SHORT REPORT

Malignant Arterio-enteric Fistulae: Endovascular Treatment by Covered Stent-graft

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Surgery is less attractive in arterio-enteric fistulae secondary to advanced malignancy. We describe stent-grafting as a safer alternative than iliac ligation and extra anatomical bypass in a case of a life threatening bleed from an ilio-enteric fistula secondary to advanced pelvic malignancy.

Keywords: Stent-graft; Ilioenteric fistula; Gastrointestinal bleeding.

Introduction

Fistulae between the arterial system and the gastrointestinal tract are rare but can give rise to life-threatening haemorrhage.1 In a case of ilio-enteric fistula secondary to advanced pelvic malignancy the option of surgery is reduced by the presence of malignant disease. In such a situation stent-grafting could be considered a safer option than iliac ligation and extra anatomical bypass.

We present a case of a malignant fistula in which bleeding from an external iliac artery was diagnosed and controlled by interventional angiography.

Case Report

A 55-year-old woman presented having collapsed at home with massive bleeding from her loop colostomy. The patient was known to have advanced recurrent carcinoma of the cervix. The patient had previously presented 7 months ago with colonic obstruction, which was treated with a defunctioning sigmoid loop colostomy. An MR scan (Fig. 1) at that time had demonstrated a left pelvic side wall mass, consistent with recurrent carcinoma.

On presentation the patient was haemodynamically compromised and there was profuse bleeding from the colostomy. A diagnostic angiogram demonstrated rapid extravasation from a defect in the left external iliac artery into a distal loop of colon (Fig. 2). Following demonstration of the fistula an angioplasty balloon was inflated across the leak to obtain a tamponade. This was seen to slow the haemorrhage from the stoma and allowed cardiovascular stabilisation of the patient. A Jo-stent (Jomed, Helsingborg, Sweden) was positioned across the ilio-enteric fistula and dilated, subsequent angiography showed exclusion of the fistula (Fig. 3). The patient's condition immediately stabilised and the patient was discharged home 5 days later on long term prophylactic antibiotics. At review in the vascular outpatient clinic 8 weeks later the patient described symptoms of claudication in the left leg. A duplex ultrasound scan showed occlusion of the stent-graft. This was managed conservatively, and at the last review 5 months after the procedure the patient remained well with no signs of graft infection or episodes of further bleeding.

Discussion

Several authors have documented good immediate results for stent-grafts used in the treatment of...
arterioenteric fistulae. This endovascular technique successfully excluded the fistula from the circulation and stabilized the patient. However, the stent-graft did not remain patent and occluded shortly after deployment. We accept that this is an undesirable outcome, but argue that graft occlusions are not uncommon with surgical grafts used in extra-anatomical bypass. Furthermore, we feel that surgery was not an option in presence of advanced pelvic malignancy, an extremely unstable patient and a life expectancy of less than 1 year. There are reports of high rates of serious graft infection with the use of stent-grafts in arterioenteric fistulae, Burks et al., in a review of six cases of aortoenteric fistula treated by stent-grafting reported a 50% serious infection rate. Despite this, in our case no clinical signs of graft infection have been observed since deployment and the patient will remain on life-long antibiotics. In view of the patient being deemed surgically unfit, if graft infection developed the patient would continue on antibiotic therapy.

Endovascular stent-graft insertion for malignant ilio-enteric fistulae is a valuable alternative to surgery. However, caution must be taken when considering this technique as graft infections and occlusions may have serious implications to the patient.

References


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