

Colonic Varices as a Complication of Pancreatic Adenocarcinoma: A Case Report and Literature Review

Veeramachaneni H MD^{1,2*}, Abubaker Abdalla MD^{1,2*}, Kiara Smith MD^{1,3}, Sanskrithi Sharma MD^{3,4}, Vaishali Patel MD MHS^{1,2}
Emory University¹, Division of Digestive Disease², Division of General Internal Medicine³, Atlanta Medical Center⁴

*These authors contributed equally to this project

Background

- Colonic varices are a rare subtype of ectopic varices with unknown prevalence rates.
- They develop due to venous anomalies, portal hypertension (PH), splenic/portal vein (PV) thrombosis, & mesenteric vein obstruction.
- We present a rare case of isolated colonic varices related to pancreatic adenocarcinoma.

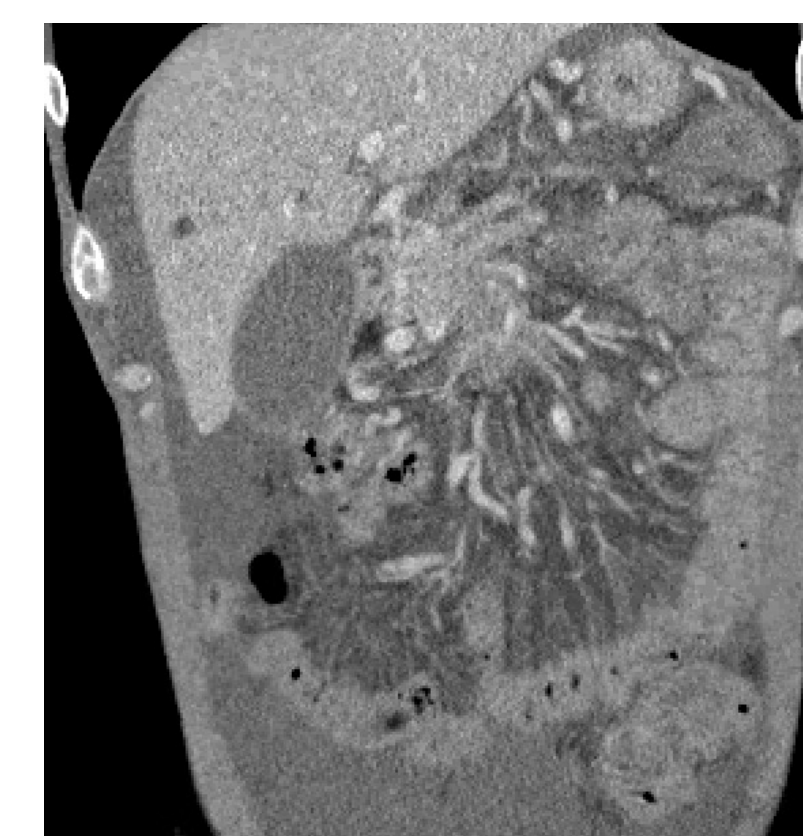
Case Description

- A 64-year-old male with pancreatic cancer presented with hematochezia.
- Hemoglobin dropped from 13 to 6 mg/dL.
- Endoscopic evaluation at an outside facility showed fresh blood in the colon and terminal ileum.
- Tagged RBC scan identified extravasation localizing to the right lower quadrant, concerning for bleeding from ileum.

Case Description

- Retrograde single balloon enteroscopy noted isolated ascending colon/hepatic flexure varices (likely the bleeding source) and normal distal and terminal ileum.
- A CT angiogram revealed a pancreatic mass encasing the celiac axis, superior mesenteric artery, and portal confluence with occlusion of the superior mesenteric vein (SMV) and extensive collateral vessels in the hepatic flexure/ascending colon.
- Interventional radiology and surgical oncology were consulted. Given extensive malignant involvement of vasculature, no interventions were possible. Patient was medically managed.

Figure 1. Axial (below) & coronal (right) images from CT angiogram



Discussion

- Pancreatic cancer is a cause of left sided portal hypertension through occlusion of either the splenic vein or a non-splenic vein branch of the PV. Isolated colonic varices secondary to pancreatic cancer are rarely described.
- CT and mesenteric angiography are the gold standard for diagnosis. Often, they are noted on colonoscopy for lower GI bleed evaluation, however, they can be missed due to flattening with insufflation or fresh or old blood precluding visualization.
- For stable cases, conservative management with laxatives and iron supplementation is reasonable. For SMV occlusion, stenting of the SMV can reduce PH.
- In active bleeding, embolization, transjugular intrahepatic portosystemic shunt (TIPS), sclerotherapy, cyanoacrylate injection, argon plasma coagulation (APC), or band ligation can be considered.
- In cases of significant bleeding, surgical consultation for laparoscopic ligation or colectomy may be indicated.

Conclusions

- Management of colonic varices due to pancreatic malignancy remains controversial and may require a multidisciplinary approach.

Table 1. Case Reports of Colonic Varices due to Pancreatic Cancer

Author/Year	Age	Gender	Presentation	Etiology	Location	Feeder	Treatment
Ho et al 2005	57	F	Incidental (diagnostic colonoscopy)	Uncinate/pancreatic head CA	HF	N/A	Conservative
Pinto-Pais et al 2014	71	F	Rectal bleeding	Pancreatic head CA	Surgical anastomosis	N/A	Vascular stenting of SMV
Murakami et al 2020	55	M	Rectal bleeding	Pancreatic CA stage III with invasion of SMV	AC	Branch of ileocolonic vein	Laparoscopic ligation
Kuwabara et al 2020	69	M	Melena	Pancreatic head CA s/p pancreatoduodenectomy with portal vein resection	TC	Splenic vein and IMV	Embolization of TC varices

M= male, F= female, CA= cancer, N/A= not applicable, IMV= inferior mesenteric vein, AC= ascending colon, HF= hepatic flexure, TC= transverse colon