SARCOMA OF THE STOMACH

Report of a Case

E. N. COLLINS, M.D.

Sarcoma of the stomach is a rare lesion which comprises from 1 to 2 per cent of all gastric neoplasms and which may cause considerable difficulty in diagnosis. The clinical evidence may suggest the presence of carcinoma, but the roentgenologist may find no evidence of neoplasm. In dealing with an obscure diagnostic problem, a consideration of the rare possibility of sarcoma and its different pathologic process from that found in carcinoma, may result in earlier diagnoses and explorations. The operability and curability of sarcoma appear to be greater than is the case with carcinoma. Jones and Carmody[1] of this Clinic reported a case in which the patient is entirely well nineteen years after gastric resection. Roentgen therapy has proved effective in certain types of this lesion.

The following case wherein total gastrectomy was performed emphasizes the difficulties encountered in making a correct diagnosis of sarcoma of the stomach.

A man, 55 years of age, was first seen on March 5, 1935. His chief complaints were pain in the epigastrium and loss of 20 pounds in four months. A cholecystectomy had been performed four years before. The illness for which he sought relief started five months before he was seen here, with localized epigastric pain which was dull in character and which came on immediately after eating. Roentgen examination which was made elsewhere revealed an ulcer on the lesser curvature of the stomach. Operation had been advised but was refused. The patient was then given daily 24 intramuscular injections of 4 per cent solution of l-histidine monohydrochloride (trade name — LaRostidin), which gave relief from symptoms until 4 weeks before our examination. The pain then recurred and became practically constant. It was made worse by food and often wakened the patient at 4 a.m. There was no vomiting. Another series of injections of LaRostidin gave no relief.

When the patient came here, abdominal examination revealed a large incisional hernia medial to the upper right rectus scar from the cholecystectomy. There were no palpable masses. Blood examination gave the following findings: red cells 4,680,000, hemoglobin 97 per cent, white cells 5,200. Otherwise the examination was without significance.

On the night following the examination, a gastric hemorrhage occurred at 2 a.m. The patient entered the hospital the following morning and was placed on strict management. At the time of the roentgen examination, ten days later, care was taken to avoid any palpatory manipulation under the fluoroscope. Under these circumstances, the duodenal bulb was not well visualized (high steerhorn type of stomach) and there was an apparent deformity which was believed to be due to a duodenal ulcer. The stomach showed no evidence of abnormality.

Symptomatic improvement occurred for a time, but later while the patient was on strict ulcer management, the epigastric discomfort returned and included night distress at 2 a.m. The test meal revealed an absence of free hydrochloric acid and the benzidene reaction for blood was positive.

A progress roentgen examination of the stomach made approximately three weeks after the patient entered the hospital would have revealed normal findings had not a careful study of the gastric rugæ been made. A study of the gastric rugæ after the ingestion of a small amount of barium revealed an irregular ulceration on the posterior wall and lesser curvature which suggested a neoplastic process.

At operation, a large gastric ulcer was found which involved the posterior wall of the stomach and extended well up into the cardia. Because of the extent of the induration and infiltration associated with the ulcer, the lesion was considered to be carcinomatous. There was no widespread glandular involvement, so Dr. T. E. Jones performed a total gastrectomy.

A pathological study of the entire stomach revealed an indurated mass on the posterior wall of the stomach just below the lesser curvature. On opening the stomach, a large indurated ulcer was found which measured 9 cm. longitudinally and 7.5 cm. transversely and extended from the cardiac opening toward the pylorus. It was situated in the posterior wall but extended to the lesser curvature and anterior wall. The distal margin of the ulcer was 6 cm. from the pylorus. Microscopical study revealed a diffusely infiltrating lymphosarcomatous growth which involved all the coats of the stomach. Sections of three lymph nodes from the lesser omentum showed no evidence of metastasis.

Discussion

Our experience has shown that when roentgen examination reveals evidence of a gastric ulcer and operation is not performed, the most important criteria relative to the question of carcinomatous involvement are the progress roentgen examinations. If

an ulcerating carcinoma is present, an increasing deformity characteristic of carcinoma will be seen even though symptomatic relief may be obtained by the so-called medical "therapeutic test." Cases which by exploration have been determined inoperable carcinomata have had complete relief from symptoms and a restoration of the blood count to normal for many months by the use of the appropriate medical management. On the other hand, if the gastric ulcer is benign, unless there are clear-cut indications for surgical treatment, the progress roentgen examinations will show a marked diminution or complete disappearance of the deformity along with the relief from symptoms, while the patient is following a medical regimen for the management of ulcer.

This case is reported for the purpose of warning against the infallibility of the progress roentgen examination in the case of sarcoma, because of the different pathologic process encountered here as compared with that of carcinoma. This case also illustrates the relief from symptoms which may be secured by medical management in the presence of neoplasm.

In the presence of sarcoma of the stomach, the gross pathologic changes may be limited to a thickening of the stomach wall without any involvement of the mucosa. If a palpable mass is present, the roentgenologist may believe it has no connection with the stomach. The gastric lumen is seldom encroached upon.

The extra-gastric variety which is most common and which arises from the subserous connective tissue layer of the stomach, usually spreads between the layers of the gastro-hepatic or gastrocolic omentum, and may involve very little of the stomach wall. The mass usually arises from the posterior surface or the greater curvature and obstruction is a rare finding.

The variety which arises in the submucosa spreads under and lifts the mucosa, involving a variable degree of the stomach. Finally it projects either into the lumen of the stomach or out under the peritoneum, more often the latter.

The third, or infiltrating variety, usually like linitis plastica, involves a large part of the stomach.

The *age incidence* has been reported by some authors to be from five to twenty years below that of carcinoma. The patient reported by Jones and Carmody was 10 years of age, but in all the collected cases, the greatest prevalence has been in the fifth decade of life.

The *symptoms and signs* of a localized sarcoma of the stomach are, of course, similar to those of carcinoma, except for an occa-

sional case in which the duration of symptoms is longer – often as long as a year or more before the surgeon sees the patient.

From the standpoint of *treatment* the reported cases show a higher percentage of operability and curability than do those of carcinoma of the stomach. Roentgen therapy has proved valuable in cases of localized lymphosarcoma.

REFERENCE

1. Jones, T. E., and Carmody, Morris G.: Lymphosarcoma of the stomach, Ann. Surg., 101:1136-1138, April 1935.