

Laparotomy and Jejunal Arterial Access for Retrograde Superior Mesenteric Artery Stenting as a Bailout Option After Failed Percutaneous Approach

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Dear Editor,

Herein, we want to report our experience with the technique of open retrograde superior mesenteric artery (SMA) stenting as a bailout option after a failed percutaneous approach. A 72-year-old male presented with mesenteric angina and weight loss. The clinical suspicion of chronic mesenteric ischemia (CMI) was confirmed by CT angiography which showed occlusion of all three splanchnic arteries and a heavily atherosclerotic aorta. Initially, an attempt was made of antegrade SMA stenting via the left axillary approach, but this proved unsuccessful. The patient was discharged and rescheduled for a repeat attempt at a later date. In the meantime, 3 weeks later, he was readmitted to another hospital with a clinical picture of acute abdomen. Laparotomy found a small bowel perforation and resection, and bowel anastomosis was performed without adjunctive revascularization. Despite the successful healing of the anastomosis, he continued to suffer from mesenteric angina and further weight loss over the next few weeks. As a result, he was referred back to our vascular unit and a further attempt at elective revascularization was made. Under general anesthesia and laparotomy, a jejunal arterial branch was dissected, controlled with silastic slings and catheterized under direct vision, a 5F-11-mm sheath was inserted, and, with the aid of a catheter, a 0.035" guide wire was passed beyond the occlusion in the thoracic aorta (Fig. 1). The occluded SMA segment was pre-dilated with

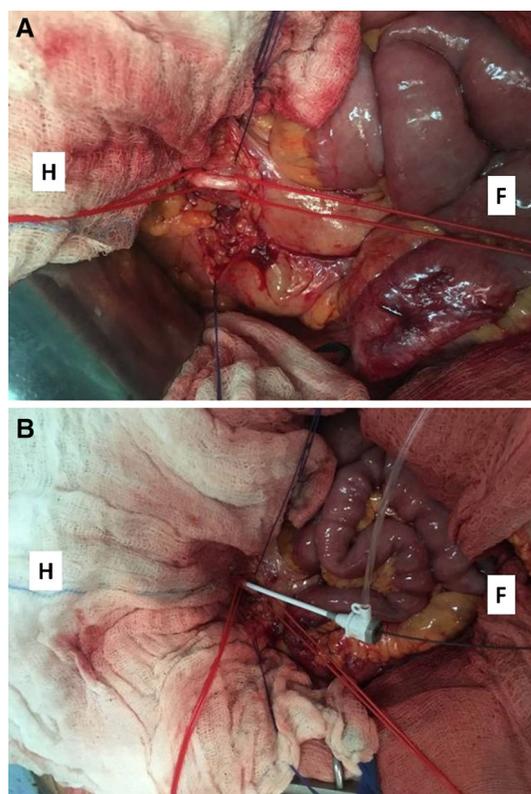


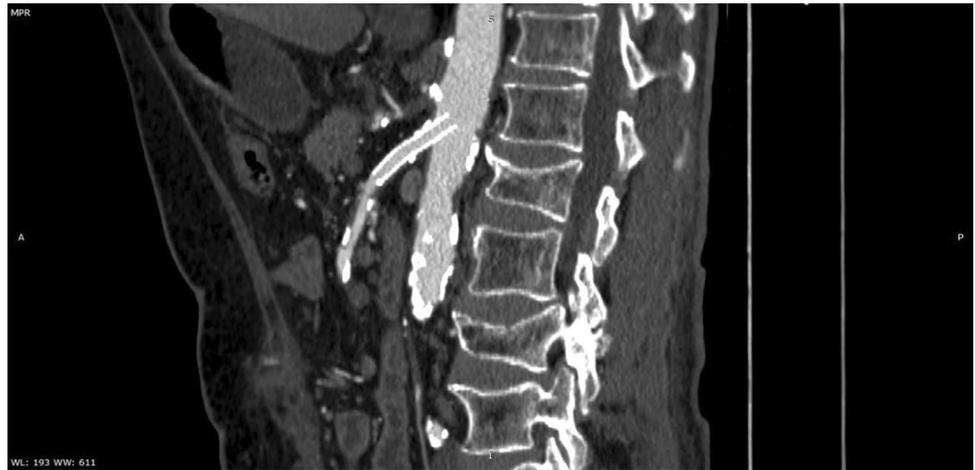
Fig. 1 Intra-operative photographs during laparotomy. A jejunal arterial branch was dissected in the small bowel mesentery and controlled with silastic loops (A). This was catheterized and a 5F-11-mm sheath was inserted (B). H: head; F: feet

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a 5 mm × 10 mm angioplasty balloon, the sheath was exchanged to a 6F-11 cm, and a 6 mm × 60 mm self-expanding stent (Protégé, EV3) was inserted and deployed. Post-dilation was made with a 6-mm angioplasty balloon, and completion angiogram showed a satisfactory

Fig. 2 CT angiography at 1 month post-procedure shows satisfactory patency of the SMA and the stent



angiographic result. The sheath was removed, and arterial repair was achieved using two single interrupted 6/0 Prolene stitches. He made a smooth and uneventful recovery. First-month CT angiography showed good patency of the SMA (Fig. 2). Six months down the line, he remains asymptomatic and regained his initial weight. Laparotomy and open retrograde SMA stenting could serve as a bailout option to revascularize CMI patients with flush mesenteric occlusions after a failed percutaneous approach [1–3]. The technique could be also employed as an expeditious option to revascularize patients with acute (on chronic) mesenteric ischemia who have peritoneal contamination and no other good source of inflow to the mesenteric arteries [1].

Compliance with Ethical Standards

Conflict of interest There was no funding for this work. The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the Declaration of Helsinki 1964 and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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