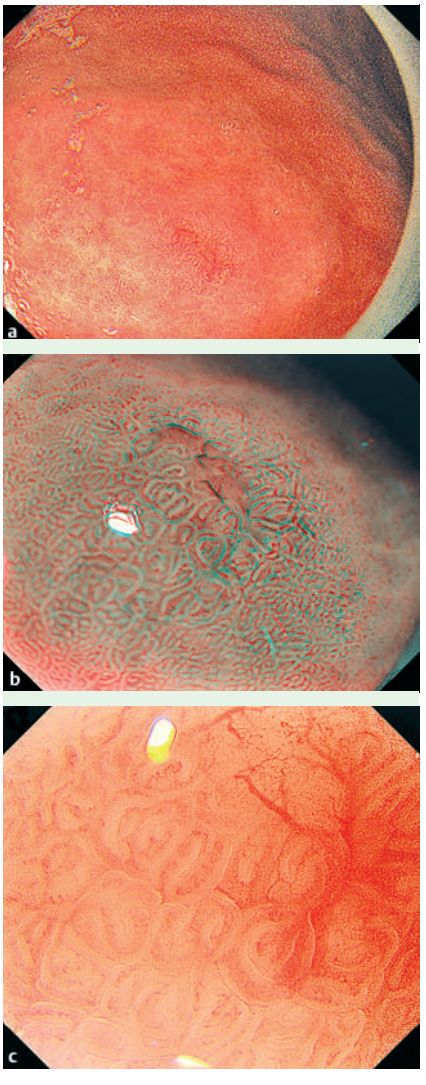
Microcarcinoid tumor diagnosed with high-resolution magnification endoscopy and narrow band imaging

A 63-year-old patient presented with persistent dyspepsia. Endoscopy revealed an 8-mm nodule on the anterior wall of the greater curvature in the proximal part of the body of the stomach. Histological analysis demonstrated a well-differentiated tumor showing positive immunostaining with chromogranin with a background mucosa showing features of atrophic gastritis. Gastric pH and fasting serum gastrin levels were elevated. A diagnosis of a type I carcinoid tumor was made. The patient then underwent endoscopic mucosal resection with complete resection of the lesion. Follow-up endoscopy 3 months later showed a scar at the previous resection site. However, a diminutive, flat, reddened lesion measuring less than 3 mm with the appearance of an erosion was detected at a separate site on the posterior wall of the greater curvature (**Fig. 1a**). Narrow-band imaging demonstrated that, at the center of the lesion, the pit structure had disappeared (**Fig. 1b**). Magnification endoscopy with white light revealed that the subepithelial capillary network was well preserved, but underneath the epithelium, a faint yellowish hue could be seen (**Fig. 1c**). These findings were distinctly different from those of a gastric erosion or a minute gastric carcinoma. In an erosion dilated subepithelial capillaries are seen, and in the center of the erosion whitish inflammatory exudates will be visualized [1]. On the other hand, a flat early carcinoma would exhibit proliferation of the subepithelial capillaries, which would be irregular in both caliber and tortuosity [2]. Taking into consideration the patient's previous history, we suspected the lesion could have originated from an endocrine nest/microcarcinoid [3] which had grown just beneath the epithelium. The histopathological analysis of the lesion revealed a minute carcinoid tumor (**Fig. 1d**). This case illustrates the differential diagnosis between three lesions which appear very similar: an erosion, a flat early carcinoma, and a minute carcinoid, and shows the utility of high-resolution magnification endoscopy with narrow-band imaging in differentiating them.



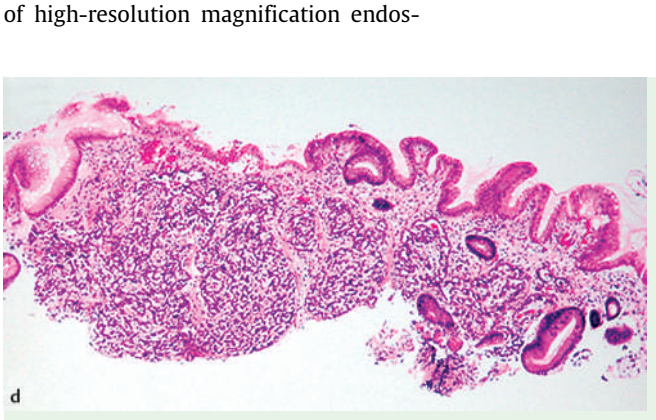


Fig. 1 **a** A diminutive, flat, reddened lesion measuring less than 3 mm with the appearance of an erosion at the posterior wall of the greater curvature of the stomach. **b** Narrow-band imaging demonstrated that at the center of the lesion, the pit structure had disappeared. **c** High-resolution magnification endoscopy revealed that the subepithelial capillary network was well preserved, but underneath the epithelium a faint yellowish hue could be seen. **d** Endocrine nest/microcarcinoid which had grown just beneath the epithelium.

Endoscopy_UCTN_Code_CCL_1AB_2AD_3AB

R. Singh, K. Yao, G. Anagnostopoulos, P. Kaye, K. Ragunath
Wolfson Digestive Diseases Centre, University Hospital, Queen's Medical Centre, Nottingham, UK

References

1 *Yao K, Iwashita A, Kikuchi Y et al.* Novel zoom endoscopy technique for visualizing the microvascular architecture in gastric mucosa [review]. Clin Gastroenterol Hepatol 2005; 3 (7 Suppl 1): S23 – 26
2 *Yao K, Iwashita A, Tanabe H et al.* Novel zoom endoscopy technique for diagnosis of small flat gastric cancer: a prospective, blind study. Clin Gastroenterol Hepatol 2007; 5: 869 – 78
3 *Nojiri T, Ikegami M.* Multiple minute carcinoids in type A gastritis: attempt at 3-D reconstruction. Pathol Int 2001; 51: 504 – 510

Bibliography

DOI 10.1055/s-2007-995393
Endoscopy 2008; 40: E12 – E12
© Georg Thieme Verlag KG Stuttgart · New York ·
ISSN 0013-726X

Corresponding author

R. Singh, MRCP
Wolfson Digestive Diseases Centre
University Hospital
Queen's Medical Centre
Nottingham
NG7 2UH
United Kingdom
Fax: +44-115-9249924
rajvindersingh2003@yahoo.com

This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.