

## Investigation of each histological type in undifferentiated early gastric cancer and validity of diagnosis of the disease range

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Received: 17 September 2015 / Accepted: 2 November 2015 / Published online: 19 November 2015  
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To the editor

We read with interest the article entitled “Accuracy of diagnostic demarcation of undifferentiated-type early gastric cancers for magnifying endoscopy with narrow-band imaging: endoscopic submucosal dissection cases” by Horiuchi et al. [1]. The authors determined demarcation lines of undifferentiated (UD)-type early gastric cancer (EGC) by using magnifying endoscopy with narrow-band imaging (ME-NBI) and marking the utmost oral and anal sites of the lesion using argon plasma coagulation. After performing endoscopic submucosal dissection (ESD), they evaluated the rate of accurate diagnosis by defining it as the consistency of the utmost oral and anal demarcation lines of the lesion with the postoperative pathological findings. As a result, the rate of accurate diagnosis was 81.6 %, and the authors concluded that the use of ME-NBI in the

diagnostic demarcation of UD-type EGC should be recommended. However, we have several questions.

The first concerns the histologic type of UD-type EGC. There are several histologic types, such as signet ring cell carcinoma, poorly differentiated adenocarcinoma, mucinous adenocarcinoma, and mixed type [2]. Choi et al. [3] reported that the rate of lateral margin positivity in both poorly differentiated adenocarcinoma and poorly differentiated adenocarcinoma with signet ring cell features was significantly higher than that for signet ring cell carcinoma alone. Thus, there might be a difference among histologic types of UD-type EGC when calculating the rate of accurate diagnosis based on the demarcation line. Did the authors investigate the differences of each histological type? In addition, the findings of ME-NBI for each histological type were also considered interesting and useful for the actual clinical practice. Therefore, these results should be suggested additionally. Were there any differences in endoscopic images when using ME-NBI in each histological type?

The second question relates to the diagnosis based on the demarcation lines before ESD. The authors reported that 81.6 % of the EGCs could be correctly diagnosed on the basis of demarcation lines by using ME-NBI. However, it seems that this accuracy is not enough when diagnosing the range of EGCs appropriate for ESD. Generally, UD-type EGC has been reported as being at high risk for lateral margin positivity following ESD [4–6]. Therefore, we always perform a biopsy to determine negative margins around the lesion before ESD for UD-type EGC. Do the authors determine the cutting line before ESD only by using ME-NBI without negative biopsy?

We hope this letter will contribute to the further understanding of gastric cancer and to the fruitful growth of gastric cancer research.

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This comment refers to the article available at doi:[10.1007/s10120-015-0488-x](https://doi.org/10.1007/s10120-015-0488-x).

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**Compliance with ethical standards****Conflict of interest** None.**References**

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