Gastric cancer in patients under the age of 30

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CASE REPORT 1

A 26-year-old white male presented to surgical outpatients with an 18-month history of epigastric pain relieved by food and oral ranitidine. Gastroscopy showed a chronic gastric ulcer in the mid-body on the lesser curve. Biopsies were of an inflammatory cell infiltration with no evidence of malignancy. *Helicobacter* culture was negative and the patient was commenced on omeprazole 40 mg once daily. Repeat gastroscopy 6 weeks later showed a persistent non-healed gastric ulcer. Empirically the patient was given a course of quadruple *Helicobacter* eradication therapy. His symptoms, however, persisted. Two months later, a further endoscopy with biopsies confirmed the diagnosis of a poorly differentiated adenocarcinoma of the stomach. He subsequently underwent total gastrectomy with splenectomy and distal pancreatectomy. Histology showed a 1.5 cm intramucosal signet ring adenocarcinoma with all resected nodes negative. He remains well 5 years following surgery.

CASE REPORT 2

A 19-year-old white male was admitted after drinking heavily during the Christmas period with a 24-hour history of epigastric pain and vomiting. He had previously been admitted with alcohol intoxication. Physical examination was essentially normal except for the suspicion of a palpable liver but this was not confirmed on ultrasound scanning. His symptoms settled with conservative management and a gastroscopy was arranged as an outpatient. He was readmitted before this appointment with vomiting, complaining of weight loss and with a suspicion of a mass on abdominal examination. Gastroscopy showed some grade I oesophagitis and antritis. There was marked duodenitis with reddened, friable, odematous mucosa. Biopsies revealed that he was positive for *Helicobacter* and confirmed inflammatory infiltration in the duodenum and stomach. Repeat ultrasound demonstrated a smooth epigastric mass of possible bowel origin and therefore a barium enema was performed which showed changes compatible with Crohn's colitis (*Figure 1*). His vomiting persisted and a repeat gastroscopy revealed grade II oesophagitis and biopsies of the duodenum suggested invasive carcinoma. These were repeated confirming the diagnosis of primary diffuse gastric carcinoma. Laparoscopy confirmed advanced gastric carcinoma, not amenable to surgery. He died 7 weeks later.

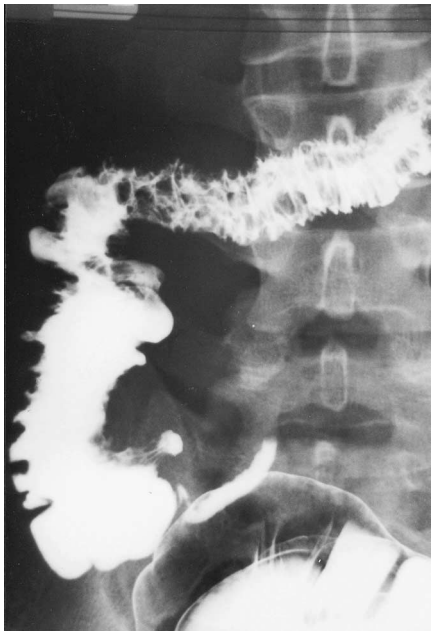

Figure 1. Barium enema of case 2 showing features compatible with Crohn's disease with narrowed colon and 'rose thorn' ulcers.

INTRODUCTION

Existing guidelines for the management of dyspepsia and other upper gastrointestinal symptoms concentrate on patients aged over 45 years. We report two cases of gastric cancer in patients under 30 years of age and describe their presentation and some of the difficulties associated with making the diagnosis.

DISCUSSION

These cases illustrate that gastric cancer does occur in the under-30 and indeed the under-20 age groups. Christie et al (1997) estimate an incidence of gastric carcinoma in the under-40 age group at less than 0.5/100 000 population/year. There are no specific estimates for the under-30 age group.

There are various guidelines for the investigation of dyspepsia such as those proposed by Axon et al (1995) and Agreus and Talley (1997). Most use the age of 45 years as a cut-off for screening unless symptoms have worrying features or are protracted and resistant to medical therapy. None would advocate the routine investigation of upper gastrointestinal symptoms in the younger age group and Christie et al (1997) suggest the age limit can be safely raised to 55 years for the investigation of patients with uncomplicated dyspepsia.

Block et al (1948) reviewed 20 cases of gastric cancer in patients under 30 years of age and found that although gastric lesions were rare in this age group, approximately 30% of them were malignant. One of the alarming features of the two patients reported here is the need for three gastroscopies per patient before the diagnosis was made. It is possible to be self-critical and argue that the diagnosis could have been made ear-

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lier in the first case as biopsies should have been taken on the second endoscopy. This also reinforces the need to biopsy persistent gastric ulcers whatever the age.

The second case demonstrates that persistent duodenal inflammation should also be biopsied as only these showed malignant change. It also shows that gastric cancer may mimic other conditions that are more frequent in young people in its presentation. The findings on the barium enema were the result of infiltration of the retroperitoneum by his gastric cancer and not Crohn's disease.

Martin et al (1997) show that delay in diagnosis of gastric cancer in all ages is particularly common. We would urge that, although gastric cancer is rare in the young, care should be taken that persistent dyspepsia in young patients should not be dismissed too readily, simply because the patients are less than the arbitrary cut-off of 45 years old. **HM**

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