Asian Journal of Case Reports in Surgery

Volume 7, Issue 2, Page 564-568, 2024; Article no.AJCRS.127688

Crohn's Disease Mimicking an Ileum Tumor in an Elderly Patient: A Case Report

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: https://doi.org/10.9734/ajcrs/2024/v7i2586

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/127688

Case Report

Received: 10/10/2024
Accepted: 10/12/2024
Published: 16/12/2024

ABSTRACT

Background: Crohn's disease is a chronic disease in which abnormal reactions of the immune system cause inflammation in the gastrointestinal tract. Most commonly, Crohn's disease affects the small intestine and the beginning of the colon (ileocaecal junction). However, the disease may affect any part of the digestive tract, from the mouth to the anus. It can occasionally present as a tissular mass, mimicking neoplastic processes or a tumor like an Ileum mass, which is a rare localisation of tumors and it's frequently malignant. We share this case to underscore the importance of considering inflammatory causes in the differential diagnosis of bowel masses, even in elderly patients, and to highlight the significant histopathological examination which can reveal the real diagnosis.

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Cite as: *Alaaeddine, Boujeddaine Tsouli, Mahmoud Dabbagh, Mountassir Moujahid, Sidi Mohammed Bouchentouf, Hakim Elkaoui, and Mohamed Najih. 2024. "Crohn's Disease Mimicking an Ileum Tumor in an Elderly Patient: A Case Report". Asian Journal of Case Reports in Surgery 7 (2):564-68. https://doi.org/10.9734/ajcrs/2024/v7i2586.*

Case report: Our case is about a 72-year-old male with a complex medical history who complained a year-long history of abdominal pain, vomiting, and constipation, provided in a relapsing-remitting evolution. Clinical and biological examinations was normal, but a CT scan revealed a small bowel tumor, localisated in the ileum. The patient benefited from a surgical cure, which revealed a tissue mass located 60 centimeters from the ileocecal junction. The tumor was resected, and an end-to-end anastomosis was performed. Unexpectedly, histopathological examination of the resected tissue confirmed the diagnosis of Crohn's disease instead of a malignant tumor.
Conclusion: Crohn's disease can present in various ways, and in this case, it imitated a malignant tumor both clinically and radiologically. This case undescores the importance of considering inflammatory intestine disease even in the case of an elderly patient.

Keywords: Crohn's disease; Crohn's stenosant phenotype; Ileum Tumor; geriatric; imaging misleads; anatopathology confirmation.

1. INTRODUCTION

Overlapping clinical and imaging features makes the differentiating between Crohn's disease and neoplastic conditions of the small bowel a challenging matter [1].

Crohn disease is more prominent in urban than rural areas [2]. The global distribution of crohn's disease is heterogeneous. Several studies show an impact and high prevalence of this condition in Western countries, particularly in the United States, Canada, New Zealand, United Kingdom, Scandinavian countries, and Europe Western, with a stable growth rate. While it is not a common disease in African, Asian and Eastern Europe countries [3].

In case of an ileum localisation of Crohn's disease, the stenosant phenotype is observed in 15 % of cases during the diagnosis and in 43 % of cases after 10 years of evolution. The principal clinical manifestation of a stenose is the Köenig syndrome [4].

This case underscores the importance of thorough diagnostic evaluations and highlights an unusual presentation of Crohn's disease mimicking a small bowel tumor in an old patient case, with significant comorbidities. Reporting this case teach us not to rely just on imaging to make a diagnosis and treat patients, but to explore more even if a diagnosis is obvious.

2. CASE PRESENTATION

After obtaining the patient's permission to publish, we share a case of a 72-year-old male with a history of Type II diabetes with daily insuline injections and a significant surgical history (Important abdominal trauma in 1974 with intestinal resection non documented; Amputations of the left forarm in a work accident in 2021; Amputation of the right leg in a Grade 4 Peripheral artery disease).

The patient presented a year-long history of abdominal pain, vomiting, and constipation. The patient's symptoms were presenting with a relapsing-remitting course.

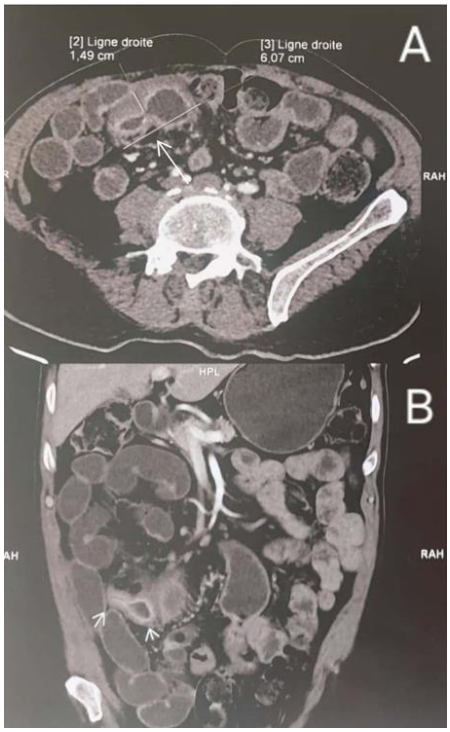

Fig. 1. CT-scan images that shows the ileum tumor in our case

Clinical examination and biological tests were normal in several consultations. After a while, a CT-scan was realized by a 32-slice scanner in spiral acquisition, before and after injection

intravenous contrast product, from the thoracic base to the pubic symphysis. The sections of the CT-scan which passed through the small bowel (Fig. 1) indicated the presence of an ileum tumor, given the patient's age.

In Fig. 1 CT-scan images, we can observe the localization of the ileum mass (white arrows) in a transversal section (Image A) and frontal section (Image B).

The patient underwent surgical exploration (Fig. 2), a median laparotomy was realized, which revealed a tissue mass located 60 centimeters from the ileocecal junction. The tumor was resected, and an end-to-end ileo-ileal anastomosis was performed.

The resected piece was sent to anatomopathology examination.

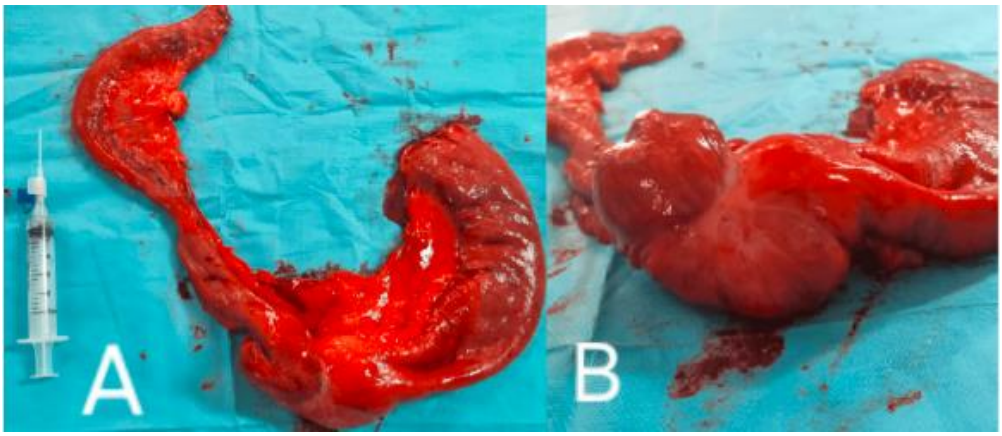

Fig. 2. Intraoperative images of the resection piece

This two images that was taken intraoperatively show the resected piece which was located 60 centimeters from the ileocecal junction, a superior view (image A) and a lateral view (image B).

The patient's postoperative recovery was uneventful, with obvious clinical improvement.

He was discharged from the hospital on the 7th postoperative day and has not had a recurrence since. He was seen 3 weeks later in a controle consultation with the result of anatomopathology examination of the resected tissue (Fig. 2) that unexpectedly, confirmed the diagnosis of Crohn's disease rather than malignant mass.

Fig. 3. Macroscopic images of the anatomopathology examination

This images show the macroscopic anatomopathology examination with the whole resected piece (Image A) and its interior appearence (image B and C) when it was cut in preparation for the microscopic analysis.

3. DISCUSSION

In the elderly, chronic abdominal pain and vomiting can have many causes including: gastroenteritis, Chronic mesenteric ischemia, occlusion on post-operative flange, inflammatory bowel diseases, neoplasm [5].

While inflammatory bowel diseases frequently begin early in life, most commonly between the ages of 20 and 30, a second incidence peak has been observed between the ages of 50 and 70 [6]. In fact, presently, approximately 25 to 30% of the IBD population consists of patients aged over 60 years [7] and in a recent nationwide study conducted in Canada, Coward et al. estimated an increase in prevalence from 0.7% to 1.0% in 2030, most evident in the elderly population [8].

Including the newly diagnosed cases in elderly individuals, those aged 60/70 represent 65%, those aged 70/80 account for 25%, and only 10% are over the age of 80 [9].

The diagnosis of Crohn's disease in this patient was unexpected given the initial radiological findings that suggested an ileum tumor.

This case underlines the diagnostic challenges in elderly patients cases where neoplastic diseases are usually considered due to age-related incidence.

Crohn's disease can present as a stenotic phenotype [10], which can mimic a tumoral process. In this case it imitated a malignant tumor both clinically and radiologically. The normal wound healing process of the intestinal wall consists of an inflammatory phenomenon leading to tissue restitution. In Crohn’s disease, this repair process is disrupted, leading to remodeling tissue inducing the formation of stenoses [11].

The patient's complex medical history, including significant trauma and chronic diseases, added to the diagnostic difficulty.

This case emphasizes the necessity of considering inflammatory bowel disease even in older adults presenting with typical features of neoplastic process. In our case the surgical intervention and the anatomopathologic examination allowed a definitive diagnosis and appropriate management.

This imaging misleading teaches us to not relying on imaging to make a diagnosis and to realize a biopsy every time it is possible so as not to fall into the trap of missing a diagnosis just by focusing on the age of the patient.

Video capsule endoscopy and device-assisted enteroscopy are endoscopic procedures used to evaluate the small bowel. In addition to endoscopy, magnetic resonance imaging, computed tomography, and ultrasound (US) are valuable tools for small bowel assessment [12]. All these techniques can be performed to confirm or deny a crohn’s disease mainly in elderly patient case to begin with a medical treatment first and to prevent misleadings and avoid a surgery in case where it is not indicated as an initial treatment.

4. CONCLUSION

This case illustrates the diagnostic difficulties of differentiating between Crohn's disease and small bowel tumors in case of the elderly patients. It underlines the importance of considering a large differential diagnosis and using histopathological analysis to confirm the diagnosis. Further research and awareness are essential to improve diagnosis accuracy and patient outcomes in similar cases.

CONSENT

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/127688