

Various individually tailored endoscopic treatment modalities have been described for bleeding colorectal varices. We describe a case of a 65-year-old man, in whom argon plasma coagulation

successfully eradicated ectopic varices at the ileocolonic anastomosis; bleeding could be stopped.

Introduction

The development of ectopic varices due to portal hypertension [1], post-surgical changes [2–6], and tumor metastasis [7] has been described. We report a case of ileocolonic anastomotic varices from a combination of surgical changes and retroperitoneal metastasis. On account of the location of the varices, we used a novel method of treatment, i. e. argon plasma coagulation (APC), with excellent results.

Case Report

A 65-year-old man was evaluated for lower gastrointestinal bleeding. He had been diagnosed with adenocarcinoma of the colon in 1994 and had undergone right hemicolectomy and adjuvant chemotherapy. In July 2000 a 4.0 × 2.5 cm retroperitoneal mass was discovered. Histopathological findings were consistent with metastatic colon carcinoma.

Later that month the patient presented with a hemodynamically significant lower gastrointestinal bleed. An endoscopist used electrocautery to treat a “bleeding vessel” at the ileocolonic surgical anastomosis, resulting in hemostasis.

Over the next several weeks the patient experienced several episodes of recurrent lower gastrointestinal bleeding requiring transfusion. The patient was referred for further endoscopic management. Repeat colonoscopy demonstrated varices at the ileocolonic surgical anastomosis (Figure 1). The varices had red wale signs, but were never witnessed to be actively bleeding.

The varices were attributed to localized splanchnic hypertension from the retroperitoneal mass, likely aggravated by postoperative changes. Since this was a local phenomenon, systemic treatments with somatostatin analogs, nonspecific beta-blockers, and nitrates were rejected. Surgical resection and portosystemic shunting were felt to be high risk procedures because of the multiple previous surgeries and the patient’s overall poor functional status. Additionally, the patient desired to avoid surgery, except as a last resort. Band ligation of the varices was not possible as the lesion was located beyond the reach of an upper endoscope. It was feared that sclerotherapy carried too great a risk of necrosis and perforation. Thus, APC was attempted in order to eradicate the varices.

Over an 8-week period, the patient received four APC applications to the anastomotic varices. Thermal energy was applied directly to the vascular lesions. At the first session, only the varices

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Bibliography

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Figure 1 Ileocolonic anastomosis with varices, before treatment

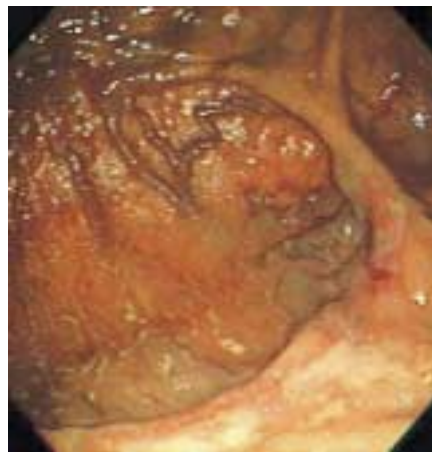


Figure 3 Anastomosis with residual varices, 9 days following initial treatment with argon plasma coagulation (APC)

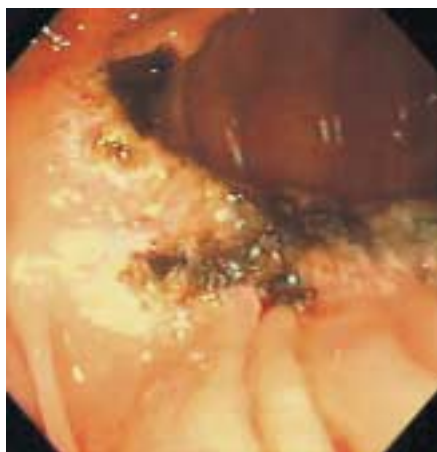


Figure 2 Varices immediately following treatment



Figure 4 Ileocolonic anastomosis 2 weeks after the final APC treatment

with stigmata of recent hemorrhage were treated (Figures 1 and 2). Subsequent endoscopies showed progressive obliteration of the ectopic varices with excellent scar formation (Figure 3). The patient had a single episode of hemodynamically insignificant lower gastrointestinal bleeding 7 days after the first treatment session, and 2 days after the bleeding episode the patient had his second APC treatment. He had no further bleeding, and only small ectatic vessels remain at the surgical anastomosis (Figure 4). There were no complications.

Discussion

A variety of therapies for ectopic varices have been described. Surgical approaches such as portosystemic shunt [1,8,9] or resection [10] are the preferred methods of management. Methods of vascular recanalization with vascular stenting [11] and transjugular intrahepatic portosystemic shunt (TIPS) [12] have been described. Reports of endoscopic therapy using cyanoacrylate injection [13] and injection sclerotherapy [14] are also available.

APC is a thermal method of transmitting energy to target tissue through ionised argon gas. The noncontact approach minimizes manipulation and mechanical trauma to the target tissue. The avoidance of tissue contact also allows the endoscopist to treat a broad surface very quickly.

APC is already in widespread use for human gastrointestinal disease. The three most common uses are for Barrett's esophagus [15–19], gastric antral vascular ectasia [20,21], and arteriovenous malformations [22,23]. APC is also used to palliate various gastrointestinal tumors [24].

APC was chosen in the present case for a variety of reasons. On account of the patient's poor overall health, surgical resection was felt to carry too great a risk of morbidity and mortality. Injection sclerotherapy was rejected due to fears of necrosis and perforation. Band ligation was considered; however, the lesion could not be reached with available equipment (Witte's method [25] had not yet been published). Cyanoacrylate injection is not approved in the USA. Since the process was localized and not caused by portal hypertension, surgical portosystemic shunt and TIPS were not considered. Medical therapy, by nature, is systemic and was also rejected.

The key advantage of APC is the control of depth of thermal injury. With this in mind, we elected to use APC to treat this patient. We considered that the thermal injury would cause endothelial injury and subsequent sclerosis of the treated varices. We also considered that the perforation risk would be low, as would the risk of early and late bleeding given the localized nature of the injury.

It is too early to recommend APC as a treatment for splanchnic varices outside of a controlled research setting, unless no other options are available. Questions which remain to be answered include the duration of the effect, the area which can be treated in a single setting, and possible long-term consequences. Early reports of this method for the treatment of esophageal varices are promising [26], but large randomised trials are lacking.

The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States Government.

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