A Case Series of Endoscopic Management of Early Esophageal Cancer
*Zachary Feinberg, MD, Clyde Collins, MD, Vinay Sood, DO
Albany Medical College and Center, *Department of Internal Medicine and Division of Gastroenterology, Albany, New York

Case Series
Purpose: Esophageal adenocarcinoma (EAC) is typically treated with esophagectomy. There is emerging data that is showing promise of endoscopic therapy in the management of early T1a EAC. We present a series of three patients with T1a EAC that were successfully managed with endoscopic mucosal resection (EMR) followed by radio frequency ablation (RFA).

The first was a 64 year old Caucasian male diagnosed with a 2cm EAC at the gastroesophageal junction with no metastatic lesions on positron emission tomography (PET) scan. He successfully underwent EMR followed by 2 sessions of RFA. At the 15 month follow-up esophagogastroduodenoscopy (EGD) all biopsies taken were negative for any malignancy. In the second case, a 74 year old Caucasian male with T1aN0M0 EAC was successfully treated with 2 sessions of EMR followed by 2 sessions of RFA. At the follow-up EGD 10 months later, the patient was cancer free with no malignancy found on biopsies. In the final case, a 63 year old Caucasian male with a distal esophageal T1a EAC underwent 2 EMR procedures followed by 2 RFA sessions. The 6 month follow up showed no residual malignancy.

Typically EAC is managed with surgical resection, chemotherapy, or combination of the two. Emerging data is showing that successful treatment is comparable between surgical and endoscopic management of early EAC. The clear difference between the two modalities of treatment is significant when comparing mortality and morbidity of each therapy. EMR/RFA is a well tolerated procedure with a strong safety profile. The 2 most common complications associated with the procedure being bleeding and perforation (5%). Surgical management of EAC with esophagectomy is associated with an incidence of death of 1-2% at high-volume centers and as high as 5-10% at lower-volume centers. The morbidity of esophagectomy has been reported between 30-50% while EMR/RFA rarely results in hospitalization. Esophagectomy requires hospitalization and is frequently managed in intensive care units. Typically EMR/RFA requires 2 to 3 procedures at 2 month intervals to achieve a cure of early EAC. Despite the multiple procedures, the quality-adjusted life-years (QALYs) of EMR/RFA were estimated at $8,081 while esophagectomy QALYs were estimated at $39,720. A recent study by Zehetner et al., have shown that endoscopic therapy for early EAC has lower morbidity (0% vs 39%) with the same survival at 3 year follow-up when compared with esophagectomy.

Background
Previously esophagectomy has been mainstay treatment for esophageal adenocarcinoma (EAC). But emerging data has been showing great success rates with Endoscopic Mucosal Resection (EMR) for early T1a EAC. 5 year survival rates reaching 97.6%.1

Indications for EMR: 4
* High Grade Intraepithelial Neoplasia
* T1M Intramucosal Cancer
* Absence of suspicious surrounding lymph nodes.

Discussion
* Esophageal cancer (both squamous and adenocarcinoma) have routinely been managed with surgery. Now with evolving techniques with EMR, surgery may be reserved for more advanced cancers.

* Esophagectomy can have a mortality ranging from 2.5-20.3% while EMR has 0-3% mortality rate.4

* Morbidity ranges from 30-50% in esophagectomies while EMR is shown to have minimal complications.4

* There is a higher recurrence with EMR when dealing with higher grade lesions, but there is ongoing research into improving management with EMR.4

Conclusion
* EMR is evolving as the gold standard of treatment for early esophageal carcinoma.

References