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Unusual Causes of Abdominal Pain

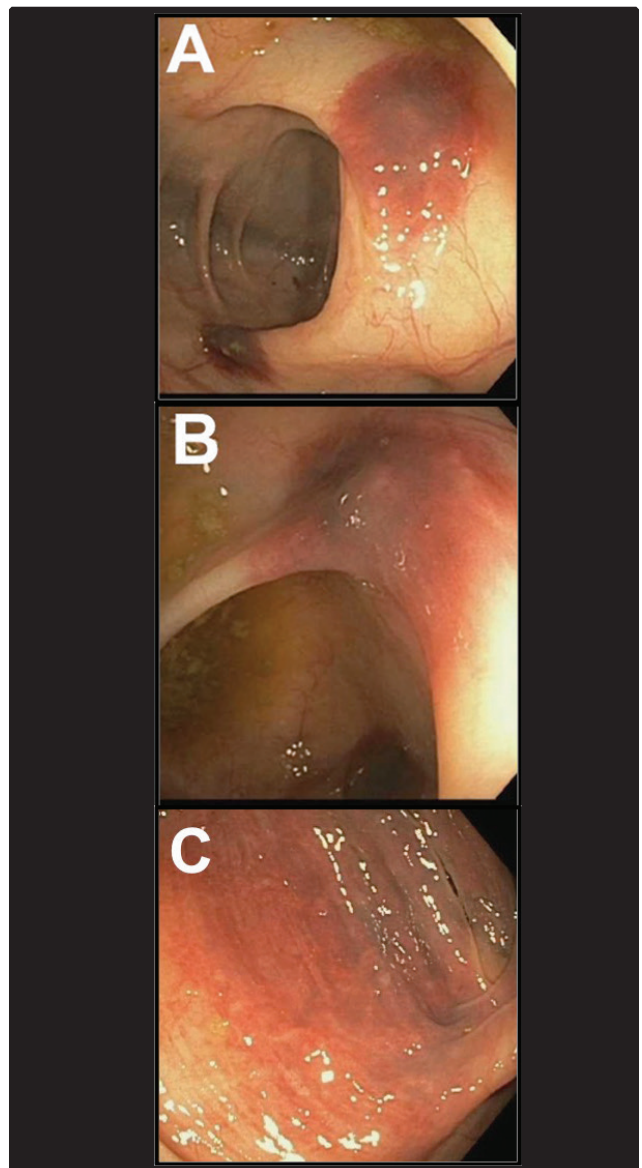
by Malorie Simons, Sean Fine

CASE

An 89 year-old woman with a past medical history significant for a recent unprovoked deep vein thrombosis (DVT) started on Xarelto (Rivaroxaban), presented with worsening abdominal discomfort and generalized weakness. Physical exam was notable for conjunctival pallor, severe dyspnea on exertion and right lower extremity swelling without pain or erythema. Her abdomen was tender to palpation in the right upper quadrant. Laboratory data revealed anemia with a hemoglobin of 8.4 g/dl (normal 11-15/ dl), platelets 268 k/cmm (150-400k/cmm), transferrin saturation 6% (normal 15-50%), iron level 22ug/dl (normal 37-170) ug/dl, ferritin 13 ng/dl (normal 10-120 ng/dl). Fecal occult blood test was positive. Endoscopy was unremarkable for any source of anemia. Colonoscopy uncovered multiple areas of prominent intramural mucosal hematomas along the transverse and ascending colon (Figure A, B, C).

No interventions were performed on the colonic hematomas. The patient's remote history of a DVT prompted concern for a possible hyper or hypocoagulable state, but further workup which included a CT scan of the abdomen and pelvis did not demonstrate any malignancy or possible alternative explanation for the colonoscopy findings. Xarelto was stopped and the patient was bridged to warfarin to continue treatment for her recent DVT. One month after discharge, she was seen in the outpatient gastroenterology clinic. She was asymptomatic and her hemoglobin normalized.

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ANSWER AND DISCUSSION

Colonic intramural hematomas are a rare complication of anticoagulation therapy. Most intramural hematomas associated with anticoagulation therapy occur in the small intestine causing pain, bleeding, anemia and at times, bowel obstruction. The literature associating Novel Oral Anticoagulants (NOACs) with colonic intramural hematomas is scarce. Kwon et al. (2014) reviewed 32 case reports of colonic hematomas, 8 of which were anticoagulant induced, with warfarin being the most common culprit.¹

NOACs are gaining more popularity due to ease of use and fewer monitoring requirements. Most studies thus far have compared NOACs to warfarin, but not to each other. The ROCKET AF trial investigated the use of Rivaroxaban in stroke prevention in patients with atrial fibrillation. One noted side effect was a higher incidence of major gastrointestinal bleeding when compared to patients in the warfarin cohort.² In the ARISTOTLE trial, Apixaban was shown to not only be more effective than warfarin at preventing stroke, but

also safer in terms of major gastrointestinal bleeding.³ From these studies, it appears that Apixaban may provide an optimistic alternative for anticoagulation with the most favorable GI side effect profile; however, further studies comparing NOACs to one another will need to be performed.

For our patient, we suspect that Rivaroxaban led to the colonic hematomas that were ultimately responsible for the GI blood loss and abdominal discomfort. Although most anticoagulant associated intramural hematomas of the GI tract are linked to warfarin, and most often occur in the small intestine, this case reminds us that intramural colonic hematomas are a real entity in the setting of NOACs as well. ■

References

1. Kwon, K, Cheung, DY, Seo Y, et al. Supportive Management Resolved a Colonic Intramural Hematoma in an Anticoagulant User. *Intern med* 2014; 53: 1505-1509.
2. Patel MR, Mahaffey KW, Garg J, et al. Rivaroxaban versus warfarin in nonvalvular atrial fibrillation. *N Engl J Med* 2011; 365: 883-891
3. Granger CB, Alexander JH, McMurray JJ, et al. Apixaban versus warfarin in patients with atrial fibrillation. *N Engl J Med* 2011; 365: 981-992

UNUSUAL CAUSES OF ABDOMINAL PAIN

We solicit our readers to submit interesting and unusual cases of abdominal pain for consideration for publication. The case should be well documented, include images (if possible), at least one reference and no more than two authors.

Send your manuscript to
Dr. George Meyer at:
geowmeyer@gmail.com

Answers to this month's crossword puzzle:

1	B	I	O	M	A	R	K	E	R	S		6	B	R	A	8		
	I		S		R		E		A		9	C		E		A		
10	O	S	M	I	C		11	T	A	D		12	I	T	C	H	Y	
	P		O		H		O		I			C		T				
13	S	O	S	O		14	A	S	P	A	R	A	G	I	N	E		
	Y		I		15	C		I		T		T		T				
			16	S	P	O	T	S		17	E	H	R	L	I	C	18	H
19	F	E			L				20	G		I		S			Y	
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	B		I		R		25	P	R	E					26	C		R
27	R	E	L	I	E	V	E		28	A	29	D	E	N	O	M	A	
	O		U		C		P		K		R		C		T			
30	S	T	E	A	T	O	S	31	S		O		32	C	B	I		
	I		N		A		33	I	S		34	E	D	D	Y		O	
35	S	E	T		36	L	A	C	T	O	S	E		37	X	I	N	

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