

A Case of Dual Biologic and Immunomodulator Therapy Used to Treat Refractory Crohn's Disease

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Background

- ❖ Within the past twenty years, treatments for inflammatory bowel disease have significantly increased.
- ❖ Despite advancements in biologic therapy, obtaining complete remission in patients with severe stricturing Crohn's Disease can be challenging.
- ❖ In these refractory cases, dual biologic therapy may be required to obtain remission.
- ❖ We present a case of severe medical-refractory Crohn's disease who achieved clinical remission using dual biologic therapy with tofacitinib and vedolizumab.

Initial Diagnosis

- ❖ A 62-year-old male underwent a diagnostic colonoscopy for evaluation of chronic diarrhea and abdominal pain in 2011.
- ❖ Index colonoscopy noted ileocolonic inflammation with supportive biopsies of IBD.
- ❖ He was ultimately diagnosed with ileocolonic Crohn's Disease.

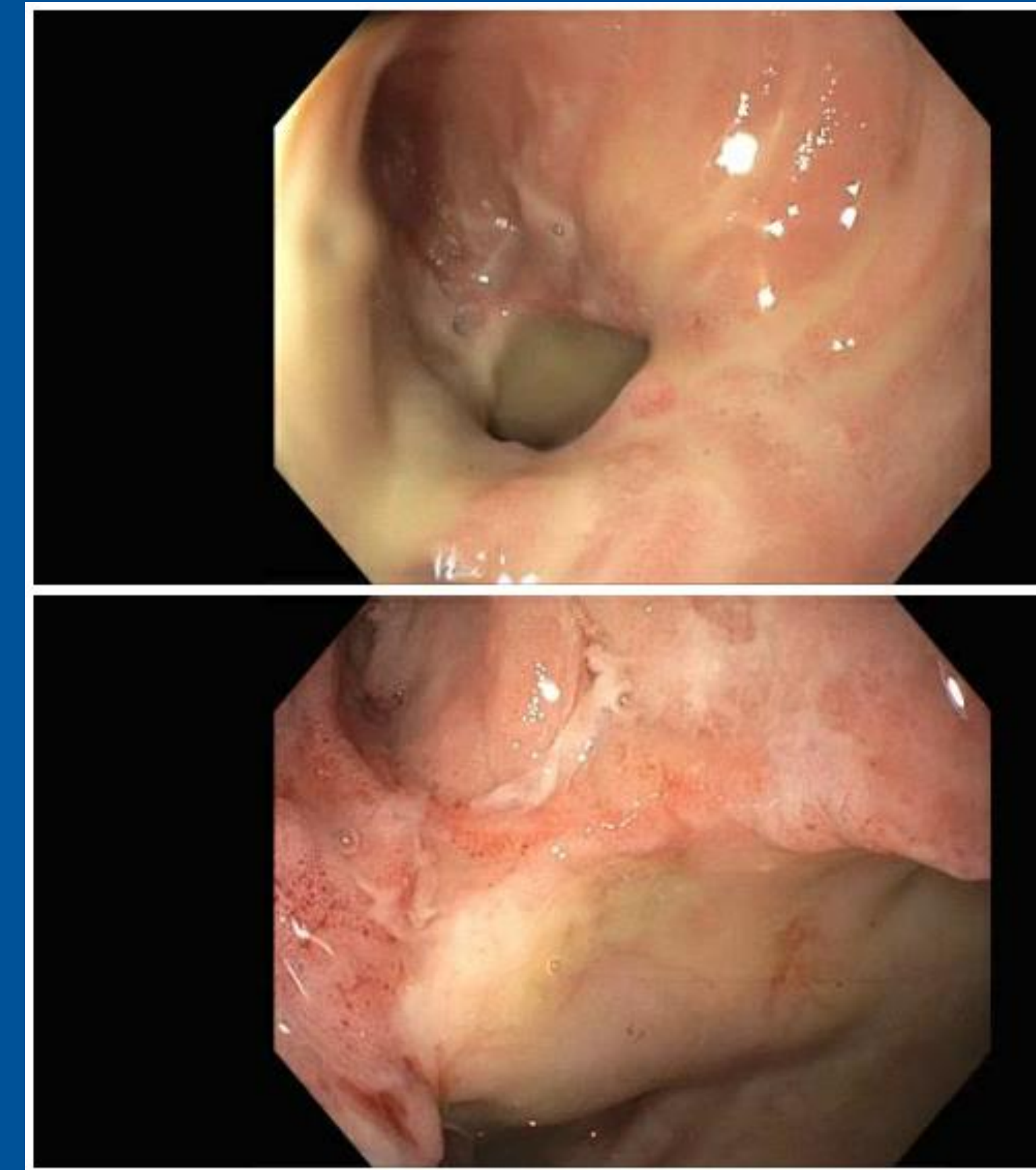


Image 1: Active inflammation at the neo-terminal ileum following reanastomosis in 2020 showing continued persistent disease.

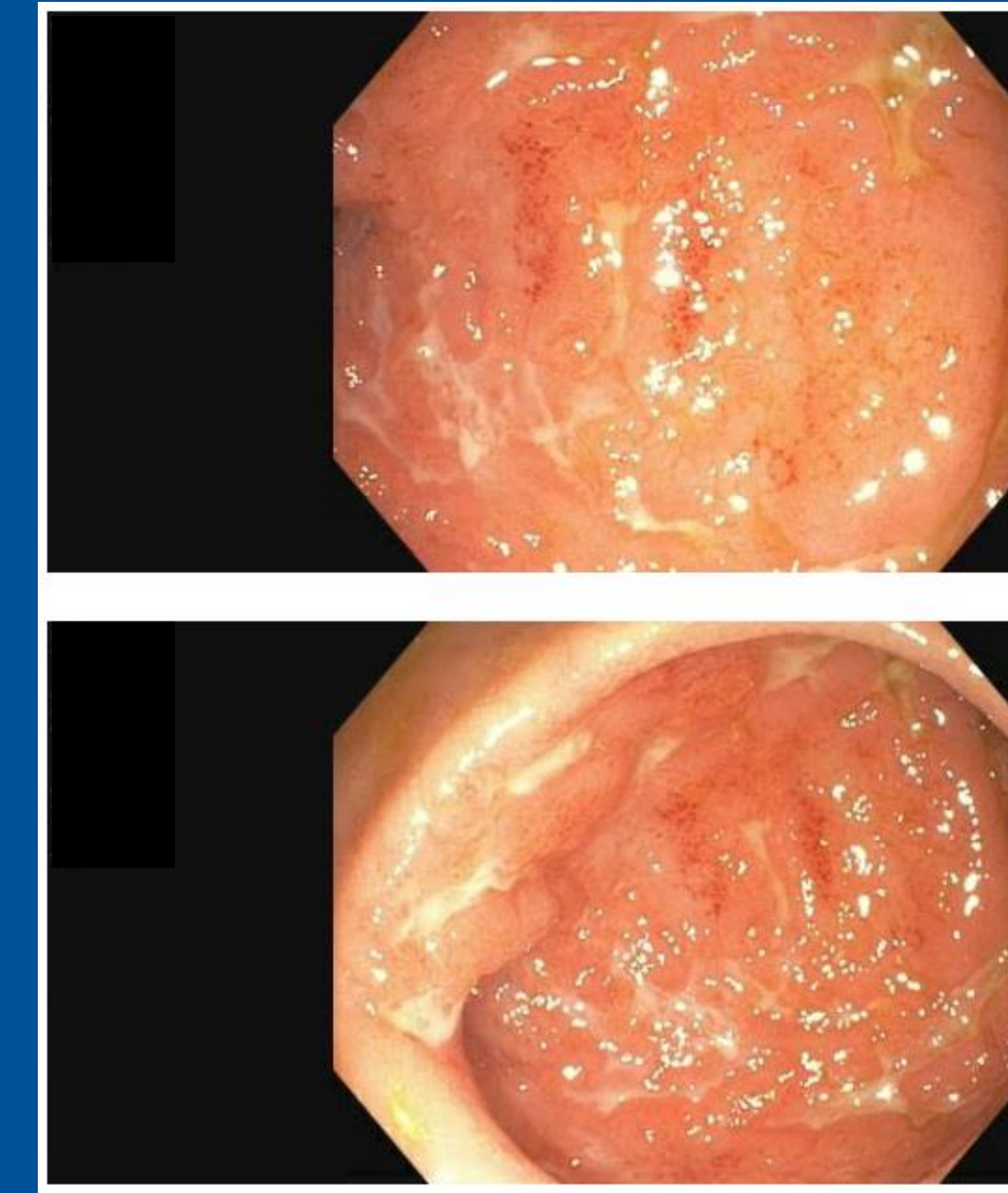


Image 2: Photographs of the neo-terminal ileum in 2021 following reanastomosis of colectomy with inflammation and stricturing representing continued persistent disease.

Treatment Course

- ❖ Patient was started on infliximab with improvement, however this was discontinued after a few years due to financial hardships. He was transitioned to combination therapy with adalimumab and methotrexate in 2014, however disease progressed and patient developed an SBO requiring ileocecectomy.
- ❖ Patient was then started on ustekinumab. Restaging at six months noted active disease at his anastomosis. He was transitioned then to vedolizumab, however one year later was noted to have persistent inflammation at anastomosis with stricture refractory to corticosteroids.
- ❖ Patient underwent further resection of the diseased segment with diverting ostomy with eventual takedown in 2020 after multiple hospitalizations for high ostomy output. He was quickly restarted on vedolizumab with aggressive therapeutic drug monitoring with evidence of persistent disease activity despite addition of methotrexate.
- ❖ Following a multidisciplinary discussion, his methotrexate was exchanged for tofacitinib with drastic and rapid improvement in both symptoms and biomarkers.
- ❖ There are plans for repeat colonoscopy with restaging in the near future.

Discussion

- ❖ Inflammatory bowel disease remains a difficult medical condition to treat.
- ❖ This case highlights the efficacy of using dual biologic and immunomodulator therapy to help treat a patient with refractory Crohn's Disease.
- ❖ It is well established that combining biologics can help wean steroid dependence and maintain remission in patients who suffer from IBD.
- ❖ Further studies have shown that combination therapy can help reduce inflammatory markers and clinical improvement.
- ❖ While several studies have evaluated the use of tofacitinib and vedolizumab in Ulcerative Colitis, few studies have looked at its rates of remission in Crohn's Disease.
- ❖ As seen in this patient, off label use of small molecule immunomodulators such as tofacitinib may be a beneficial addition to a medical regimen in certain Crohn's patients.
- ❖ It is important to keep in mind personalized treatment plans when considering patients.

Conclusion

- ❖ This case demonstrates that the use of off-label dual biologic therapy for the treatment of refractory Crohn's disease can be an effective and safe treatment for a certain cohort of patients.