Abbreviated Key Title: SAS J Med ISSN 2454-5112

Journal homepage: https://saspublishers.com

Gastroenterology

# Pyloric Stenosis Syndrome Revealing Chilaiditi Syndrome

Dounia Rajih<sup>1\*</sup>, Hajar El Marmouk<sup>1</sup>, Fatima Zahra Lairani<sup>1</sup>, Oussama Nacir<sup>1</sup>, Adil Ait Errami<sup>1</sup>, Sofia Oubaha<sup>1,2</sup>, Zouhour Samlani<sup>1</sup>, Khadija Krati<sup>1</sup>

<sup>1</sup>Gastroenterology Department, Mohammed VI University Hospital, Marrakech, Morocco

**DOI:** 10.36347/sasjm.2024.v10i03.007 | **Received:** 12.11.2023 | **Accepted:** 16.12.2023 | **Published:** 07.03.2024

\*Corresponding author: Dounia Rajih

Gastroenterology Department, Mohammed VI University Hospital, Marrakech, Morocco

**Abstract Case Report** 

Chilaiditi syndrome is a radiological manifestation of a large bowel interposition between the liver and right hemidiaphragm that associated with gastrointestinal symptoms, We report a case of 50-year-old woman with no particular pathological history who presented to the emergency room with a presentation of pyloric stenosis, The presence of Chilaiditi signs can be caused by an abnormality of either liver, colon or right hemidiaphragm that leads to sub-diaphragmatic space enlargement or intestinal hypermobility. Computed tomography imaging is the best diagnostic modality. Conservative treatment is the first line in management.

**Keywords:** Chilaiditi syndrome, Pyloric sténosis, Complications, medical treatment.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

# INTRODUCTION

Chilaiditi syndrome is a rare pathology characterized by the interposition of the colon or small intestine in the interhepato-diaphragmatic space associated with digestive manifestations. The global incidence of this malposition ranges from 0.025 to 0.28%. This syndrome is almost always discovered incidentally during a radiological examination of the thorax or abdomen. Most often, asymptomatic, it can manifest as: abdominal pain, vomiting, anorexia and constipation. It can therefore lead to a number of serious and even fatal complications, including intestinal obstruction, perforation and ischemia [1].

The interest of our observation is to demonstrate a rare cause of pyloric stenosis.

#### **CASE REPORT**

A 50-year-old woman with no particular pathological history who presented to the emergency room with a presentation of pyloric stenosis had chronic gravity-type epigastralgia, fixed site, accentuated by food and relieved by late post-prandial food vomiting without other manifestations, digestive or extradigestive associated. The physical examination as well as the biological results were unremarkable. An upper gastrointestinal fibroscopy was performed in the context of pyloric stenosis syndrome showing the presence of pyloric stenosis with an inflammatory appearance. A complement with an abdominal CT was made showing a significant disparity in caliber at the level of the pyloric sphincter without parietal thickening or visibly detectable extrinsic compression responsible for a significant stasis stomach upstream. with colonic interposition between the liver and the right diaphragm in relation to Chlaiditi syndrome. The diagnosis of Chilaiditi syndrome was made and the patient was treated with PPI, and analgesic treatment with good rehydration, the evolution was marked by a good response to medical treatment.

### DISCUSSION

The Chilaiditi sign was first described by Antoine Béclère in 1899 but in 1910 Demetrius Chilaiditi reported a series of 3 cases [1]. In the general population, the prevalence would be 0.025 to 0.28% [2] but would reach 1% of elderly people [3]. The incidence is higher in men than in women (4 times more) and those over 60 years old.

Chilaiditi's sign is right hepato-diaphragmatic colic interposition, without clinical expression. If the patient is symptomatic, it is called Chilaiditi syndrome, and this can result in abdominal pain, constipation, nausea or vomiting, but also dyspnea. It can be complicated by obstruction, volvulus, digestive

<sup>&</sup>lt;sup>2</sup>Physiology Department, Faculty of Medicine and Pharmacy at Cadi Ayyad University, Marrakech, Morocco

perforation. The diagnosis is made by chest x-ray and abdominal CT scan.

The contributing factors are multiple. We find hepato-gastroenterological factors such as cirrhosis, hepatic atrophy, an anomaly of the falciform ligament, megacolon, intra-abdominal adhesions, increased abdominal pressure (pregnancy, obesity, ascites). There are also respiratory factors such as chronic obstructive bronchitis and emphysema. Other factors have been identified such as mental retardation, schizophrenia.

Medical treatment is primarily based, during hospitalization, on intravenous hydration, ananatalgic and laxative treatment. This treatment sometimes allows repositioning of the colon and then treating the patient symptomatically. Serious complications may require surgical intervention.

The main differential diagnosis is pneumoperitoneum which can lead to surgical interventions.

#### **CONCLUSION**

Hepatodiaphragmatic colonic interposition can be asymptomatic (Chilaiditi sign) or symptomatic (Chilaiditi syndrome) and lead to complications such as obstruction. Its radiological diagnosis should not be confused with pneumoperitoneum and should therefore be known to as many people as possible.

## **BIBLIOGRAPHY**

- 1. Sidorkiewicz, S., Nouyrigat, V., & Chéron, G. (2013). Chilaiditi's sign (or syndrome). *Annales françaises de médecine d'urgence*, *3*, 380-380.
- 2. Gad, M. M., Al-Husseini, M. J., Salahia, S., Saad, A. M., & Amin, R. (2018). Chilaiditi syndrome—a rare case of pneumoperitoneum in the emergency department: a case report. *Journal of Medical Case Reports*, 12, 1-3.
- 3. Taha, A. (2017). Chilaiditi's syndrome: correct diagnosis can save the patient from unnecessary and life threatening surgery. *J Adv Surg Res*, 2, 45-47.
- 4. Saber, A. A., & Boros, M. J. (2005). Chilaiditi's syndrome: what should every surgeon know?. *The American surgeon*, 71(3), 261-263.
- Alansari, M. (2013). Chilaiditi syndrome: a case of missed diagnosis. Case Reports, 2013, bcr2012008459.