Gastric Peroral Endoscopic Pyloromyotomy (G-POEM): A new technique for better identification of pyloric ring (with video)

Gastric Peroral Endoscopic Pyloromyotomy (G-POEM) is a novel endoscopic technique for treatment of refractory gastroparesis. Identification of the pyloric ring is important but is also difficult. We describe a new method to facilitate identification of the ring. The details of G-POEM procedure are described in our previous paper. Briefly, a 5 to 6 cm submucosal tunnel was established above the antrum including the pylorus. Myotomy was performed inside the tunnel. Complete myotomy across the pyloric ring is important to achieve best therapeutic outcome. Currently, the ring is identified by identification of a circular muscular structure or by the presentation of blue color in the duodenal side of the pylorus (resulting from the submucosal injection of mix methylene blue/saline solution), an indirect indication of the location of the pylorus ring. However, identification of the circular muscular structure inside a mucosal tunnel is a challenge, especially for inexperienced endoscopists. Also, presentation of blue color at the duodenal side of the pylorus is not always an indication of the location of the pyloric ring, since the color solution can penetrate some distance beyond the actual location. In this method, an endoclip (Resolution clip; Boston Scientific, MA, USA) was placed in the pylori channel at 11 O’clock position. Easy and reliable identification of the pyloric ring was facilitated with the visualization of the endoclip placed in pyloric channel under fluoroscopy. Based on our experience, this technique is the most simple and reliable way to identify the pyloric ring. In addition to achieve best therapeutic outcomes, this method is also important to prevent injury to the duodenal mucosa and perforation of the duodenum by avoiding extension of submucosal tunneling inadvertently far beyond the pyloric ring. To our knowledge, this is the first report of such method in performing G-POEM.

Biography
Qiang Cai is a highly-trained Gastroenterologist who has received the "Best Teacher" award three times at the Emory University School of Medicine. He is originally from China where he graduated from a Medical School, obtained a Master’s degree in Gastrointestinal Physiology and started his medical career before moving to the United States in 1987. He has obtained his PhD in Gastrointestinal Physiology and completed an Internal Medicine residency as well as a fellowship in Gastroenterology before joining the faculty team at the Division of Digestive Diseases, Department of Medicine, Emory University School of Medicine in July 2001. qcai@emory.edu