Patient Gets Crohn's Disease After Total Colectomy from Ulcerative Colitis: Case Study

Abstract: Crohn's disease is an inflammatory bowel disease causing abdominal pain, diarrhea, fatigue, weight loss, and malnutrition. Ulcerative colitis is a chronic inflammatory disease affecting the colon's lining. A 35-year-old female with UC and chronic anemia was admitted to the hospital with symptoms like dizziness, dyspnea, abdominal pain, heart palpitations, and bloody stools. She had a total colectomy and tubal ligation. The patient was anemic and required a colonoscopy and abdominal computed tomography. She was prescribed Metoprolol 25 mg and Prednisone 10 mg and diagnosed with Crohn's disease. Ulcerative colitis and Crohn's disease are inflammatory bowel diseases characterized by chronic inflammation of the digestive tract. Both have common causes, including environmental, genetic, and immune system responses. Common side effects include loose bowel movements, bloody stool, abdominal cramps, persistent diarrhea, loss of appetite, weight loss, nausea, fever, low energy, and anemia. Corticosteroids are crucial for managing inflammatory bowel disease by inhibiting inflammation through mechanisms. However, the association between anemia and IBD development remains unclear. Thorough testing is crucial to rule out CD onset or development after total colectomy, promoting frequent checkups and communication with the GI doctor.

Introduction: Crohn's disease (CD) is an inflammatory bowel disease causing inflammation in the small intestine, causing abdominal pain, diarrhea, fatigue, weight loss, and malnutrition. Despite no known cure, therapies can reduce symptoms and potentially lead to long-term remission and inflammation healing. Many people with Crohn's can function well with treatment (Mayo Clinic, 2022). Ulcerative colitis (UC) is a chronic inflammatory disease affecting the

colon's lining, causing ulcers, abdominal pain, and frequent colon emptying (Crohn's and Colitis Foundation).

Case Report: A 35-year-old female with a history of UC and chronic anemia was admitted to the hospital with complaints of dizziness, dyspnea, abdominal pain, heart palpitations, and bloody stools. The patient stated that she has had a total colectomy with an internal J-Pouch. She has also had a tubal ligation with uterine ablation. Her current medications are Metoprolol 25 mg once daily, and Tylenol for migraines. Vital signs were a blood pressure of 122/88 mmHg, heart rate of 126 beats/minute, respiratory rate of 19 breaths/min, temperature of 98.6°F, and oxygen saturation of 99% on room air. An electrocardiogram revealed normal heart rhythm. The metabolic panel and thyroid panel were within normal ranges. The urine drug screen was negative. The stool sample revealed blood in the stool. C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and procalcitonin (PCT) show signs of inflammation (Inflammatory Markers- Choose the Right Test). Complete blood count (CBC) revealed a low red blood count and a hemoglobin of 5.8 showing the patient is anemic. Per the emergency room physician, the patient shall be admitted and given 2 units of red blood cells, and IV fluids, and started on an NPO (nothing by mouth) diet to prepare for a colonoscopy exam and abdominal computed tomography (CT). Since the patient does not have a colon, she stated that stools are frequent and loose. The patient will not require a barium enema but will still need to complete a barium swallow. CT scan was completed and didn't reveal any obstructions or tumors. Colonoscopy was completed and revealed significant inflammation in the ileum down into the rectum. Some ulceration is also noted. Biopsy results taken during the colonoscopy show that the patient has CD. The patient was started on IV prednisone 30 mg/kg to slow bleeding and control

inflammation. CBC was rechecked and showed a hemoglobin of 8.5. She is in stable condition and no longer bleeding. She was discharged and advised to continue Metoprolol 25 mg, start on Prednisone 10 mg, and see her GI specialist for further treatment.

Discussion: Ulcerative colitis and Crohn's disease are two inflammatory bowel diseases characterized by chronic inflammation of the digestive tract. Both develop in teenagers and young adults and affect men and women equally. The causes of both diseases are unknown, but they share common factors like environmental, genetic, and immune system responses. Ulcerative colitis is limited to the colon, while Crohn's disease can occur anywhere between the mouth and anus. In Crohn's disease, healthy parts of the intestine are mixed in between inflamed areas, while ulcerative colitis is continuous inflammation of the colon (UCLA Health System). Common side effects of both are: Loose and urgent bowel movements, bloody stool, abdominal cramps and pain, persistent diarrhea accompanied by abdominal pain and blood in the stool, loss of appetite, weight loss, nausea, fever, low energy and fatigue, anemia (low red blood cell count), delayed growth and development in children (Crohn’s and Colitis Foundation). Anemia is a common manifestation of inflammatory bowel disease (IBD), but it remains unclear whether anemia is associated with the development of IBD.

Corticosteroids are crucial for managing inflammatory bowel disease by inhibiting inflammation through various mechanisms. Their immunosuppressive and anti-inflammatory properties are mediated by steroid-dependent inhibition (Wild, 2003, pp 309-317).

A study in South Korea showed that in 2011, 5.3% of individuals without anemia developed anemia, with a higher risk of developing CD in anemic patients. Male patients with post-anemia

had a more prominent risk of developing CD than female patients. No significant difference in the risk of UC development was found based on post-anemia presence among non-anemic patients at baseline (Kang, vol. 15, no. 9, 8 Sept. 2020).

Conclusion: This case emphasizes the importance of thorough testing to carefully rule out whether the patient had CD from the onset of diagnosis or that she developed CD later on after her total colectomy. Since CD is not curable and UC is after surgical removal of the diseased colon, this information is necessary to know from the beginning of diagnosis, so the patient is educated on the importance of frequent checkups to remain in communication with her GI doctor.

Works Cited

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