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CASE REPORT

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Acquired double pylorus presenting as a gastrointestinal bleeding

Sarra Laabidi[1,2] | **Asma Ben Mohamed**[1,2] | **Amal Khsiba**[1,2] | **Manel Yakoubi**[1,2] | **Moufida Mahmoudi**[1,2] | **Mouna Medhioub**[1,2] | **Lamine Hamzaoui**[1,2] | **Mohamed Mssadak Azouz**[1,2]

[1]Gastroenterology Department, Hospital Mohamed Taher Maamouri, Nabeul, Tunisia

[2]Faculty of Medicine of Tunis, University of Tunis el Manar, Tunis, Tunisia

Correspondence
Sarra Laabidi, Gastroenterology Department, Hospital Mohamed Taher Maamouri, Nabeul, Tunisia.
Email: sarraabidi42@gmail.com

Abstract

We present the case of a 65-year-old man without a past medical history who was admitted for gastrointestinal bleeding. The case shows an acquired double pylorus due to probable pre pyloric ulcer.

KEYWORDS

acquired double pylorus, gastroduodenal fistula, gastrointestinal bleeding, peptic ulcer disease

1 | INTRODUCTION

Gastroduodenal fistula (GDF) also known as double pylorus (DP) is a rare condition that can be congenital due to gastrointestinal duplication abnormality or more commonly secondary to peptic ulcer disease.[1] It has been reported in 0.001% to 0.4% of upper gastrointestinal tract endoscopies and seems to be predominant in males.[2] The pathogenesis of acquired DP is not completely clarified but authors suggest that it occurs generally when a peptic ulcer erodes and creates a fistula between the duodenal bulb and the gastric antrum.[3] A nearly hundred reported cases have been described all over the world.[4] The majority of reported case was about an incidental endoscopy finding.[5] Here, we demonstrated a DP, probably due to pre-pyloric ulcer revealed by a gastrointestinal bleeding.

2 | CASE REPORT

A 65-year-old man without a past medical history was hospitalized for sudden onset of hematemesis. He does not suffer from any symptom except indigestion and he denied taking medication especially non-steroidal anti-inflammatory drug (NSAID). The patient had a long history of tobacco. Physical examination showed paleness, no tenderness, hepatosplenomegaly, or palpable mass. No signs of hemodynamic or neurologic failure were seen.

Blood test showed hemoglobin count of 10 g/dl, white blood cell count of 8000 cells/µl, and platelet count of 250,000 cells/µl. His prothrombin time, liver, and renal function test were within normal limits. After admission, he was put under Intravenous proton-pump inhibitors (PPi) associated with resuscitation measures. No other episode of hematemesis was noted. Emergent endoscopy

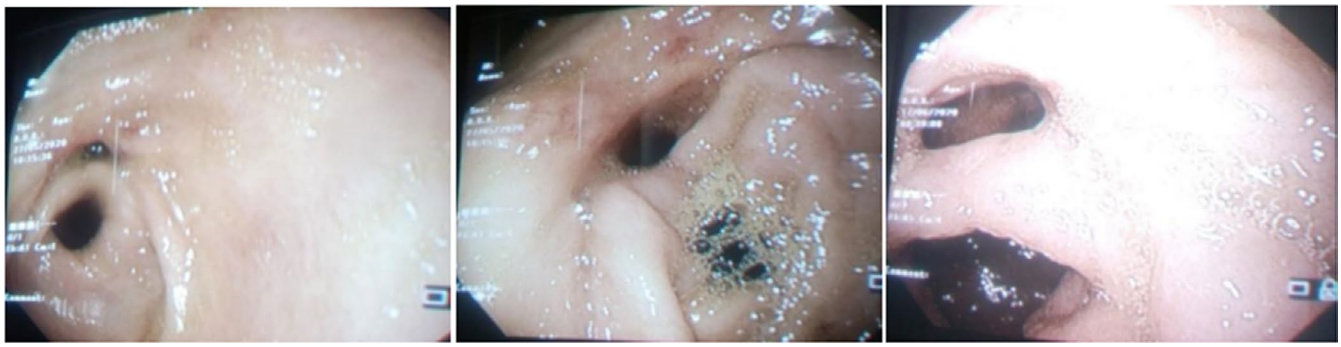

FIGURE 1 Image of double pylorus

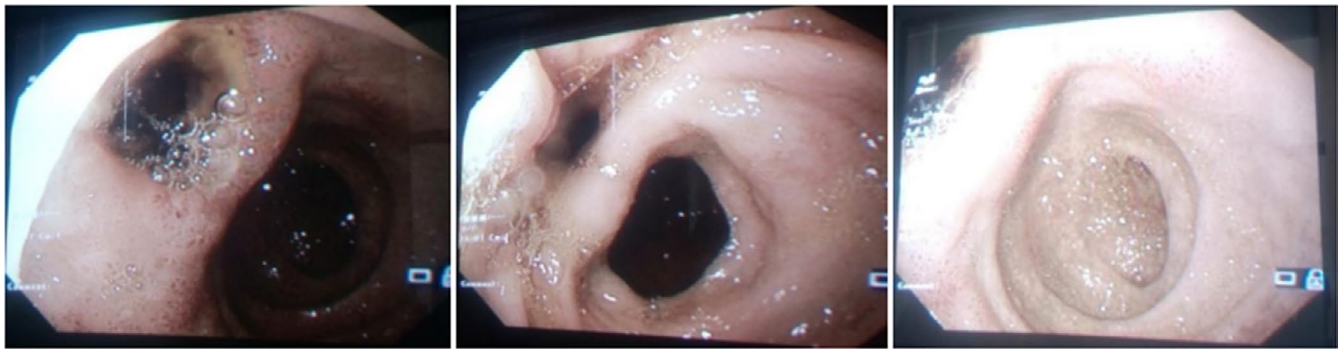

FIGURE 2 Pre-pyloric ulcer

showed two channels in the pylorus region. In one of the channel, a 7-mm ulcer with adherent clot classified IIb according to FORREST was found (Figures 1 and 2). Chronic gastritis associated to *Helicobacter pylori* infection without malignancy was described by pathologist. Follow-up endoscopy after 14 days of concomitant quadruple therapy switched by PPi during 6 weeks showed a healing ulcer associated with the image of DP. The patient does not require surgical intervention to treat the DP seen in the absence of symptoms.

3 | DISCUSSION

Pathogenesis and etiology of GDF are unclear until our days. Moreover, the likelihood of developing an acquired DP seems to be more frequent if the patient is taking NSAID and if peptic ulcer disease is due to *Helicobacter pylori* infection.[6] Our patient did not report NSAID use during initial finding of pre-pyloric antral ulcer. However, another condition may lead to Gastroduodenal fistula as gastric neoplasm, postoperative fistulization, foreign body ingestion, and rarely inflammatory bowel disease or be associated with systemic diseases such as diabetes, cirrhosis, and chronic obstructive pulmonary disease.[7,8]

Regarding mechanism of formation of GDF, accessory pyloric channel is probably created as a result of penetration of peptic ulcer from the stomach to first part of duodenum by means of re-epithelialization.[9] Furthermore, this condition is generally asymptomatic; however, symptoms may range from simple indigestion to complication as gastrointestinal bleeding.[10]

On the one hand, our patient can sum up a story of gastrointestinal bleeding and GDF which are unusual complications of peptic ulcerative disease. On the other hand, GDF may also be congenital and gastrointestinal bleeding appears to be, in this case, a mere coincidence. In the literature, the congenital DP is ascribed to a tubular duplication of the pylorus.[11] This was found in only 1 of the 281 reported cases.[12] The negative history of gastroduodenal ulcer and dyspeptic symptoms or the uses of NSAID, in our patient, support the diagnosis of congenital DP.

In terms of management, GDF generally does not require surgical or endoscopic management unless no improvement in symptoms with medical therapy or in case of recurrent bleeding, obstruction or perforation as our patient.[13]

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CONFLICT OF INTEREST

The authors declare no competing interests.

AUTHOR CONTRIBUTIONS

SL and ABM were responsible for the diagnosis and clinical management of the patient. SL, AK, and MY participated in the analysis, supervision, writing of the original draft, reviewing, and editing of the manuscript for intellectual content. All authors read and approved the final manuscript.

ETHICAL APPROVAL

The study was performed in accordance with the principles of the Declaration of Helsinki and its appendices and with local and national laws.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

DATA AVAILABILITY STATEMENT

The authors confirm that the data supporting the findings of this study are available within the article and its Supplementary material. Raw data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Sarra Laabidi https://orcid.org/0000-0001-7581-0575
Lamine Hamzaoui https://orcid.org/0000-0001-6350-6779

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