Published in final edited form as:

Gastrointest Endosc. 2016 June ; 83(6): 1281–1282. doi:10.1016/j.gie.2015.11.043.

Modified endoscopic submucosal dissection techniques before endoscopic revision of a gastric bypass

Wasif M. Abidi, MD, PhD¹, Hiroyuki Aihara, MD, PhD¹, and Christopher C. Thompson, MD, MSc^{1,**}

¹Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA

Preparation of the mucosa is one of the most important parts of endoscopic mucosal apposition and suturing. We show the endoscopic revision of a gastric bypass using modified endoscopic submucosal dissection (ESD) techniques to incise the mucosa surrounding the gastrojejunal anastomosis and suture directly into the exposed submucosa and muscularis propria. A 34-year-old female with a history of a laparoscopic Roux-en-Y gastric bypass presented for weight regain and was found to have a dilated gastrojejunal anastomosis. Endoscopic revision was pursued. We first injected the submucosa with a methylene blue and epinephrine solution in saline solution. We made an incision circumferentially about 5 mm away from the gastrojejunal anastomosis using a needle knife and insulated tip knife. We then extended the incision with an insulated tip knife. Finally, we placed an endoscopic suture in a purse-string fashion and secured it over a balloon to reduce the aperture of the anastomosis. This technique may not be appropriate for patients with extensive scarring or fibrosis at the anastomosis. The patient lost a total of 42 pounds in 3 months. Thus, a modified ESD before purse-string anastomotic suturing can result in a durable gastric bypass revision with excellent weight loss outcomes.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

****Corresponding Author** Christopher C. Thompson, MD, MSc, ; Email: cthompson@hms.harvard.edu, Brigham and Women's Hospital, 75 Francis St, Boston, MA 02115, 617-525-8266.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Figure 1. Representative images of use of modified ESD techniques before endoscopic revision of a gastric bypass. A, Gastrojejunal anastomosis (GJ) before revision. B, GJ after incision using needle knife and insulated tip knife. C, GJ size was reduced using a purse-string suture. D, At follow-up, the anastomosis remained the intended size.