

An Incidental Finding of Multiple Esophageal Intramural Pseudo-diverticuli

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Introduction

Esophageal intramural pseudo-diverticulosis (EIP) is characterized by multiple small outpouchings protruding from the esophageal lumen.

Prevalence

A study evaluating esophagrams showed that EIP was found in 0.15% of these patients.

Pathophysiology

The pathophysiology of EIP is not well understood. On histologic examination, EIP are revealed to be dilated submucosal glands in the esophagus, often with surrounding inflammatory cells, suggesting that chronic inflammation may be contributory to their development.

Clinical manifestations

The most common symptoms of EIP include progressive dysphagia, food impaction, and occasionally bleeding. Esophageal strictures are the most common complication of EIP.

Evaluation

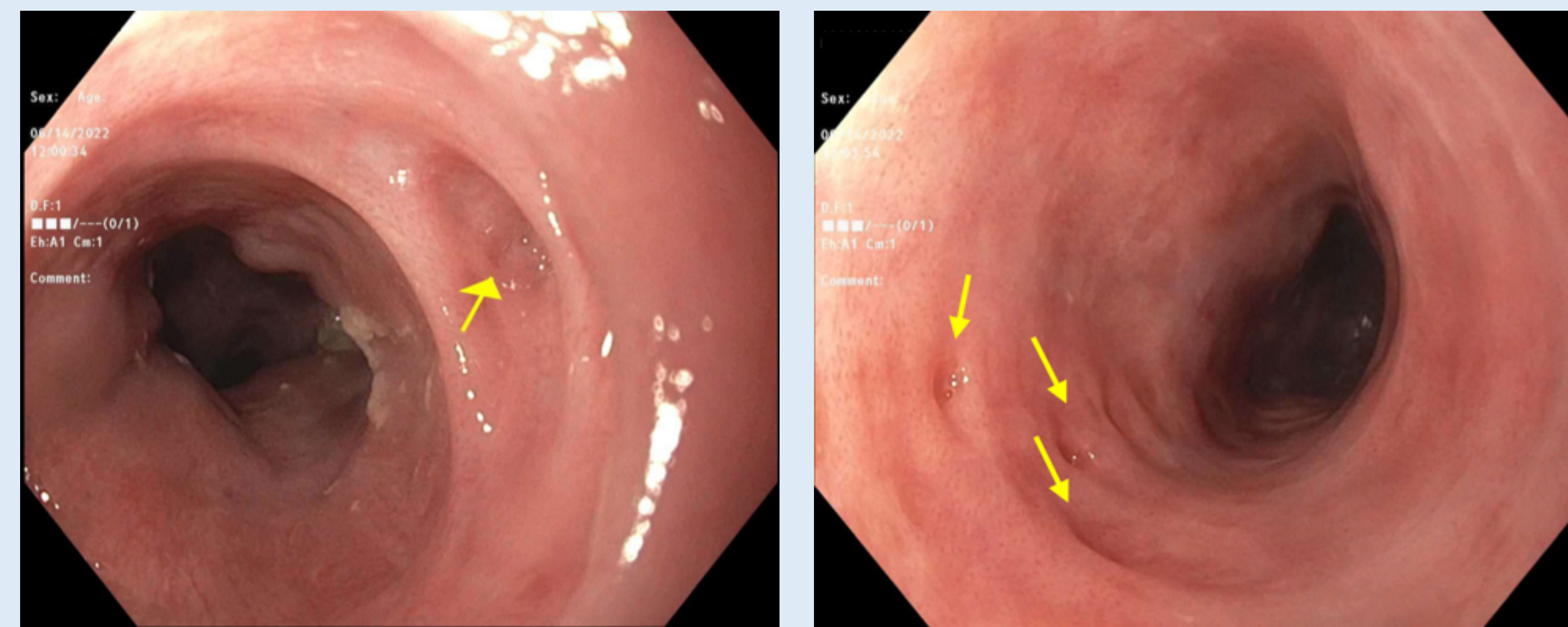
Radiological examination using a single or double-contrast technique is thought to be more sensitive. Endoscopy can also be used to diagnose EIP but it is less sensitive as the diverticular orifices can be tiny and hence difficult to visualize with endoscopy.

Case Description

A 55-year old male with a past medical history of alcohol use disorder, recurrent pancreatitis, tobacco use disorder, and hypertension with a recent admission for likely alcohol induced acute pancreatitis presented for a follow up to the gastroenterology (GI) clinic. During admission, a CT scan and a follow-up MRI revealed a cystic lesion concerning for an intraductal papillary mucinous neoplasm, and was noted to be growing, measuring 1.6 cm from 7mm several years prior.

He underwent further evaluation of the pancreatic cyst with endoscopic ultrasound/fine needle aspiration (EUS/FNA). During his EUS, he was noted to have multiple small pseudo-diverticula in the esophagus and a narrow caliber esophagus so EUS was not performed due to concern for perforation risk.

He had no history of dysphagia, odynophagia, weight loss or bleeding. He was also found to have oral candidiasis and started on nystatin swish and spit solution. He was started on a proton-pump inhibitor (PPI) for suspected EIP despite absence of symptoms to potentially prevent progression to stricturing disease.



Multiple esophageal intramural pseudo-diverticuli noted on esophagogastroduodenoscopy (EGD) (yellow arrows).

Discussion

Although rare, it is important to identify and closely monitor patients with EIP. The exact etiology is unknown but EIP is linked to inflammatory states, such as Candida, and tobacco use in our patient.

EIP is linked to the formation of esophageal strictures causing dysphagia, prompting endoscopic investigation and treatment with esophageal dilation.

Prior studies have shown an increased prevalence of EIP in patients with esophageal carcinoma, and therefore, close monitoring of these patients is essential.

The role of PPIs for preventing progression of stricturing disease in EIP is not clear.

Further studies are needed to help better understand this disease, and help guide future preventive and therapeutic management.

References

- 1Levine, M., Moolten, D., Herlinger, H. and Laufer, I., 1986. Esophageal intramural pseudodiverticulosis: a reevaluation. *American Journal of Roentgenology*, 147(6), pp.1165-1170.
- 2Hentschel, F. and Lüth, S., 2020. Clinical and endoscopic characteristics of diffuse esophageal intramural pseudo-diverticulosis. *Esophagus*, 17(4), pp.492-501.
- 3Naqvi, H., Yousaf, M., Sandhu, G., Bhansali, D. and Farooqi, R., 2021. Recurrent Dysphagia Associated with Esophageal Intramural Pseudodiverticulosis. *Case Reports in Gastroenterology*, 15(2), pp.551-556.
- 4Yamamoto, S., Tsutsui, S. and Hayashi, N., 2010. Esophageal Intramural Pseudodiverticulosis: A Rare Cause of Esophageal Stricture. *Clinical Gastroenterology and Hepatology*, 8(7), p.A28.
- 5Plavsic, B., Chen, M., Gelfand, D., Drnovsek, V., Williams, J., Kogutt, M., Terry, J. and Plenkovich, D., 1995. Intramural pseudodiverticulosis of the esophagus detected on barium esophagograms: increased prevalence in patients with esophageal carcinoma. *American Journal of Roentgenology*, 165(6), pp.1381-1385.