



# Multifocal Pyloric Gland Adenoma of the Esophagus Treated by Circumferential Endoscopic Submucosal Dissection



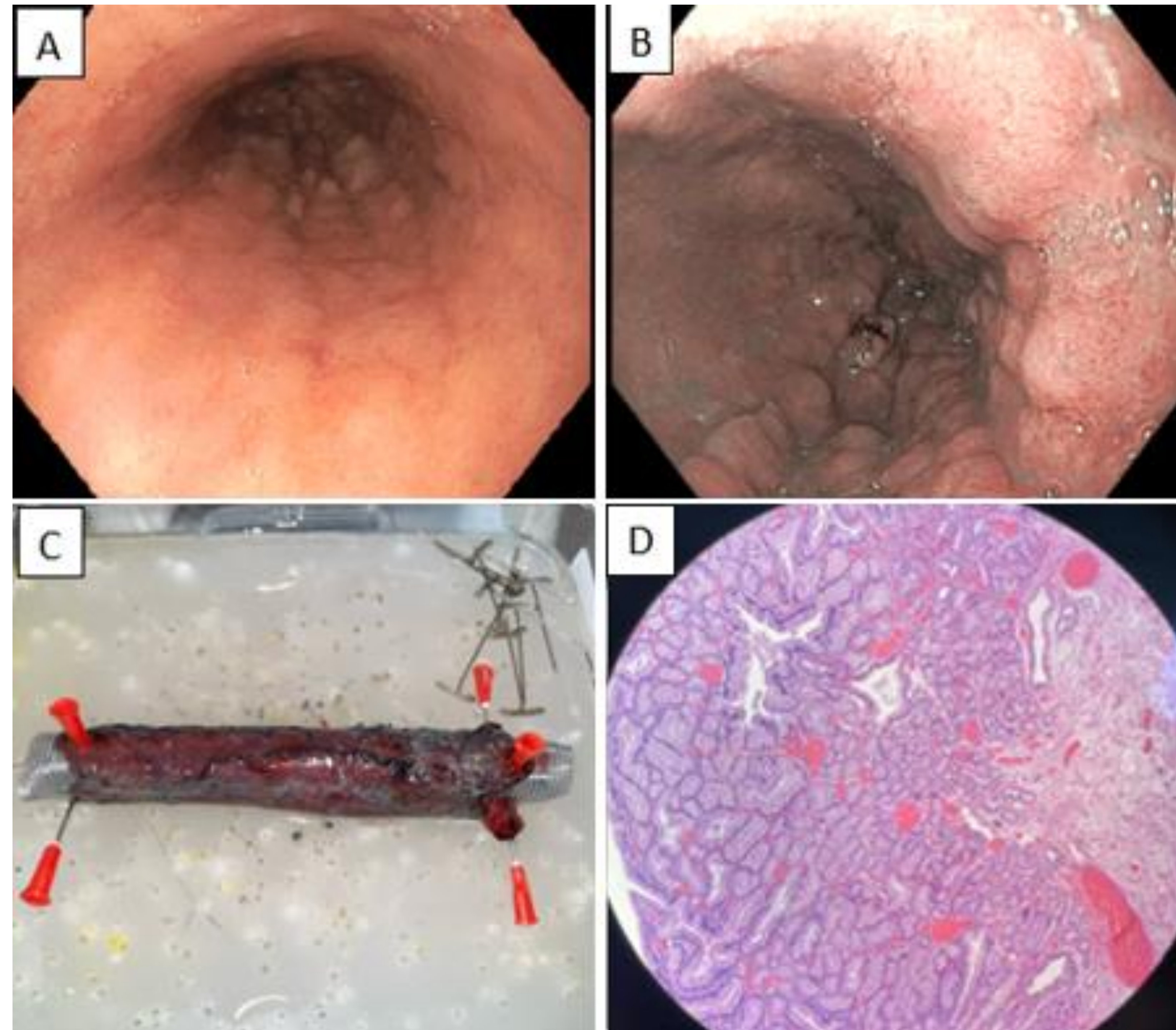
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## Introduction

- A pyloric gland adenoma is a rare precancerous neoplasm that typically presents as an isolated polypoid gastric lesion.
- We present a case of multifocal, circumferential pyloric gland adenoma within long-segment Barrett's esophagus treated by endoscopic submucosal dissection.

## Case

- A 49-year-old Caucasian, overweight female with active tobacco use presented complaining of pyrosis and regurgitation.
- She reported a history of GERD and was adherent to twice daily omeprazole, but continued to have breakthrough symptoms.
- EGD demonstrated Barrett's esophagus, C10M14, with extensive carpeted nodularity extending throughout her Barrett's segment with circumferential involvement and extension to the cardia.
- Examination under high definition white light and NBI demonstrated areas of tortuous, dilated pit pattern without ulceration or evidence of malignancy.
- Given concern for dysplasia and the extensive involvement of the disease, targeted biopsies were obtained throughout the esophagus to delineate the extent of mucosal abnormality.
- Pathology showed columnar mucosa with intestinal metaplasia and multifocal pyloric gland adenoma without dysplasia extending circumferentially and throughout the length of Barrett's esophagus.
- She was deemed a poor surgical candidate and underwent successful circumferential endoscopic submucosal dissection with prophylactic steroid injection to prevent stricture formation.
- Pathologic examination of the dissected specimen confirmed a circumferential pyloric gland adenoma without evidence of dysplasia and negative margins.



## Figure Legend

**Figure A:** Mid-esophagus on high definition white light showing carpeted nodularity in background of Barrett's Esophagus

**Figure B:** Mid-esophagus on NBI with nodules demonstrating dilated, tortuous pit pattern

**Figure C:** Gross specimen of circumferential ESD of esophagus measuring 13.9cm in length affixed to plastic tube

**Figure D:** Tightly packed pyloric glands lined by cuboidal or low columnar epithelium with ground glass eosinophilic cytoplasm, round basally located nuclei with inconspicuous nucleoli, and absent apical mucin.

## Discussion

- Pyloric gland adenoma is an uncommon gastrointestinal lesion with a transformation rate to adenocarcinoma up to 47%.
- It predominantly affects female (3:1) with a mean age of diagnosis of 73 years.
- While most pyloric gland adenomas are found in the stomach, extra-gastric sites including the esophagus, duodenum and pancreas have been reported.
- In the esophagus, pyloric gland adenomas may arise in either Barrett's or normal epithelium and often appears as a single protruding lesion.
- Histologically, it consists of tightly packed cuboidal to columnar cells with round nuclei and small nucleolus in a background of eosinophilic, ground-glass cytoplasm.
- While there are no current guidelines on the management of pyloric gland adenomas, resection is indicated due to their malignant potential.
- This case poses a unique, challenging clinical conundrum owing to its extensive involvement.
- To our knowledge, this is the first case of a circumferential, multifocal pyloric gland adenoma in the esophagus and demonstrates that endoscopic submucosal dissection is a feasible option in a center where expertise is available.

## References

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