Mesenteric ischaemia and peptic ulcers

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DISCUSSION

Chronic mesenteric ischaemia is an uncommon clinical condition characterized by postprandial pain, which sometimes becomes constant and radiates to the back, fear of eating and progressive weight loss. Atheromatous embolization may occur resulting in multiple superficial gastric mucosal erosions, haemorrhagic gastritis, gastric infarction and typical gastric and duodenal ulcers (Taylor et al, 1964; Anderson et al, 1967).

These ulcers are often multiple and shallow. They have sloping edges, are irregular and have hard and fibrotic bases if biopsies are obtained. In the setting of weight loss and poorly localized postprandial abdominal pain, many patients are thought to harbour an occult neoplasm. An abdominal bruit is sometimes present but there are no other specific physical findings and diagnostic confirmation often requires invasive diagnosis.

This case highlights how difficult it may be to diagnose chronic intestinal ischaemia. The presence of oesophageal, gastric and duodenal ulcers was originally thought to be the cause for the abdominal pain and haematemesis. However, where the symptomatic and endoscopic healing response to proton pump inhibitor therapy is poor and the ulcer morphology atypical, ischaemia should be considered as a cause. Non-healing ischaemic stomach ulcers are rare because of the rich collateral circulation of the stomach (Jacobson, 1965).

The unexpected underlying cause of an infiltrating angiosarcoma was confirmed by a positive reaction to factor VIII-related antigen (Leader et al, 1986). The presence of factor VIII-related antigen is most successfully expressed by cells comprising the most vaso-formative areas of both angiosarcoma and Kaposi's sarcoma. A BMA-120 stain is the most sensitive immunocytochemical method for confirming an angiosarcoma but was not available in this case. Angiosarcoma is an uncommon tumour, accounting for only 1–2% of all soft tissue sarcomas.

Angiosarcoma of blood and lymph vessels is exceedingly rare. Predisposing factors are thought to be radiation or arsenic exposure, or retained foreign bodies. This patient had none of these. An increased awareness of the existence and prognostic implications of ischaemic erosive gastroduodenitis is needed. This should lead to the appropriate investigations to make the diagnosis, including angiography, being undertaken at an earlier stage. This may allow surgical attempts at splanchnic revascularization to be performed, in cases of atheromatous disease, with clear reduction in morbidity and mortality being the ultimate aim (Eidemiller et al, 1979). HM

CASE REPORT

A previously well 66-year-old man, a lifelong non-smoker, presented with left-sided abdominal pain and diarrhoea of 7 days duration. He was admitted with a haematemesis and melaena while taking aspirin. On admission his haemoglobin was 15.2 g/dl. Gastroduodenoscopy showed a large gastric ulcer on the lesser curve, with a clot adherent to the base, which was injected with 5 ml of adrenaline 1:10 000 to achieve haemostasis. A CLO test obtained from the gastric antrum showed no evidence of *Helicobacter pylori* infection. The patient complained of severe constant abdominal pain radiating to his back while taking lansoprazole 30 mg once daily. After 1 week repeat endoscopy showed multiple ulcers in the oesophagus, stomach and duodenum, which were irregular with sloping edges and white sclerotic bases. No biopsies were taken from the ulcers. A computed tomography contrast examination of the abdomen showed an irregular aorta narrowed by atheroma (*Figure 1*) and normal-looking bowel with no apparent visceral abnormalities. An angiogram was not undertaken.

Ten days after presentation the patient developed an acute abdomen requiring a laparotomy at which necrotic small bowel was found. The upper third of the small bowel was resected. Histology showed the entire small bowel mesentery to be infiltrated with angiosarcoma. The patient died 4 days later. The post-mortem revealed non-healing ulcers and a 20x7x1.5 cm angiosarcoma within the aorta. The coeliac trunk was occluded and the superior mesenteric artery was partly blocked. There was positive immunohistochemical staining with factor VIII-R-Ag. There were splenic and renal infarcts. The left kidney was infiltrated with tumour.

Anderson WR, Richards AM, Weiss L (1967) Haemorrhage and necrosis of the stomach and bowel due to atheroembolism. *Am J Clin Pathol* **48:** 30

Eidemiller LR, Nelson JC, Porter JM (1979) Surgical treatment of chronic visceral ischaemia. *Am J Surg* **138:** 264

Jacobson ED (1965) The circulation of the stomach. *Gastroenterology* **48:** 85

Leader M, Collins M, Patel J, Henry K (1986) Staining for factor VIII related antigen and ulex europaens agglutinin (UEAI) in 200 tumours. An assessment of the specificity for angiosarcoma and Kaposi's sarcoma. *Histopathology* **10:** 1153–62

Taylor NS, Gueft B, Lebowich R (1964) Atheromatous embolisation: a cause of gastric ulcers and small bowel necrosis. *Gastroenterology* **47:** 97

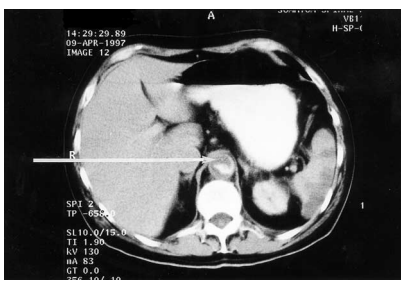

Figure 1. Computed tomography scan of the abdomen with contrast, showing severe narrowing of the aorta as a result of an aortic angiosarcoma (arrow).

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