



# ME-NBI finding is suggested to be useful to determine accurate surgical margins in undifferentiated-type early gastric cancer patients

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Thank you for your opinion on this paper. As you pointed out, the diagnostic accuracy of demarcation for undifferentiated-type early gastric cancers (UD-type EGCs) before surgery was 83.8% in magnifying endoscopy with narrow-band imaging (ME-NBI) (1). Therefore the use of ME-NBI in the preoperative diagnosis of the demarcation of cancer is useful to prevent postoperative positive surgical margins. Before this research, we investigated the accuracy of the diagnosis of the demarcation of UD-type EGCs in endoscopic submucosal dissection (ESD) cases using methods similar to those in the present study, but the rate of correct diagnosis using conventional endoscopy including chromoendoscopy was very low (53.9%) (2). However, the use of ME-NBI increased the rate of correct diagnosis by as much as 27.6% and the rate reached 81.5%, although the subjects were patients undergoing ESD who were preoperatively diagnosed as having intramucosal lesions measuring  $\leq 20$  mm in diameter. Therefore, the diagnostic capability for UD-type EGCs may be enhanced using the ME-NBI, and the use of ME-NBI for the diagnostic delineation of UD-type EGCs lesions prior to ESD is recommended. It follows that it would be difficult to delineate diagnostic demarcation, even using ME-NBI, in cases with a narrower intercrypt distance in the cancerous region because of the scarcity of cancer cells as well as in cases with pronounced inflammatory cell infiltration, resulting in diagnostic limitations in a little less than 20% of cases.

Inflammatory cell infiltration appeared to be a cause of misdiagnosis, suggesting that resolution of inflammation would contribute to accurate diagnosis of demarcation. It was then suggested that eradication of *Helicobacter pylori* (*H.pylori*), a major cause of inflammation, might improve the rate of accurate diagnosis of demarcation. Therefore, in the other study, accurate diagnosis rates were compared between patients with and without *H.pylori* eradication to determine whether *H.pylori* eradication is beneficial (3). As a result, accurate diagnosis rates were 92.2% with eradication and 60.6% without. This study suggests *H.pylori* eradication therapy aids the accurate delineation of UD-type EGCs in ME-NBI.

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