

GORE BIO-A Tissue Reinforcement in Hiatal Hernia Repair

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Clinical Challenge

A 75-year old female patient with a 25-year history of GERD presented with regurgitation, belching, bloating, “acid in the throat” and years of treatment with multiple proton pump inhibitors. An EGD revealed a 4 cm hiatal hernia, several “tongues of mucosa” with one biopsy positive for Barrett’s esophagitis or intestinal metaplasia without dysplasia. A 24-hour pH study was positive for acid reflux and esophageal manometry revealed an LES of 4.

Procedure Overview

Using the laparoscopic approach, a 4 cm hiatal hernia defect was identified and closed primarily with size 0 permanent suture (ETHIBOND). GORE BIO-A Tissue Reinforcement was trimmed to fit the defect with a “U” shape cutout to accommodate the esophagus. It was then placed in an onlay fashion and secured using three absorbable sutures (VICRYL). A Nissen fundoplication was performed without incident.

Surgical Considerations

Primary closure of hiatal hernias is reported to have high recurrence rates; however, reinforcement with permanent materials has been linked to dysphagia and esophageal erosion. Ideally, a prosthetic material would add strength to the repair without the complications associated with permanent materials.

GORE BIO-A Tissue Reinforcement, a 3D web of bioabsorbable synthetic polymers, was used to strengthen the primary repair and is replaced by soft tissue as the scaffold absorbs over six months.

Clinical Results

At five months post-operative, the patient is doing well with no signs of erosion or recurrence, and has only been remarkable for gas bloat syndrome.

Surgeon Comments

The device was easy to use as well as cost effective in serving to strengthen the primary repair. GORE BIO-A Tissue Reinforcement may be the ideal prosthetic for use in laparoscopic Nissen fundoplication, reinforcement of the hiatal defect in laparoscopic banding, and a variety of other applications. However, further study is needed to provide conclusive evidence.

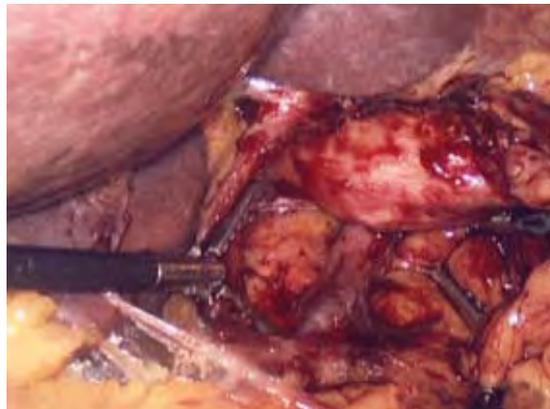


Figure 1. Hiatal hernia defect identified



Figure 2. GORE BIO-A Tissue Reinforcement onlay following primary closure of crura



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