EARLY GASTRIC CARCINOMA A NON-JAPANESE EXPERIENCE

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SYNOPSIS

Early Gastric Carcinoma is an entity that until fairly recently was uncommon in Non-Japanese series of Gastric carcinoma. With the advent of fibre-optic endoscopy and increasing awareness, the percentage of gastric carcinoma diagnosed in the EGC stage has increased from less than 10% to between 10 — 20% in Non-Japanese centres as compared to 33% in Japan.

INTRODUCTION

The overall prognosis of gastric carcinoma continues to be poor. Five-year survival rates vary between 5-15% (1,2). The only exception is the entity of Early Gastric Carcinoma. The 5-year survival rates in Japan approach 90-100% (3). Even involvement of lymph nodes in Early Gastric Carcinoma in Japanese series (4) does not reduce the 5-year survival to below 80%. Non-Japanese studies have shown 5-year survival to be around 70% (5,6). Until recently, the entity of Early Gastric Cancer was not reported as frequently outside Japan, ranging from 0.7% (6) to 8.2% (5) of all gastric carcinoma, but with the advent of endoscopy and increasing awareness, the percentage of gastric carcinoma diagnosed in the EGC state (in centres outside Japan) is increasing and the figure is now between 10-20% (5, 7). In Japan, the percentage is 33% (3).

This series is the experience of EGC of the A.W. Morrow Department of Gastroenterology, Royal Prince Alfred Hospital during a one-year period (1982-83).

MATERIALS AND METHODS

Subjects with complaints referable to the upper gastrointestinal tract with or without a prior radiological study of the upper gastrointestinal tract were endoscoped. During the period April 1982 to March, 1983, 32 cases of carcinoma of the stomach were diagnosed of which 3 cases satisfied the criteria of EGC, i.e. carcinoma confined to the mucosa and submucosa, regardless of the presence of lymph node metastases.

RESULTS

CASE 1:
J.A. 52 year old male Caucasian.
Presented with a history of epigastric discomfort for 20 years. The discomfort lasted from half to several hours. The discomfort was worse on eating and not relieved by antacids. There was no radiation. Patient's weight had seen stable. For 6 months prior to presentation the epigastric discomfort increased in severity and became persistent. He was started on Cimetidine two weeks prior to presentation with complete relief of pain. Clinical examination did not reveal any abnormality.

He was gastroscoped and a gastric ulcer was found on the anterior wall of the fundus of the stomach, diameter 0.5 cm. Macroscopically it appeared benign. Multiple biposies were taken. Histology: Fundic gastric mucosa showing abnormal cells in the lamina propria. The appearances are almost certainly that of carcinoma in which the extent of invasion is uncertain.

At surgery, an ulcer was found in the anterior wall of the body of the stomach. Radical gastrectomy with roux-en-Y loop. Pathology: There is a small poorly differentiated adenocarcinoma infiltrating only as far as the submucosa. All lymph nodes are negative for malignancy.

CASE 2:
T.A. 36 year old Chinese male.
Presented with intermittent epigastric pain for 6 years duration. The pain was sharp and lasted for a few hours. There was no radiation. The pain was not related to meals, but was relieved by antacids. Three years after the onset of pain, patient had a barium meal examination and was told to have a chronic duodenal ulcer. He was treated with Cimetidine and became asymptomatic. He was maintained on Cimetidine for 1 year. Several months before his admission the patient had recurrence of epigastric pain. Clinical examination was non-contributory.

Gastroscopy was performed and an ulcer was seen at the anterior wall of the antrum, diameter 1.0 cm. Macroscopically benign looking. Along the lesser curvature of the antrum an ulcer scar was seen. Multiple biopsies were taken from the ulcer and the scar. Histology: Antral mucosa showing acute and chronic inflammation and a purulent exudate. The glands in two of the fragments showed architectural and cytological atypia. This abnormality is probbably related to the inflammation.

T.A. was treated with full dosage Cimetidine for 6 weeks and improved symptomatically. On re-gastroscopy, only an ulcer scar was seen along the lesser curvature of the antrum. Multiple biopsies were taken. Histology: Adenocarcinoma.

T.A. had a subtotal gastrectomy with gastro-jejunal anastomosis. Pathology: Along the lesser curvature 2.5 cm from the distal line of resection and extending into the anterior and posterior walls of the stomach is an irregular ulcerated area measuring 4 x 4 cm. The proximal and distal extent of this lesion are indistinct. The mucosa underlying this lesion is thickened. Microscopic: Moderately well-differentiated adenocarcinoma in the floor of the ulcer which only extends into the super ficial mucosa. The surrounding mucosa shows extensive chronic gastritis with intestinal metalplasia. The lines of resection appear free of tumour.

CASE 3:
Y.G.T. 52 year old Chinese male.
Presented with the complaint of vague epigastric pain of twomonths duration. He also had been vomiting intermittently during this time, vomitus consisted of fluids which were occasionally bile-stained. He had lost 10 lbs in the past two months. Clinical examination was unremarkable.

Gastroscopy revealed two small "kissing" ulcers at the antrum, each less than 0.5 cm in diameter. The peri-ulcer mucosa looked irregular. Multiple biopsies were taken from the ulcers and peri-ulcer mucosa. Histology: Poorly differentiated adenocarcinoma.

At surgery, a small ulcerated lesion was seen on the posterior wall of the stomach. A total gastrectomy with oesophago-enterostomy and entero-enterostomy was done. Pathology: Adenocarcinoma of stomach. Most of the lesion is intramucosal, but there is a focus of infiltration through but not obviously beyond the muscularis mucosae. The tumour shows mostly an intestinal growth pattern, but with some collection of signet ring cells. Not tumour was found in any of the lumph nodes.

DISCUSSION

In the 3 cases documented, 2 occured on a background of longstanding peptic ulcer-like symptoms, 20 years in Case 1 and 6 years in Case 2. Weight loss was not significant in two of the cases. On endoscopy, the lesions were macroscopically benign looking in all the 3 cases except that in Case 3 there was a suggestion of peri-ulcer mucosal irregularity. Macroscopically the lesion in Case 1 is Type III, that in Case 2 IIb, and that in Case 3 Type III according to the classification of the Japanese Endoscopic Society for Early Gastric Cancer. Two of the cases responded to H^2 receptor antogonist therapy, Case 1 with symptomatic relief, Case 2 with ulcer healing and symptomatic relief.

This small series served to confirm several important observations regarding EGC:

1. EGC frequently occurs upon a background of peptic-ulcer like symptoms and hence all such symptoms should be taken seriously.
2. The lesion on endoscopy is frequently benign looking and in order not to miss such lesions, all gastric ulcers should be routinely biopsied.
3. Malignant ulcers may heal with treatment (5) and healing is no criterion of the lesion being benign. In fact, untreated EGC may pass through a healing phase, with even complete healing of the ulcer (8).

At the moment, the prognosis of advanced gastric cancer with treatment is dismal and the only means of

improving prognosis is to detect the lesion at the EGC stage. To increase the yield of EGC, there should be a high index of suspicion and readily available endoscopy for GIT symptoms. Follow-up with regular endoscopy of high risk groups ie. patients post partial-gastrectomy, those with adenomatous polyps, Pernicious Anaemia, Menetrier's Disease may further increase the yield.

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