Case 57 A surgical specimen of stomach

Figure 57.1

The specimen in Fig. 57.1, received by the pathologist from the operating theatre, is of a total gastrectomy and splenectomy performed on a woman of 61 years, who had presented with a short history of anorexia, weight loss and upper abdominal discomfort. She had had considerable difficulty in swallowing.

Examination had revealed a rather wasted patient who was not clinically anaemic, and whose full blood count proved to be normal. No masses, ascites or hepatomegaly were found on abdominal examination and there was no supraclavicular lymphadenopathy. She had been referred for urgent gastroscopy, where the stomach was found to be non-distensible, rendering the examination quite difficult; however, an area of ulceration was seen along the lesser curvature. Several biopsy specimens were taken, all of which revealed adenocarcinoma. She underwent a total gastrectomy and omentectomy, the spleen being removed with the specimen.

What are the names (one English and one Latin) given to this condition where the stomach is converted into a rigid tube by the infiltrating carcinoma?

Leather bottle stomach or linitis plastica.

What produces this appearance?

This is caused by submucous infiltration of the tumour with a marked fibrous reaction. This produces a small, thickened, contracted stomach with or without only superficial ulceration.

How common is carcinoma of the stomach in the UK, and what is happening to its incidence in this country?

Carcinoma of the stomach is the eighth commonest cause of death from cancer in men in the UK and indeed in most of the developed world (Table 57.1). Over the last half century it has dropped progressively from second place, after carcinoma of the lung, in this invidious 'league table'; the reason for this is the subject of much debate. However, adenocarcinoma of the lower end of the oesophagus has recently shown a remarkable rise in incidence and oesophageal cancer is now the fourth commonest cause of death in men, seventh in women (see Case 49, p. 100).

Is anything known about the aetiology of gastric cancer?

There is a link with subjects having blood group A. The incidence is raised in patients with pernicious anaemia and malignant change occasionally is found at the edge of a benign gastric ulcer. There is no definite association with smoking, obesity or alcohol consumption. The disease is far commoner in Japan and in some parts of South America than in Western Europe and the USA.

Smoked food and preservation with salt may be a factor in these high incidence areas, and possibly the fall in consumption of such foods might be a factor in the decline in incidence of gastric cancer elsewhere.

Interestingly, whatever the carcinogenic agent(s) might be, they seem to be important early in life; Japanese migrants retain their life-time risk of developing this tumour after leaving their own country.

Table 57.1 The ten most common cancer killers in the UK in 2011 (Data for 2011 obtained from Cancer Research UK, January 2014)

	Male cancers		Female cancers	
	Cancer Site	Mortality per 100 000	Cancer Site	Mortality per 100 000
1	Lung	47.4	Lung	31.1
2	Prostate	23.7	Breast	24.6
3	Large bowel (colon and rectum)	20.3	Large bowel (colon and rectum)	12.6
4	Oesophagus	12.8	Ovary	9.0
5	Pancreas	10.3	Pancreas	7.9
6	Bladder	7.7	Brain, other CNS and intracranial tumours	5.1
7	Brain, other CNS and intracranial tumours	7.2	Oesophagus	4.4
8	Stomach	7.1	Non-Hodgkin Lymphoma	4.0
9	Leukaemia	6.3	Uterus	3.8
10	Kidney	6.3	Leukaemia	3.7

Areas of high incidence of *Helicobacter pylori* infection also have a high incidence of gastric cancer.

What is the prognosis in gastric cancer and on what factors does it depend?

Prognosis in gastric cancer, as with any malignant tumour, depends on the extent of spread of the tumour and its degree of differentiation. Overall the prognosis of gastric cancer is poor in this country because of the advanced stage at which many of these tumours present. Patients with early stage tumours, without lymph node metastases, may have an 80% 5-year postoperative survival. In Japan, where the high incidence of the disease has merited endoscopic screening, high rates of survival are seen. Increased access to endoscopy in the UK may also result in improvement in early diagnosis and hence of prognosis.