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Is It Anorexia? Congenital Duodenal Web

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ABSTRACT

Congenital duodenal web (CDW) is a rare cause of intestinal obstruction in adults, making diagnosis challenging. We present the case of a 26-year-old woman with chronic epigastric symptoms who recently developed vomiting and significant weight loss. Prolonged compensatory duodenal dilation obscured typical radiological signs and delayed preoperative identification. The diagnosis was confirmed intraoperatively and managed surgically. This case highlights the need to consider CDW in adults with unexplained proximal gastrointestinal obstruction.

A 26-year-old woman with a history of an eating disorder and recent psychological trauma presented to the Emergency Department with significant weight loss and persistent vomiting. Since childhood, she experienced post-prandial epigastric discomfort, occasionally accompanied by vomiting.

Abdominal computed tomography (Figure 1) and a gastrointestinal x-ray series revealed a narrowing of the lumen at the junction between the superior duodenal genu and the second part of the duodenum, without evidence of inflammation or wall infiltration, along with marked enlargement of the gastric cavity and duodenal bulb. Magnetic resonance enterography, included to exclude involvement of other sites and better assess the length and morphology of the stenosis, confirmed these findings.

Endoscopy showed a mass-like mucosal invagination with a 3 mm lumen, confirmed histologically as regular mucosa (Figure 2).

Surgical exploration, following multidisciplinary discussion, identified a congenital duodenal web (CDW)-a thin, round, weblike structure (Figure 3) [1].

A duodenojejunostomy with Roux-en-Y-reconstruction [2] was performed and no biopsies were taken because of the absence of suspicious alterations.

CDW is a rare cause of intestinal obstruction in adulthood, with fewer than 100 cases reported, making diagnosis challenging, especially without the typical radiological 'windsock' sign, a barium-filled intra-duodenal sac characterised by a radiolucent border representing a mucosal web stretched by peristalsis [3, 4].

In this case, severe duodenal dilation, resulting from a prolonged compensatory response, obscured this radiological hallmark, complicating pre-operative identification.

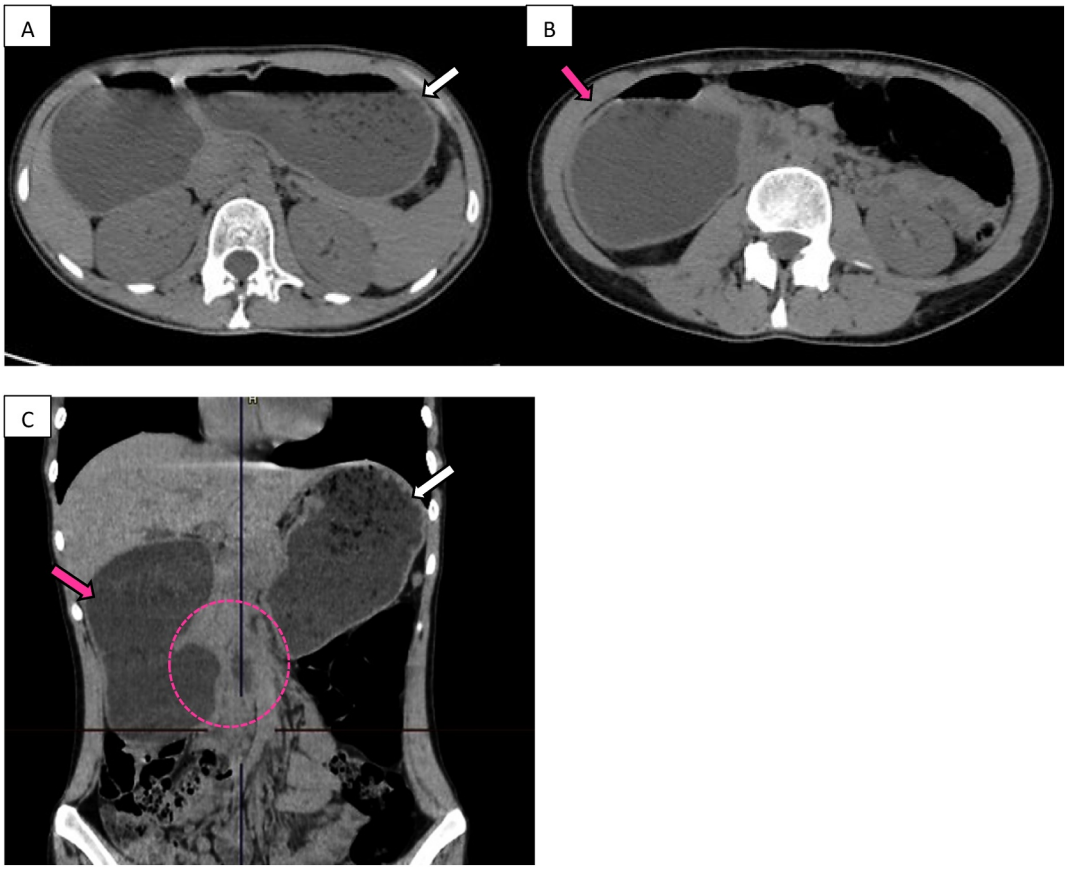

FIGURE 1 | Cross-sectional computed tomography (CT) images (A and B) show significant gastric distention (A, white arrow) and marked dilation of the duodenal bulb (B, pink arrow). These findings are also evident on the coronal CT image, which shows a broad-based mass-like lesion without evidence of inflammation or wall infiltration in the second portion of the duodenum (C, dashed line).

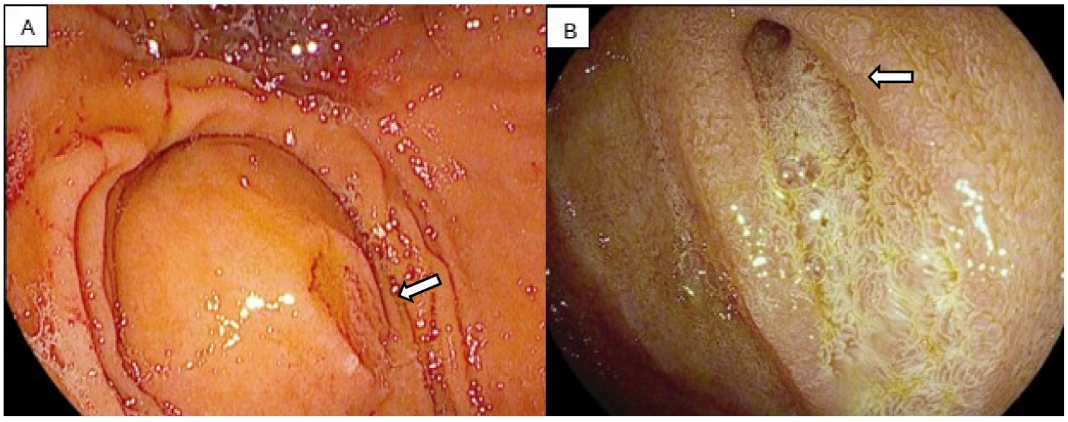

FIGURE 2 | Endoscopic view reveals a thin semi-rigid membrane with regular overlying mucosa in the second portion of the duodenum (A, white narrow) with eccentric and severe luminal narrowing (B, white arrow). Bile is observed extruding from the orifice, suggesting a pre papillary location of the lesion.

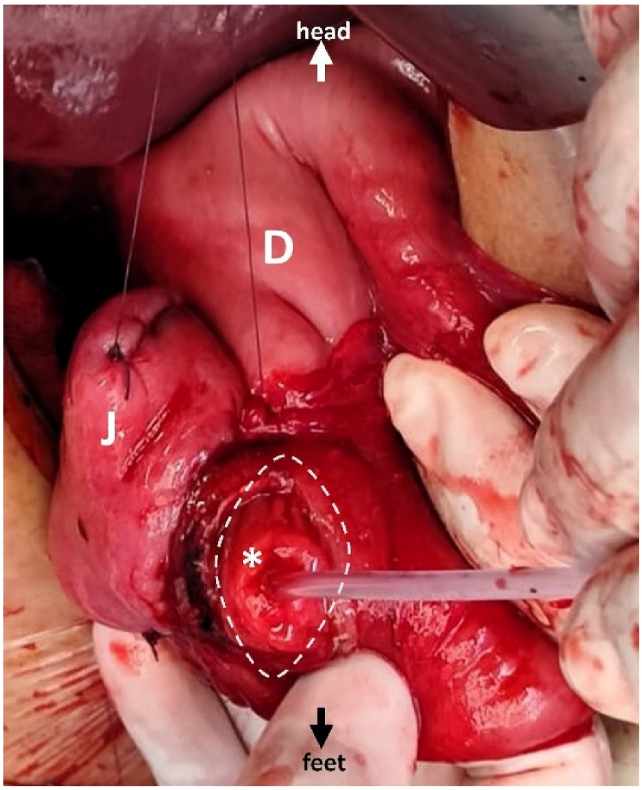

FIGURE 3 | Intraoperative image showing the mucosal duodenal membrane (*) following duodenotomy. The duodenal web exhibits a small central lumen into which a 3-mm diameter probe has been inserted. The dashed line indicates duodenotomy. The descending duodenum (D) is dilated. The jejunal loop intended for the side-to-side duodenojejunal anastomosis is marked with (J).

This case highlights the importance of considering CDW in adults with unexplained proximal intestinal obstruction, particularly those with chronic epigastric symptoms. Prompt recognition is crucial for accurate diagnosis and management.

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Consent

Consent was obtained directly from the patient.

Conflicts of Interest

Silvio Danese has served as a speaker, consultant, and advisory board member for Schering-Plough, AbbVie, Actelion, Alfa Wassermann, AstraZeneca, Cellerix, Cosmo Pharmaceuticals, Ferring, Genentech, Grunenthal, Johnson and Johnson, Millenium Takeda, MSD, Nikkiso Europe GmbH, Novo Nordisk, Nycomed, Pfizer, Pharmacosmos, UCB Pharma, and Vifor. Ilaria Lodola, Giuseppe Dell'Anna, Gianpaolo Balzano declare that they have no conflict of interest.

Data Availability Statement

The authors have nothing to report.

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