Special article

Gastric cancer: the dispute between East and West

J. RÜDIGER SIEWERT

Department of Surgery, Klinikum rechts der Isar, Technical University Munich, Germany

J. Rüdiger Siewert

Department of Surgery, Klinikum rechts der Isar
Technical University Munich

Despite a large scale of intensive interactions — conjoint congresses, personal communications, and friendships — the dialogue between surgeons and oncologists of the Eastern and Western hemispheres is still difficult and confounded by substantial misunderstandings. This is not a result of language barriers: The long-lasting worldwide acceptance of the English

language as lingua franca almost perfectly permits free communication.

Existing barriers are much more a consequence of the surgical gastric cancer epidemiology, which differs largely between the Western and Eastern hemispheres. Consequently these differences also implicate different philosophies and approaches to gastric cancer treatment. In the West, the frequency of carcinomas in the proximal third of the stomach is increasing alarmingly, whereas in the East, cancers of the middle and distal third are still prevailing.

Due to the formidable increase of adenocarcinomas arising within the vicinity of the esophagogastric junction, the discussion in the West is largely focussed on these tumors. A classification for adenocarcinomas arising within the vicinity of the esophagogastric junction (AEG) was required to make the discussion concise and to make results from different institutions comparable [1]. Meanwhile, this classification is accepted in the Western hemisphere and experiences widespread use [2–5]. Thus, comparison of results from different institutions is possible in a case-by-case as well as group-per-group fashion. This means that we are now comparing Barrett's cancer with Barrett's cancer and gastric cancer with gastric cancer when analyzing our surgical series. The AEG classification has also been utilized in Japan. But sometimes squamous cell cancers of the distal esophagus were also included in the classification, which implied a large scale of discord.

A further discrepancy can be seen regarding strategies for early detection of gastric cancers. In the Eastern hemisphere, up to 70% of all gastric cancers are diagnosed as early cancers. We in the Western hemisphere can only praise our friends in the East for these achievements. In the Western hemisphere, the rate of gastric cancers identified as early cancers accounts for only about 15%. Almost 50% of all patients are admitted for treatment when they are already harboring stage III or IV disease. These differences between gastric cancer

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populations in the West and the East are explanatory of the different philosophies regarding gastric cancer treatment.

The academic literature from the Eastern hemisphere is dominated by discussions about sentinel lymph node technique and the resulting options for minimally invasive treatment. Meanwhile the sentinel lymph node concept is also accepted in the Western hemisphere. But its role in gastric cancer treatment is limited, due to the lower prevalence of early gastric cancers. This is in sharp contrast to Barrett's cancer, where we see an increasing number of early tumors, which also seem to be amenable to application of sentinel node technique [7]. The large number of gastric cancer patients with stage III/IV in Western clinical practice makes well-functioning neoadjuvant strategies desirable. In the Eastern hemisphere, the majority of patients are in a tumor stage that is amenable to primary surgery, with no need for prior antineoplastic therapy. Thus, primary surgical resection is favored and postoperative (adjuvant) treatment strategies are utilized on demand.

This, again, can be identified as a vast difference between therapeutic philosophies, which is not easy to cope with. In the Western world, neoadjuvant strategies are under intensive investigation in numerous trials. Special interest is dedicated to the identification of responders and nonresponders, preferably early during the postoperative course, for which the FDG-PET technology is an amazing new approach [8]. The large focus on neoadjuvant strategies results in therapeutic principles in the adjuvant setting taking a "back seat" in the Western hemisphere [6].

One exception is the large American Southwest Oncology Group (SWOG) study [9]. Reading this study also gives a realistic view on the current situation in the Western hemisphere [10]. 90% of the patients who were included for treatment according to the SWOG protocol had not received adequate surgery of their gastric cancer. In a majority, the lymphadenectomy was insufficient. When interpreting the results of the SWOG trial, one needs to take into account the "defensive" character of surgery applied to the patients.

Evidently the prognosis of patients who did not receive a radical operation in the "Eastern sense" can be improved with postoperative radiochemotherapy. The question of whether this postoperative treatment also leads to an improved prognosis of radically resected patients (and thereby makes it of potential interest for the Eastern hemisphere as well) is unresolved as yet. In the Eastern hemisphere, one may suppose that gastric surgery fulfills the requirements of surgical radicality very well. This leads to an entirely different precondition for postoperative adjuvant treatment. Further differences are due to the physiology of patients: Patients in the East are known to tolerate a postoperatively

antineoplastic regimen earlier after surgery, whereas in the West, patients are observed to have a longer convalescence.

Finally, the stage-oriented comparison of treatment results in the West and the East continues to be difficult, due to differences in the use of the staging system. The TNM classification by the UICC is acknowledged as the "gold standard" in the West. This staging system is also utilized but frequently modified in an incomprehensible fashion in the East.

Surgeons in the Western hemisphere have taken many lessons from their Eastern colleagues. The techniques for extended lymphadenectomies, which appear beneficial for subgroups of patients [11,12], have been developed in Japan.

The surgeon in the Western hemisphere would never question the merits of Japanese surgeons. In fact, he admires them and tries to translate their achievements to his own clinical practice. Nevertheless, the circumstances in the Western hemisphere — especially regarding surgical epidemiology of gastric cancer and the patient type — make modifications and critical reappraisal of the Eastern principles essential.

Progress in the field of modern gastric cancer oncology is characterized by an increasing individualization of therapy. This individualization is based on the individual patient and aims at tailoring an individual strategy. The individual access to the problem of gastric cancer is a basic difference between treatment philosophies of East and West.

And this is where I see the great business and challenge for the IGCA. The IGCA — as the international umbrella organization of all physicians and researchers involved in gastric cancer treatment — must evaluate the different philosophies, classifications, and epidemiologic differences between West and East. These need to be compared and finally harmonized, to bridge these "surgical language barriers." I trust in the IGCA to build these bridges and strengthen the ties between East and West. Only international cooperation, e.g., by means of an international database, will provide the essential information required to define the adequate therapy of gastric cancer with maximum benefit for our patients.

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