Stomal varices: An unusual cause of bleeding in patients with portal hypertension

**Key words:** Varices. Ileostomy. Transjugular intrahepatic porto-systemic shunt. Hemorrhage.

Dear Editor,

Ectopic varices in patients with portal hypertension are an unusual cause of bleeding and only represent up to 5% of all variceal hemorrhages (1,2). They are found outside the gastroesophageal area, mainly at the level of the duodenum, jejunum, ileum, colon, rectum and stomas (1,3). Stomal varices usually develop after colostomy or ileostomy. However, the least common type of stomal varices is the one related to uretero-ileostomy after radical cystectomy, which is the case of our study. In bleeding due to stomal varices, there is a case fatality rate of 3-4% (4,5) and high morbidity rate due to massive and relapsing bleeding episodes (5). Diagnosis and treatment of this type of stomal varices are a real challenge for clinicians. Therefore, it is necessary to take into account this type of consequence in any patient whose history shows portal hypertension and stomal bleeding.

Case report

A 54-year-old male is diagnosed with alcoholic liver cirrhosis, Child-Pugh class A6, with ultrasound signs of portal hypertension. Two years before, the patient had been diagnosed with a stage IV bladder urothelial carcinoma. A radical cystoprostatectomy, a bilateral iliac-obturator lymphadenectomy with a Bricker type urinary diversion and a six-month adjuvant chemotherapeutic treatment had been performed. For the following eight months, the patient suffered from bleeding relapses from the ileal conduit (ureteroileostomy) that were treated with a conservative treatment. In some cases, transfusions of red-cell concentrates were given and on several occasions sutures have been placed in the bleeding area of the stoma. On the day of hospital admission, the patient went to the Emergency Room with abundant bleeding from the ileal conduit in the last hours and showing signs of hypotension and tachycardia. The stoma was examined without locating any active bleeding point. The blood analysis revealed the following: Hemoglobin, 4.9 g/dL and platelet count 82,000/ mm³. Intensive fluid therapy and transfusions of three red-cell concentrates were administered, achieving hemodynamic stability and blood count improvement. A gastroscopy was performed but did not show esophageal varices. Abdominal and pelvic axial tomography (CT scan) with intravenous (IV) contrast showed collateral circulation, a patent paraumbilical vein and a dilated vein tributary of the superior mesenteric vein in the ileal conduit going out through the stoma on the skin (Fig. 1). Treatment with somatostatin and antibiotics was performed followed by a prophylactic treatment with propranolol. Given the recurrent stomal bleeding recorded in the medical history, a transjugular intrahe-
patic portosystemic shunt (TIPS) was performed. In a previous blood pressure study, the following pressures showed: Wedged hepatic venous pressure (WHVP) of 19 mmHg, free hepatic venous pressure of 7 mmHg and hepatic venous pressure gradient of 12 mmHg. Good results were recorded after the procedure. The patient did not show signs of bleeding from the ileal conduit.

Discussion

Although stomal varices are a rare complication, they can cause recurrent bleeding after colostomy or ileostomy in patients with portal hypertension, leading to fatal outcome if not diagnosed and treated early. In 1968, Resnik described stomal varices for the first time but it was not until 1975 when Foulkes and Wallace identified this type of varix in patients with ureterointer- ileostomy (6). In many cases, it is difficult to diagnose, especially when there is no evidence of active source of bleeding on the surface of the stoma. Ultrasonography, angio-CT scan, magnetic resonance angiography or endoscopic techniques (2,7) give some information about the source of bleeding when located deeper, describe the distribution of veins and collateral veins at the intra-abdominal level, and rules out other causes of bleeding in the stoma. In this case, the CT scan with contrast showed the location of the stomal varix causing stomal bleeding, as well as the vein from which the ectopic varix originated.

Therapeutic measures, such as the application of pressure or the suture ligation of a bleeding point, are effective only temporarily as recurrent bleeding happen in up to 74% of the cases (4). Nowadays, the most optimal treatment has not been found yet due to the fact that there are very few cases with this pathology and most of the studies are reviews or series of cases with very few patients. Among invasive treatment options, percutaneous sclerotherapy, liver transplant, TIPS and embolization combined or not with TIPS can be performed (3,4,7,8). Among these possibilities, in several studies, TIPS proves to be effective in patients who do not respond to conservative treatment (3,8,9), as the procedure treats the underlying problem of a high portal venous pressure (8,10). However, this technique is not exempt from complications such as hepatic encephalopathy (10). In the case of our patient, a TIPS was performed as there were no contrain-

dications for him. Since then, the patient did not present stomal bleeding or delayed complications associated with the procedure.

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References