

Gastric Surgery Division

Introduction

In this division, not only gastric adenocarcinoma but also sarcomas of gastric origin such as malignant lymphoma or gastrointestinal stromal tumor (GIST) are treated. Principally, tumors of the cardia are treated in this division.

Routine Activities

There are five staff surgeons, a chief resident and three to four rotating residents at one time in the division. Ten to 14 patients are operated on every week.

This division shares the same ward with the Gastrointestinal Medical Oncology Division so that specialists could treat any patient with gastric cancer comprehensively from both divisions. Patients who undergo curative resection are followed up without adjuvant chemotherapy which is used exclusively in clinical trials or when strongly requested by patients.

Patients with a superficial lesion of well-differentiated histology are treated by endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD). Some undergo subsequent surgery based on histological findings of the resected specimen. Every Tuesday from 6:15 to 7:00 P.M., a clinical conference is held attended by surgeons, medical oncologists and endoscopists. All patients with gastric malignancy in the ward or on the waiting lists for admission are briefly reviewed and those whose treatment is controversial are discussed in detail. Every Friday between 4:00 and 5:30 P.M., another clinical conference is held, in which endoscopists and radiologists present all candidates for surgical and endoscopic treatment of the following week, and the treatment strategy is discussed in detail in each case. These conferences are held in English whenever a foreign guest doctor is present.

The division has some involvement in the activities

of the WHO Collaboration Center for Primary Prevention, Diagnosis and Treatment of Gastric Cancer, the president of which is M. Sasako, Chief of the division. Education of foreign surgeons is regarded as one of the important roles of this division. In 2004, more than 20 surgeons from various countries visited the Division for 2 to 12 weeks to learn about the management of gastric cancer patients, especially surgical techniques of lymph node dissection and postoperative care. All staff surgeons have sufficient experience in teaching in English.

Research Activities

Genomic scanning in gastric cancer family is being carried out in cooperation with the Biology Division, and Cancer Information and Epidemiology Division of the National Cancer Center Research Institute. The Millennium Genome Project, analysis of SNPs, to investigate susceptibility to gastric cancer is also being carried out. Causation of type 4 gastric cancer related to heritable factors or environmental factors was evaluated in cooperation with Cancer Information and Epidemiology Division (H. Katai). Function preserving gastrectomies such as pylorus preserving gastrectomy, proximal gastrectomy applied prospectively for early cancer. Laparoscopic gastrectomy is also being attempted for patients with early gastric cancer (H. Katai). Patients with advanced tumors are, when eligible, invited to participate in one of the ongoing clinical trials in our division mentioned below. Significance of immunohistochemically detected micrometastases in the bone marrow are being analyzed (T. Fukagawa)

Clinical Trials

Our division has been playing the central role in conducting the multi-institutional clinical trials. M. Sasako and T. Sano are the representatives of the Gastric Cancer Surgical Study Group of the Japan

Clinical Oncology Group (JCOG). A randomized controlled trials are currently underway in the division in a multi-institutional setting. JCOG 0110-MF is designed to evaluate significance of splenectomy for upper third advanced cancer. The trial includes evaluation of long-term survival, postoperative morbidity and mortality and QOL. The ACTS-GC trial to evaluate adjuvant chemotherapy with the oral agent S-1 for curatively resected stage II, III, IV tumors comparing surgery alone with surgery plus chemotherapy was closed for enrollment in the end of 2004. The JCOG 9502 is designed to evaluate

surgical procedures and compares two commonly used approaches for gastric cancers invading the esophagus. The results showed that thoraco-abdominal approach is not recommended for advanced gastric adenocarcinoma with esophageal invasion ≤ 3 cm. A phase II trial to evaluate the effect of adjuvant chemotherapy for patients with large GIST with high mitotic index (Imatinib) was being carried out. Feasibility study to evaluate accuracy sentinel node biopsy started in 2004 (JCOG 0302).

● H. Katai ●

Number of Patients

Adenocarcinoma	545
GIST	17
Malignant lymphoma	1
Total	563

Operative Procedures

Distal gastrectomy	228
Total gastrectomy	140
Pylorus preserving gastrectomy	90
Proximal gastrectomy	32
Wedge resection	18
Pancreaticoduodenectomy	0
Laparoscopic distal gastrectomy	5
Others (bypass, exploration, etc)	50
Total	563

Operative morbidity and mortality	%
Major complications	6.7
Minor complications	9
Operative death within 30 days	0
Postoperative hospital death	0.2

Major complications include pancreas fistula, leakage, and intraabdominal abscess.
Minor complications include wound infection, urinaru tract infection, line infection, et.

Survival Rates

Stage	No. of patients	5-yr survival
I	757	91.20%
II	122	80.90%
III	187	54.10%
IV	224	9.40%
Total	1,290	71.40%

Stage: Japanese classification (13th ed)

Op year: 1990-1994.