Endoscopic Mucosal Resection can Help Accurately Stage and Treat Early Esophageal Cancers

Patient History
A 57-year-old female was referred for assessment following a routine upper endoscopy for symptoms of GERD. A nodular area within a segment of Barrett’s epithelium was found and biopsies showed high grade dysplasia with features suggestive of invasive adenocarcinoma with moderate differentiation. A CT scan of her chest, abdomen and pelvis demonstrated no evidence of metastases. Radial EUS demonstrated no nodal disease and no deep invasion. She was otherwise fit and well with a history of successfully treated breast cancer and a cholecystectomy.

Following discussion with the patient regarding surgical and endoscopic options available to her, an Endoscopic Mucosal Resection (EMR) was performed to remove the lesion but also to get accurate histopathological staging. Superficial tumors confined to the mucosa can be treated endoscopically with mucosal resection followed by radiofrequency ablation for the residual Barrett’s. However, if the EMR tissue pathology showed submucosal invasion, it would require definitive surgery due to the risk of lymphovascular metastasis.

Procedure
A Gastroscopy was performed and a tongue of columnar lined esophagus (Barrett’s epithelium) was identified with a proximal nodule, a Paris 1a lesion, on the posterior wall (Figure 1). The mucosal pattern was abnormal with dilated and irregular blood vessels (Figure 2).

A submucosal saline injection raised the lesion with a KATO I lift and wide resection margins were marked with the snare tip and diathermy of the 15mm hexagonal snare included with the Boston Scientific Captivator EMR Device (Figure 3). Two overlapping resections were performed with the ligating head of the Captivator EMR Device with no immediate complications (Figures 4 and 5). Both resection specimens were retrieved and sent for histological assessment.
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**Outcome / Post-Procedure**

Histology demonstrated a moderately differentiated adenocarcinoma (G2M2) with clear deep resection margins (R0 resection) and no lympho-vascular invasion. *(Figure 6 and 7)*

The patient is due for a repeat endoscopy to assess the resection site and have the remaining Barrett’s epithelium treated with radiofrequency ablation to reduce the risk of developing further lesions.

**Conclusion**

This case highlights how endoscopic resection with the new Boston Scientific Captivator EMR Device can be used for tissue removal in early esophageal cancers. Endoscopic resection of these early tumors is highly desirable to avoid more invasive surgery with esophagectomy or disease progression.

Results in case studies may vary. Results in this case study may not be predictive of results in other case studies.