Endoscopic Resection of Duodenal Carcinoid Tumors: A Single Center Comparison between Simple Polypectomy and Endoscopic Mucosal Resection

Nadim Mahmud,1 Yutaka Tomizawa,2 Kristen Stashek,1 Bryson W. Katona,1 Gregory G. Ginsberg,1 David C. Metz1
1 Perelman School of Medicine at the University of Pennsylvania, Division of Gastroenterology, Philadelphia, PA. 2 University of Washington Harborview Medical Center, Division of Gastroenterology, Seattle, WA

Background
• Duodenal carcinoids are rare, slow-growing, malignant neuroendocrine tumors.
• Endoscopic resection is preferred for lesions <20mm, and case series have demonstrated the efficacy of advanced techniques, such as endoscopic mucosal resection [EMR].
• However, the efficacy of simple polypectomy has not been compared to EMR in terms of resection margin positivity and local recurrence rates.

Methods
• We performed a retrospective review of 33 patients who underwent endoscopic duodenal carcinoid resection at the Hospital of the University of Pennsylvania between 1/1/2006 and 6/15/2017.
• Sociodemographic, clinical, pathology, and endoscopy report data were collected for each patient through manual chart review.
• The primary outcomes were resection margin positivity and local tumor recurrence. Wilcoxon rank-sum and Fisher’s exact tests were used to compare continuous and categorical variables.

Results
• There was no significant difference in the pathology resection margins between simple polypectomy and EMR (86% positive versus 68% positive, respectively, p = 0.64).
• The number of patients with local recurrence on surveillance endoscopy was also similar between groups (14.3% simple polypectomy versus 17.7% EMR, respectively, p = 0.64).
• The median time to carcinoid recurrence was 2.3 months (IQR 1.2 – 5.4 months).

Patient Flow Diagram

Conclusions
• Local recurrence after endoscopic resection of duodenal carcinoids is uncommon, despite high proportions of positive pathology margins.
• Simple polypectomy may be adequate treatment for very small duodenal carcinoids (<~6 mm).
• Further studies are needed to validate these findings, and to define the upper limits of tumor size that can be treated with simple polypectomy.

Acknowledgement
• This research was supported by an NIH T32 Diabetes and Digestive and Kidney Disease Training Grant: DK007740-21A1.