

CASE REPORT

Endoscopic use of EpiFix—dehydrated Human Amnion/Chorion Membrane (dHACM) allograft in patients with Gastric Leak following Sleeve Gastrectomy

D.O. Nicholas Sousa*, D.O. Rahil Dharia, D.O. Shilpin Mehta, D.O. Keith Marshall, and D.O. David Siegel

Department of Surgery, St. John Maccomb-Oakland Hospital

*Correspondence address. Department of Surgery, St. John Maccomb-Oakland Hospital. E-mail: nicholasdoylesousa@gmail.com

Abstract

Leak following laparoscopic sleeve gastrectomy is one of the most feared complications and its management can be difficult and frustrating for patients and physicians involved. Using multimodality approach and having variable options to plan management for patients presenting with leak following bariatric surgery can be advantageous for physicians. The use of endoscopic injection of EpiFix—dehydrated Human Amnion/Chorion Membrane (dHACM) allograft can be a novel adjunct in facilitating healing of the leak site by iatrogenic introduction of tissue growth factors, cytokines and building connective tissue matrix.

INTRODUCTION/PURPOSE

Leak following laparoscopic sleeve gastrectomy is one of the most feared complications and its management can be difficult and frustrating for patients and physicians involved. Using multimodality approach and having variable options to plan management for patients presenting with leak following bariatric surgery can be advantageous for physicians. The use of endoscopic injection of EpiFix—dehydrated Human Amnion/Chorion Membrane (dHACM) allograft can be a novel adjunct in facilitating healing of the leak site by iatrogenic introduction of tissue growth factors, cytokines and building connective tissue matrix.

CASE DESCRIPTION

A 43-year-old male, with a previous surgical history significant for laparoscopic sleeve gastrectomy presented with

acute abdominal pain in left upper quadrant, tachycardia and leukocytosis 6 weeks following his surgery. He had a computed tomography (CT) scan of abdomen/pelvis significant for tiny specks of pneumoperitoneum by the spleen. He subsequently had an Upper GI series with gastrografin which showed no evidence for a leak. Subsequently had EGD and a leak was evident by proximal staple line. He was admitted to ICU with TPN and following day, was febrile and a repeat CT scan was significant for fluid collection by the spleen, likely representing an abscess. He was taken to operating room for diagnostic laparoscopy, abdominal washout and drain placement by the perisplenic area. After adequate resuscitation and stabilization, patient was brought back for endoscopy and EpiFix was injected by the evident leak site, followed with gastro-esophageal wall-stent placement. Patient was discharged home on a diet one week after stent placement. Four weeks after discharge the stent was removed. On a

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following endoscopy, EpiFix was used again and the site of leak was not evident and had healed well.

OUTCOMES

Four weeks after endoscopic use of EpiFix and insertion of gastro-esophageal stent placement, site of gastric leak following sleeve gastrectomy was well healed and patient was tolerating diet. Repeat endoscopy showed minimal scar tissue or stricture formation at the previous site of leak. EpiFix is known for its use for non-healing wounds secondary to its introduction of tissue growth factors and extracellular matrix proteins. This is a single patient case report and further research is indicated regarding use of EpiFix in

hemodynamically stable patients presenting with gastric leaks following sleeve gastrectomy.

CONCLUSION

EpiFix is a dHACM allograft and is composed of multiple layers including epithelial cells, a basement membrane and an avascular connective tissue matrix. EpiFix contains multiple extracellular matrix proteins, growth factors, cytokines and other specialty proteins present in amniotic tissue to provide a barrier membrane that enhances healing, modulates inflammation and reduces scar tissue formation. Endoscopic use of EpiFix can be a novel adjunct in facilitating healing of the leak site following surgery in a hemodynamically stable patient.