**Introduction**

Perforations related to colonoscopy procedures, overall remains infrequent at around 0.1%, however still remains one of the most feared procedural complications for any endoscopist. Complications related to perforations continue to remain a concern as advanced therapeutic endoscopic techniques, such as endoscopic mucosal resection, become more widespread and available. This case series demonstrates management of such complications using the over the scope clip (OTSC).

**Case 1**

A 58 year old male presented with complaints of persistent diarrhea, anorexia, and weight loss over the past several months. Colonoscopy revealed an inflammatory appearing circumferential mass in the rectum. After a difficult retroflexion was attempted, a small defect consistent with a perforation was noted. An 11mm over-the-scope clip (OTSC) was then placed over the defect with successful closure of the colonic mucosa. Post-procedure x-ray was negative and clinically the patient did well.

**Case 2**

A 53 year old female underwent a rectal endoscopic ultrasound (EUS) after she was noted to have a 5cm perirectal mass on CT scan. The area of the rectosigmoid colon was significantly tortuous due to extrinsic compression and during passage of the EUS scope beyond this area a mucosal defect was noted. An 11mm OTSC was used to successfully close the tear with success. Post-procedure x-ray was negative and the patient did well with no evidence of infection or significant pain.

**Case 3**

A 60 year old male with a history of achalasia presented with worsening dysphagia. Endoscopy showed a dilated esophagus with narrowing at the GE junction. A 30mm pneumatic balloon dilation was performed under fluoroscopy, after which a 1cm transmural tear was noted. An 11mm OTSC was used to close the tear with success. Post-procedure gastrograffin esophagram did not demonstrate a perforation. The patient was placed on a course of antibiotics and did well with no further complications.

**Discussion**

This small case series highlights our institution's highly effective experience with OTSC in closing mucosal defects. Therapeutic interventions that may be warranted for iatrogenic perforations have traditionally required surgery with little other options. The OTSC now offers a potential safe and effective alternative to surgical intervention, as exemplified by this case series as well as several other studies. With use of the OTSC there is now an option for a minimally invasive, purely endoscopic approach in closing perforations and deep mucosal tears in selected cases. The use of the OTSC may also have a potential role in the management strategy for iatrogenic perforations, both as a bridge to eventual surgical correction, reducing potential interval complications, or as a viable option in those patients that would otherwise be poor surgical candidates.

**References:**