



# Advances in Endoscopic Techniques for Resection of Duodenal Neuroendocrine Tumours

R. Srirajaskanthan<sup>1</sup>

Received: 28 January 2019 / Accepted: 26 February 2019 / Published online: 18 March 2019  
© 2019 The Society for Surgery of the Alimentary Tract

Dear Editor,

I read with great interest the article by Dasari et al.<sup>1</sup> It comprehensively covered the current literature regarding surgical and endoscopic management of duodenal NETs. The authors note positive resection margins in 22 of 51 cases; this gives an R0 resection rate of 56%. The eight studies in this literature review covered a period from 2010 to 2016; in total, 95 patients underwent a form of endoscopic resection ranging from biopsy excision, snare resection and endoscopic mucosal resection. These techniques are all associated with low R0 resection margins. It is important to mention to readers the rapidly developing endoscopic techniques, specifically endoscopic mucosal dissection (ESD) and hybrid resection techniques, which enable higher rates of en bloc and R0 resections.

In recent years, ESD, which is a well-established technique for resection of colonic and gastric tumours, has begun to be undertaken in the duodenum. Kim et al. reported a single-centre experience of 62 cases (64 lesions) of duodenal subepithelial lesions which were resected endoscopically using endoscopic mucosal resection with band ligation, ESD or standard EMR. In this series, a complete resection rate of 100% and a histopathological R0 resection rate of 76.6% were achieved.<sup>2</sup>

Fujimoto et al. recently reported on a series of ten patients with duodenal NET resected using EMR with a ligation device, again in this series, achieving R0 resection of 70%.<sup>3</sup> There are other case series reporting similar findings with much higher R0 resection rates.<sup>2,4,5</sup>

As the authors suggest, careful assessment of the lesion with endoscopic ultrasound can help determine the depth of tumour invasion. For lesions less than 2 cm, endoscopic resection can be performed using advanced endoscopic resection methods safely and with a high probability of achieving an R0 resection.

## References

1. B. V. M. Dasari *et al.*, “Outcomes of Surgical and Endoscopic Resection of Duodenal Neuroendocrine Tumours (NETs): a Systematic Review of the Literature.” *J. Gastrointest. Surg.*, vol. 22, no. 9, pp. 1652–1658, Sep. 2018.
2. T. W. Kim *et al.*, “Endoscopic resection for duodenal subepithelial tumors: a single-center experience.” *Surg. Endosc.*, vol. 31, no. 4, pp. 1936–1946, 2017.
3. A. Fujimoto *et al.*, “Treatment Results of Endoscopic Mucosal Resection with a Ligation Device for Duodenal Neuroendocrine Tumors.” *Intern. Med.*, Nov. 2018.
4. S. B. Park, D. H. Kang, C. W. Choi, H. W. Kim, and S. J. Kim, “Clinical outcomes of ligation-assisted endoscopic resection for duodenal neuroendocrine tumors.” *Medicine (Baltimore)*, vol. 97, no. 18, p. e0533, May 2018.
5. Y. Oono *et al.*, “Endoscopic submucosal resection using a ligation device without injection for duodenal neuroendocrine tumors.” *Surg. Endosc.*, Jan. 2019.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ R. Srirajaskanthan  
r.srirajaskanthan@nhs.net

<sup>1</sup> Department of Gastroenterology, Neuroendocrine Tumour Unit, ENETS Centre of Excellence, Kings College Hospital, London SE5 9RS, England