

Robotic Enhanced Totally Extraperitoneal (eTEP) Hernia Repair: A Single-Surgeon Early Experience in an Acute Care Hospital Setting

Anton Simorov, MD, FACS¹, Michael Ewing, MD, FACS², Dmitry Oleynikov, MD, FACS³

¹Laredo Medical Center, Laredo, TX

²Spohn Medical Center, Corpus Christi, TX

³Chairman of the Department of Surgery, Monmouth Medical Center, NJ

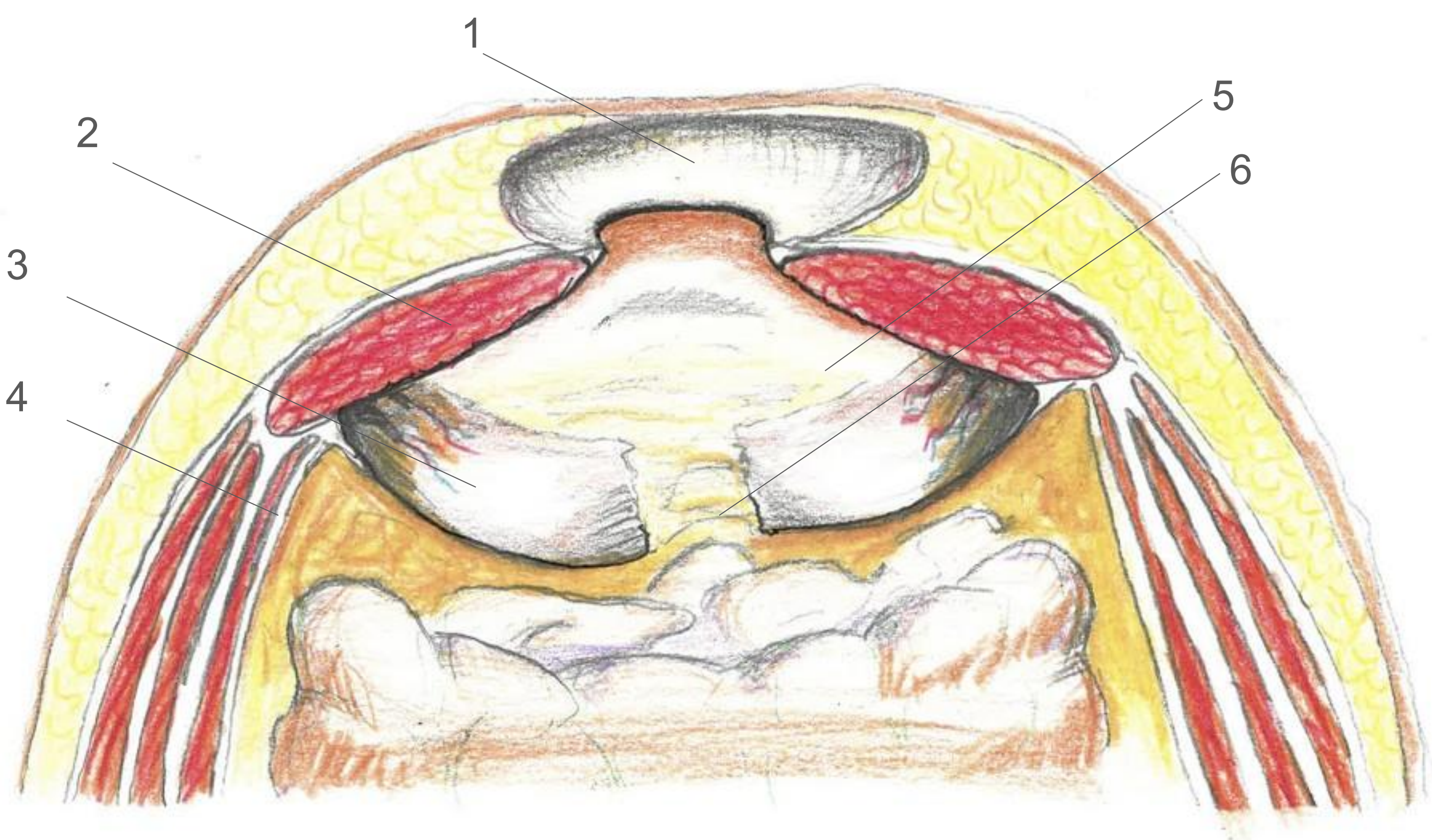
Introduction:

eTEP approach demonstrates favorable outcomes
Robotic platforms enhance visualization and ergonomics
Widely adopted at academic centers
Limited Data from community and acute-care hospitals

Methods:

Retrospective case series of n = 5 patients undergoing robotic eTEP hernia repair by a single surgeon at Laredo Medical Center, 326 bed, acute care hospital, level III Advanced Trauma facility located on U.S. - Mexico border.

Patients were operated between January and May 2025 and followed for 90 days postoperatively. Demographic data, perioperative outcomes, and complications were analyzed



Cross sectional view of abdominal wall, eTEP: 1.hernia sac; 2.rectus muscle; 3.posterior rectus sheath; 4.transversus abdominis muscle; 5.retrorectus space; 6.reduced ventral hernia

Results:

- ❖ All procedures were completed robotically without conversion
- ❖ One case was emergent
- ❖ No intraoperative complications
- ❖ Mean hernia size was ~8 cm
- ❖ Locations included ventral/umbilical, stoma site, inguinal/ventral
- ❖ All cases had retromuscular mesh placement
- ❖ Mesh size 10 x15 cm to to 30 x 17 cm
- ❖ Median console time 123 minutes (105 -157 min)
- ❖ No readmissions, recurrences, clinically notable seromas, or mesh infections were noted within 90 days

Conclusions:

Robotic eTEP is a safe and feasible technique in a community hospital setting. With appropriate training and support, it can be successfully adopted outside of high-volume academic centers.

Keywords: eTEP, robotic hernia repair, ventral hernia, community surgery, border hospital

IRB approval obtained