EMR achieves similar oncological outcomes as ESD for gastric neoplasia of <1cm, requiring less expertise, training and time

We thank Drs Shahidi and Bourke[1] for their kind interest in our British Society of Gastroenterology guidelines.[2]

They present a valid argument that endoscopic mucosal resection (EMR) rather than endoscopic submucosal dissection (ESD) should be the first-line therapy for all gastric neoplasia, irrespective of lesion size, location or histopathology, citing supportive evidence from the Japan Gastroenterological Endoscopy Society (JGES)[3] and the European Society of Gastrointestinal Endoscopy (ESGE),[4] and three systematic reviews.[5–7] We accept the compelling, although low-quality evidence from the systematic reviews demonstrating that en bloc resection, R0 resection and recurrence rates favoured ESD overall.

Although the JGES guidelines state that ESD is better than EMR, they provide the caveat that there have been no randomised controlled trials examining the therapeutic results between EMR and ESD in the stomach. Likewise, the ESGE guidelines recommend, 'EMR is an acceptable option for lesions smaller than 10–15 mm with a very low probability of advanced histology (Paris 0-IIa)'.

These guidelines highlight limitations to their recommendations and indicate EMR is an acceptable approach for smaller lesions. The Japanese Gastric Cancer Association guidelines (V.42014) have not been referred to and state, 'EMR or ESD is indicated as a standard treatment for the following tumour: A differentiated-type adenocarcinoma without ulcerative findings [UL(-)], of which the depth of invasion is clinically diagnosed as T1a and the diameter is ≦2 cm'.[8]

It is also important to recognise that the authorship of the majority of the individual studies in the systematic reviews includes experts in ESD, and thus, this compounds the likelihood of bias in these reviews towards ESD over EMR. Furthermore, there are no data demonstrating that recurrence rates are greater for EMR over ESD for small gastric lesions. We congratulate the authors for their recent publication with excellent ESD outcomes, superior to historic outcomes from Western series.[9] However, the overwhelming body of evidence shows that the complication rates for ESD are greater than EMR particularly where there is limited ESD expertise as in the West. Furthermore, operating time has been shown to be significantly lower for EMR and training to be more rapid.

There is much heterogeneity of EMR techniques, including lift and snare, cap and band EMR, hybrid EMR/ESD and two-channel retraction EMR, where the outcomes differ. For example, for oesophageal squamous cell carcinoma, en bloc resection rates of cap EMR and two-channel EMR were 100% and 86%, respectively, which were similar to that of ESD.[10] Although gastric neoplasia requires a wide resection margin because

of its unclear boundary, if the lesion can be accurately delineated and marked, EMR should be able to provide a similar oncological outcome to ESD for small lesions. It is also important to consider that different regions of the stomach vary in vasculature, endoscopic access and thickness, which may propose significant technical challenges for ESD, favouring EMR.

From the oncological perspective, most small lesions in the stomach of <1 cm are mainly low-grade or high-grade dysplasia with a small number of intramucosal cancers. Providing therefore that the lesions are well delineated, complete resection rates are unlikely to differ between EMR and ESD.

Therefore, for smaller gastric lesions, there is insufficient evidence to support ESD over EMR in terms of oncological outcomes (local recurrence or disease-free survival). The optimal resection technique should be tailored depending on the operator's experience and lesion characteristics. EMR is quicker, cheaper and requires less expertise than ESD and therefore is the preferred option currently in the UK for gastric neoplasia of <1 cm. However, if en bloc resection is not considered possible by EMR (eg, where there is scarring, depression or ulceration), then ESD would be the preferred technique to achieve the best oncological outcome.

Matthew Banks ,[1] **Noriya Uedo**,[2] **Pradeep Bhandari**,[3] **Takuji Gotoda** [4]

[1]Division of Gastroenterology, University College London Hospitals, NHS Foundation Trust, London, UK
[2]Department of Gastrointestinal Oncology, Osaka International Cancer Institute, Osaka, Japan
[3]Department of Gastroenterology, Queen Alexandra Hospital, Portsmouth, UK
[4]Division of Gastroenterology and Hepatology, Department of Medicine, Nihon University School of Medicine, Tokyo, Japan

Correspondence to Dr Matthew Banks, University College London Hospital, University College London Hospitals NHS Foundation Trust, London NW12PG, UK; matthew.banks2@nhs.net

Contributors All authors contributed equally to the letter.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

To cite Banks M, Uedo N, Bhandari P, *et al*. *Gut* 2020;**69**:1712–1713.

Received 22 September 2019
Accepted 23 September 2019
Published Online First 5 October 2019

Linked

► http://dx.doi.org/10.1136/gutjnl-2019-319646

Gut 2020;**69**:1712–1713. doi:10.1136/gutjnl-2019-319925

ORCID iDs
Matthew Banks http://orcid.org/0000-0002-9137-2779
Takuji Gotoda http://orcid.org/0000-0001-6904-6777

REFERENCES

1. Shahidi N, Bourke MJ. ESD, not EMR, should be the first-line therapy for early gastric neoplasia. *Gut* 2020;69:1712–3.
2. Banks M, Graham D, Jansen M, *et al*. British Society of gastroenterology guidelines on the diagnosis and management of patients at risk of gastric adenocarcinoma. *Gut* 2019;68:1545–75.
3. Ono H, Yao K, Fujishiro M, *et al*. Guidelines for endoscopic submucosal dissection and endoscopic mucosal resection for early gastric cancer. *Dig Endosc* 2016;28:3–15.
4. Pimentel-Nunes P, Dinis-Ribeiro M, Ponchon T, *et al*. Endoscopic submucosal dissection: European Society of gastrointestinal endoscopy (ESGE) guideline. *Endoscopy* 2015;47:829–54.
5. Park Y-M, Cho E, Kang H-Y, *et al*. The effectiveness and safety of endoscopic submucosal dissection compared with endoscopic mucosal resection for early gastric cancer: a systematic review and metaanalysis. *Surg Endosc* 2011;25:2666–77.
6. Lian J, Chen S, Zhang Y, *et al*. A meta-analysis of endoscopic submucosal dissection and EMR for early gastric cancer. *Gastrointest Endosc* 2012;76:763–70.
7. Facciorusso A, Antonino M, Di Maso M, *et al*. Endoscopic submucosal dissection *vs* endoscopic mucosal resection for early gastric cancer: A meta-analysis. *World J Gastrointest Endosc* 2014;6:555–63.
8. Japanese Gastric Cancer Association. Japanese gastric cancer treatment guidelines 2014 (VER. 4). *Gastric Cancer* 2017;20:1–19.
9. Tate DJ, Klein A, Sidhu M, *et al*. Endoscopic submucosal dissection for suspected early gastric cancer: absolute versus expanded criteria in a large Western cohort (with video). *Gastrointest Endosc* 2019;90:467–79.
10. Ishihara R, Iishi H, Uedo N, *et al*. Comparison of EMR and endoscopic submucosal dissection for en bloc resection of early esophageal cancers in Japan. *Gastrointest Endosc* 2008;68:1066–72.