

## case report

# When Imaging Misleads: Crohn's Disease imitating an Ileum Tumor in an elderly Patient

### **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.

**Case report:** We share this case to underscore the importance of considering inflammatory causes in the differential diagnosis of bowel masses, even in elderly patients. 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, localised 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 undscores the importance of considering inflammatory intestine disease even in the case of an elderly patient.

**Categories:** General Surgery, Gastroenterology

**Keywords:** Crohn's disease, Crohn's stenasant phenotype, Ileum Tumor, geriatric, imaging misleads, anatopathology confirmation.

## **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. The condition has a high incidence in Northern Europeans and people of Jewish descent (incidence 3.2 per 1000 individuals). Prevalence in Asians, Africans, and South Americans is low [2].

In case of an ileum localisation of Crohn's disease, the stenosing 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 stenosis is the Köenig syndrome [3].

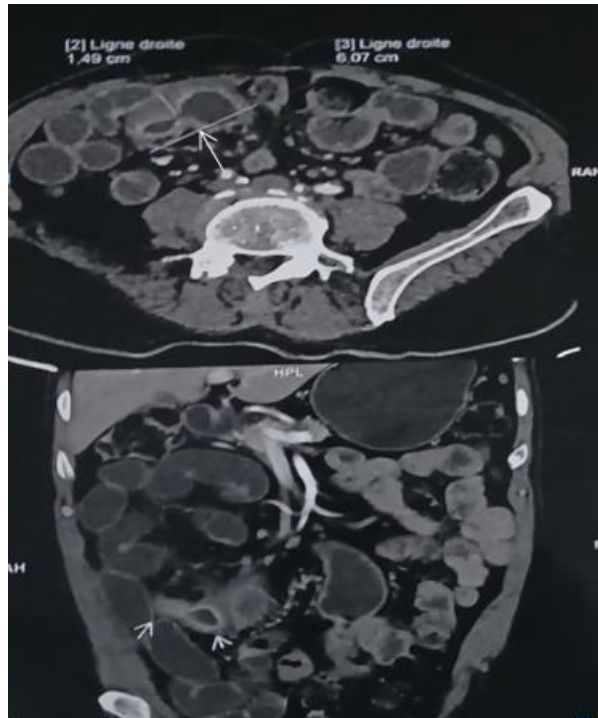
This case underscores the importance of thorough diagnostic evaluations and highlights an unusual presentation of Crohn's disease mimicking a small bowel tumor in an old patient case, with significant comorbidities. ↑

## **Case Presentation:**

A 72-year-old male with a history of Type II diabetes with daily insulin injections and an important surgical history (Important abdominal trauma in 1974 with intestinal resection non documented; Amputations of the left forearm in a work accident in 2021; Amputation of the right leg in a Grade 4 Peripheral artery disease).

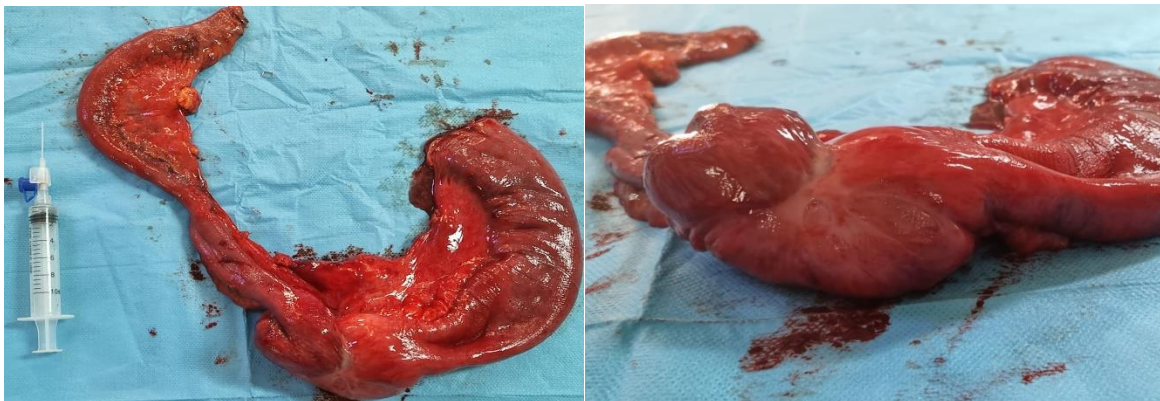
The patient presented a year-long history of abdominal pain, vomiting, and constipation. The patient's symptoms were characterized by a relapsing-remitting evolution.

Clinical examination and biological tests were normal in several consultations. However, a CT scan of the small bowel (*Figure 1*) indicated the presence of an ileum tumor, given the patient's age.



*Figure 1: CT-scan images that shows the ileum tumor in our case*  
White arrows in the figure show the localization of the mass in the CT scan images

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



*Figure 2: intraoperative images of the resection piece*

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 (Figure 2) that unexpectedly, confirmed the diagnosis of Crohn's disease rather than malignant mass.



*Figure 3: macroscopic images of the anatomopathology examination*

## **Discussion:**

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 [4]. Patients over the age of 60 represent 10% to 15% of the inflammatory intestine disease, compared to 5% to 25% for children and adolescents [5]. 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 [6].

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 in various ways, and in this case, it imitated a malignant tumor both clinically and radiologically [7].

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.

## **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.

### **Disclaimer (Artificial intelligence)**

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Details of the AI usage are given below:

- 1.
- 2.
- 3.

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