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Proper Treatment Option for Small Rectal Neuroendocrine Tumors Using Precut Endoscopic Mucosal Resection

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See "Efficacy of Precut Endoscopic Mucosal Resection for Treatment of Rectal Neuroendocrine Tumors" by Hoonsub So, Su Hyun Yoo, Seungbong Han, et al., on page 585-591.

In the past, rectal neuroendocrine tumors (NETs) were uncommon neuroendocrine neoplasms. Recently, the incidence of rectal NETs has increased as the number of screening colonoscopies has increased. Thus, rectal NETs are one of the most common NETs found in the gastrointestinal tract. In a recent Korean single-center study, the same results showed that the most frequent primary site of NETs in the gastrointestinal tract is the rectum (79.8%).¹

Most rectal NETs covered with yellowish normal mucosa are small, localized, and mucosal or submucosal in location. A large prospective study of prognostic features of rectal NETs in 347 patients reported that the risk factors of metastasis include increasing tumor size, increased mitotic rate, lymphovascular invasion, and depression or ulceration observed macroscopically on endoscopy.² None of the patients with a tumor size of ≤ 10 mm had metastatic disease. The metastatic potential of rectal NETs of < 10 mm in size has been reported to be as low as 2%, increasing to 10%–15% in tumors ranging from 1–2 cm and 60%–80% in tumors of > 2.0 cm in size.^{2,3}

If the size of the rectal NET is smaller than 10 mm, the risk of lymph node of distant metastasis is low. Thus, in these cases, it can generally be treated by conventional polypectomy,³⁻⁵ especially if they do not have other risk factors such as increased mitotic rate or lymphovascular invasion. However, conventional polypectomy has been shown to be an ineffective treatment method for rectal NETs, as most of these lesions extend into the submucosa. Some studies have reported that the complete resection rate of conventional polypectomy was as low as 20%–30%.^{5,6} To increase the likelihood of complete pathological resection rate, modified endoscopic mucosal resection (EMR) techniques such as EMR using a transparent cap, EMR with a ligation device, and endoscopic submucosal resection with a ligation device are needed. All these methods that use suction can make a pseudostalk before resection.⁷⁻¹⁰ Another important advanced method to achieve a negative resection margin is endoscopic submucosal dissection (ESD). ESD is a resection technique for early gastric cancer. Its use has increased in colorectal tumors and NETs. The advantage of ESD is to achieve complete *en bloc* resection regardless of tumor size. The disadvantage of ESD is that it is time-consuming and complicated.¹¹ Resection time was longer in the ESD group than that in the EMR group (11.4 \pm 3.7 min vs. 4.2 \pm 3.2 min, $p < 0.001$).¹¹

In this issue of *Clinical Endoscopy*, So et al. proposed a pre-cut endoscopic mucosal resection (EMR-P) method for the treatment of rectal NETs, which was performed as follows: After submucosal injection, circumferential incision/precutting was performed using the tip of the snare to cut along a 2-mm margin outside the tumor.¹² Subsequently, the snare was securely positioned in the cut groove and tightened, and the tumor was resected using electrical current. *En bloc* and complete resections were achieved in 71 (98.6%) and 67 patients

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(93.1%), respectively. The mean time required for resection was 9.0 ± 5.6 min. Immediate and delayed bleeding developed in 6 (8.3%) and 4 patients (5.6%), respectively.¹²

Compared with previous EMR-P^{13,14} or modified EMR or ESD, the treatment method described in this study has the advantage of the use of a snare tip rather than specialized endoknives for precutting or a band, cap, or two-channel scope. Use of the snare tip reduced the time and cost of this procedure because additional accessories did not have to be introduced and withdrawn before snaring.¹²

In conclusion, the EMR-P method is one such modification to achieve high negative pathologic resection rate and a short procedure time without additional costs.

Conflicts of Interest

The author has no financial conflicts of interest.

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