Navigating The Challenge: EndoVac Therapy as an Innovative Approach to Complex Duodenal Perforations

Betsy Rodriguez DO, Gabrielle Chamoun MD, Daniel Garcia MD, Hassan Masoudpour MD,, Peter Kaye MD

Introduction

Endoluminal vacuum therapy (EndoVac) has emerged as a promising approach in managing perforations. While extensively studied in esophageal perforation, its application in duodenal perforations from ulcers and diverticulum is relatively limited. Traditional management of duodenal perforations involves surgical interventions such as primary or patch repair. However, persistent gastric or pancreatic secretions leading to repair failure have often necessitated invasive measures such as surgical diversion, pyloric exclusion, or gastrojejunostomy tubes. This presentation explores the innovative use of EndoVac therapy as a potential definitive management strategy for refractory duodenal perforations after surgical interventions.

Case Report

The case presented involves an 82-year-old female with a history of colonic adenocarcinoma who underwent right hemicolectomy with primary anastomosis. She developed a duodenal perforation complicated by failure of a jejunal serosal patch, leading to the utilization of EndoVac therapy.

After initial management of her duodenal ulcer with exploratory laparotomy and serosal patch application, a venting G-tube was placed due to the persistent non-healing ulcer. Despite clinical improvement and discharge, the patient experienced a recurrence of symptoms, and presented to the ED. Imaging from this visit revealed a persistent abdominal fluid collection with no adequate window for IR drainage. Traditional interventions were limited due to prior failure of jejunal serosal patch, prompting the use of EndoVac therapy, which demonstrated efficacy in managing the duodenal leak, highlighting the potential of EndoVac therapy in complex duodenal perforations.

Series of Events

Week 0 - Patient re-presents to ED with persistent abdominal pain after serosal patch. EndoVac placed.

Week 2 - EndoVac re-placed with J-tube extension; Perforation seems to have decreased in size; minimal output noted

Week 4 - J-tube removed, vac-tip sponge placed via G-tube to duodenum

Week 5 - EGD is performed with evidence of decrease in size of ulceration. Sponge replaced.

Week 7 - Upper GI Series demonstrates resolution of perforation.

Week 8 - Sponge is removed and patient is transitioned to enteral feeds.

Conclusion

Endoluminal therapy, specifically EndoVac therapy, seems a highly effective management strategy for a complex duodenal perforation refractory to conventional surgical approaches, as in the presented case. The implications drawn from this case and existing literature suggest that EndoVac therapy could serve as primary management for duodenal perforations or act as an adjunct to surgical procedures. Furthermore, its potential to expedite healing, facilitate enteral feeding, and optimize nutrition underscores its significance as an innovative and promising approach in the management of challenging duodenal perforations.



RESEARCH POSTER PRESENTATION TEMPLATE © 2015
www.PosterPresentations.com