Ocrelizumab-Associated Colonic Perforation: A Cautionary Tale

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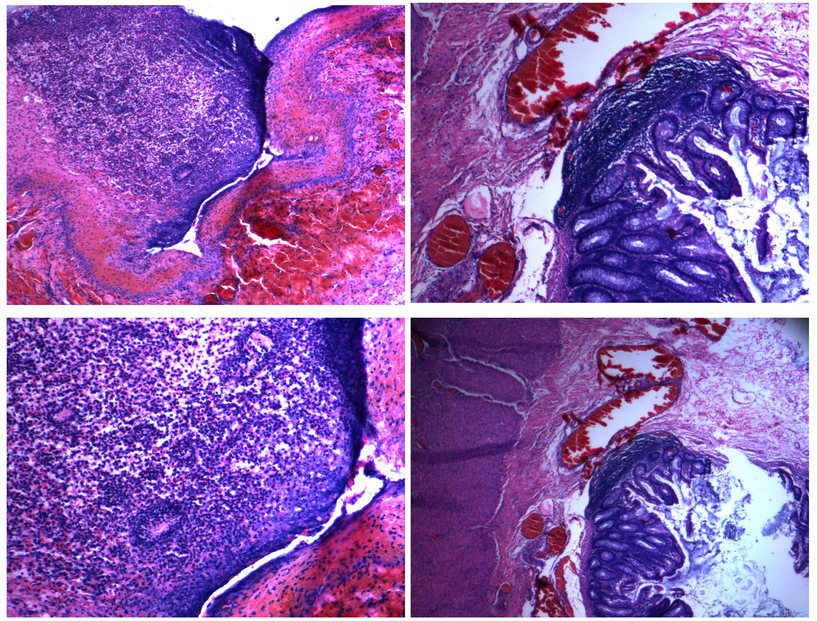
INTRODUCTION

Ocrelizumab is a humanized anti-CD20 monoclonal antibody that targets B lymphocytes and is an approved treatment for primary progressive multiple sclerosis. Besides the well-known adverse effects of infusion-related reactions and increased susceptibility to various infections, recent literature has shown cases of ocrelizumab-induced colitis with at least two requiring surgical intervention, to our knowledge at the time of his presentation[1]. Herein we discuss a case of colonic perforation shortly after starting ocrelizumab treatment in a 27-year-old man which has not been previously reported.

CASE SCENARIO

27-year-old man who presented to our facility with two days of progressively worsening lower abdominal pain after a few days of constipation and straining during bowel movements. He denies previous episodes of diarrhea, constipation, or similar symptoms. Denies any other associated symptoms. His history was only remarkable for a recent diagnosis of multiple sclerosis 3 months ago and being started on Ocrelizumab two months ago. Had a remote history of cocaine use prior to incarceration but was a non-smoker. Family history was unremarkable.

On exam he was soft but distended with diffuse tenderness, worse in lower abdomen. Febrile to 39.5 with tachycardia ranging 100-130s. Pertinent labs of leukocytosis of 18.4. Imaging showed moderate amount of pneumoperitoneum with a thickened rectosigmoid colon and thickened small bowel in the right lower quadrant concerning for “enteritis”.



Microscopic examination of colonic tissue showed significant inflammatory changes consistent with colitis along with surface epithelial injury suggesting direct mucosal damage due to inflammation. Inflammatory infiltration extending to submucosa of wall suggestive of a chronic component to the acute inflammation. Tissue was also CD20 stain negative as seen in other ocrelizumab-induced colitis cases.

CASE SCENARIO CONT’D

He underwent emergency surgery, revealing a perforated rectosigmoid colon with inflammation. No masses or heavy stool burden were found in the colon. Given the inflammation, a sigmoidectomy with the creation of an end colostomy was performed.

Pathology of the specimen showed inflammation with ischemic changes and ulceration consistent with medication-induced colitis; it was negative for CD20 – which has been commonality amongst cases of ocrelizumab-induced colitis.

CONCLUSION

Ocrelizumab-induced colonic perforation has never been reported but it is a serious complication that should be in the differential of a patient on a biologic coming in with diffuse abdominal pain. More research is needed to elucidate the mechanisms underlying this severe adverse effect and identify potential risk factors.

REFERENCES

Malloy R, Fernandes R, Begun J, An YK. Refractory fulminant colitis following ocrelizumab therapy requiring colectomy in patient with multiple sclerosis. *BMJ Case Reports* 2022; 15:e252140. doi:10.1136/bcr-2022-252140