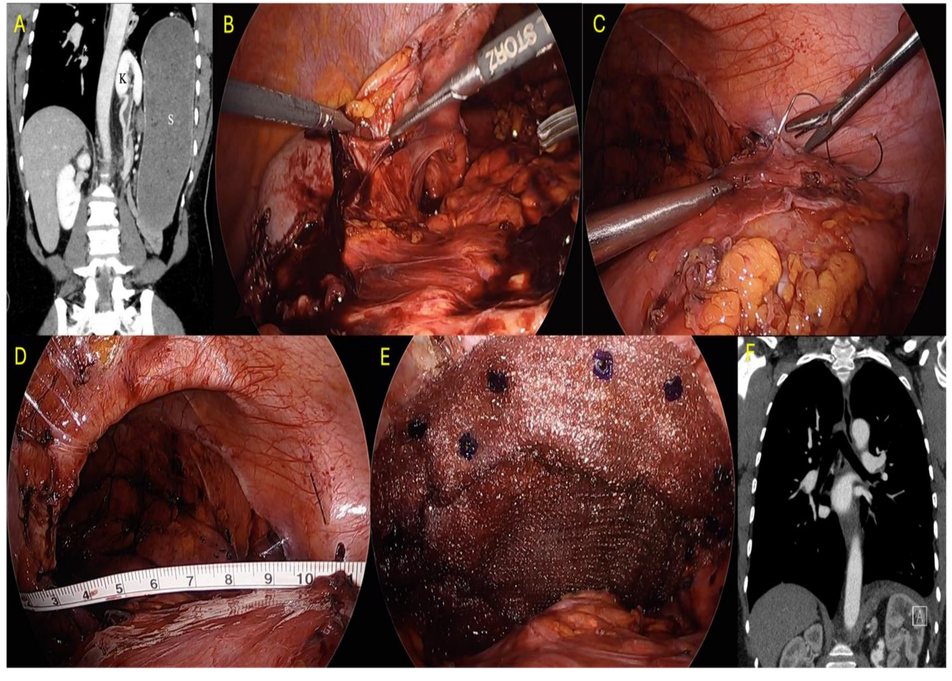


Figure 1: (A) CT demonstrating a Bochdalek Hernia containing stomach, colon, left kidney, and pancreas(B) Hernia contents reduced into abdomen (C) Nephropexy (D) Hernia defect (E) Polypropylene mesh sewed into place with continuous barbed 2-0 suture and tacked on the periphery (F) Six-month postoperative CT demonstrating stability of repair

CLINICAL MANAGEMENT

- **Preoperative**: Four days nasogastric decompression
- **Operative Steps:**
  - Organs and vasculature reduced into abdominal cavity:
  - Nephropexy performed to prevent torsion
  - Diaphragmatic defect repaired with polypropylene mesh and continuous 2-0 absorbable barbed suture and tacks to secure outer mesh to diaphragm and ribcage
- **Postoperative:** Six-month CT showed improved lung volumes and an intact repair

DISCUSSION AND KEY CONSIDERATIONS

- Laparoscopic approach for Bochdalek hernia repair is feasible and effective, with excellent postoperative outcomes
- Nephropexy prevents torsion and ischemia of an intrathoracic kidney
- Mesh Orientation & Fixation**:** continuous 2-0 absorbable barbed suture. Mesh oriented and secured with tacks to ensure outer layer of mesh overlap with diaphragm and ribcage
- Intrathoracic drainage not required