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## CLINICAL CASE REPORTS

# Gastric Xanthelasma, Xanthoma, and Xanthomatosis<sup>☆ ☆</sup>



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### KEYWORDS

Stomach;  
Xanthoma;  
Xanthomatosis;  
Xanthelasma;  
Endoscopy;  
Video

### Abstract

**Background:** *Xanthelasma* is a yellowish deposit of cholesterol underneath the skin, usually on or around the eyelids, which is associated with hyperlipidemia. In the stomach, *xanthelasma* and *xanthoma* are used interchangeably, and referred to asymptomatic benign endoscopic findings, which are not associated with hyperlipidemia. Gastric xanthomatosis is rare.

**Patient and methods:** We present the endoscopic and histopathological features of gastric xanthomatosis in a 68-year-old man with a history of peptic ulcer disease and previous antrectomy. **Results:** Gastric xanthelasma and xanthoma present as solitary white or yellow flat mucosal lesions with fern-like surface features. These discrete lesions are usually found in the antrum. Gastric xanthomatosis presents with multiple small white or yellow mucosal patches or nodules. Histopathologic features include large foamy histiocytes containing a mixture of lipids in the mucosa and submucosa.

**Conclusions:** Gastric xanthelasma, xanthoma, gastric xanthomatosis are benign incidental endoscopic findings and are not associated with hyperlipidemia.

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## Video related to this article

Video related to this article can be found online at <http://dx.doi.org/10.1016/j.vjgien.2013.03.003>.

### 1. Case report

- A 68 year old man with a history of peptic ulcer disease and previous antrectomy.
  - Underwent upper endoscopy for reflux symptoms.
  - He had no diarrhea or malabsorption symptoms.
- Serum lipid profiles were within normal limits.

#### *Endoscopic findings and interventions*

- Upper endoscopy revealed:
  - Numerous white and yellow flat mucosal lesions with fern-like surface features throughout the remnant stomach.
  - 3-8 mm in greatest dimension.
  - The surrounding mucosa appeared normal.
- Endoscopic intervention: targeted biopsy
- Histopathology: gastric xanthomatosis or xanthomatosis
  - Normal 8. Nifedipine 30 mg daily. Gastric mucosa with large foamy histiocytes within the lamina propria, confirmed by CD68 immunohistochemical staining.
- Outcome: benign incidental finding

### 2. Materials

- Diagnostic gastroscope (Olympus GIF-Q180, Olympus America, Center Valley, PA)

#### 2.1. Endoscopic procedure

#### *Endoscopic findings and interventions*

- Upper endoscopy revealed:
  - Numerous white and yellow flat mucosal lesions with fern-like surface features throughout the remnant stomach.
  - 3-8 mm in greatest dimension.
  - The surrounding mucosa appeared normal.
- Endoscopic intervention: targeted biopsy

### 3. Discussion

- Xanthelasma, xanthoma, and xanthomatosis are benign asymptomatic lesions which are found incidentally in the gastrointestinal (GI) tract [1-11].

- *Xanthelasma* and *xanthoma* are used interchangeably when referring to solitary or discrete lesions in the GI tract.
- *Xanthomatosis* refers to multiple or diffuse lesions and this condition is very rare.

#### Unclear etiology

- Maybe related to chronic irritation and prior gastric surgery.
- Gastric xanthelasma has been found in 0.23% of patients who undergo upper endoscopy.
- Previous partial gastric resection is associated with an increased incidence of gastric xanthelasma, xanthoma, and xanthomatosis.
- Colonic xanthelasma, xanthoma, and xanthomatosis coli are very rare [8-11].
- Endoscopic findings:
  - White or yellow flat gastric mucosal lesions with fern-like surface features.
  - A few mm in diameter.
- Histopathological features:
  - Large foamy histiocytes containing a mixture of lipids in the mucosa and submucosa.
  - Plasma cells, smooth muscle cells, and Schwann cells can be involved too.
- Asymptomatic benign lesions in the GI tract.

### 4. Scripted voiceover

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#### Voiceover Text

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This is a 68 year old man with a history of peptic ulcer disease and previous antrectomy. He underwent upper endoscopy for reflux symptoms and he had no diarrhea or malabsorption symptoms. His serum lipid profiles were within normal limits. On upper endoscopy, we notice numerous white and yellow flat mucosal lesions with fern-like surface features throughout the remnant stomach. The surrounding mucosa appears normal. The duodenum also appears normal. Targeted biopsy is performed. Histopathology shows large foamy histiocytes within the lamina propria. These findings are consistent with gastric xanthelasma or xanthoma. CD68 immunohistochemical staining further confirmed the diagnosis. Xanthelasma is a yellowish deposit of cholesterol underneath the skin, usually on or around the eyelids. In the stomach, xanthelasma and xanthoma are used interchangeably, and refer to asymptomatic benign endoscopic findings. They are not associated with hyperlipidemia. Gastric xanthomatosis is rare. This is another patient with gastric xanthelasma and xanthoma, which a nodular xanthelasma is noticed. Xanthelasma, xanthoma, and xanthomatosis are benign asymptomatic lesions which are found incidentally in the gastrointestinal tract. The etiology is unclear.

**Voiceover Text**


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Previous partial gastric resection is associated with an increased incidence of gastric xanthelasma, xanthoma, and xanthomatosis.

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