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# Percutaneous Transhepatic Access With Liquid Sclerotherapy and Coil Embolization of Peristomal Varices

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## BACKGROUND

Peristomal varices are a rare cause of stomal bleeding that can lead to recurrent and potentially life threatening hemorrhage. Local therapeutic options include applied pressure, topical epinephrine, chemical cautery with silver-nitrate, injected sclerotherapy, and suture ligation. Medical therapy utilizes Beta blockade. Surgical interventions include stoma revision or transjugular intrahepatic portosystemic shunt. Few attempts to treat peristomal varices with embolization have been reported with varying degrees of success. We present a case of parastomal varices that were successfully treated with percutaneous transhepatic access with liquid sclerotherapy and coil embolization without complication.

A 72-year-old female who underwent diverting loop colostomy for colovesical fistula secondary to diverticulitis presented to an outside hospital with recurrent bleeding from her colostomy. She presented with a hemoglobin of 6.9 and required multiple transfusions. Past medical history included cirrhosis of unknown etiology. The patient had undergone multiple EGDs, colonoscopies, a nuclear bleeding scan, and capsule endoscopy at an outside hospital that had all failed to identify a source of bleeding. Cauterization of the colostomy was performed without cessation of the hemorrhage. The patient was transferred to our institution for further evaluation.

Upon admission, the patient was hemodynamically stable. On exam, the patient was found to have a blue halo around the stoma consistent with peristomal varices. No hemorrhage was noted in the proximal or distal ends of the colostomy, however focal bleeding was observed at the stomal edge. A colonoscopy was performed which demonstrated no additional sources of bleeding.



"Blue Halo" at stomal edges secondary to peristomal varices



Peristomal varices seen under fluoroscopy pre-embolization



Peristomal varices seen under fluoroscopy post-embolization

## METHODS/INTERVENTIONS

The patient underwent pre-operative optimization, including blood transfusions and diuresis for an exacerbation of congestive heart failure. An abdominal visceral venogram was performed via percutaneous transhepatic access, identifying a patent main, right, and left portal vein with extensive peristomal varices supplied by distal branches of the superior mesenteric vein. She subsequently underwent sclerotherapy with 3% Sodium Tetradecyl sulfate/ethiodol solution and coil embolization.

## RESULTS/OUTCOME

Post-operatively the patient's diet was advanced, hemoglobin was followed, and ostomy output was monitored. The patient was noted to have a stable hemoglobin with cessation of bleeding from the ostomy. The patient was discharged on post-operative day two. To our knowledge, the patient has not had any further episodes of bleeding >1 month later.

## CONCLUSION/DISCUSSION

The patient in this study was experiencing recurrent peristomal variceal bleeding that was refractory to cauterization. As the patient had failed previous conservative management, required multiple transfusions with packed red blood cells, and had cirrhosis of unknown etiology, based on limited previous success of sclerotherapy and embolization, it seemed appropriate that our patient may benefit from this procedure. Given our patient's underlying medical comorbidities (congestive heart failure, coronary artery disease, myelodysplastic syndrome, and atrial fibrillation), a more definitive surgical intervention that was less invasive than an ostomy revision was desired. Transjugular intrahepatic porto-systemic shunt was avoided due to increased incidence of encephalopathy, in whole, the patient tolerated the procedure without complication. Hemoperitoneum is the most common complication associated with the procedure, with other complications including bile leak, liver trauma, and portal thrombosis. Further follow up with patient is required to understand long-term risks and benefits of this procedure.