

Robotic-Assisted Laparoscopic Hiatal Hernia Repair with a Next Generation Decellularized Dermal Allograft for Soft Tissue Reinforcement

Suhail Sharif MD

Surgical Oncology

Fort Worth, TX

Board Certified, American Board of Surgery

Surgical Summary

Clinical Presentation:

- A 57-year-old female referred with gastroesophageal reflux disease (GERD) and hiatal hernia.
- Longstanding history of reflux and indigestion.
- Esophagogastroduodenoscopy (EGD) with biopsy, performed by referring physician, showed distal esophagitis, hiatal hernia, and gastritis.
- Decision made to proceed with diagnostic laparoscopy, robotic-assisted laparoscopic hiatal hernia repair with DermaPure[®] decellularized dermal allograft for soft tissue reinforcement.

Intraoperative Findings:

- A moderate to large hiatal hernia (Figure 1 & 2).

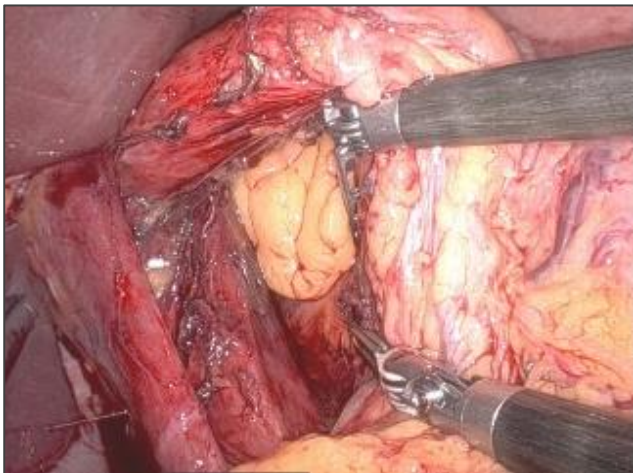


Figure 1.

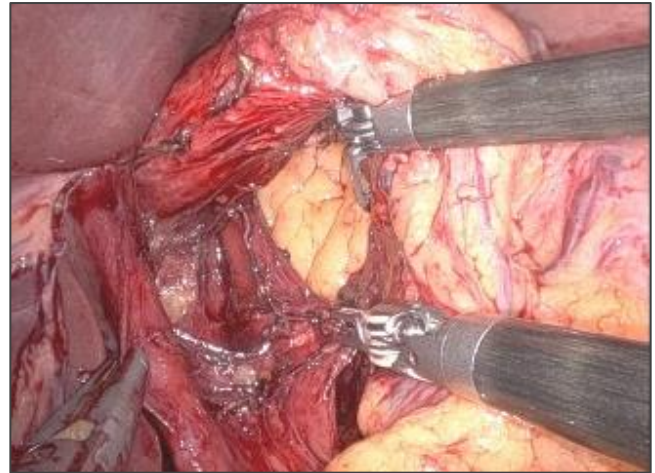


Figure 2.

Surgeon Perspective:

"Complex hiatal hernias, especially large paraesophageal hiatal hernias, have a very high recurrence rate. Studies have shown that the recurrence rate could be anywhere in the range from 12% to 42%¹. I elected to use DermaPure[®] biologic matrix as a reinforcement to my hiatal hernia repair to ameliorate the risk of recurrence in my patients."

1. Horgan S, Eubank TR, Jacobsen G, et al. Repair of paraesophageal hernias. Am J Surg. 1999;177:354-458

Robotic-Assisted Laparoscopic Hiatal Hernia Repair with a Next Generation Decellularized Dermal Allograft for Soft Tissue Reinforcement

Suhail Sharif MD
Surgical Oncology
Fort Worth, TX
Board Certified, American Board of Surgery

DERMA [PURE]
dCELL technology

Surgical Procedure:

- The patient was placed in supine position on the operating table. General anesthesia was administered, and the abdomen was prepped/draped in the usual sterile fashion. Received 2 grams intravenous (IV) Ancef for perioperative antibiotic coverage.
- A 5 mm incision was created in the right upper quadrant. A 5 mm Optiview® trocar was introduced under direct visualization utilizing a 5 mm 0-degree scope.
- The abdomen was insufflated to 15 mm/Hg using CO₂. General exploration of the abdominal cavity was undertaken. Four da Vinci Xi® ports were placed, one on the right and left upper quadrant and one to the right and left of the umbilicus. An AirSeal® was placed just below the umbilicus.
- A stab incision was created in the epigastrium and a Nathanson liver retractor was then placed in the left lateral segment of the liver and was retracted. The da Vinci Xi® was then docked in standard fashion.
- Using vessel sealer, the lesser curvature of the stomach was mobilized by coming across the gastrohepatic ligament. A moderate to large hiatal hernia was identified.
- The hernia sac was mobilized away from the left to right crus of the diaphragm. Proceeded to reduce the stomach and the gastroesophageal junction (GE) below the esophageal hiatus. The gastric cardia was then mobilized away from the crus of the diaphragm.
- The distal esophagus was mobilized circumferentially around the esophageal hiatus. Once confirmed that the gastroesophageal junction (GE) was below the esophageal hiatus, the defect was noted to be approximately 8 cm – 10 cm in length. The defect was reinforced with 2-0 V-Loc® suture in a running interlocking manner.
- A 4 cm x 6 cm DermaPure® decellularized dermal allograft was placed for soft tissue reinforcement (Figure 3 & 4). VistaSeal® fibrin sealant was sprayed. The abdomen was desufflated. The da Vinci Xi® was undocked. The incision was closed with 4-0 Monocryl® in a subcuticular manner.

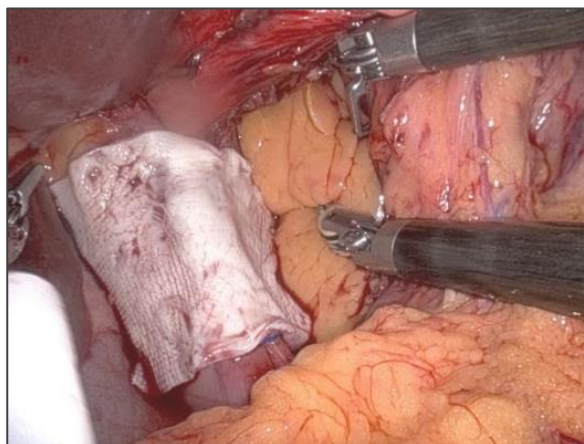


Figure 3.



Figure 4.

Post-Operative Notes:

- Post-op upper gastrointestinal series (UGI) under fluoroscopy revealed no hiatal hernia, and no gastroesophageal reflux.
- Patient seen in the office for post-op follow-up. Doing well with no issues, minimal dysphagia, and no regurgitation.

TissueRegenixUS.com
833-567-0767

Optiview®, Monocryl®, and VistaSeal® are registered trademarks of Ethicon, a Johnson & Johnson Company; Da Vinci Xi® is a registered trademark of Intuitive Surgical; AirSeal® is a registered trademark of SurgiQuest, Inc.; V-Loc® is a registered trademark of Covidien LP. DermaPure® is a registered trademark of Tissue Regenix Wound Care, Inc. dCELL® Technology is a registered trademark of Tissue Regenix Limited. TRX BioSurgery is a Tissue Regenix Group Company. TR078 rev01 249812

TRX BioSurgery