



Dysplastic Barrett's lesion with white opaque substance and xanthoma

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WOS was first described in 2008 as a deposit within neoplastic gastric epithelium that obscures visualization of the microvasculature.¹ It has since been described in esophageal adenocarcinoma, colonic neoplasms, and gastric intestinal metaplasia.²⁻⁴ The phenomenon of WOS has been shown to be due to intraepithelial lipid deposition, for which its exact clinical significance has yet to be identified.⁵

The pathologic description of GI xanthelasmas, which are the subepithelial accumulation of lipid-laden histiocytes, dates back to 1887.⁶ The term “gastric xanthelasmas” was introduced decades later, in 1969, by Kimura et al.⁷ Since then, gastric xanthelasmas have been widely reported, with a prevalence of up to 7%.⁸ Esophageal xanthelasmas were first described in 1984, and since then 22 cases have been reported in the literature.^{9,10} Esophageal xanthomas are rarely larger than 5 mm, and the largest reported was 20 mm.⁹

Here we present a unique esophageal lesion in which both WOS (intraepithelial lipid) and xanthelasmas (subepithelial lipid-laden histiocytes) were present within a 3.5-cm area of low-grade dysplasia in a C5M6 Barrett's lesion in a

70-year-old man who underwent upper endoscopy for chronic reflux symptoms (Video 1, available online at www.VideoGIE.org). Endoscopy demonstrated a yellow nodular Paris Iia lesion on the posterolateral wall that was 3.5 cm long. With magnification, areas with WOS and irregular microsurface (Figs. 1A-C) were visualized. In regions where the WOS was not heavily deposited, an irregular microvasculature was visible (Figs. 1D and E) on a yellowish background of the xanthelasma. This lesion was removed en bloc by endoscopic submucosal dissection (Fig. 1F). Pathologic examination demonstrated Barrett's esophagus with low-grade dysplasia and the presence of heavy intraepithelial lipid deposits and subepithelial lipid-laden histiocytes (Fig. 2).

DISCLOSURE

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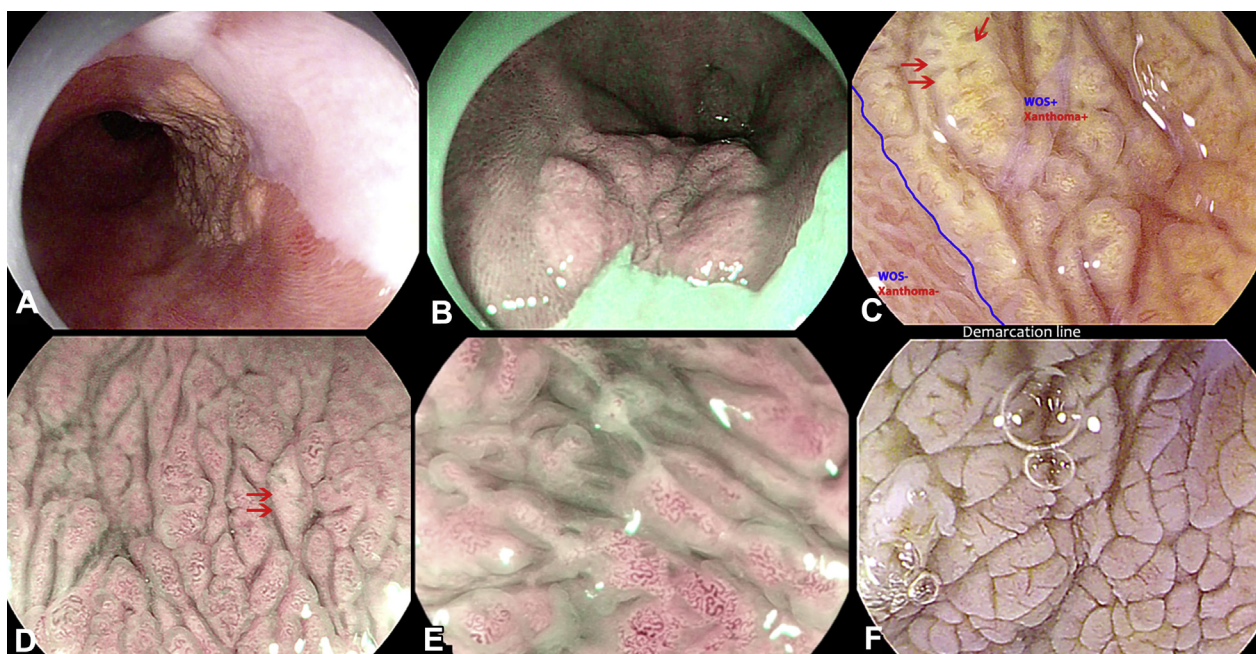


Figure 1. A-C, Dysplastic Barrett's lesion with white opaque substance (WOS) (red arrows) on the posterolateral wall. D-E, Areas with irregular, dilated tortuous microvasculature visible. F, Gross resected specimen.

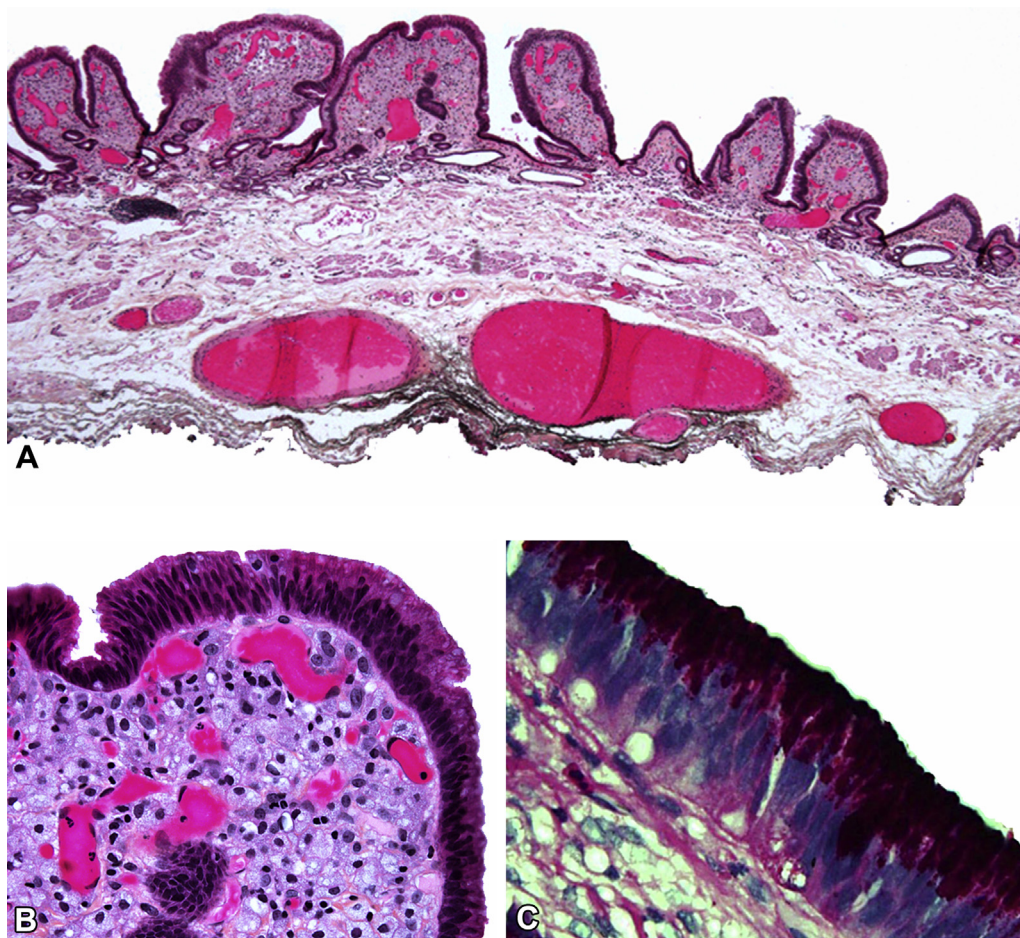


Figure 2. A, B, Dysplastic Barrett's epithelium with subepithelial lamina propria xanthomas causing a polypoid configuration (A, hematoxylin phloxine saffron, orig. mag. $\times 40$; B, orig. mag. $\times 200$). C, Diastase-pretreated periodic acid-Schiff stain of dysplastic epithelium demonstrating nonstaining focal basal subnuclear vacuoles of lipid (hematoxylin phloxine saffron, orig. mag. $\times 400$).

Abbreviation: WOS, white opaque substance.

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