ISSN: 2977-022X

Case Report

Journal of Gastroenterology & Endoscopy

Association Between Crohn's Disease and Diffuse Large B-Cell Lymphoma: A Case Report

K Gharbi*, H Moustahfid, S Soukrat, BA Yeingue and R Akka

A Department of Gastroenterology, Avicenne Military Hospital, Marrakech, Morocco

***Corresponding author**
K Gharbi, A Department of Gastroenterology, Avicenne Military Hospital, Marrakech, Morocco.

Received: August 21, 2026; **Accepted:** August 29, 2026; **Published:** September 04, 2026

ABSTRACT

We report the case of a 48-year-old man who presented with chronic watery diarrhea and Koenig's syndrome localized to the right iliac fossa (characterized by postprandial cramping abdominal pain due to transient small bowel obstruction, often associated with borborygmi and abdominal distension, usually relieved by passage of gas or stool) in a context of general health deterioration. Colonoscopy with biopsy revealed active ileocecal Crohn's disease. However, the enteroscanner findings were discordant, showing ileitis with a stenosing cecal mass. The patient was initially treated with corticosteroids without improvement and subsequently underwent ileocecal resection. Despite surgery and five months of thiopurine therapy, his condition did not improve. A follow-up abdominal CT scan revealed a large mass in the right iliac fossa. After multidisciplinary discussion, a biopsy of the mass was performed, and histopathology confirmed a diffusé large B-cell lymphoma (DLBCL). The patient received six cycles of R-CHOP chemotherapy, with clinical improvement according to his treating hematologist. However, his Crohn's disease remained severely active, leading to a discussion about initiating ustekinumab therapy.

Keywords: Crohn's Disease, Lymphoma, Chemotherapy, Ustekinumab

Case Presentation

Mr. M.B., a 48-year-old man with no significant past medical history notably no prior digestive or extra-digestive neoplasia or tuberculosis, and no history of smoking presented with an eight-month history of watery diarrhea, occurring four to five times per day in an intermittent pattern of relapses and remissions. The diarrhea was associated with postprandial right iliac fossa pain relieved by the passage of gas or stool, consistent with Koenig's syndrome. There was no rectal syndrome, abdominal distension, upper or lower gastrointestinal bleeding, or other digestive or extra-digestive manifestations. The clinical course was afebrile but marked by general deterioration with fatigue, anorexia, and a 20 kg weight loss over eight months.

On examination, the patient was conscious and in relatively good general condition, with an ECOG performance status of 1, stable hemodynamically and respiratorily. His body mass index (BMI) was 18 kg/m².

Abdominal examination revealed localized tenderness and fullness in the right iliac fossa, with signs of localized defense and malnutrition. Perianal inspection showed no fistula or abscess; digital rectal examination was normal. There was no hepatosplenomegaly or palpable peripheral lymphadenopathy.

Laboratory investigations showed normal inflammatory markers (C-reactive protein and erythrocyte sedimentation rate) and normal organ function tests. Fecal calprotectin was elevated at 600 µg/g, indicating active intestinal inflammation. A total colonoscopy with Crohn's Disease Activity Index (CDAI) evaluation (Figure 1) and abdominal imaging (Figure 2) were subsequently performed.

Histopathological examination of the colonic biopsies revealed chronic inflammatory colitis with vague granulomatous features, showing acute ulcerated activity. These findings were not specific enough to exclude either Crohn's disease or intestinal tuberculosis.

The tuberculosis workup including Quantiferon test, GeneXpert analysis of biopsy samples and sputum, and a chest X-ray was negative.

Overall, the findings were highly suggestive of moderately active ileocecal Crohn's disease. The Crohn's Disease Activity

Citation: K Gharbi, H Moustahfid, S Soukrat, BA Yeingue, R Akka. Association Between Crohn's Disease and Diffuse Large B-Cell Lymphoma: A Case Report. J Gastro Endosc. 2026. 4(3): 1-7. DOI: doi.org/10.61440/JGE.2025v4.50

Index (CDAI) was calculated at 360 (CDAI ≥ 220 and < 450), consistent with moderate disease activity.

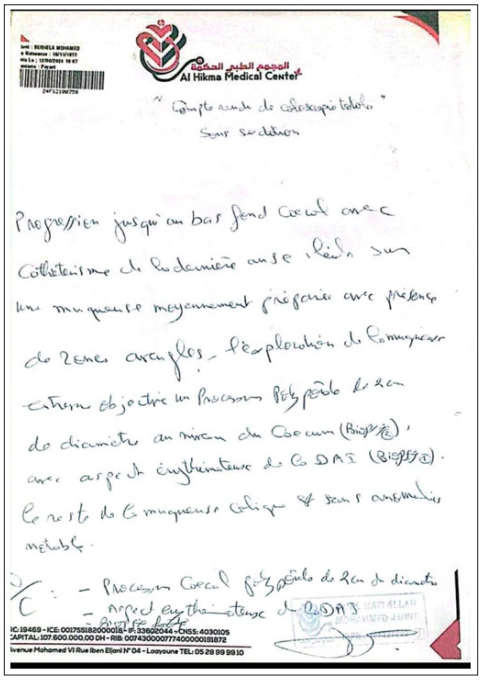
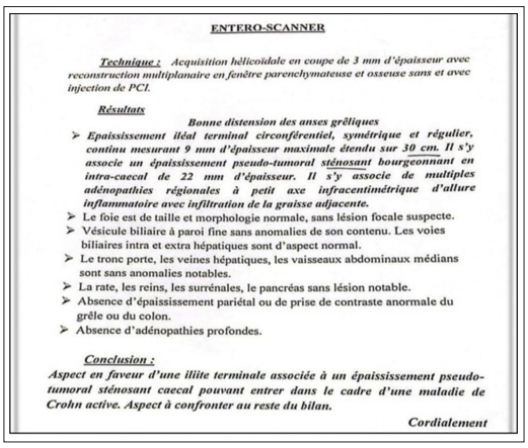


Figure 1: Total Colonoscopy with Intubation of the Terminal Ileum



ENTERO-SCANNER

Technique : Acquisition hélicoïdale en coupe de 3 mm d'épaisseur avec reconstruction multiplanaire en fenêtre parenchymateuse et osseuse sans et avec injection de PCI.

Résultats

Bonne distension des anses grêliques

- Epaississement iléal terminal circonférentiel, symétrique et régulier, continu mesurant 9 mm d'épaisseur maximale étendu sur 30 cm. Il s'y associe un épaississement pseudo-tumoral sténosant bourgeonnant en intra-caecal de 22 mm d'épaisseur. Il s'y associe de multiples adénopathies régionales à petit axe infracentimétrique d'allure inflammatoire avec infiltration de la graisse adjacente.
- Le foie est de taille et morphologie normale, sans lésion focale suspecte.
- Vésicule biliaire à paroi fine sans anomalies de son contenu. Les voies biliaires intra et extra hépatiques sont d'aspect normal.
- Le tronc porte, les veines hépatiques, les vaisseaux abdominaux médians sont sans anomalies notables.
- La rate, les reins, les surrénales, le pancréas sans lésion notable.
- Absence d'épaississement pariétal ou de prise de contraste anormale du grêle ou du colon.
- Absence d'adénopathies profondes.

Conclusion :

Aspect en faveur d'une iliite terminale associée à un épaississement pseudo-tumoral sténosant caecal pouvant entrer dans le cadre d'une maladie de Crohn active. Aspect à confronter au reste du bilan.

Cordialement

Figure 2: Entero-CT scan showing ileitis with a stenosing cecal mass

Discussion

Question 1

- At this stage, what is the appropriate management approach?
- Systemic corticosteroid therapy?
- Budesonide?
- Biologic therapy?
- Surgery?

The answer is illustrated in Figure 3 [1].

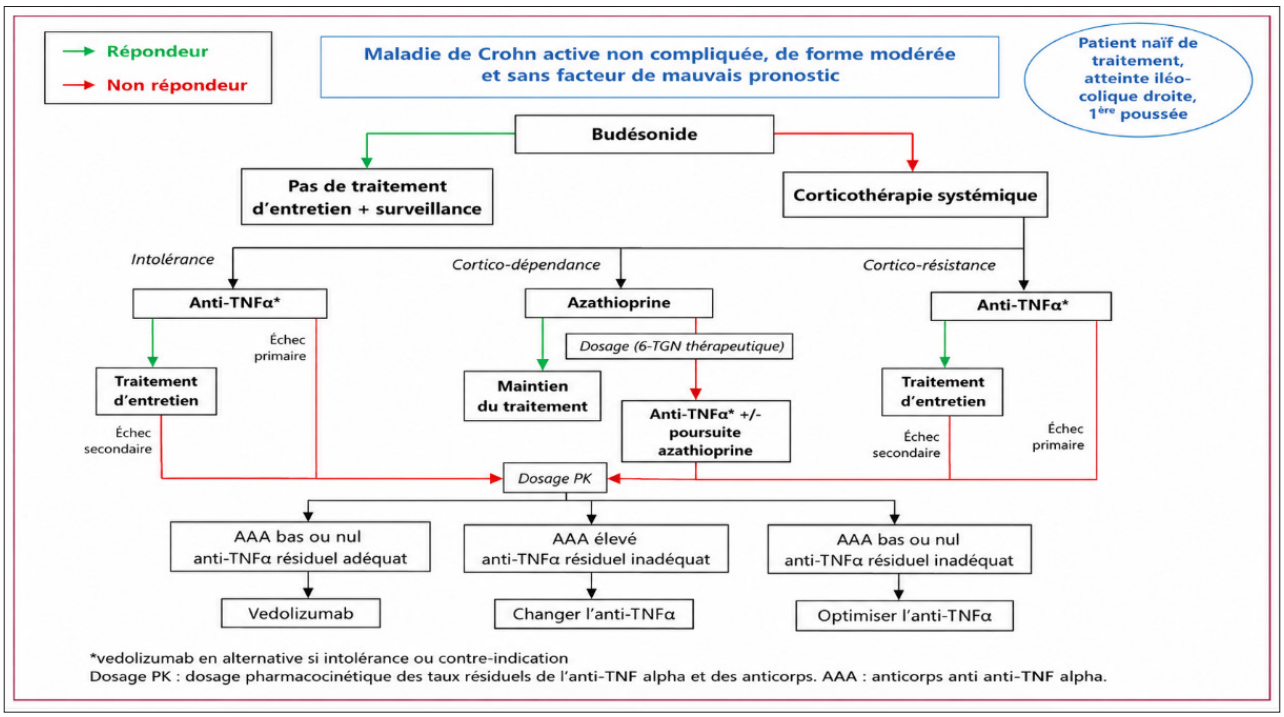


Figure 3 : Approved Algorithm for the Management of Active, Uncomplicated Crohn's Disease of Moderate Severity without Poor Prognostic Factors

Poor prognostic factors in Crohn's disease include: upper gastrointestinal involvement, extensive small bowel disease, severe ileal involvement, severe rectal involvement, perianal disease, severe endoscopic lesions (i.e., large and/or deep ulcers), and young age at diagnosis [1].

Our patient was started on oral corticosteroid therapy without improvement and was classified as corticosteroid-resistant according to the ECCO definition, which describes disease that remains active despite treatment with prednisolone at a dose of at least 0.75 mg/kg/day for 4 weeks [2].

In cases of corticosteroid resistance, it is always important to investigate for : superinfection (e.g., Clostridioides difficile, CMV), complications (e.g., stenosis, abscess, dysplasia or cancer, toxic megacolon), or non-adherence to therapy [2].

Our patient was subsequently presented at the visceral surgery board for consideration of surgical resection.

Surgical procedure: Ileocecal resection with end-to-end ileocolic anastomosis (Figure 4).

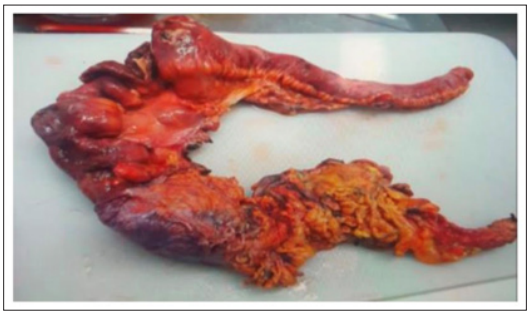
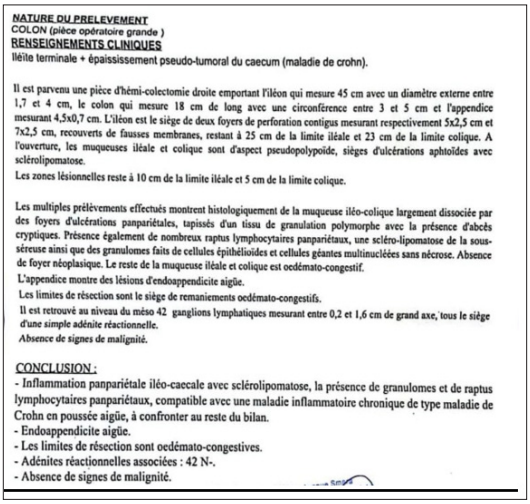


Figure 4 : Surgical Specimen from the Ileocecal Resection

Histological Analysis of the Surgical Specimen Figure 5



NATURE DU PRELEVEMENT
COLON (pièce opératoire grande)
RENSEIGNEMENTS CLINIQUES
Iléite terminale + épaississement pseudo-tumoral du caecum (maladie de crohn).

Il est parvenu une pièce d'hémi-colectomie droite emportant l'iléon qui mesure 45 cm avec un diamètre externe entre 1,7 et 4 cm, le colon qui mesure 18 cm de long avec une circonférence entre 3 et 5 cm et l'appendice mesurant 4,5x0,7 cm. L'iléon est le siège de deux foyers de perforation contigus mesurant respectivement 5x2,5 cm et 7x2,5 cm, recouverts de fausses membranes, restant à 25 cm de la limite iléale et 23 cm de la limite colique. A l'ouverture, les muqueuses iléale et colique sont d'aspect pseudopolypoïde, sièges d'ulcérations aphtoïdes avec sclérolipomatose.
Les zones lésionnelles reste à 10 cm de la limite iléale et 5 cm de la limite colique.

Les multiples prélèvements effectués montrent histologiquement de la muqueuse iléo-colique largement dissociée par des foyers d'ulcérations panpariétales, tapissés d'un tissu de granulation polymorphe avec la présence d'abcès cryptiques. Présence également de nombreux raptus lymphocytaires panpariétaux, une sclério-lipomatose de la sous-séreuse ainsi que des granulomes faits de cellules épithélioïdes et cellules géantes multinucléées sans nécrose. Absence de foyer néoplasique. Le reste de la muqueuse iléale et colique est oedémato-congestif.
L'appendice montre des lésions d'endoappendicite aigüe.
Les limites de résection sont le siège de remaniements oedémato-congestifs.
Il est retrouvé au niveau du méso 42 ganglions lymphatiques mesurant entre 0,2 et 1,6 cm de grand axe, tous le siège d'une simple adénite réactionnelle.
Absence de signes de malignité.

CONCLUSION :
- Inflammation panpariétale iléo-caecale avec sclérolipomatose, la présence de granulomes et de raptus lymphocytaires panpariétaux, compatible avec une maladie inflammatoire chronique de type maladie de Crohn en poussée aigüe, à confronter au reste du bilan.
- Endoappendicite aigüe.
- Les limites de résection sont oedémato-congestives.
- Adénites réactionnelles associées : 42 N-.
- Absence de signes de malignité.

Figure 5 : Histopathology of the Surgical Specimen

Question 2

- What is the appropriate management at this stage?
- Surveillance and colonoscopy at 6 months?
- Thiopurines?
- Biologic therapy?

The answer is illustrated in Figure 6 [3].

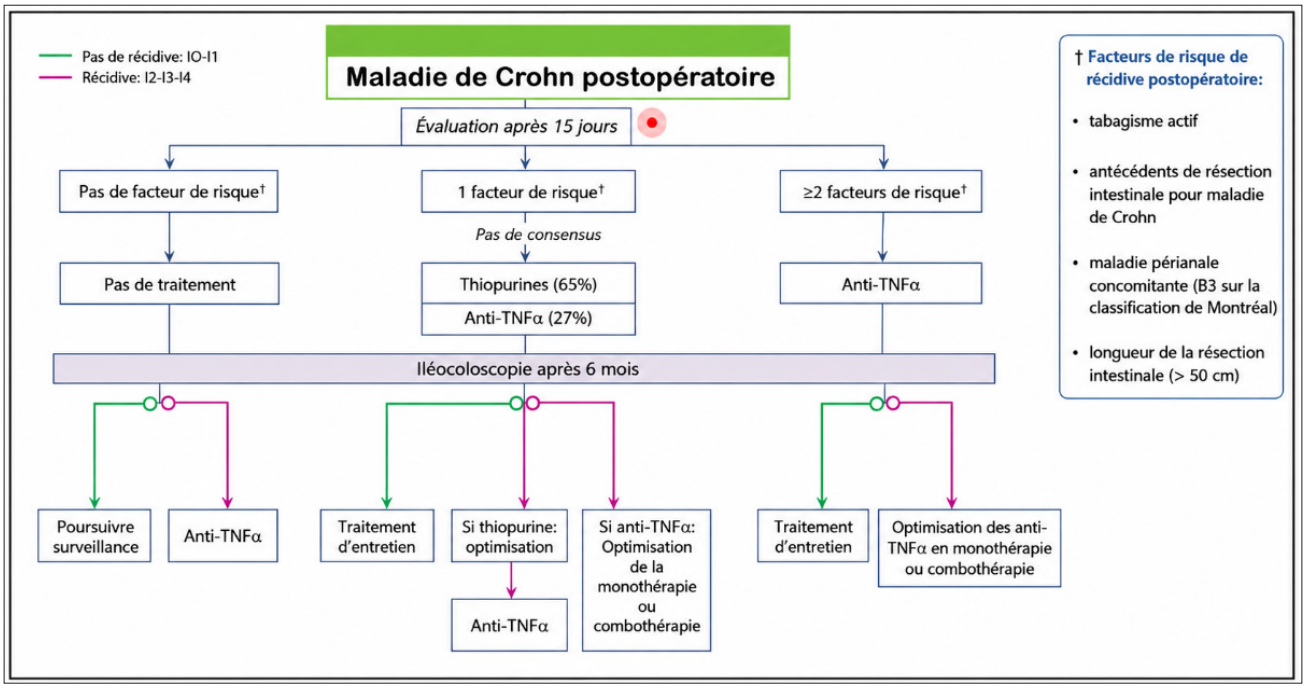


Figure 6: Approved Algorithm for thr Management of Crohn's Disease After Surgery

The patient was started on azathioprine without clinical improvement.

Six-Month Follow-up Colonoscopy (March 2025, Figure 7) Revealed Disease Progression Beyond the Anastomotic Site. Findings Included:

- Ileal mucosa appeared macroscopically normal.
- Anastomotic site appeared normal.
- Proximal rectum and sigmoid colon showed severe inflammatory and pseudopolypoid changes, raising suspicion of a fistula.

Biopsies were taken and were consistent with Crohn's disease, showing no evidence of malignancy.

Abdominal CT Scan (March 2025, Figure 8) Revealed:

- A large heterogeneous tumor mass in the right iliac fossa measuring 10.08 cm with a necrotic center, which was subsequently biopsied.
- Irregular thickening of the sigmoid colon with a small bowel–sigmoid fistula.
- Radiologic drainage of the collection yielded sterile yellow citrine fluid (Figure 9).

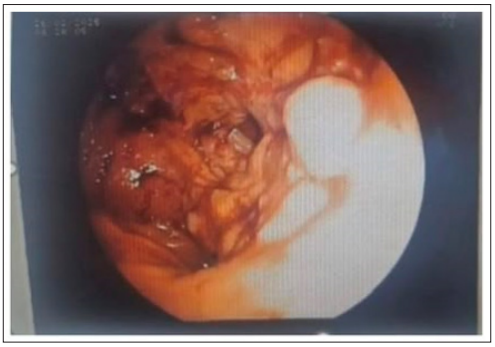


Figure 7: Colonoscopy of our Patient at 6Months Post-Surgery

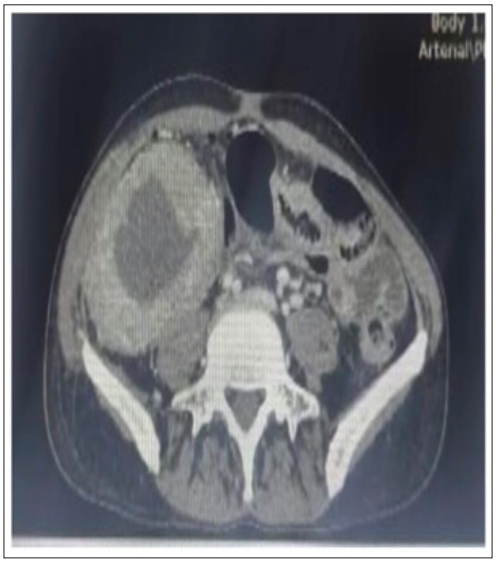


Figure 8: Abdominal CT Scan Showing a Large Mass in the Right Iliac Fossa

Laboratory findings (Figure 10):

- Normochromic, normocytic anemia with a hemoglobin level of 6.3 g/dL, non-regenerative
- Severe neutropenia: 100/µL.
- Lymphopenia: 200/µL.

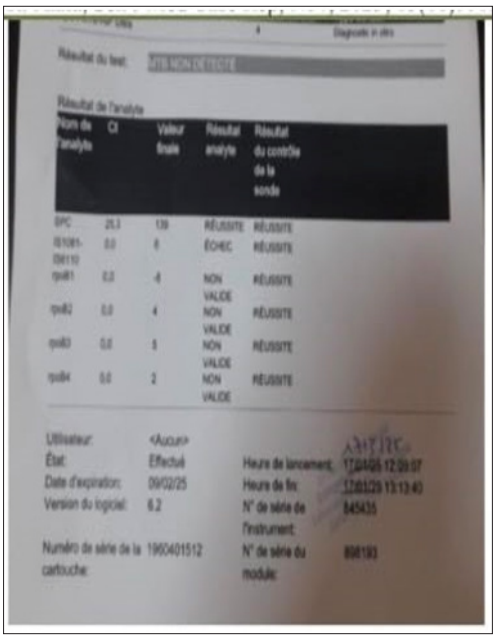


Figure 9: Results of the Aspiration of the Right Iliac Fossa Mass

These findings justified discontinuation of azathioprine.

According to Standard Criteria for Azathioprine Withdrawal [4]:

- White blood cells (leukocytes) < 1,500/µL, or
- Neutrophils < 1,000/µL, or
- Lymphocytes < 200/µL, or
- Platelets < 70,000/µL, or
- Hemoglobin < 8 g/dL.

Immunohistochemistry for CMV in colonic biopsies was negative.

Biopsy of the mass revealed a diffuse large B-cell lymphoma (DLBCL), non-germinal center type.

Question 3: The Issue at Hand:

- Is this lymphoma associated with Crohn's disease from the outset?
- Or is it a thiopurine-induced lymphoma?

Answering this Question Requires a Review of the Literature on IBD and Lymphoma [5].

- Increased risk of lymphoma: Patients with inflammatory bowel disease (IBD) have an increased risk of lymphoma, especially when treated with thiopurines or anti-TNF agents.
- Synergy of treatments: The risk is even higher when these two therapies (anti-TNF + thiopurines) are combined.
- Time- and age-dependence: The thiopurine-related lymphoma risk increases with treatment duration (after 2–3 years) and with age, particularly after 65 years.

Although the origin of lymphoma in our patient can be debated, it is important to consider both the baseline risk of lymphoma in patients with chronic inflammatory bowel disease (IBD) and the potential role of thiopurines. Patients with IBD have an increased risk of lymphoma compared to the general population, regardless of immunosuppressive therapy. However, thiopurines may also contribute to lymphoma development, typically after a

latency period of several years following treatment initiation.

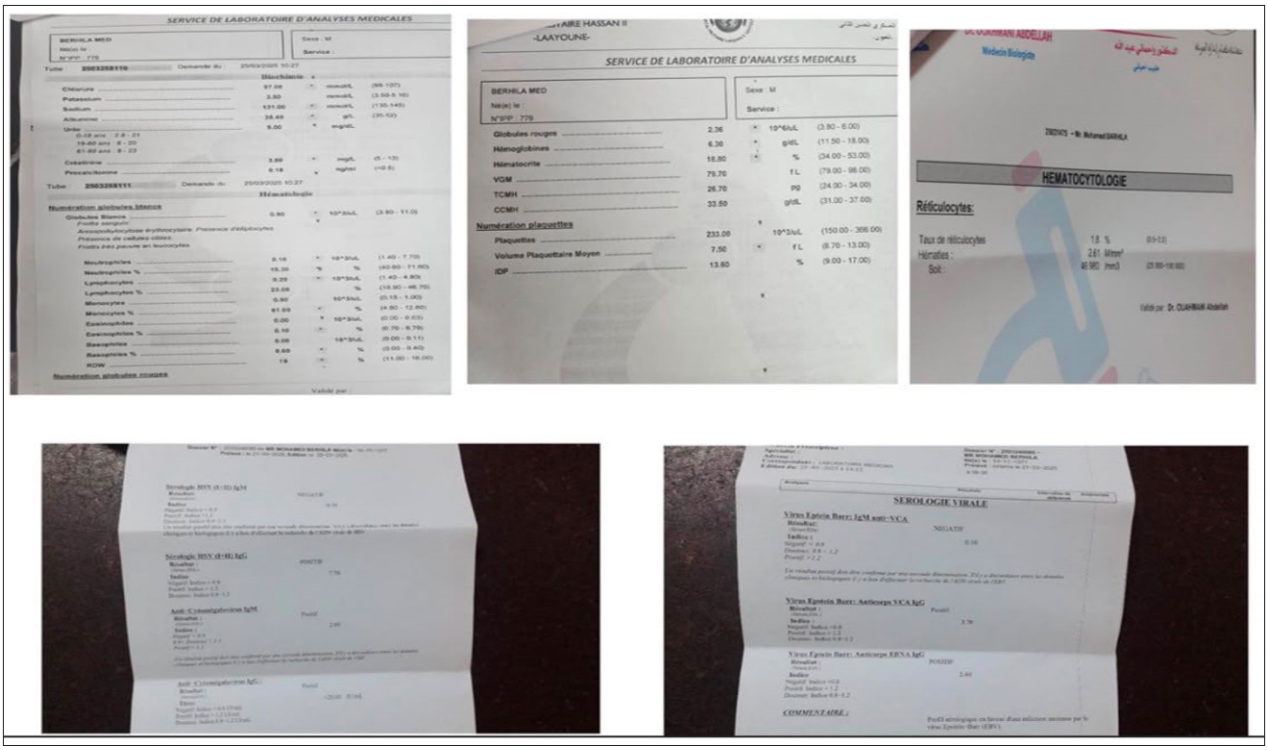


Figure 10: Laboratory Test Results

In our case, the lymphoma developed after only five months of thiopurine therapy, making a strictly drug-induced etiology less likely and suggesting that the patient may have had a predisposition or preexisting lymphoma.

Therefore, this report emphasizes the significance of short-term thiopurine exposure and highlights the need to identify other similar cases in the literature.

Question 5: What is the Appropriate Management ?

- Lymphoma treatment: R-CHOP chemotherapy.
- Diffuse large B-cell lymphoma is an
- Crohn's disease management?
- After receiving six cycles of R-CHOP chemotherapy, the patient underwent follow-up evaluation with MR enterography and PET scan

Situation	Conduite à tenir
Découverte du lymphome B chez un patient Crohn	Arrêt immédiat thiopurines et anti-TNF
Lymphome localisé	R-CHOP ± radiothérapie
Lymphome disséminé	R-CHOP 6 cycles
Crohn actif pendant chimiothérapie	Corticoïdes ± nutrition entérale
Après rémission du lymphome	Discussion pour reprise Crohn avec vedolizumab ou ustekinumab (faible risque tumoral)

According to the hematology team, the lymphoma has been successfully treated. The tumor mass is considered residual, with no lymph node or extra- nodal involvement, and LDH levels are normal, indicating no indication for additional chemotherapy cycles.

However, the patient continues to experience watery diarrhea and maximal abdominal pain in the right iliac fossa, with a significant deterioration in général condition (ECOG 3) and hypoalbuminemia (albumin 20 g/L).

Management of Crohn's Disease Associated with Lymphoma [6]

Following a multidisciplinary discussion, the plan is to consider surgical management, including resection of the residual mass with sigmoidectomy and colorectal anastomosis, after enteral nutrition, correction of hypoalbuminemia, and optimization of the patient's condition, followed by initiation of vedolizumab (VDZ) or ustekinumab (UST).

In the management of IBD patients after lymphoma remission, the use of VDZ or UST is supported by a relatively reassuring tumor safety profile.

A study including 390 IBD patients with a history of cancer did not show a significant increase in the risk of new or recurrent cancer with VDZ (HR 1.36) or UST (HR 0.96). Similarly, a meta-analysis of 4,736 patients confirmed no increase in cancer risk with VDZ or IL-12/23 agents compared to non-biologic therapies.

Although long-term data remain limited, particularly for UST, 4–5 year follow-up studies have not demonstrated an increased malignancy signal under UST, and prolonged follow-up of VDZ shows a stable safety profile.

ECCO recommendations suggest that VDZ can be considered

in IBD patients with a history of malignancy, whereas for UST, experience is more limited and its use requires a multidisciplinary decision.

The patient experienced both clinical and metabolic progression of his lymphomatous disease three months after completing his last cycle of R-CHOP.

Following a multidisciplinary team discussion, second-line treatment with R-GEMOX was initiated, resulting in a favorable therapeutic response. The hematology team observed a partial metabolic response after the second cycle, followed by complete hematological remission and persistent partial remission of the colonic hypermetabolic lesions on subsequent evaluation.

The patient was subsequently considered to be in remission and was referred to our department for further management and follow-up of his Crohn's disease.

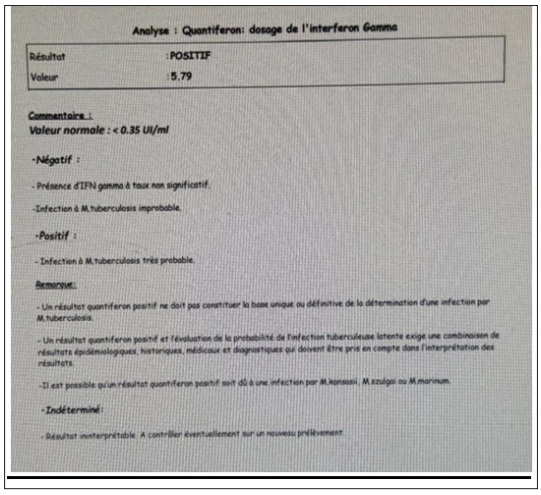
At this Stage, two Major Clinical Questions Arose:

- Had the patient achieved complete remission?
- Would the initiation of biologic therapy for Crohn's disease increase the risk of lymphoma recurrence?

Before addressing these questions, a comprehensive reassessment of the patient was undertaken.

From a clinical perspective, nutritional rehabilitation and symptomatic treatment were initiated. From a biological standpoint, a complete pre-biologic workup was performed prior to the initiation of biotherapy.

The pre-biologic assessment revealed a positive QuantiFERON-TB Gold assay, whereas viral serologies and the remaining screening tests were negative. (Figure11)



Analyse : Quantiferon: dosage de l'interferon Gamma

Résultat	:POSITIF
Valeur	: 5.79

Commentaire :

Valeur normale : < 0.35 UI/ml

-Négatif :

- Présence d'IFN gamma à taux non significatif.

-Infection à M.tuberculosis improbable.

-Positif :

- Infection à M.tuberculosis très probable.

Remarque:

- Un résultat quantiferon positif ne doit pas constituer la base unique ou définitive de la détermination d'une infection par M.tuberculosis.

- Un résultat quantiferon positif et l'évaluation de la probabilité de l'infection tuberculeuse latente exige une combinaison de résultats épidémiologiques, historiques, médicaux et diagnostiques qui doivent être pris en compte dans l'interprétation des résultats.

-Il est possible qu'un résultat quantiferon positif soit dû à une infection par M.kansasii, M.szulgai ou M.marinum.

-Indéterminé:

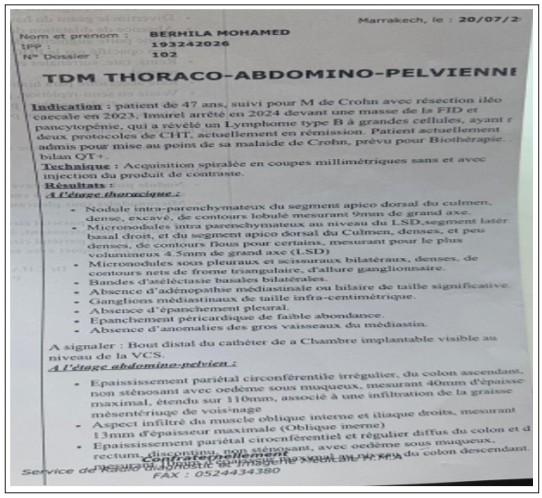
- Résultat uninterprétable. A contrôler éventuellement sur un nouveau prélèvement.

Figure 11: Positive Test Results for a Quantiferon TB Gold Assay

Given these findings and the patient's epidemiological background, active tuberculosis had to be definitively excluded before initiating biologic therapy.

A comprehensive tuberculosis workup was therefore performed. Sputum testing using the GeneXpert MTB/RIF assay was negative. Subsequently, contrast-enhanced computed tomography (CT) of the chest, abdomen, and pelvis was performed, revealing the following findings: (Figure 12)

- A 9-mm cavitary pulmonary nodule, suggestive of tuberculosis or sterile necrobiosis, to be correlated with the clinical and radiological findings.
- Bilateral subpleural and intraparenchymal micronodules, requiring radiological follow-up.
- Irregular circumferential mural thickening of the ascending colon, without luminal stenosis.
- Diffuse, discontinuous, regular circumferential mural thickening of the colon, consistent with the patient's underlying disease.



Marrakech, le : 20/07/2

Nom et prenom : BERHILA MOHAMED
IPP : 193242026
N° Dossier : 102

TDM THORACO-ABDOMINO-PELVIENNE

Indication : patient de 47 ans, suivi pour M de Crohn avec résection iléo caecale en 2023, lmurel arrêté en 2024 devant une masse de la FID et pancytopénie, qui a révélé un Lymphome type B à grandes cellules, ayant r deux protocoles de CHT, actuellement en rémission. Patient actuellement admis pour mise au point de sa maladie de Crohn, prévu pour Biothérapie. bilan QT+

Technique : Acquisition spiralée en coupes millimétriques sans et avec injection du produit de contraste.

Résultats :

A l'étage thoracique :

- Nodule intra-parenchymateux du segment apico dorsal du culmen, dense, excavé, de contours lobulé mesurant 9mm de grand axe.
- Micronodules intra parenchymateux au niveau du LSD,segment latér basal droit, et du segment apico dorsal du Culmen, denses, et peu denses, de contours flous pour certains, mesurant pour le plus volumineux 4.5mm de grand axe (LSD)
- Micronodules sous pleuraux et scissuraux bilatéraux, denses, de contours nets de frome triangulaire, d'allure ganglionnaire.
- Bandes d'atélectasie basales bilatérales.
- Absence d'adénopathie médiastinale ou hilaire de taille significative.
- Ganglions médiastinaux de taille infra-centimétrique.
- Absence d'épanchement pleural.
- Epanchement péricardique de faible abondance.
- Absence d'anomalies des gros vaisseaux du médiastin.

A signaler : Bout distal du cathéter de a Chambre implantable visible au niveau de la VCS.

A l'étage abdomino-pelvien :

- Epaississement pariétal circonférentiile irrégulier, du colon ascendant, non sténosant avec oedème sous muqueux, mesurant 40mm d'épaisse maximal, étendu sur 110mm, associé à une infiltration de la graisse mésentérique de voisinage
- Aspect infiltré du muscle oblique interne et iliaque droits, mesurant 13mm d'épaisseur maximale (Oblique inerne)
- Epaississement pariétal circonférentiel et régulier diffus du colon et d rectum, discontinu, non sténosant, avec oedème sous muqueux, Contractures [illegible] du colon descendant.

Service de [illegible]
FAX : 0524434380

Figure 12 : Tdm Thoraco-Abdomino-Pelvien

A multidisciplinary team meeting involving pulmonologists, phtysiologist, Infectious desease doctors, hematologists, and gastroenterologists was convened to determine the optimal management strategy. The following decisions were made:

- To perform a repeat 18F-FDG PET/CT scan in order to better characterize the metabolic activity of the lesions identified on the thoracoabdominal-pelvic CT scan.
- To initiate tuberculosis chemoprophylaxis with anti-tuberculous therapy for a duration of three months.
- To defer the initiation of biologic therapy until the diagnostic workup was completed and the patient's status had been fully reassessed.

A Follow-up 18F-FDG PET/CT Scan was Subsequently Performed, Yielding the Following Findings:

- Irregular circumferential mural thickening of the ascending colon, and the right iliac fossea with intense hypermetabolism signals
- Hepatic nodules (n=4) with hypermetabolism
- Bilateral pulmonary nodules and micronodules without hypermetabolism

Based on the following findings, the patient is experiencing a relapse of his lymphomatous disease and has been referred to the Hematology Department for further management.

According to the multidisciplinary expert opinion, the patient will most likely receive palliative chemotherapy.

The patient was unable to initiate the planned treatment for Crohn's disease with ustekinumab.

Conclusion

Our case reports a rare association between two aggressive entities that require intensive management and pose a diagnostic and therapeutic challenge. On one hand, the patient had severe Crohn's disease, which typically requires immunosuppressive therapy, but on the other hand, such treatment is contraindicated due to lymphoma. This observation allowed us to discuss the management strategies for such complex cases.

Our report also highlights the significance of short-term azathioprine exposure, which is generally considered too brief to induce lymphoma, emphasizing the need to identify other similar cases and strengthen surveillance. In our case, the lymphoma developed after only five months of thiopurine therapy, demonstrating that even short-term exposure can be clinically relevant.

Although the absolute risk remains low, this suggests that hematologic toxicity and lymphoproliferation should be monitored from the first months of treatment.

Therefore, Surveillance Strategies Should be Reinforced and Clearly Defined:

- Laboratory monitoring, including a complete blood count, liver and renal function tests, and measurement of active azathioprine or 6-MP metabolites, can help detect early abnormalities.
- Close clinical monitoring, with systematic evaluation of symptoms such as unexplained fever, lymphadenopathy, or weight loss, is recommended.
- Finally, in patients with personal or family history of cancer or lymphoma, consideration may be given to targeted imaging or periodic hematology consultations for enhanced vigilance.

References

1. Hepatogastroenterology and Digestive Oncology. 2016.
2. Torres J. JCC ECCO 2020: Algorithms for the management of Crohn's disease in– French National Consensus. 2016.
3. Torres J. JCC ECCO 2020: Algorithms for the management of Crohn's disease in– French National Consensus. 2016.
4. https://www.getaid.org/fichesmedicament/lazathioprine-imurel-la-6-mercaptopurine-purinethol.
5. https://www.fmcgastro.org/breves-congres/jfhod2017/thiopurines-anti-tnfs-et-sur-risque-de-lymphome-au-cours-des-mici.
6. Freiche V. Histopathological c.d.