

Extensive squamous metaplasia of the stomach

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Metaplasia refers to the presence of a normal cell lineage in a tissue where it is not found usually^(1,2). Gastric intestinal metaplasia (GIM) is a premalignant stage and recognized as a point of no return in this pathway. However, there is a variation, in the progression rate from GIM to gastric cancer over 5 years ranging from 0.25% to 42%^(3,4). The presence of squamous epithelium in the stomach is found only occasionally and is associated with prolonged mucosal injury. Although the pathophysiology of squamous metaplasia in the stomach remains obscure, prolonged injury appears to be a prerequisite for this mucosal abnormality⁽⁵⁾.

Here we describe an unusual case of a 34-year-old man patient with gastroesophageal reflux disease, and history of regurgitation and heartburn. He used proton pump inhibitors therapy a long two years, with partial improvement of symptoms. His past medical history showed depression, vitamin B12 deficiency and alopecia. He presented to the gastrointestinal endoscopy unit to perform an upper GI endoscopy (E-VIDEO*). An endoscopic evaluation showed an extensive gastric squamous epithelium along the greater and lesser curvature, both with a type A JES's IPCL classification (FIGURES 1.A, 1.B). At the distal antrum close to the pylorus, the squamous columnar epithelium junction was evident (FIGURE 1.C), in addition to some islands of columnar epithelium in squamous metaplastic epithelium. After retroflex maneuver, severe gastric atrophy and extensive squamous columnar junction were seen (FIGURE 1.D). The duodenum was normal (FIGURE 1.E). The pathologic report from the gastric body showed stratified squamous mucosa with reactive changes (FIGURE 1.F1); in the squamous columnar junction at the distal antrum, metaplastic squamous mucosa next to complete intestinal metaplasia (FIGURE 1.F2). He remains with regular follow-up.

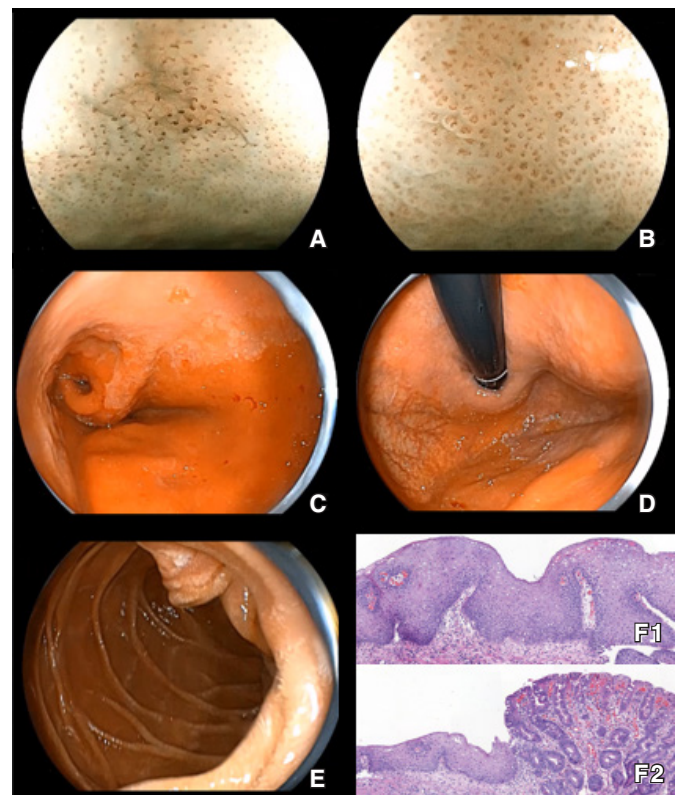


FIGURE 1. Extensive gastric squamous epithelium.

A: Endoscopic view of stomach with a type A JES's IPCL classification. B: Endoscopic view of stomach with a type A JES's IPCL classification. C: Endoscopic view of squamous columnar junction. D: Endoscopic view of the retroflex maneuver with severe gastric atrophy and extensive squamous columnar junction. E: Duodenum. F: F1: Histological findings of stratified squamous mucosa with reactive changes at the gastric body (HE, 100x). F2: Histological findings of the squamous columnar junction (at the distal antrum) with metaplastic squamous mucosa next to complete intestinal metaplasia (HE, 50x).

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* Video: <https://www.youtube.com/watch?v=APY5L0LNunc>

Authors' contribution

de Miranda Neto AA: study concept and design, acquisition of data, did the video editing, data interpretation, critical revisions. Marques SB: performed the procedure, critical revisions. Baba ER: assisted in editing the video, data interpretation, critical revisions. Yamazaki K: data interpretation, critical revisions. Ribeiro IB: study concept and design, manuscript preparation, critical revisions. de Moura EGH: data interpretation, critical revisions.

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REFERENCES

1. Meyer AR, Goldenring JR. Injury, repair, inflammation and metaplasia in the stomach. *J Physiol.* 2018;596:3861-7.
2. Rodriguez MAC, de Moura DTH, Ribeiro IB, Bernardo WM, Morita FHA, Marques SB, et al. Volumetric laser endomicroscopy and optical coherence tomography in Barrett's esophagus: a systematic review and meta-analysis. *Endosc Int Open.* 2019;7:E1078-91.
3. Pittayanon R, Rerknimitr R, Klaikaew N, Sanpavat A, Chaithongrat S, Mahachai V, et al. The risk of gastric cancer in patients with gastric intestinal metaplasia in 5-year follow-up. *Aliment Pharmacol Ther.* 2017;46:40-5.
4. Weis VG, Goldenring JR. Current understanding of SPEM and its standing in the preneoplastic process. *Gastric Cancer.* 2009;12:189-97.
5. Ahn S, Bae GE, Kim K-M. Exuberant squamous metaplasia of the gastric mucosa in a patient with gastric adenocarcinoma. *Diagn Pathol.* 2015;10:46.

