

When the Stomach Takes a Vacation: The Unseen Battles of Gastroparesis

Beatriz R. Sousa ¹, Teresa B. Rodrigues ², José Ribeiro ¹

1. Internal Medicine, Hospital de São José, Unidade Local de Saúde São José, Lisbon, PRT 2. Radiology, Hospital da Luz, Lisbon, PRT

Corresponding author: Beatriz R. Sousa, beatrizribeirosousa@gmail.com

Review began 02/10/2024

Review ended 03/12/2024

Published 03/16/2024

© Copyright 2024

R. Sousa et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Gastroparesis is a syndrome characterised by delayed gastric emptying that is usually idiopathic, diabetic, or iatrogenic. This underdiagnosed disease has a substantial influence on the quality of life of its patients. We present the case of an 86-year-old man with dementia, benign prostatic hyperplasia, and gastroesophageal reflux disease who developed symptoms of gastroparesis during a lengthy hospital stay. Computed tomography (CT) and upper digestive endoscopy demonstrated gastric distention and pyloric stenosis. Despite cautious treatment and eventual pyloric dilation, the patient died from aspiration due to refractory respiratory failure. This example emphasises the need for early detection and thorough examination of gastroparesis to optimise patient outcomes and reduce morbidity and mortality.

Categories: Gastroenterology, Geriatrics, Internal Medicine

Keywords: motility disorders, adult internal medicine, geriatric age, quality of life (qol), gastroparesis

Introduction

Gastroparesis is a syndrome of objectively delayed gastric emptying, with the majority of cases being idiopathic, diabetic, or iatrogenic [1, 2]. This clinical entity is underdiagnosed. Epidemiological studies conducted in the USA and the UK have revealed a prevalence ranging from 267.7 to 338.7 and 13.8 per 100,000 persons, respectively [2, 3].

Diagnosing gastroparesis in the geriatric population can be challenging due to the frequent presentation of non-specific symptoms when compared with younger age groups [4]. The investigation for the etiological cause must include haemoglobin, fasting glucose, serum total protein, albumin, and thyrotropin concentrations, as well as esophagogastroduodenoscopy (EGD), computed tomography (CT), and scintigraphy [1, 5].

In most cases, the cause of gastroparesis is persistent, requiring ongoing symptomatic care and resulting in a significant patient burden, with a negative correlation between symptom severity and patient quality of life, particularly in geriatric patients [5, 6].

Case Presentation

An 86-year-old man with dementia, benign prostatic hyperplasia, and gastroesophageal reflux disease underwent prolonged hospitalisation attributable to social-related factors. Over the course of this extended stay, the patient developed symptoms of nausea, vomiting, early satiety, and abdominal bloating. A physical examination revealed significant distention and tenderness in the upper abdomen.

A high-volume stomach distention filled with fluid and food content was shown on CT (Figure 1), with an abnormal duodenal arch suggestive of a gastric outlet obstruction due to pyloric stenosis. Findings from the EGD indicated evidence of pyloric spasm, with a gastric biopsy that excluded neoplasia.

How to cite this article

R. Sousa B, Rodrigues T B, Ribeiro J (March 16, 2024) When the Stomach Takes a Vacation: The Unseen Battles of Gastroparesis. Cureus 16(3): e56263. DOI 10.7759/cureus.56263

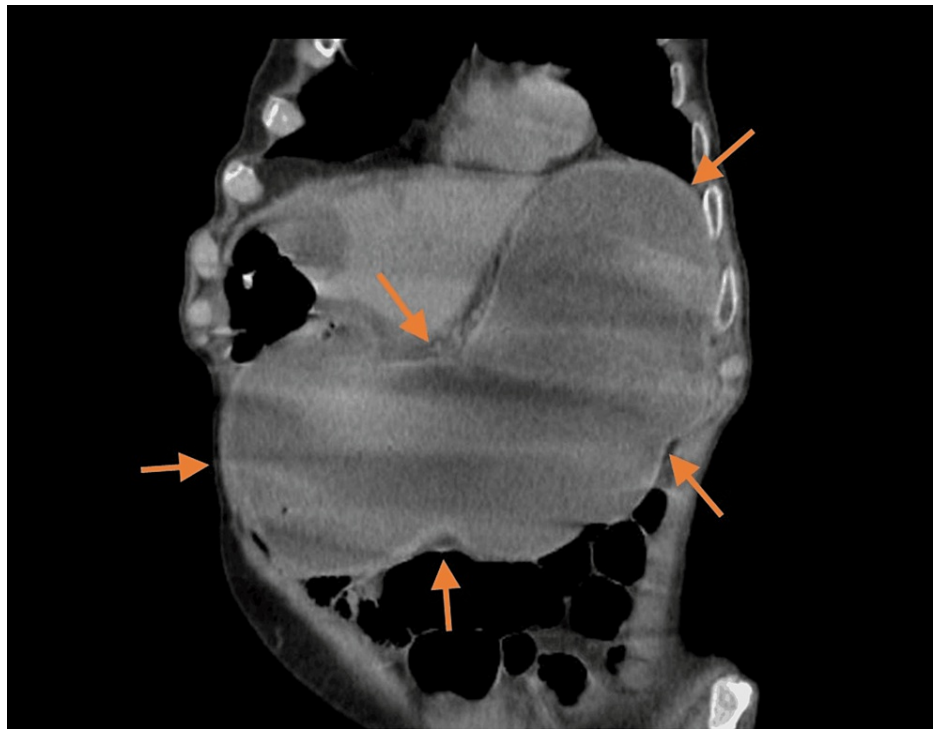


FIGURE 1: An abdominal CT scan shows gastric dilatation (arrows).

After a first attempt with a conservative approach, gastroscopy with pyloric dilatation and placement of a transpyloric tube was performed in response to persisting discomfort. During hospitalisation, the patient died due to aspiration with refractory respiratory failure.

Discussion

This case highlights the challenges faced in the diagnosis and management of gastroparesis in elderly patients. Gastroparesis may present additional complications due to a variety of factors, including inadequate symptom communication due to underlying cognitive impairments. Non-specific signs and symptoms of gastroparesis in the elderly, such as nausea, vomiting, early satiety, and abdominal distension, can be attributed to a variety of age-related disorders, such as constipation, creating diagnostic confusion. These difficulties emphasise the importance of having a high level of suspicion and doing a comprehensive evaluation of older patients who present with gastrointestinal problems.

Managing gastroparesis in the elderly requires a specialised approach that takes into consideration the population's specific needs and vulnerabilities, with a multidisciplinary team [7]. Conservative interventions such as dietary changes and prokinetic drugs may be used, taking into account pharmaceutical interactions and frailty [8]. A multidisciplinary team can personalise therapy regimens to improve patient outcomes and quality of life.

Conclusions

The authors have presented this case to highlight the underdiagnosis of gastroparesis and to emphasize the importance of identifying the cause and conducting an aetiological investigation. For prompt intervention, healthcare providers' awareness is essential. Due to the difficulties that older patients may have in communicating their symptoms, physicians' assessments require closer attention to non-verbal communication. The difficulties this case brings emphasize how important it is for healthcare providers to continue being watchful when diagnosing gastroparesis in older patients, especially when there are coexisting diseases that could make diagnosis challenging. The only way to improve patients' quality of life and decrease mortality and morbidity is through a multidisciplinary approach.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Beatriz R. Sousa, José Ribeiro, Teresa B. Rodrigues

Acquisition, analysis, or interpretation of data: Beatriz R. Sousa, Teresa B. Rodrigues

Drafting of the manuscript: Beatriz R. Sousa, José Ribeiro, Teresa B. Rodrigues

Critical review of the manuscript for important intellectual content: Beatriz R. Sousa, José Ribeiro, Teresa B. Rodrigues

Supervision: Beatriz R. Sousa, José Ribeiro, Teresa B. Rodrigues

Disclosures

Human subjects: Consent was obtained or waived by all participants in this study. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

References

1. Camilleri M, Sanders KM: Gastroparesis. *Gastroenterology*. 2022, 162:68-87.e1. [10.1053/j.gastro.2021.10.028](https://doi.org/10.1053/j.gastro.2021.10.028)
2. Ye Y, Jiang B, Manne S, et al.: Epidemiology and outcomes of gastroparesis, as documented in general practice records, in the United Kingdom. *Gut*. 2021, 70:644-53. [10.1136/gutjnl-2020-321277](https://doi.org/10.1136/gutjnl-2020-321277)
3. Ye Y, Yin Y, Huh SY, Almansa C, Bennett D, Camilleri M: Epidemiology, etiology, and treatment of gastroparesis: real-world evidence from a large US national claims database. *Gastroenterology*. 2022, 162:109-121.e5. [10.1053/j.gastro.2021.09.064](https://doi.org/10.1053/j.gastro.2021.09.064)
4. Saleem S, Tarar ZI, Aziz M, Ishtiaq R, Guzman Rojas P, Abell TL: Gastroparesis in geriatrics population: a United States population study. *Am J Med Sci*. 2023, 365:226-31. [10.1016/j.amjms.2022.12.003](https://doi.org/10.1016/j.amjms.2022.12.003)
5. Camilleri M, Kuo B, Nguyen L, et al.: ACG clinical guideline: gastroparesis. *Am J Gastroenterol*. 2022, 117:1197-220. [10.14309/ajg.0000000000001874](https://doi.org/10.14309/ajg.0000000000001874)
6. Hirani R, Smiley A, Latifi L, Latifi R: The risk of mortality in geriatric patients with emergent gastroparesis is 7-fold greater than that in adult patients: an analysis of 27,000 patients. *Surg Technol Int*. 2022, 40:85-95. [10.52198/22.STI.40.GS1566](https://doi.org/10.52198/22.STI.40.GS1566)
7. Egboh SC, Abere S: Gastroparesis: a multidisciplinary approach to management. *Cureus*. 2022, 14:e21295. [10.7759/cureus.21295](https://doi.org/10.7759/cureus.21295)
8. Kim M, Dam A, Green J: Common GI drug interactions in the elderly. *Curr Treat Options Gastroenterol*. 2014, 12:292-309. [10.1007/s11938-014-0024-9](https://doi.org/10.1007/s11938-014-0024-9)