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Multiple White Flat Lesions of the Corpus: Subtype of Hyperplastic Polyps vs. Intestinal Metaplasia

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See “Magnified Endoscopic Findings of Multiple White Flat Lesions: A New Subtype of Gastric Hyperplastic Polyps in the Stomach” by Rino Hasegawa, Kenshi Yao, Shoutomi Ihara, et al., on page 558-562.

Magnifying endoscopy with narrow-band imaging (ME-NBI) provides information on the microsurface structure and microvascular architecture of the mucosa.¹ The vessel plus surface classification that uses this information improves the diagnostic accuracy of endoscopy for early gastric cancer.² ME-NBI is also applicable in the diagnosis of gastric mucosa-associated lymphoid tissue lymphoma, chronic gastritis, and intestinal metaplasia (IM).³⁻⁵ The superior diagnostic accuracy of ME-NBI compared with that of white light endoscopy of gastric IM can aid in determining the surveillance interval based on gastric cancer risk stratification, such as the operative link of gastric IM assessment staging system.⁶ Therefore, the differential diagnosis with ME-NBI of whitish flat elevated lesions between IM and other benign lesions, including fundic gland and hyperplastic polyps, is important.

In a current issue of *Clinical Endoscopy*, Hasegawa et al. reported the ME-NBI and clinicopathologic findings of multiple whitish flat elevated lesions (MWFLs) extending from

the gastric body to the fundus.⁷ A previous study evaluating the endoscopic classification, using ME-NBI, of gastric precancerous and cancerous lesions proposed that lesions with tubular-villous mucosal and regular vascular patterns can be classified as IM.^{8,9} The authors reported that the false-positive rate was about 10% (10 of 100 IM cases diagnosed using ME-NBI) and that foveolar hyperplasia presenting with this ME-NBI pattern may be the cause of false-positive results.¹⁰ In conference abstracts from Japanese endoscopists, MWFLs were reported as independent entities, not IM.^{11,12} The common histologic findings of these lesions included straight enlarged foveolar epithelium with atrophy of the fundic gland without cystic dilatation. Hasegawa et al. also reported observing foveolar hyperplasia in 100% of 4 patients, and parietal cell protrusion and oxyntic gland dilatation in 75% of the patients.⁷ Fundic gland and hyperplastic polyps induced by proton pump inhibitor use have different histologic features from those of MWFLs. Fundic gland polyps are characterized by cystic dilatation of pits, which are located in deep mucous neck cells.¹³ Hyperplastic polyps are associated with hypergastrinemia and *Helicobacter pylori* infection, and have histologic characteristics of elongation, twisting, branching, and cystic dilatation of the foveolae.¹⁴

ME-NBI findings showed uniformly long and slightly wide marginal crypt epithelium and a faint dark brown color in the intervening part. There are 3 points in the differential diagnosis of IM. First, MWFLs present as whitish elevated patches in the upper corpus, whereas whitish elevated lesions on the antrum are usually IM. Second, this lesion can be observed

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without atrophic background because *H. pylori* infection, which causes atrophic gastritis, is present in 7.7%–31.7% of the patients.^{7,12} IM, the replacement of the gastric mucosa by intestinal epithelium, usually develops after atrophic change. Third, MWFLs, based on ME-NBI findings, have papillary or ridged marginal crypt epithelium without the light-blue crest sign, which is an endoscopic diagnostic indicator of IM.⁵ However, the most accurate diagnostic method is histologic assessment of biopsy specimens. The above-mentioned 3 points for differential diagnosis are based on the features of IM. Clinicians must remember that although these findings may increase the accuracy of endoscopic diagnosis, they may also be false negatives. Of course, biopsy has limitations, such as sampling errors, additional expense, and being time consuming. Further studies are needed to evaluate the clinical and pathologic characteristics of MWFLs to overcome these limitations.

In conclusion, MWFLs of the corpus can be considered as a subtype of hyperplastic polyps. Especially, a misdiagnosis of this lesion as IM causes patients to be classified as having a high risk for gastric cancer. Therefore, identification of the differences between MWFLs and IM is important.

Conflicts of Interest

The authors have no financial conflicts of interest.

Author Contributions

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