

the presence of anticoagulants [1]. Bleeding from the upper urinary tract (e.g. after renal surgery, renal tumours, arterio-ureteral fistulae) and prostatic or bladder surgery also can cause massive haematuria. These patients may develop urinary retention due to bladder clots and can be in extreme discomfort. The pain due to inability to pass urine becomes the main problem as blood loss can be treated with blood transfusions. Evacuation of these bladder clots pose a problem, and bladder irrigation with a three way catheter is the procedure of choice to overcome the problem [1]. However in cases of prolonged bleeding, clots become organised and hard, and irrigation combined with aspiration of clots with a bladder syringe may fail to dislodge such clots. Evacuation of such organised clots becomes difficult even under anaesthesia using standard bladder evacuators and resectoscope loops. There are instances where open vesicotomy has been done to evacuate such clots. There is morbidity associated with such open surgery. Furthermore such open procedures are contraindicated in cases of bladder malignancy due to the possibility of implantation of tumour

tissue. These patients develop haematuria and blood clots repeatedly as the underlying cause cannot be corrected on a permanent basis, hence an endoscopic procedure will be much better than an open procedure.

We have tried this new technique in several patients with success and without any unwanted side effects. However, applying extreme suction may cause inversion and damage to the bladder wall and should be avoided. We hope this new technique would be of use in the management of cases with organised blood clots in the bladder which are resistant to the standard methods of clot evacuation.

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IMAGES IN SURGERY

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Case:

A 45 year old female presented with profuse malaena and haemodynamic instability. Gastroduodenoscopy revealed clots in the third part of the duodenum with no localisation of the bleed. An MD-CT abdomen revealed minimal intraluminal contrast extravasation in the proximal jejunum with an intramural hematoma. A conventional angiogram surprisingly revealed a globular lesion in the proximal jejunum with extensive blush (Figure 1). Percutaneous transfemoral angioembolisation of the feeding vessel (first jejunal branch of SMA) was done to control the bleeding. Despite these efforts, haemodynamic instability persisted and she underwent a laparotomy which revealed a highly vascular proximal jejunal mass (Figure 2), which was excised and a jejuno-jejunal anastomosis was fashioned. Immunostaining of the excised mass was strongly positive for CD117 and DOG1.

1. What is the diagnosis?
2. What is the management of this disease?

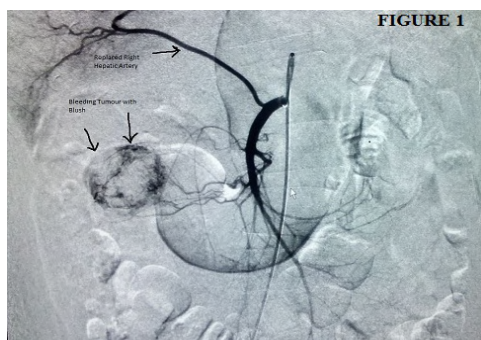


Figure 1

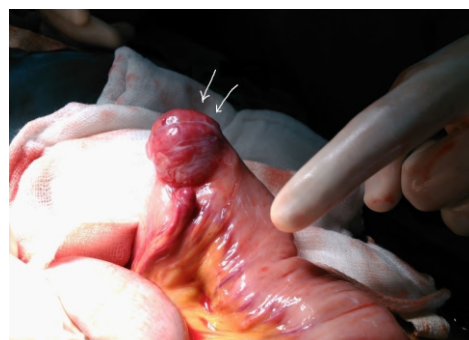


Figure 2

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Key Points:

- It is important for physicians to keep in mind a foreign body perforation in patients with unexplained abdominal symptoms.
- Fish bone perforation sites will heal spontaneously without the development of features of peritonitis.
- Although rare, foreign body perforations may mimic acute appendicitis

Answers to images in surgery (from page 27)

1. This is a case of a bleeding jejunal gastro-intestinal stromal tumour (GIST). Tumours and vascular ectasias are a common cause of obscure bleeding in the small bowel in middle aged and elderly patients. Though rare, a GIST should be considered in these scenarios owing to their high vascularity and higher propensity to bleed as compared to other tumours. Immunohistochemically, these tumours usually stain positive for DOG1 and CD117.
2. MDCT Angiogram is the next investigation of choice in patients in whom a gastroduodenoscopy fails to localise the source of bleeding [4]. However, an MDCT angiogram may also miss the cause in cases of small bleeding GISTs. In this case the findings may only be some intraluminal hyperdensities or clots, as identified by gastroduodenoscopy.

A conventional angiogram, though in selected cases only, can be offered in cases of concealed intermittent bleeding of unidentifiable causes with the intent of angio-embolisation in the same sitting. Nevertheless, angio-embolisation carries its own complications such as bowel gangrene and a high chance of re-bleeding as these tumours are highly vascular. Hence surgical excision remains the mainstay of treatment in almost all GISTs.

References

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