

A Rare Case of BRAF/MEK Inhibitor-Induced Colitis

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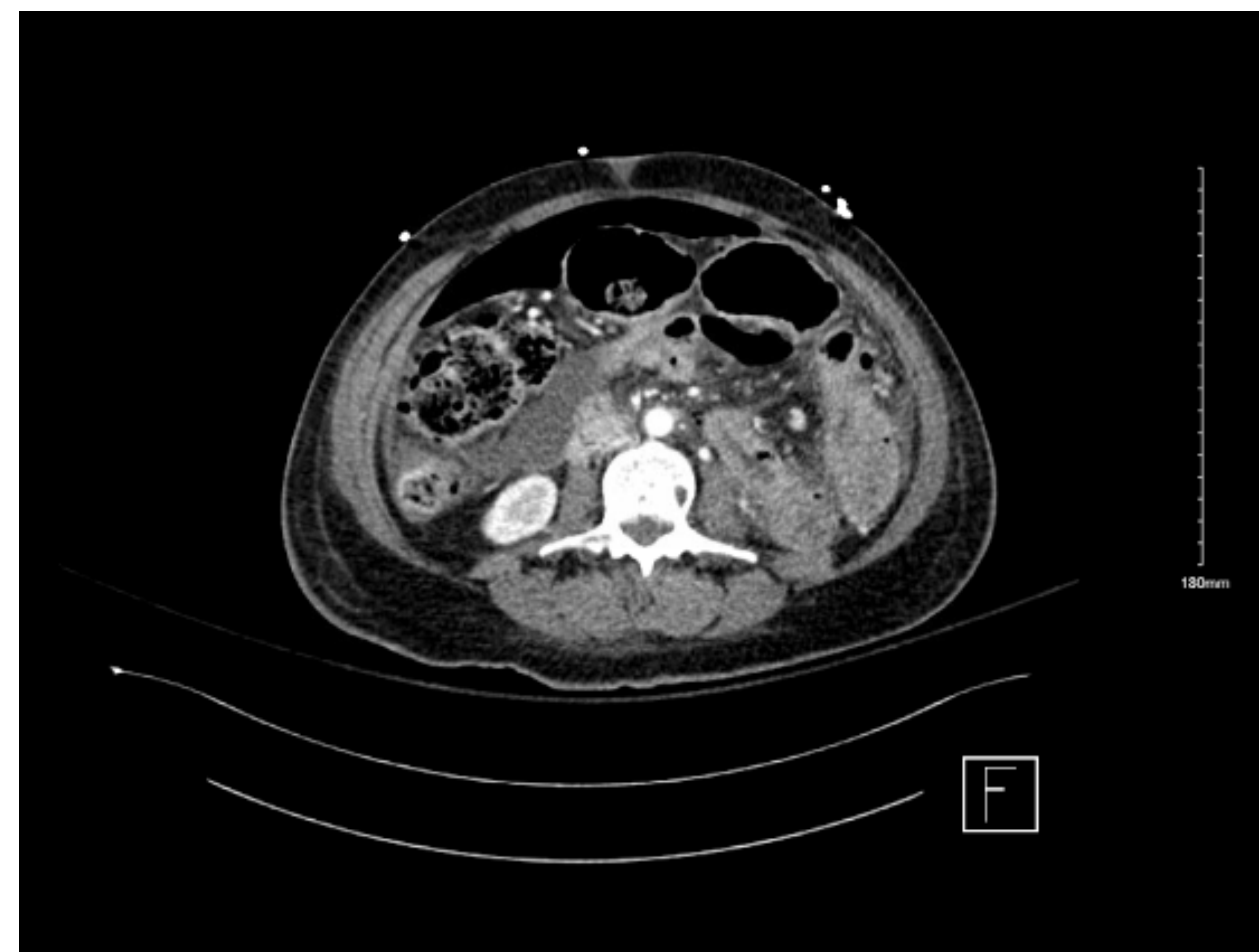
Background

- Checkpoint inhibitors (PD-1, PD-L1, CTLA-4) are common first line treatments for metastatic melanoma.
- They are increasingly recognized to cause GI toxicities.
- In some patients, BRAF/MEK inhibitors (encorafenib/binimetinib) can be second line agents.
- These second line agents may be an under-recognized cause of colitis.

Case Introduction

- 59-year-old woman with BRAF V600E-mutated metastatic melanoma.
- Treated with ipilimumab and nivolumab but developed CTC grade I diarrhea. Therapy stopped after 1 cycle.
- Spontaneous colonic perforation 1 month later.
- Subsequently treated with encorafenib and binimetinib.
- After 9 months, had dark stool and symptomatic anemia to 5.6
- Subsequent EGD and colonoscopy with results as shown.

Radiology

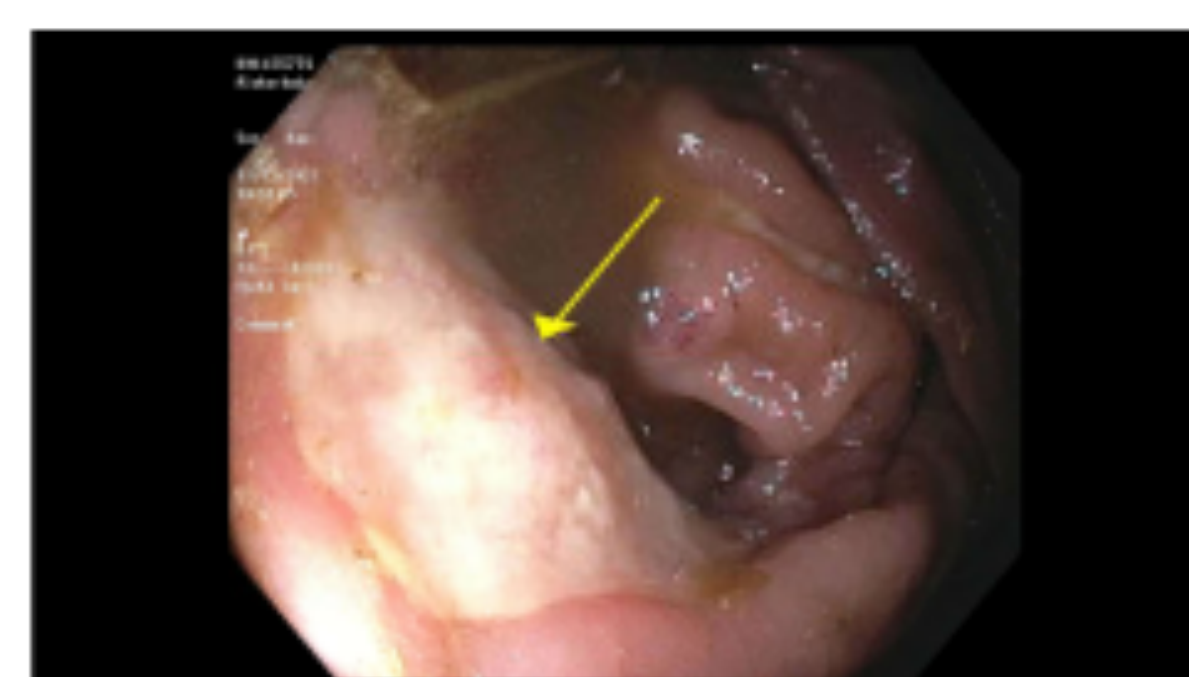


Extensive pneumoperitoneum with ascites, left sided enteritis and colitis. Consistent with perforated left hemicolon.

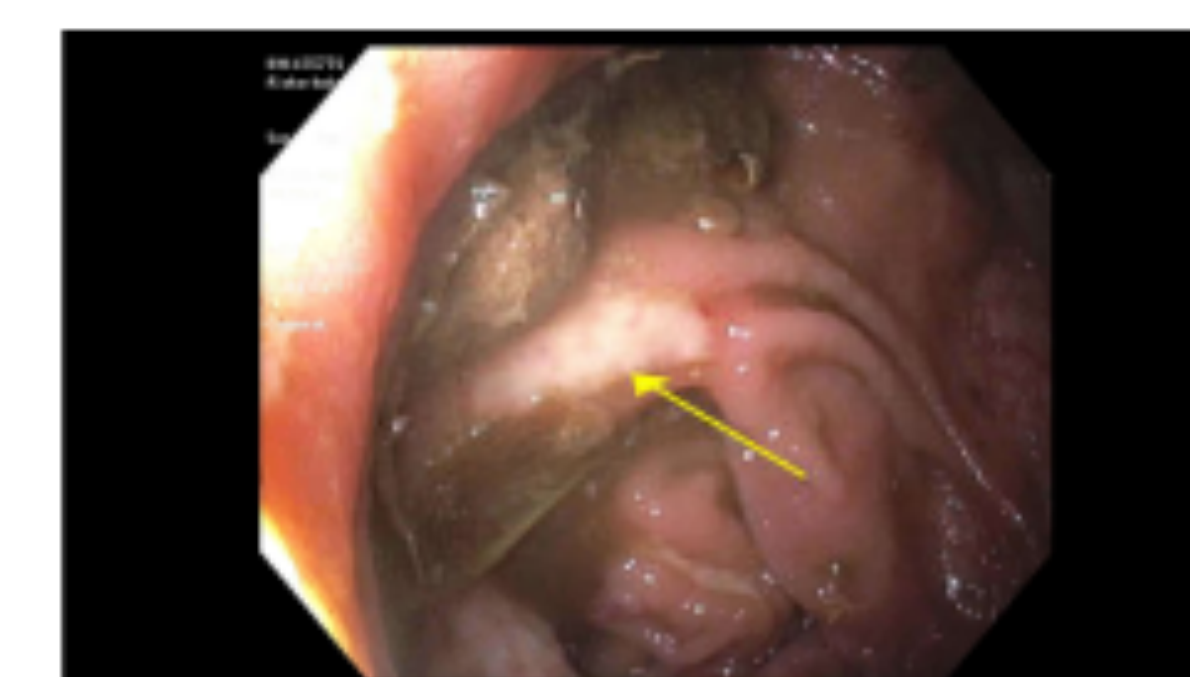
Endoscopy



1 Colorectal Anastomosis



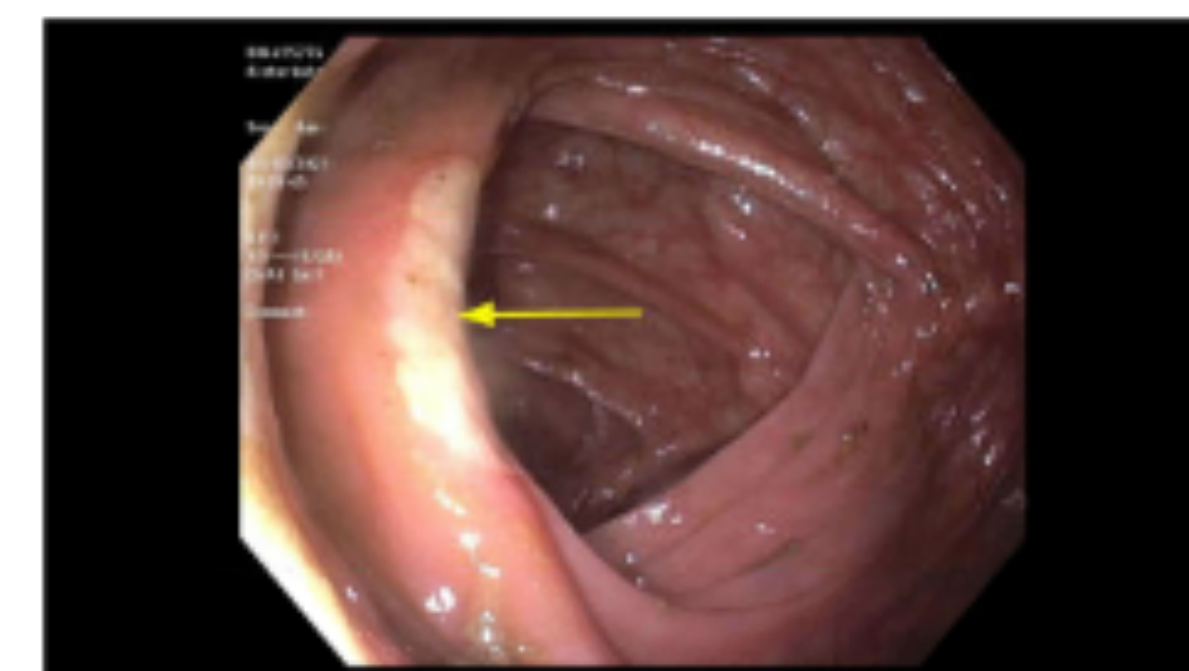
3 Cecum



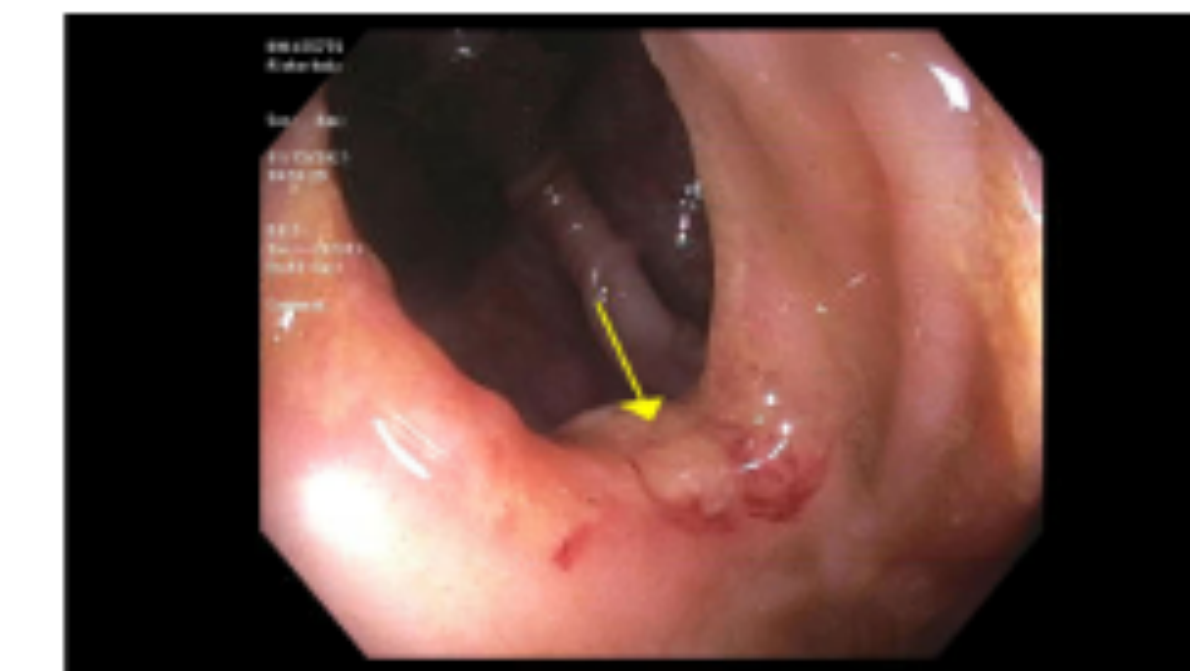
4 Cecum



5 Cecum



7 Ascending Colon



10 Colorectal Anastomosis

Patent surgical anastomosis with friable mucosa. Mucosal ulceration in the cecum and ascending colon.

Discussion

- Given stable bony metastasis and improved liver metastasis, further therapy was withheld.
- At 4 month follow up, anemia had resolved, and her disease burden remained stable.
- Improved anemia with cessation of BRAF/MEK inhibitors, with no other potential source of colitis identified.
- The development and treatment of colitis related to BRAF/MEK inhibitors is not as well understood as checkpoint inhibitor induced colitis.
- Given the risk of severe adverse events, it is important to recognize BRAF/MEK inhibitors as another potential cause of clinically significant colitis.

References

- Bellaguarda, Emanuelle, and Stephen Hanauer. "Checkpoint inhibitor-induced colitis." *Official journal of the American College of Gastroenterology | ACG* 115.2 (2020): 202-210.
- Issac, Aaron G., et al. "Severe Inflammatory Colitis Related to Encorafenib and Binimetinib following Immune Checkpoint Inhibitor Therapy." *Case reports in gastroenterology* 16 (2022): 388-393.
- Mourad, Nadim, et al. "Severe gastrointestinal toxicity of MEK inhibitors." *Melanoma Research* 29.5 (2019): 556-559.



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