Arteriovenous fistula of the external iliac vessels: a rare cause of massive lower gastrointestinal bleeding

P. Froment, S. Martin, M. Menth, J.-M. Michel, H.M. Hoogewoud and B. Egger
Department of Surgery, and Department of Radiology, Canatonal Hospital of Fribourg, CH-1708 Fribourg

INTRODUCTION

Acute lower gastrointestinal bleeding may be a diagnostic challenge for physicians and surgeons. Esophagogastroduodenoscopy, colonoscopy and angiography are established tools to localize the bleeding source. We report herein the case of a patient with three episodes of massive rectal bleeding due to an arteriovenous fistula of the external iliac vessels which was managed successfully by angiography with embolization and stenting.

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METHODS

A 70-year old man underwent a cystoprostatectomy with pelvic lymphadenectomy and ureterostomy according to Bricker for a urinary bladder carcinoma (pT4N1MxG3). Twenty-eight days later he was operated because of an ileus. Adhesiolysis, partial small bowel resection and a split jejuno-ileostomy were performed. Sixty days after the initial intervention the patient was readmitted due to a massive lower gastrointestinal bleeding.

RESULTS

Emergency ileoscopy and colonoscopy revealed no source of bleeding. After a second episode of rectal bleeding some hours later, selective angiography of the three visceral arteries was performed but the bleeding source was still not localized. After the third episode of massive rectal bleeding with shock, repeated emergency angiography of the aorta demonstrated a fistula between the left external iliac artery and vein (image 1). Hemostasis was finally achieved via embolization of the left internal iliac artery and stenting of the left external iliac artery at the site of the fistula (image 2). The further follow-up was uneventful; however the patient died five months later because of systemic tumour progression.

DISCUSSION

Frequent causes of lower gastrointestinal bleeding are colonic diverticula, angiodysplasias, tumours, inflammatory bowel diseases and haemorrhoids (1). Rarely arterial aneurysms may rupture into the bowel with massive hemorrhage (2, 3). Arterial aneurysms may also rupture in veins creating an arteriovenous fistula. In the splanchnic territory these fistulas may produce a portal hypertension with bleeding from esophageal, duodenal or jejunal varices (4-6). Surgery, as in this case, or trauma are other known factors for arteriovenous fistulas (7, 8). Extra splanchnic fistulas are more prone to systemic effects as cardiac or renal failure. In this case rectal bleeding may be explained by a local hypertension in the perirectal vein plexus. To our knowledge no such a case has been reported in the literature up to date. Both, endovascular procedures and surgery are efficient treatments.

CONCLUSION

After extensive pelvic tumour surgery arteriovenous fistulas may occur and lead to local venous hypertension with concomitant lower gastrointestinal bleeding. Such bleeding sources may only be detected by nonselective angiography.

REFERENCES


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