A rare case of a windsock-shaped intraluminal duodenal diverticulum treated successfully with endoscopic diverticulectomy

An intraluminal duodenal diverticulum is a rare congenital anomaly stemming from incomplete duodenal lumen formation during embryogenesis [1–5]. Over time, the remnant duodenal diaphragm resembles a windsock by elongation secondary to intestinal peristaltic movements [1–3]. In most patients, the condition is detected incidentally [1, 2]. However, a few patients may present in adulthood with symptoms of partial duodenal obstruction, such as early satiety, vomiting, and abdominal pain [1, 2]. Rare bleeding and pancreatitis may complicate the scenario [1, 2]. Herein we present a case treated with endoscopic intraluminal diverticulectomy (▶Fig.1).

A 20-year-old woman with no previous medical history presented with complaints of early satiety and postprandial vomiting for 5 years. Symptoms had intensified in the last 6 months. An upper gastrointestinal endoscopy revealed a diverticulum at the intersection of the first and second parts of the duodenum, which extended distally in the form of a funnel, resembling a windsock. There was an orifice in its dome that did not allow the passage of the endoscope. The diverticulum was undulating and freely inverted with aspiration. Computed tomography supported the diagnosis of an intraluminal duodenal diverticulum (▶Fig.2). Subsequently, the patient underwent endoscopic diverticulectomy with an EG-530D dual-channel endoscope (Fujifilm, Tokyo, Japan). A polypectomy snare was opened in the duodenal lumen proximal to the diverticulum. Forceps inserted via the second working channel were passed through the snare. The orifice at the diverticular dome was grasped and pulled into the snare (▶Video 1). No complications such as bleeding or perforation occurred. Adrenaline injection and hemoclips were applied to the edges of the newly created opening (▶Fig.3). The patient has been symptom-free for 1 month.

In conclusion, an intraluminal duodenal diverticulum should be included in the differential diagnosis in patients with duodenal stenosis and complaints such as early satiety and vomiting. Endoscopic diverticulectomy is an effective and safe treatment option for an intraluminal duodenal diverticulum.

Endoscopy_UCTN_Code_TTT_1AO_2AN
Competing interests

Kuzey medical imaging systems company paid the submission fee of the article. There are no other relations or conflicts with the company.

The authors

Bülent Ödemiş¹, Batuhan Başpinar¹, Çağdaş Erdogan¹, Deniz Ogunmen Koç², Banu Demet Özel Coşkun¹, Serkan Torun³

¹ University of Health Sciences, Ankara City Hospital, Department of Gastroenterology, Ankara, Turkey
² Istanbul Gaziosmanpaşa Teaching and Research Hospital, Department of Gastroenterology, Istanbul, Turkey
³ Düzce University, Faculty of Medicine, Department of Gastroenterology, Düzce, Turkey

Corresponding author

Batuhan Başpinar, MD
University of Health Sciences, Ankara City Hospital, Department of Gastroenterology, Bilkent Avenue, 06800, Çankaya, Ankara, Turkey
batuhanbaspinar@gmail.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1864-9201
ISSN 0013-726X
published online 2022
© 2022. The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos