



Long Term Effects of Inflammatory Bowel Disease: A Case Report

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Olutayo Toriola, et al.**Abstract**

Introduction: Inflammatory bowel disease (IBD) is a chronic inflammatory condition that primarily affects the digestive tract. Typical symptoms of IBD include abdominal pain, diarrhea, and weight-loss, however the main concern over IBD are its long term complications. IBD has been known to be linked to cancer and can also potentially cause strictures, haemorrhages, and toxic megacolon, along with extra intestinal manifestations.

Case: 43 year old man admitted to hospital via emergency department after experiencing abdominal pain and is 9 days post-op adhesiolysis.

Conclusion: Though this patient was able to achieve good clinical outcomes, more research must be done to determine how to best medically manage patients with IBD, which would enable long term care continuity. Additionally, this continuity could allow us to identify high risk individuals and intervene early, thus lowering morbidity and mortality while improving those patients' quality of life.

Keywords: Inflammatory Bowel Disease; Long Term Complications; IBD; Surgical Management; Crohn's Disease; Ulcerative Colitis

Case Presentation

Inflammatory bowel disease (IBD) is a chronic condition that causes inflammation in the digestive tract and can be sub-divided into Ulcerative Colitis and Crohn's Disease. Though these diseases vary in their age of onset and overall management, both can lead to symptoms such as abdominal pain, diarrhea, and weight loss [1-3]. While the immediate effects of IBD can be debilitating, the long-term consequences of this condition can also have a profound impact on the overall health and well-being of affected individuals [4].

One of the most serious long-term effects of IBD is the increased risk of developing colorectal cancer. Studies have shown that individuals with IBD have a higher likelihood of developing this type of cancer, particularly if their condition is not well-managed or if they have had the disease for an extended period of time. Other gastrointestinal related complications of IBD include, strictures, haemorrhages, toxic megacolon, and colonic perforation, but also

come with extra-intestinal manifestations. Chronic inflammation associated with IBD can also lead to a condition known as inflammatory bowel disease-associated arthritis, which causes joint pain and stiffness in affected individuals [5-7].

It is crucial for individuals with IBD to receive regular medical care and follow-up to monitor their condition and minimize the risk of long-term complications. This may include regular monitoring of disease activity, medication management, and screenings for colorectal cancer. By staying engaged in their healthcare and working closely with their healthcare providers, individuals with IBD can help minimize the long-term effects of this condition and maintain a higher quality of life.

Presenting complaint

LF is a 43 year old man SPR working in Drogheda who was admitted to Our Lady of Lourdes for abdominal pain and is 9 days post adhesiolysis.

History of presenting complaint

Patient originally start feeling diffuse abdominal pain at home that was accompanied by nausea and vomiting. In terms of his vomit he stated that prior to admission he vomited a total of 7 times and that it was primarily food contents but the later episodes were mostly liquid as he did not have an appetite. Pain was about an 8 out of 10 according to the patient and in the days preceding his hospital admission the pain never localized to a particular portion of his abdomen, it remained diffuse. In addition he also reported that his abdomen was distended and he failed to pass stool and flatulence for 24 hours prior to admission. Finally, the patient reported have a reduction in appetite but no exacerbating symptoms; he did note that burping gave him temporary relief but there was no mentioned on over the counter analgesia use for pain management while he was at home. After enduring his symptoms for 2 days LF was brought to the ED here in Drogheda by ambulance and was given IV fluids, analgesia, and had bloods taken (FBC, coag, U+E). He also had a CT scan that showed a SBO and was managed conservatively. It is also important to note that while he was at home the patient experienced no secondary symptoms such as night sweats or unintentional weight loss prior to his increase in abdominal pain.

However, over the next 3 days LF's symptoms continued to get worse and was taken for surgery where he underwent an adhesiolysis. At the time I spoke to him the patient was 9 days post op, was generally feeling well with minimal abdominal pain but was still on TPN for bowel rest and DVT prophylaxis. He was hoping to be discharged home in the next few days after his bowels opened up and he showed he could handle oral feeding.

Past medical/Surgical history

LF has a known diagnosis of Crohn's disease which was diagnosed incidentally at age 15 after a history of poor growth and weight gain. He had no extra-intestinal manifestations of Crohn's such as arthritis, uveitis, pyoderma gangrenosum, aphthous ulcers. He was managed medically until 2022. His only surgical history is that he underwent a right hemicolectomy after medical treatment proved to be ineffective. He has no allergies and his only medications outside his analgesia and clexane are omeprazole and motilin.

In terms of his family history his aunt has Ulcerative colitis but there is no other history of IBD, bowel cancer, or any other chronic conditions.

In terms of his social history LF is not a smoker and never has been; but he does report drinking 4-5 mixed drinks a week. He cur-

rently lives in Drogheda with his girlfriend and reports that his parents came in from Canada after his admission to help him around at home when he is discharged so he feels well taken care of at home.

In conclusion, LF is a 43 year old SPR living in Drogheda who is 9 days post adhesiolysis secondary to Crohn's disease.

Differential diagnoses

- Adhesions
- Strictures
- Toxic megacolon
- Superior mesenteric artery syndrome

Exam

- **General Inspection:** Patient was alert, conscious, comfortable with no increased work of breathing. Looking at the lower limbs the patient was wearing TEDS stockings. In his right antecubital fossa he had a PICC line that was connected to TPN. Patient had wound dressings in the right lower quadrant of his abdomen as well as some bruising secondary to clexane injections around his umbilicus. I did not remove dressings to observe the wound. There were no signs of abdominal distension, any obvious deformities, or pathological discolouration of the abdomen. There were no walking aids, medications, or adaptive footwear present around the bedside.
- **Light palpation:** There were no signs of guarding, tenderness or rigidity.
- **Deep palpation:** There was some tenderness in the right lower quadrant around the area of the patient's gauze
- **Percussion:** I only percussed the upper 6 quadrants on his abdomen to save him some potential pain but on percussion all notes were resonant throughout
- **Auscultation:** There were so signs or renal bruits but no bowel sounds were heard on auscultation

Investigations

Bloods

- FBC- checking for WCC for signs of infection
- ESR/CRP- marker for acute and chronic inflammation, could help determine if abd pain is caused by something acute or more chronic
- PCR- patient is immunocompromised, look for viral causes
- U&E and Creatinine- assess renal function and potential need for contrast
- Coag Screen: Assess risk of stroke and DVT risk whilst inpatient
- Blood/cultures- any signs of infection

Imaging

- **Erect CXR:** Looking for any air under the diaphragm as a sign of potential bowel perforation
- **PFA:** observe any dilations in the small bowel and any pneumatosis intestinalis
- **CT Abdomen with contrast:** If findings on PFA were unclear then look for pneumatosis intestinalis here.

Procedures

- Colonoscopy (later on after bowel rest)- to observe any transmural inflammation of the bowel wall as a sign of lumbar puncture
- Biopsy

Management

The patient underwent a laparoscopic adhesiolysis under general anaesthesia. There were no complications during surgery and he was reviewed in the inpatient setting for 8 days. During his stay, the patient's bowels opened up on post op day 2 and he was maintained on a liquid diet for 3 days before being progressed to soft foods for another 3 days then was reintroduced on post op day 6 and maintained until his discharge on day 8; the patient's condition remained stable at this time and there were no spikes in temperatures or ICU visits during his stay. Additionally, the we coordinated with physiotherapy to encourage early mobilization and walking on post op day 2 to ensure he was fit to return home and be independent. We also spoke to his family about general expectations on when to return home. He was kept on low-molecular weight heparin and given TEDS stockings for DVT prophylaxis during his 8 day stay, and was given paracetamol for analgesia; coagulation status was closely monitored.

Following discharge, the plan was to review the patient in the outpatient department in 6-8 weeks with colonoscopy with the possibility of prescribing him steroids if there were any signs of inflammation or a flare up related to the original Crohn's disease.

Conclusion

Overall, this patient was able to achieve a very good outcome as he was later discharged home pain free, however, his case highlights that there is an urgent need to better understand the long-term outcomes of IBD. This future research should be geared most towards minimizing loss of intestinal function. Furthermore, medical management for IBD works in a step wise manner in order to reduce risk of flareups, therefore, consistent and thorough screening in these patients should be used in combination with the

individual's clinical picture to guide future steps and management, which would require long-term follow up care.

Additionally, if we are able to create a management plan that reduces direct bowel damage it might enable clinicians to predict when patients could have complications such as adhesions, abscesses, or haemorrhages. Being able to predict these complications would allow for identification of high risk patients thus improving the morbidity, mortality, and quality of life seen in patients with this condition. However, in order to achieve any of that, more research must be conducted.

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