INTERNATIONAL JOURNAL OF HEALTH & MEDICAL RESEARCH
ISSN (print): 2833-213X, ISSN (online): 2833-2148
Volume 05 Issue 04 April 2026
DOI: 10.58806/ijhmr.2026.v5i4n08
Page No. 323-325

Cerebral Venous Thrombosis in Crohn's Disease: A Fatal Postoperative Complication

Amine Bachar[1], Youssef Barigou[2], Zaineb Moustaquime[3], Zakaria Essaidi[4], Taoufik Elabbassi[5], Fatima Zahra Bensardi[6]
[1,2,3,4,5,6]Department of General Surgery, Faculty of Medicine and Pharmacy, Ibn Rochd University Hospital Center, University of Hassan II, Casablanca, Morocco

ABSTRACT: Cerebral venous thrombosis (CVT) is an uncommon but serious complication of inflammatory bowel disease (IBD). We report the case of a 36-year-old woman with Crohn's disease admitted to the digestive surgery department for a fistulized collection in the right iliac fossa. Surgical management was performed after failure of radiological drainage. On postoperative day 11, the patient developed severe headache followed by impaired consciousness. Brain computed tomography revealed thrombosis of the right lateral sinus extending to the ipsilateral internal jugular vein without evidence of cerebral infarction. The patient was transferred to the intensive care unit, intubated, sedated, and treated with curative anticoagulation and vasopressor support. Despite intensive management, the patient died 16 days postoperatively.
Cerebral venous thrombosis is a rare but potentially life-threatening complication of inflammatory bowel disease, particularly Crohn's disease. It may occur during disease flares, in the postoperative period, or even at the time of diagnosis.

KEYWORDS: inflammatory bowel disease; Crohn's disease; cerebral venous thrombosis; anticoagulation.

INTRODUCTION

Crohn's disease is a chronic inflammatory bowel disease characterized by relapsing and remitting inflammation that may affect any segment of the gastrointestinal tract from the mouth to the anus. In addition to intestinal involvement, the disease may be associated with a wide range of extra-intestinal manifestations affecting multiple organ systems [1].
Patients with inflammatory bowel disease have an increased risk of thromboembolic complications due to systemic inflammation, endothelial dysfunction, and activation of coagulation pathways [2]. Venous thromboembolism is considered one of the most serious systemic complications of IBD.
Cerebral venous thrombosis (CVT) represents a rare form of thromboembolic complication in this population. Its reported prevalence in patients with inflammatory bowel disease ranges from **1.3% to 6.4%** in published series [3]. CVT most commonly occurs during active phases of the disease but may also develop during hospitalization, following surgery, or at the time of initial diagnosis [4].
We report a case of postoperative cerebral venous thrombosis occurring in a patient with Crohn's disease.

CASE REPORT

A 36-year-old woman was admitted to our digestive surgery department for management of an intra-abdominal collection associated with Crohn's disease.
Her past medical history included an appendectomy at the age of 21 and previous surgery for bowel obstruction related to rectal stenosis, which required the creation of a diverting colostomy. She had been followed in the gastroenterology department for Crohn's disease for one year prior to admission.
The patient was initially hospitalized for a **collection in the right parietocolic gutter fistulizing into the right iliac fossa**. Radiologically guided drainage was attempted but was unsuccessful, and the patient was subsequently referred for surgical management.

Clinical Examination on Admission

On admission, the patient was conscious with a **Glasgow Coma Scale score of 15/15** and was hemodynamically and respiratorily stable. She appeared thin and cachectic.

Abdominal Examination

Physical examination revealed a **median infra-umbilical surgical scar and a McBurney scar**, as well as a **functional left**

pararectal stoma without complications. A fistulous opening was noted in the right flank.
Abdominal CT scan demonstrated:

- a **right parietocolic gutter collection measuring 58 × 18 × 11 mm**
- a **right iliac fossa collection measuring 38 × 12 mm**

Laboratory investigations showed **severe anemia with a hemoglobin level of 7.3 g/dL**, and the patient received transfusion of packed red blood cells.
The patient was subsequently taken to the operating room.

Intraoperative findings
Surgical exploration revealed:

- multiple parietal and epiploic adhesions requiring extensive adhesiolysis
- a retroperitoneal fistulized ileal loop

Surgical procedure
The following procedures were performed:

- ileocolic resection including the fistulized retroperitoneal segment
- double-barrel ileocolostomy
- drainage of the fistulous tract using a Delbet drain
- drainage of the right parietocolic gutter with a Salem tube

On postoperative day 11, the patient developed **severe headache followed by loss of consciousness**.
A brain computed tomography scan revealed **cerebral venous thrombosis involving the right lateral sinus extending to the ipsilateral internal jugular vein**, with no detectable signs of cerebral infarction. (Figure 1)
Due to hemodynamic instability, the patient was transferred to the intensive care unit. She was **intubated, mechanically ventilated, and sedated**. Curative anticoagulation was initiated via infusion pump, along with **vasopressor support using noradrenaline**.
Despite intensive care management, the patient died after **16 days in the intensive care unit due to cardiorespiratory arrest**.

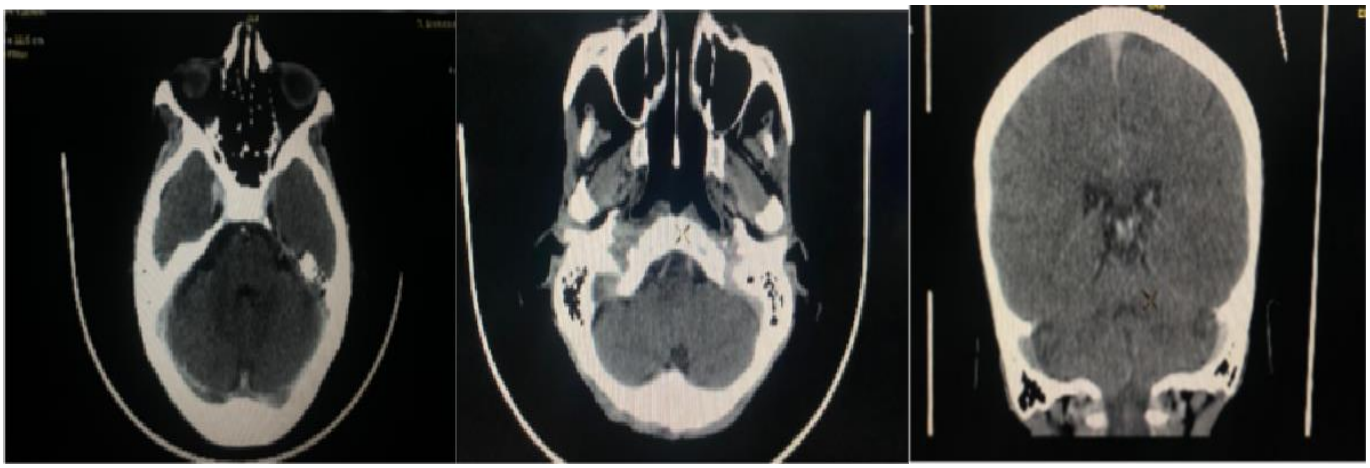

Figure 1: **cerebral venous thrombosis involving the right lateral sinus on a brain CT- scan**

DISCUSSION
Crohn's disease is a chronic inflammatory condition of unknown etiology that most frequently involves the **terminal ileum and ileocecal region**, although it may affect any segment of the gastrointestinal tract [1].
Extra-intestinal manifestations are common and may involve the **skin, joints, hepatobiliary system, eyes, and vascular system**.
Thromboembolic events represent a well-recognized complication of inflammatory bowel disease. Patients with IBD have an approximately **two- to three-fold increased risk of venous thromboembolism compared with the general population** [2]. The overall incidence of thromboembolic events in IBD patients is estimated to range between **2% and 10%** [3].
Cerebrovascular complications are uncommon but potentially severe. Neurological manifestations reported in IBD include **transient ischemic attack, ischemic stroke, retinal vein occlusion, and cerebral venous thrombosis** [4].
These complications may occur at any age and affect both sexes equally. Several risk factors have been identified, including **active disease, surgery, dehydration, immobilization, and corticosteroid therapy**, all of which may contribute to a hypercoagulable state [5].
Cerebral venous thrombosis remains a rare manifestation in patients with Crohn's disease, and only a limited number of cases have

been reported in the literature. The most frequent presenting symptom is **headache**, reported in approximately **80% of patients**, followed
by **seizures and vomiting** [6].

The diagnosis is usually established by **computed tomography venography or magnetic resonance imaging**, which allow visualization of venous sinus thrombosis. The **superior sagittal sinus** is the most commonly involved venous structure, although other sinuses such as the transverse or sigmoid sinus may also be affected [6].

Current guidelines from the **European Crohn's and Colitis Organisation**
(ECCO) recommend **systematic thromboprophylaxis in hospitalized patients with inflammatory bowel disease, particularly in those with severe disease activity or undergoing surgery [7].**

CONCLUSION

Cerebral venous thrombosis is a rare but potentially fatal complication of Crohn's disease. It may occur during disease flares, in the postoperative period, or occasionally precede the diagnosis of inflammatory bowel disease.

Early recognition and prompt treatment with anticoagulation are crucial to improving patient outcomes. This case highlights the importance of considering neurological complications in patients with active Crohn's disease, particularly during hospitalization and the postoperative period.

REFERENCES

1) Torres J, Mehandru S, Colombel JF, Peyrin-Biroulet L. Crohn's disease. **Lancet.** 2017;389:1741-55.
2) Singh S, Murad MH, Fumery M, Dulai PS, Sandborn WJ. Risk of venous thromboembolism in patients with inflammatory bowel diseases: a systematic review and meta-analysis. **Gastroenterology.** 2018;154:153-164.
3) Papa A, Danese S, Grillo A, Gasbarrini A. Review article: inherited thrombophilia in inflammatory bowel disease. **World J Gastroenterol.** 2021;27:143-156.
4) Katsanos AH, Katsanos KH, Kosmidou M, Giannopoulos S, Kyritsis AP, Tsianos EV. Cerebral venous thrombosis in inflammatory bowel diseases. **QJM.** 2019;112:475- 483.
5) Fumery M, Xiaocang C, Dauchet L, et al. Thromboembolic events and cardiovascular mortality in inflammatory bowel diseases: a meta-analysis. **Am J**
6) **Gastroenterol.** 2019;114:162-172.
7) Ferro JM, Bousser MG, Canhão P, et al. European Stroke Organization guideline for the diagnosis and treatment of cerebral venous thrombosis. **Eur Stroke J.** 2017;2:195- 221.
8) Harbord M, Annese V, Vavricka SR, et al. The first European evidence-based consensus on extra-intestinal manifestations in inflammatory bowel disease. **J Crohns Colitis.** 2023;17:1-37.