Special article 1

Meeting report of the 71st Japanese Gastric Cancer Congress

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The 71st Japanese Gastric Cancer Congress was held at Tokyo Big Sight, June 23–25, 1999, gathering 1100 clinicians and researchers. In the opening ceremony, two memorial lectures were given for the late President of the Society, Dr. Mitsumasa Nishi (see the obituary in *Gastric Cancer* 1998; 1:89).

Five symposia and four panels, as well as video and free paper sessions, with special emphasis on the role of chemotherapy and treatment standardization were held. Summaries by the chairmen of the symposia and panels are given below. (*Toshifusa Nakajima, The Congress President*)

Chairmen's summary of the symposia and panels

Symposium 1. *The frontier of diagnosis and treatment of gastric cancer* (chaired by M. Kitajima, Keio University, Tokyo, and T. Ochiai, Chiba University)

This symposium focused on new technologies and therapeutic modalities for gastric cancer. Six papers were presented; three different approaches to early gastric cancer, a new diagnostic method for metastasis, and an experimental and a clinical study of new anticancer agents.

H. Kondo, National Cancer Center Tokyo, presented recent advances in endoscopic mucosal resection (EMR) for early gastric cancer. In the past 10 years, at the National Cancer Center, they performed more than 500 EMRs. With the introduction of a new device the insulating-tipped “(IT) knife” specially designed for larger mucosal resections, the average diameter of the resected mucosa at that institution has increased from 25 to 38 mm. S. Kitano, Oita Medical University, sum-

marized recent reports of laparoscopy-assisted gastrectomy (LAG) in Japan. Of 104 patients with gastric cancer who underwent LAG since 1997, 57 were treated by his group. They reported that D2 lymphadenectomy was technically possible in LAG, but D1 dissection was recommended from the viewpoint of minimally invasive surgery. M. Hiratsuka, Osaka Medical Center for Cancer, reported their experience of sentinel node detection in gastric cancer surgery. They had tested the use of intraoperative injection of indocyanine green and had achieved satisfactory preliminary results.

H. Nakanishi, Aichi Cancer Center, presented a newly developed system for the rapid detection of free cancer cells in the peritoneal cavity. They have devised a “Light cyclor” for the rapid detection of carcinoembryonic antigen (CEA) reverse transcriptase-polymerase chain reaction (RT-PCR) with which the results are obtained within 2 h. Y. Otani, Keio University, Tokyo, presented their research on matrix metalloproteinase (MMP), and showed that an MMP inhibitor suppressed metastatic dissemination in an animal model. Y. Maehara, Kyushu University, Fukuoka, reported the clinical study of a new 5-fluorouracil derivative, “S-1”. The results of a phase I study with 33 patients and a phase II study with 129 patients suggested the high effectiveness and relatively low toxicity of this new drug for oral use.

In conclusion, this symposium highlighted two directions in the management of gastric cancer; firstly, the challenge to minimize surgical risks for early cancer without reducing curability and, secondly, approaches to the early diagnosis and treatment of metastasis from advanced cancer. (Reported by T. Ochiai)

Symposium 2. *Application of the findings of molecular biology to the treatment of gastric cancer* (chaired by M. Ogawa, Kumamoto University, and Y. Miki, Cancer Institute, Tokyo)

The implications of molecular biological findings in cancer therapy are a primary concern in the medical field. Six papers were presented at this symposium.

H. Yokozaki, Hiroshima University, presented the paper, "Microsatellite instability as a molecular marker for tumor multiplicity in the stomach". He stated that the routine analysis of microsatellite instability, using an auto-sequencer, in patients with gastric cancer would contribute clinically to the selection of surgical methods and to follow-up after surgery. N. Matsukura, Nippon Medical School, Tokyo, presented the paper, "Possibility and problems of gene therapy for gastric cancer". He noted the necessity of gene therapy (molecular surgery) combined with conventional surgery. Y. Takahashi, Cancer Research Institute, Kanazawa, presented the paper, "Molecular biology of metastasis from gastric cancer and the strategy of molecular targeting therapy". He mentioned that it was important to elucidate factors related to metastasis for molecular targeting therapy, and noted that "tumor dormancy therapy" was a promising strategy in molecular targeting therapy. T. Ueda, National Cancer Center, Tokyo, presented the paper, "Genetic alterations in gastric cancer: present and future". He mentioned that PCR analyses of *c-erb* B2 for well differentiated adenocarcinoma and *K-sam* for poorly differentiated adenocarcinoma would be useful for the diagnosis of micrometastasis, and that new methods, such as microdissection and fluorescence in situ hybridization (FISH) would be necessary for the detection of genetic alterations in gastric cancer.

N. Boku, National Cancer Center East, Chiba, presented the paper, "Implications of biological markers in the effects of chemotherapy in gastric cancer patients". He suggested that multiple biological markers, such as vascular endothelial growth factor, *p53*, *bcl-2*, glutathione S-transferase π , and thymidylate synthase, could be employed to evaluate chemotherapy effects. R. Okamoto, Hiroshima University, presented the paper, "New strategies for gastric cancer chemotherapy based on the genetic basis for cellular response to drugs". He emphasized that it was important to study the genetic characteristics of an individual tumor in connection with drug resistance and that this would lead to novel strategies for effective cancer chemotherapy.

The application of molecular biological findings to the diagnosis of and therapy for gastric cancer is very important, but is difficult to establish. Until now, we may say that little molecular biological information has been applicable for such purposes. In this symposium, however, six speakers showed the promising implications of molecular biological information in gastric cancer therapy. (Reported by *M. Ogawa*)

Symposium 3. Preoperative diagnosis of gastric cancer (chaired by M. Maruyama, Cancer Institute Hospital

Tokyo, and K. Takeshita, Tokyo Medical and Dental University)

In this symposium seven papers were presented. N. Saito, Tokyo Medical and Dental University, focused upon endoscopic ultrasonography (EUS) for the diagnosis of gastric cancer with submucosal involvement (ca-sm). Using a common subclassification of the depth of invasion into the submucosa (sm 1, 2, 3) he reported that the accuracy of EUS diagnosis was 74% in sm 1 (depth of invasion, less than 500 μ m from the muscularis mucosae), 89% in sm 2 (depth of invasion, between that of sm 1 and that of sm 3), and 71% in sm 3 (extensive involvement almost touching the propria muscle). The correct diagnosis of ca-sm 1 is very important because it is considered to have no risk of lymph node metastasis and accordingly is indicated for EMR or less extended surgery. H. Takahashi, Osaka Teishin Hospital, concluded that magnetic resonance imaging was not as useful as expected for the staging of pT1 and pT2 disease, but was found to be suitable for the assessment of serosal involvement in pT3 and pT4 disease.

N. Nakagawa, Matsushita Memorial Hospital, Osaka, reported an interesting result regarding the size of metastatic lymph nodes which constituted the basis for preoperative N-staging with diagnostic imaging. He emphasized that 77.6% of metastatic lymph nodes might be overlooked if the size limit of the metastatic nodes was assumed to be 10 mm on diagnostic imaging, because the mean maximum diameter of metastatic nodes was 6.7 mm. This result suggests that preoperative N-staging may be virtually impossible at the present time, and that N-staging is better assessed by the correlation of T-stage (and size) with the expected incidence of lymph node metastases. M. Yano, Osaka University, emphasized the importance of preoperative laparoscopy for the assessment of peritoneal dissemination (P-factor) in their findings in 32 patients with advanced cancers, and stated that exploratory laparotomy was avoided in 43.8% (14/32) by implementing laparoscopy before surgery; this method detected peritoneal dissemination in 15 patients in whom the dissemination was missed with conventional diagnostic imaging.

S. Tomimatsu, National Defence Medical College, Saitama, reported the positive predictive value of peritoneal lavage cytology at laparotomy before surgery for advanced gastric cancers. He used multivariate analyses and noted that it was difficult to predict positive peritoneal lavage cytology and that intraoperative rapid cytology was indispensable to decide the final policy for surgery. H. Ajisaka, Kanazawa University, reported the importance of intraoperative endoscopic lymphatic mapping (IELM) for early gastric cancer. In IELM, the patent blue was injected endoscopically in to the mucosa neighboring the primary lesion at four points at the beginning of surgery, and the lymphatic flow and sentinel

nodes were observed. The detection rate of lymphatic flow and sentinel nodes was 94.2% (130/138). This method is expected to play a decisive role in determining the indications for limited resection in each individual.

T. Morisaki, Kyushu University, analyzed the mRNA profiles of biological malignant factors in the preoperative assessment of the malignant potential of gastric cancer. The mRNA expression of platelet-derived growth factor (PDGF)-A, transforming growth factor (TGF)- β 1, cyclin D1, and uPA was investigated in the biopsy specimens (0.5 μ m RNA) of 65 patients with gastric cancer. It was found that PDGF-A and TGF- β 1 expression correlated most frequently with the prognosis of the patient, and the PDGF-A-positive group showed significantly shorter survival than the PDGF-A-negative group during an observation period of 2 years. These mRNA profiles are expected to represent not only a prognostic factor in gastric cancer but also a parameter for selecting treatment options. (Reported by M. Maruyama)

Symposium 4. *Case study of those showing remarkable response to chemotherapy* (chaired by M. Kurihara, Showa University, Tokyo, and H. Motohashi, Kanagawa Cancer Center)

For this special symposium, patients with gastric cancer who showed a remarkable response to chemotherapy were recruited. Many reports were submitted and 14 were selected for presentation at the symposium.

The reported regimens included 5 fluorouracil (FU)/cisplatin (CDDP), methotrexate (MTX)/5-FU, 5-FU/leucovorin (LV), and etoposide, doxorubicin, cisplatin (EAP). The response patterns of patients with unresectable or recurrent disease were classified as: complete response (CR); complete or partial response (PR) with long-term survival; complete or partial response fol-

lowed by adjuvant surgery showing histological evidence of response; histologically minor response but with long-term survival.

A questionnaire was sent out not only to the speakers at the symposium but also to the presenters of the poster session in order to collect details of patients with unresectable gastric cancer who had survived 2 years or longer after chemotherapy. A total of 39 cases were reported in detail and the patients were divided into three groups according to the principal factor responsible for the unresectability: (1) patients with locally advanced disease ($n = 27$) in whom the primary tumor or metastatic lymph nodes had invaded the adjacent organs, and/or the paraaortic lymph nodes were massively involved; (2) patients with hepatic metastasis ($n = 8$); (3) patients with distant metastasis ($n = 4$).

The 27 patients with locally advanced disease were divided into two subgroups; 13 patients who were treated with chemotherapy alone (Cx), and 14 patients who underwent surgical resection following a response to chemotherapy (Cx + Sg). The characteristics of these two groups are shown in Table 1. The patients in the Cx + Sg group were younger than those in the Cx group. Almost all patients in both groups showed CR or PR of both the primary and metastatic lesions. The median survival time of the Cx + Sg group was 5 years, 8 months, longer than the 4 years in the Cx group.

Of the eight patients with liver metastasis, three underwent surgery after attaining PR of the primary tumor and CR of the liver metastasis. Their median treatment period was 2 months (range, 1–6 months) and their median survival time was 5 years, 6 months (range, 2 years, 2 months–7 years, 5 months). The other five patients received chemotherapy alone, for a median period of 1 year (range, 5 months–2 years, 1 month),

Table 1. Summary of patients with locally advanced type gastric cancer; $n = 27$) who survived for 2 years or longer after chemotherapy

		Chemotherapy surgery ($n = 14$)				Chemotherapy alone ($n = 13$)			
Performance status		0	1	2	3	0	1	0	3
No. of patients		5	7	0	2	4	3	4	2
Age (years)		≤ 50	≤ 60	≤ 70	> 70	≤ 50	≤ 60	≤ 70	> 70
No. of patients		3	6	2	3	0	2	8	3
Effect	Primary lesions	CR	PR	NC	PD	CR	PR	NC	PD
No. of patients		1	13	0	0	7	6	0	0
	Metastatic	CR	PR	NC	PD	CR	PR	NC	PD
No. of patients		5	5	1	0	6	5	1	0
Treatment period		Range, 1–7 months (median, 2 months)				Range, 1 month to 2 years, 9 months (median, 5 months)			
Survival time		Range, 2 years to 9 years, 5 months (median, 5 years, 8 months)				Range, 2 years, 2 months to 10 years, 1 month (median, 4 years)			

CR, Complete response; PR, partial response; NC, no change; PD, progressive disease. See text for further definitions of response

and their median survival time was 2 years 7 months (range, 2 years, 1 month–6 years, 1 month).

The four patients with distant metastasis showed good response of both the primary and the metastatic lesions, and two of them underwent surgery. All four of them survived for more than 2 years.

These are, of course, exceptional cases and, since the overall number of treated patients in this study is not known, we do not know how often patients can survive for long periods after effective chemotherapy. The collection and analysis of details of exceptional cases such as these, however, may contribute toward future research in gastric cancer. (Reported by *M. Kurihara*)

Symposium 5. *Establishment of standard treatment for gastric cancer* (chaired by Y. Idezuki, Saitama Medical School, and M. Kaminishi, University of Tokyo)

First, K. Ohta, Cancer Institute Hospital, Tokyo, presented the results of a nationwide inquiry concerning the actual treatment for gastric cancer. This questionnaire had been prepared by a committee of the Japanese Gastric Cancer Association and included 45 questions covering all therapeutic modalities, ranging from indications for endoscopic mucosal resection for early gastric cancers to chemotherapy regimens for non-resectable tumors. More than 300 hospitals had replied to the questionnaire, and the responses showed a wide variety of treatment selections, depending on the institution and/or the doctor. M. Sasako, National Cancer Center, Tokyo, presented the basic concept and the present state of “standard therapy” in Western countries and stressed the need for the establishment of standard therapy for gastric cancer in Japan. The last speaker, T. Yamaguchi, Kyoto Prefectural University of Medicine, outlined the possible advantages and disadvantages of establishing “standard therapy”, from the medical, social, economic, and political points of view.

Based on these presentations, discussion focused on two questions: what the term “standard” means, and why standard therapy is now required. Chairman Y. Idezuki and some members of the audience expressed apprehension about the mandatory influence which the word “standard” would inevitably have in Japan, and the consequent uniformity in treatment. Finally, after discussion, an agreement was reached to use the term “guidelines” or “consensus” rather than “standard”.

In regard to the second question, M. Sasako stressed that Japanese doctors would be required to explain “guidelines for treatment” to patients in order to obtain sufficient informed consent for cancer treatment, and that such guidelines must be a key point for prevention of social, economic, and legal problems. The importance of evidence-based medicine supported by scientific results was also emphasized. However, in Japan,

there have been few scientific data derived from well controlled studies, a feature which was reflected in the diversity of treatments shown in the results of the questionnaire.

From these discussions, this symposium closed with the conclusion that collection of scientific data, under the direction of the Japanese Gastric Cancer Association, should be required for the establishment of guidelines for the treatment of gastric cancer. (Reported by *M. Kaminishi*)

Panel 1. *Adjuvant and neoadjuvant chemotherapy* (chaired by M. Kitamura, Tokyo Metropolitan Bokuto Hospital, and T. Kubota, Keio University, Tokyo).

This session focused on the adjuvant and neoadjuvant chemotherapy of gastric cancer. Three presentations concerned neoadjuvant chemotherapy, two speakers reported intra-operative chemotherapy, two speakers discussed multi-institutional trials, and two trials were reported on chemosensitivity test-based adjuvant chemotherapy.

A. Nashimoto, Niigata Cancer Center, presented a report of neoadjuvant therapy with 5-FU/leucovorin/cisplatin and reported a 52.9% (18/34) response rate. These results suggested the usefulness of this therapy for patients with gastric cancer with positive paraaortic lymph nodes. Y. Nio, Shimane Medical University, treated 82 patients with gastric cancer with a mixed compound of tegafur and uracil at a molar ratio of 1:4 (UFT) administered orally for 1 to 6 weeks before surgery. The response rate was 39% (27/82), including 2 patients with CR and 25 with PR. He stated that preoperative UFT therapy was promising, with a high efficacy rate and a low incidence of adverse effects. S. Ohyama, Cancer Institute Hospital, Tokyo, reported 31 patients with advanced gastric cancer who were treated preoperatively with 5-FU, leucovorin, etoposide, and cisplatin. The overall response rate was 51.6% (16/31), and 20 patients underwent adjuvant surgery. The operation was potentially curative in 10 of them, and the 5-year survival rate of these 10 was 55.6%.

Y. Yonemura, Kanazawa University, discussed the preventive effect of chemo-hyperthermic peritoneal perfusion (CHPP) for peritoneal dissemination from gastric cancer with serosal invasion. When 48, 44, and 47 patients were randomly assigned to CHPP, peritoneal perfusion without hyperthermia, or surgery alone, the group with CHPP showed a significantly better survival outcome than the other two groups. K. Araki, Kochi Medical School, investigated intraoperative local infusion chemotherapy (ILIC), using intra-arterial infusion of 50mg of cisplatin per body, in patients with stage II (6), III (6) and IV (12) gastric cancer. When 24 patients were treated with ILIC, their 5-year survival was 71.2%, which was higher than that of matched paired controls.

T. Sano, National Cancer Center, Tokyo, reviewed 21 randomized controlled trials for adjuvant chemotherapy that had each recruited more than 100 Japanese patients. He concluded that while some subset analysis showed a favorable outcome for adjuvant chemotherapy, no reliable randomized controlled trials had been conducted with a surgery-alone group. M. Kitamura, Tokyo Metropolitan Bokuto Hospital, reported the experience of multi-institutional, adjuvant chemotherapy trials, including Japanese Clinical Oncology Group (JCOG) trials number 8401, 8801, 9206, and 9701. There were no significant differences in survival outcome between mitomycin C + 5-fluorouracil + cytosine arabinoside (MFC) + FU, MFC + UFT, and mitomycin C + 5-fluorouracil (MF) + UFT in patients with stage I — III gastric cancer (trial 8401). No differences were noted in survival outcome between surgery alone, MF + UFT, mitomycin C (MMC) (iv) + UFT + mitomycin C (UFTM), and MMC (ip) + UFTM in patients without serosal invasion (trial 8801). The other protocols are under investigation and the final results are awaited.

M. Iwahashi, Wakayama Medical School, investigated chemosensitivity testing with 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl-2H tetrazolium bromide (MTT) endpoint, using purified tumor cells, and observed that the chemosensitivity test-guided group had a favorable survival outcome compared with patients treated with blinded cancer chemotherapy. T. Kubota, Keio University, Tokyo, reported two trials using chemosensitivity tests and revealed that the chemosensitive group had better survival than the chemoresistant group.

Large-scale, well designed randomized controlled trials are required to show the usefulness of adjuvant and neoadjuvant chemotherapy for gastric cancer. (Reported by T. Kubota)

Panel 2. Recurrence after endoscopic mucosal resection (EMR) for early gastric cancers (chaired by S. Yoshida, National Cancer Center East, Kashiwa, and Y. Hiki, Kitasato University, Sagami-hara).

The ‘strip biopsy’ (reported first in 1987, by Tada), which was actually the first model for endoscopic surgery, is still widely used in Japan as the standard method of EMR for gastrointestinal cancers, because it is technically simple and convenient. However, with this procedure, the resection of the mucosa is not always complete, as it has the following limitations: (1) the size of the mucosa resected in a single fragment is small because the diameter of the snare loop (around 15–20 mm) is limited. (2) The resection line cannot always be accurately controlled because the snare loop easily slips on the lesion when tightened for cutting. These factors occasionally lead to an incomplete resec-

tion, which can cause local recurrence after EMR. All seven speakers in this Panel, therefore referred to the reasons for such incomplete resections in detail, as well as their treatment results, which were summarized as follows.

The rate of complete resection was rather low and ranged between 50% and 60%. Analyses, including multivariate analyses, revealed that the rate of incomplete resection was closely related to the tumor location and the tumor size. The resection tended to be incomplete in lesions located in the upper third of the stomach (because endoscopic manipulation was restricted) and in lesions larger than 15 mm. Multi-fragment resections were also a cause of incomplete resection.

After a complete resection, the local recurrence rate was less than 5%. In other words, most local recurrences (more than 80%) were observed after an incomplete resection. The locally recurrent lesions were usually mucosal lesions, and were able to be treated with EMR again.

These results clearly indicated that local recurrence was caused by technical limitations and that we should develop more reliable techniques for EMR than the strip biopsy. From this point of view, two speakers presented their findings on the clinical utility of EMR carried out with an insulating-tipped (IT) knife, which enabled single-fragment resections regardless of tumor size.

Cancer death due to recurrence after EMR had not been reported in the Japanese literature, and the details of two patients were presented at this panel discussion by T. Gotoda, National Cancer Center, Tokyo. One patient had multiple gastric cancers, one of which was histologically diagnosed as submucosal cancer by EMR. The patient refused additional surgery and developed brain metastasis 3 years after EMR. The other patient had a questionable diagnosis of deep invasion on the EMR specimen. The patient refused surgery and underwent laser endoscopy as an additional treatment. In spite of this, local control of the tumor was not sufficient and he died of liver metastasis 3 years after EMR. In these two patients, additional surgery could not have prevented recurrence, because the mode of recurrence was not lymphogenous but hematogenous.

The results of additional surgery after EMR were reported, and it was notable that lymph node metastasis was detected even from tumors with minimal submucosal invasion, although such metastasis was not frequent. This indicated the importance of additional surgery after EMR for those patients in whom submucosal or deeper invasion was detected histologically. It is understandable that most patients undergoing EMR strongly hope that the treatment will be finished by EMR alone. Therefore, patients should be well informed before EMR that the procedure is not a final

treatment but is carried out for therapeutic diagnosis. (Reported by S. Yoshida)

Panel 3. *State of the art in the treatment of gastric cancer* (chaired by J. Sasaki, Niigata Cancer Center, and M. Fujii, Nihon University, Tokyo).

See "State of the art in the treatment of gastric cancer", page 151.

Panel 4. *Gastric cancer in Japan and the West* (chaired by Y. Kato, Cancer Institute Hospital, Tokyo, and T. Konishi, Kanto Teishin Hospital, Tokyo).

Although this international panel discussion was held on the afternoon of the last day of the Congress, an enthusiastic audience attended. Seven panelists presented papers; four about the fundamental and non-surgical aspects, and three on the surgical aspects.

In the first half of the session, A. Yanagisawa, Cancer Institute Hospital, Tokyo, indicated a relative decrease in well differentiated type gastric carcinoma in Japan during the period from 1955 to 1998, especially in females. Y. I. Kim, Seoul National University, Korea, presented a paper entitled "Incidence of gastric cancer among the Koreans is higher than among the Japanese, but its carcinogenesis is similar". He stated that the etiology of gastric cancer in Korea remained less clarified but that the background of gastric carcinogenesis appeared to be the same as in Japan.

T. Sasagawa, Tokyo Women's Medical College, who had participated in the project of the Japan International Cooperation Agency for the detection of gastric cancer in Costa Rica, reported that Costa Rica had the highest gastric cancer mortality rate in the world, with the rate being 49/100000. He pointed out that there were no differences with respect to tumor location between the patients diagnosed in his project and those diagnosed by the local medical system, but there were more cancers of well differentiated type and early stage diagnosed in his project than by the local medical system. Under the title "Histological criteria of differentiated-type intramucosal carcinoma of the stomach: is non-invasive carcinoma a pseudo-cancer?", M. Itabashi, Ibaraki Prefectural Central Hospital, stressed that intramucosal carcinoma was properly and precisely diagnosed in Japan based on the nuclear features and glandular structures of the tumor cells, even in patients without patterns of invasion. With regard to this issue, chairman Y. Kato added a detailed explanation, using slides of biopsy and resected specimens from the same lesion.

In the discussion in the first part of the session, the different trends in common sites of gastric cancer in the West and East were the first concern. In Japan and Korea, the most common sites were generally the gastric angulus and antrum, while cardiac carcinomas were more frequently seen in the West. It would be interesting to investigate whether this tendency is related to the status of *Helicobacter pylori* infection in the stomach of the Japanese. Secondly, the discrepancy in histological criteria for carcinoma, particularly well differentiated carcinoma, between Japanese and Western pathologists was focused on: what is diagnosed as carcinoma in Japan is not always regarded as carcinoma, but frequently as adenoma or dysplasia, in the West. As this situation could lead to serious problems in international comparisons of epidemiology and of the results of treatment for early gastric cancer, it is expected that a good international system for pathologists will be established without delay.

In the second part of the session, three surgeons, from the United States, Germany, and Japan, discussed differences in the results of surgical treatment for gastric cancer. S.A. Hundahl, University of Hawaii, presented a paper entitled "Gastric cancer treatment and international differences in stage-stratified survival", and M. Burian, University of Bonn, compared the concepts of treatment for esophagogastric junction tumors in Germany and Japan. M. Sasako, National Cancer Center, Tokyo, reported that, in the randomized controlled trial in the Netherlands which compared D1 and D2 operations, the D2 operation produced no promising benefit in regard to prognosis, as this operation had a high postoperative mortality, of 10%.

All three panelists agreed that the superior results of gastric cancer surgery in Japan may be explained by different surgical procedures, rather than by factors such as stage migration, or in differences in the malignant behavior of tumors or in patients' body structure. They concluded that Japanese surgeons should be more active internationally than they are today to spread information on why the D2 operation should be considered as standard and how this procedure and post-operative care should be carried out. Finally, the President-elect of the Japanese Gastric Cancer Association, Prof. H. Watanabe, Niigata University, exhorted the participants to take part in the Association's activities to help build a more global vision, and to join in international leadership in gastric cancer research. (Reported by Y. Kato and T. Konishi)