

## A yellow sign indicating danger ahead

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### Case report

A 59-year-old man presented with chronic complaints of dyspepsia and early satiety. Pantoprazole 20mg once daily did not relieve his symptoms. He did not report dysphagia nor any unintentional weight loss.

A gastroscopy was performed and showed diffuse atrophic gastritis. In the gastric antrum a yellow lesion was seen, which felt hard upon palpation with the biopsy forceps (figure 1). Inspection of the duodenum and esophagus was normal.

What is your diagnosis?

### Discussion

The endoscopic diagnosis of a xanthoma was confirmed by histopathology. Other biopsies showed chronic inactive gastritis with focal intestinal metaplasia in the antrum and polypoid foveolar hyperplasia in the corpus. *Helicobacter pylori* was not present.

Xanthoma or xanthelasmata are benign lesions with a typical endoscopic appearance of a yellow, well demarcated nodule or plaque consisting of lipid containing histiocytes on histopathological examination. These lesions are occasionally found in the stomach during gastrointestinal endoscopy; on the other hand esophageal and duodenal xanthelasmata are very rare (1). Size varies between 2-10mm and multiple

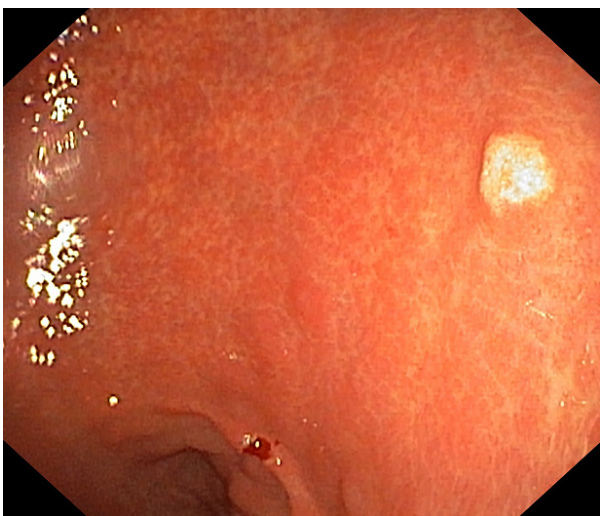


Figure 1. — Endoscopic view of a yellow lesion in the gastric antrum, surrounded by atrophic gastritis.

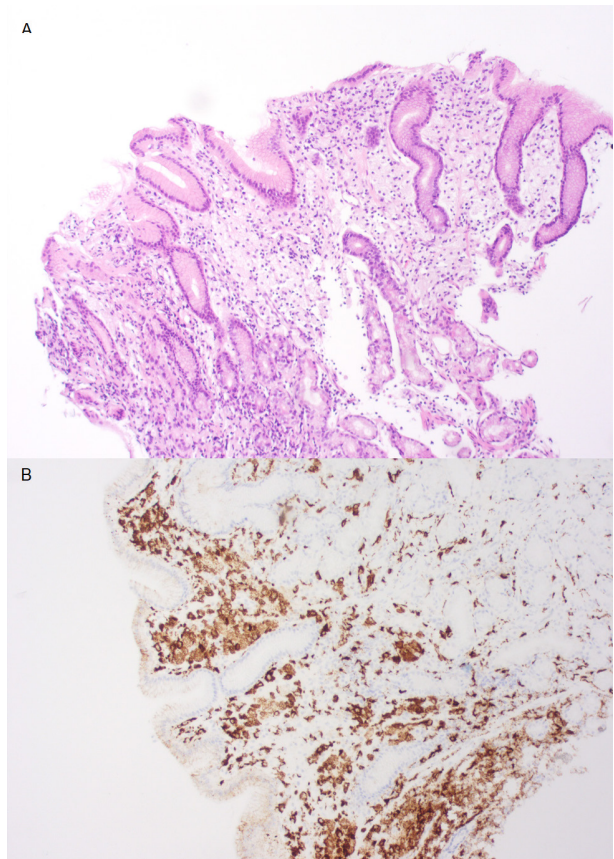


Figure 2A. — Histopathology of the lesion demonstrated aggregates of pale and foamy macrophages between the undulating foveolar structures in the upper lamina propria (x100). 2B. — The aggregates were positive on immunohistochemistry for CD68, a marker of macrophages (x100).

xanthelasmata can be seen. Biopsies should be taken to achieve a histopathological diagnosis and exclude resembling pathology such as Russel body gastritis, early gastric cancer or neuroendocrine tumor (2,3). Moreover, sampling of surrounding mucosa should be done to rule out associated pathology such as *H. pylori* infection, chronic gastritis and intestinal metaplasia.

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Xanthelasmata itself are generally asymptomatic but associated pathology can cause symptoms as suspected in this patient.

The pathogenesis is not yet fully elucidated but chronic damage to the gastric mucosa may play a role (1). Of note, several studies have demonstrated an association between gastric xanthoma and occurrence of gastric cancer (4,5,6). The relationship between gastric xanthoma, *H. pylori* infection and associated chronic gastritis and intestinal metaplasia (as was the case in our patient) has been well established (1,4). Moreover, diabetes mellitus was more frequently found in patients with gastric xanthoma (2). All these factors may play a role in carcinogenesis in the stomach, thus possibly explaining the association between gastric xanthoma and gastric cancer.

To conclude, the finding of a gastric xanthoma should be a warning sign for the endoscopist and should warrant careful examination and possibly endoscopic follow up.

### Conflict of interest

No author has a conflict of interest to declare regarding this manuscript.

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