

AN EARLY GASTRIC CANCER

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ABSTRACT

An early gastric carcinoma was presented in a 55-year-old woman who suffered from chronic neutropenia and indigestion. Upper GI series were performed twice and the lesion at both examinations was similar. It appeared as a plaque like elevation, small ulcer craters surrounding by nodular mucosa and was interpreted as erosive antral gastritis. Biopsy of the lesion revealed mucosal spread of cancer. Biopsy should be performed in such lesion.

INTRODUCTION

During the past decade, attention has been focused on the role of double contrast barium studies and endoscopy for the early diagnosis of gastric cancer. The Japanese have had tremendous success in detecting early gastric cancer by mass screening of the adult population with these techniques.

Most adenocarcinomas of the stomach are diagnosed at an advanced stage. By definition, advanced lesions have invaded the muscularis propria, and they are usually associated with metastases to regional lymph nodes or other local or distant structures. In contrast, early gastric cancers are defined histologically as cancers in which malignant invasion is limited to the mucosa or submucosa, regardless of the presence of lymph node metastases.^{1,2} Early gastric cancers are curable lesions with 5-year survival rates of more than 90%. So the detection of an early cancer lesion of the stomach is an important task for radiologists.

CASE REPORT

This 55-year-old lady, has been followed up

for mild chronic neutropenia for the past 9 years; her CBC revealed WBC running between 3000-5000 cu/mm. Due to only having mild degree of periodic neutropenia and she has never have any problem causing by the low WBC, the bone marrow study was not done. She has been given Folic acid 1 tab/day and has been doing fine. One year ago, she developed indigestion, the UGI revealed mild erosive gastritis at the distal gastric body and at antrum (Fig. 1). She was consulted for a gastroscope but the patient was unable to swallow the gastroscope. She was instructed by the gastro-enterologist to continue Zantac and re-X-ray of the UGI tract in the next 3 weeks if the lesion was still present. She became well after the medication and did not return to see the gastroenterologist. Another year later, she appeared for a general physical check up. UGI series was again performed due to her complaint of abdominal discomfort. The UGI series revealed erosive antral gastritis (Fig.2). Gastroscope was performed under general anesthesia. Few shallow ulcers was found at the incisura angularis and ulcer with edema and bleeding was noted at the ridge of incisura. The biopsy was performed from the ulcerative lesions. Histology revealed fragments of diffuse type of infiltrative adeno-carcinoma. The

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metastatic work up showed no evidence of metastases. Radical subtotal gastrectomy was performed. Histology revealed signet ring type gastric carcinoma involving lesser curvature of the antrum. The tumor was present in the mucosa as multiple isolated islands and small sheets. No lymphatic or vascular invasion was seen. The lines of excision and omentum was not involved. There was no metastases to the available regional lymph nodes. The uninvolved mucosa showed moderate chronic gastritis and mild intestinal metaplasia.

DISCUSSION

The double contrast upper gastrointestinal examination has been widely recognized as the best radiologic technique for diagnosing early gastric cancer.^{1,3-6} The Japanese Endoscopic Society has divided these lesions into three basic types.⁷

Type I early gastric cancers typically appear as small, elevated lesions in the stomach.^{4,5} Because

adenomatous polyps may undergo malignant degeneration, the possibility of early gastric cancer should be suspected for any sessile or pedunculated polyps greater than 1 cm. in size. Other type I lesions may protrude considerably into the lumen and still be classified histologically as early gastric cancers.⁵ Thus, polypoid carcinomas cannot be definitively diagnosed as early or advanced lesions on the basis of the radiographic findings.

Type II early gastric cancers are superficial lesions with elevated (IIa), flat (IIb), or depressed (IIc) components. These lesions may be manifested by plaque like elevations, mucosal nodularity, shallow areas of ulceration, or some combination of these findings.³⁻⁶ Occasionally type II lesions may be quite extensive and involve a considerable surface area of the stomach.

Type III early gastric cancers are typically characterized by shallow, irregular ulcer craters with nodularity of the adjacent mucosa and clubbing, fusion, or amputation of radiating folds.^{1,4,5}

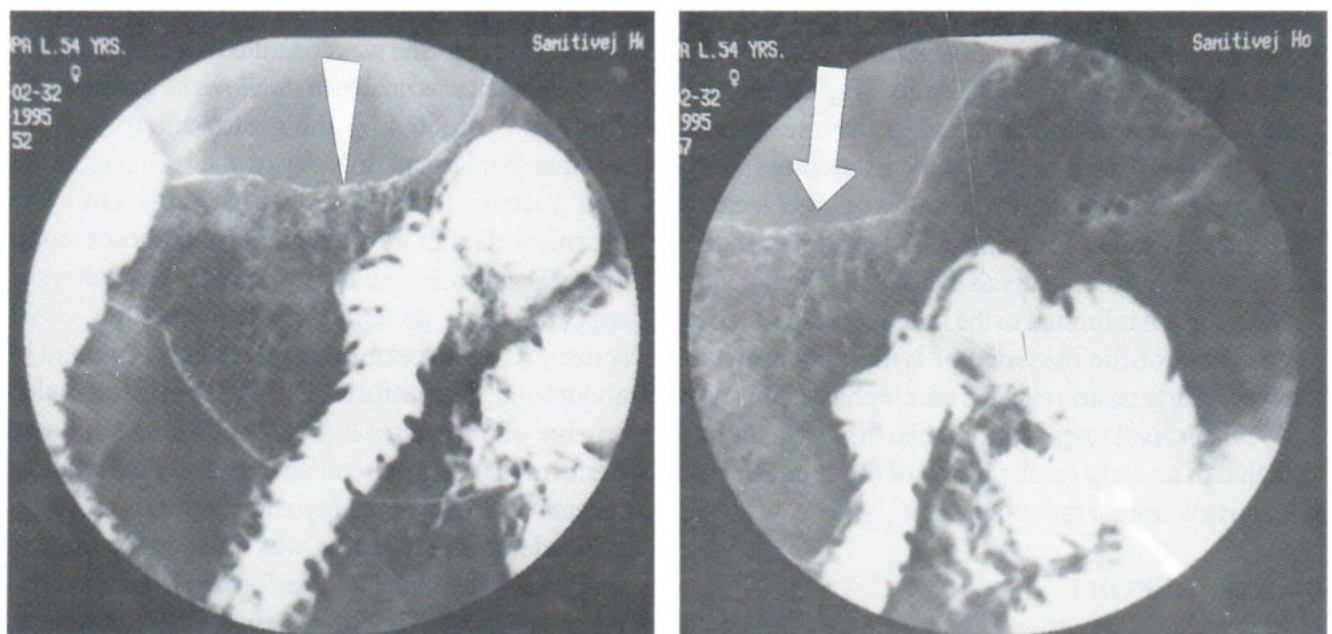


Fig. 1 UGI series in March 1995, the lesion was seen at the gastric antrum as mixed plaque like elevations, mucosal nodularity and shallow ulcerations. Irregularity of the mucosa at the lesser curvature of the gastric antrum was presented. These lesions appeared somewhat similar to the erosive gastritis.

Although some lesions with an equivocal or suspicious appearance are found to be benign ulcers, endoscopy and biopsy should be performed for all lesions with suspicious radiographic findings to avoid missing early cancers.

About 70% of the ulcers in type IIc or III early gastric cancers are reported to undergo significant healing on medical treatment.⁸ It has been postulated that these cancers are characterized by a cycle of ulceration, healing, and recurrent ulceration. Rarely, complete healing of malignant ulcers has also been described.⁸ However, malignancy may still be suspected on follow-up barium studies if mucosal nodularity or other abnormalities are detected at the site of the previous ulcer.

Early gastric cancers may appear radiographically as depressed (ulcerated), elevated (polypoid), or superficial lesions. Ulcerated cancers must be distinguished from benign gastric ulcers. Occasion-

ally, early gastric lymphomas may also appear as ulcerated lesions. Polypoid cancers must be distinguished from adenomatous or hyperplastic polyps or other benign or malignant tumors in the stomach. Finally, superficial cancers must be distinguished from a focal area of gastritis or intestinal metaplasia. When early gastric cancer is suspected on the basis of barium studies, endoscopy and biopsy are required for a definitive diagnosis.

Patients with advanced gastric carcinoma have a dismal prognosis, with 5-year survival rates of only 3 to 21%.⁹⁻¹⁴ In contrast, patients with early gastric cancer have 5-year survival rates of 85 to 100%.¹⁵⁻¹⁸ Early detection of these lesions is therefore essential for improving survival of patients. Because it is frequently not possible to distinguish early gastric cancer from advanced carcinoma on preoperative studies, an aggressive surgical approach is justified for all patients with resectable lesions.

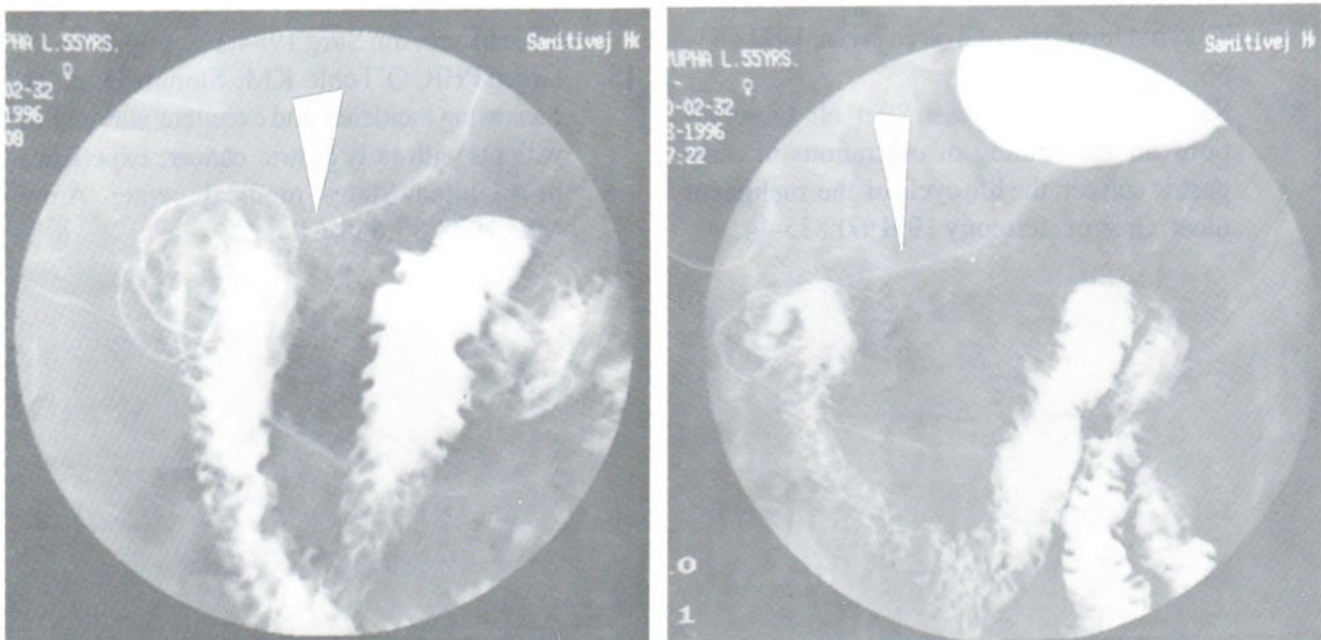


Fig.2 UGI series in March 1996, the lesion noted at the gastric antrum was seen similar to that in 1995.

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