

ESD, not EMR, should be the first-line therapy for early gastric neoplasia

With interest, we read the insightful recommendations by Banks *et al*¹ and the British Society of Gastroenterology on the management of precancerous conditions and lesions in the stomach. They rightly identify that the management of these conditions lacks consistency not only in the UK but also in the majority of Western societies.² With a growing appreciation for quality indicators in upper GI endoscopy,³ these guidelines are an essential resource for both general endoscopists and tissue resection specialists.

Nevertheless, despite the increasing expertise in endoscopic submucosal dissection (ESD) outside of Japan,⁴ we were surprised that endoscopic mucosal resection (EMR) was recommended for lesions ≤ 10 mm. This is in contrast to recommendations by the Japan Gastroenterological Endoscopy Society (JGES)⁵ and the European Society of Gastrointestinal Endoscopy (ESGE).⁶

Three systematic reviews⁷⁻⁹ have compared ESD versus EMR for early gastric cancer (EGC). In 12 studies and 3806 lesions (1734 ESDs and 2072 EMRs), Park *et al*⁷ showed that the frequency of en bloc resection (91.7% vs 52.1%; OR 8.43, 95% CI 5.20 to 13.67), R0 resection (91.9% vs 43.0%; OR 8.54,

95% CI 4.44 to 16.45), curative resection (79.5% vs 59.0%; OR 3.28, 95% CI 1.95 to 5.54) and recurrence (0.82% vs 5.0%; risk ratio (RR) 0.13, 95% CI 0.04 to 0.41) favoured ESD. The frequency of perforation (4.5% vs 1.0%; RR 3.58, 95% CI 1.95 to 6.55) and operative time (standard mean difference 1.55, 95% CI 0.74 to 2.37) favoured EMR. No difference in bleeding (7.1% vs 7.1%; RR 1.22, 95% CI 0.75 to 1.98) and all-cause mortality (0.86% vs 0.93%; RR 0.65, 95% CI 0.08 to 5.38) were identified. Importantly, in lesions < 10 mm, ESD remained superior to EMR in the frequency of en bloc resection and R0 resection. This is driven by a lack of precision and efficacy of EMR due to the unique anatomical characteristics of the stomach, including a relatively poor and more diffuse submucosal lift and a much thicker mucosal layer.

Banks and colleagues imply that they advocated for EMR in lesions ≤ 10 mm due to a lack of survival benefit favouring ESD, alongside concerns for poor performance outcomes and higher frequencies of adverse events among Western endoscopists. In the previously mentioned systematic review, only two studies evaluated all-cause mortality at 3 years and at a median of 43 months, respectively. With limited, Western, cancer-free, long-term survival data available, we find it difficult to advocate for EMR when faced with such striking disparity in performance outcomes favouring ESD. Moreover, we

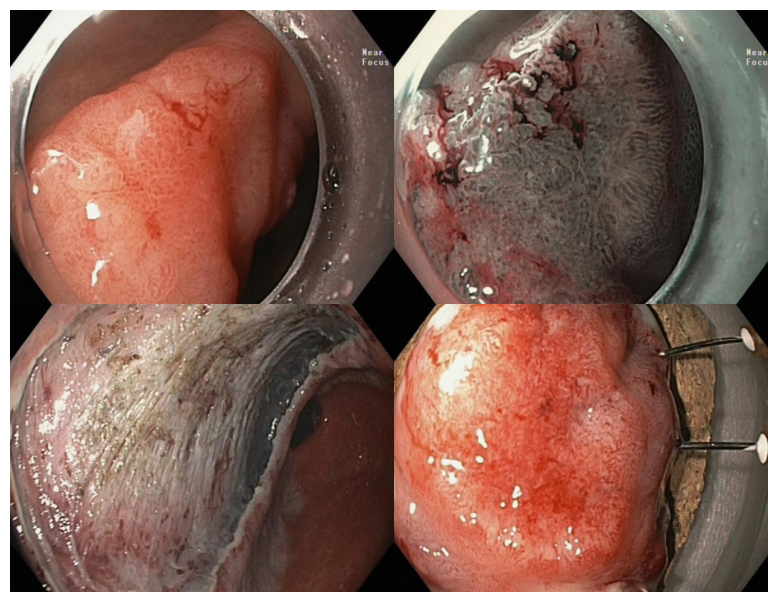


Figure 1 A 10 mm well-demarcated biopsy-proven gastric lesion with high-grade dysplasia, previously treated by endoscopic mucosal resection. Histology demonstrated well-differentiated intramucosal cancer. This image depicts an endoscopic follow-up at 6 months, demonstrating extensive recurrent early gastric cancer. This was excised by endoscopic submucosal dissection. Histology redemonstrated a well-differentiated intramucosal cancer.

have recently shown in a large prospective cohort of early gastric neoplasia removed by ESD that the frequency of en bloc resection (94.8%), R0 resection (86.7%) and perforation (1.5%) can approach that of Japanese experts.⁴

Based on existing evidence and in accordance with both the JGES and the ESGE, ESD should be the first-line modality for early gastric neoplasia. To continue to optimise management, western endoscopists must improve their understanding of gastric atrophy, gastric intestinal metaplasia and early gastric neoplasia, in accordance with the BSG recommendations. This includes embracing meticulous optical evaluation of the stomach and adopting evolving quality indicators, with the aim of improving the detection of early gastric neoplasia. Due to the lower frequency of these lesions compared with their eastern counterparts, Western jurisdictions will likely need to limit the number of endoscopists practising advanced resection techniques, specifically ESD. This will allow for an appropriate volume of procedures per tissue resection specialist to achieve and maintain competency, with the aim of mastering ESD. Moreover, by limiting the endoscopic management of these lesions to a select group of physicians, this will invariably discourage less experienced endoscopists from dabbling in EMR and the treatment of EGC (figure 1).

Sometimes even we cannot advocate for EMR.

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