Patient History

A 61-year-old female presented to her local hospital with dysphagia, retrosternal chest pain and regurgitation (Eckardt score of 6). An upper gastrointestinal endoscopy demonstrated a dilated esophagus with significant food residue and resistance to passage of the endoscope at the gastro-esophageal junction (Figure 1). A barium swallow demonstrated typical appearances of achalasia with a severely dilated esophagus and sigmoid-like tortuosity (Figure 2). Esophageal manometry studies confirmed Type II achalasia with an elevated resting lower esophageal sphincter pressure of 26.

The patient was initially treated at her local hospital with balloon dilatation of the lower esophageal sphincter and underwent two sessions of Botox. The patient’s symptoms persisted and she was referred to our center for Per Oral Endoscopic Myotomy (POEM).

Procedure

A submucosal injection of normal saline and indigo carmine was administered (adrenaline is avoided due to proximity to myocardium and risk of arrhythmias). An ESD-knife was used to create a 2.8mm mucosal incision to provide an entry point into the submucosa (Figure 3). Gradual dissection of the submucosa was conducted to create a submucosal tunnel extending over 11cm in the esophagus and then 4cm into the stomach (Figure 4). A long myotomy was performed of over 12cm (Figures 5 and 6). Six Resolution 360™ Clips were used to close the mucosal incision (Figures 7 and 8).
Outcome/Post Procedure
The patient was admitted overnight for observation and discharged without complication. Post procedure the patient’s symptoms have completely resolved and she awaits repeat manometry testing.

Conclusion
This case highlights how the functionality of the Resolution 360 Clip can be used to close mucosal defects. The rotational movement of the clip was easily employed by both the endoscopist and the nurse. The innovative design of this new clip allowed the physician to rotate the jaws themselves with one to one rotation, securing clip positioning and deployment to securely close the mucosal defect.