



Letter to the editor

Redefining surgery for gastric cancer: is “stage-appropriate surgery” an appropriate standard for Western surgeons?

To the Editor:

It is with interest, but also with an element of astonishment, that I read the article by Whiting et al. [1] on redefining surgery in gastric cancer in the final issue of volume 2 of *Gastric Cancer*. The authors advocate selective D2 resections in the operative treatment of gastric cancer, and base this suggestion on the increased morbidity associated with more extensive lymphadenectomies in the hands of Western surgeons. In addition, they propose a new method for an N classification based on anatomic lymph node distribution, and recommend the intraoperative bioptic confirmation of the “junctional node” between N1 and N2 groups prior to the performance of a D2 dissection. Although the authors support their view with data on 24 patients, none of whom had metastatic involvement of lymph nodes within the gastric bed unless the junctional node was involved as well, several of their assumptions are of concern and deserve some comment.

Both recent prospective European multicenter trials of extended lymphadenectomy demonstrated significant increases in morbidity and mortality for D2 dissections, which, to a large extent, were due to splenectomy and distal pancreatectomy [2,3]. It has been confirmed that severe postoperative infections are increased after splenectomy [4], and that an extended lymphadenectomy in experienced hands can be done without increase in morbidity or mortality, especially when pancreatosplenectomy is restricted to selected patients [5,6]. One would therefore have to assume that, for any well trained Western surgeon with a special interest in gastric cancer, the perceived large disadvantages of D2 dissections should actually be small or nonexistent when these dissections are performed properly.

In addition, several factors support the routine use of extended lymphadenectomies at the time of gastrectomy. First, the majority of Western patients with gastric cancer present with node-positive disease [7,8], some of which, with second-echelon lymphatic involve-

ment, would be anticipated to benefit from an extended lymphadenectomy, as proposed by the authors. Secondly, some evidence suggests that N0 and N1 disease appears to benefit from extended dissections as well, most likely due to the presence of undiscovered micrometastatic disease within the second-echelon nodes [6,9,10]. Thirdly, a similar benefit has been demonstrated in Japanese experiences with early gastric cancer, where a stage-adjusted limitation of the resection extent would appear most strongly indicated [11]. Fourthly, survival outcome after gastrectomy in Western series has continued to approach that seen in Japanese reports in those centers in which extended lymphadenectomies have been routinely utilized [12]. Fifthly, regional recurrences occur in as many as 72% of patients when inadequate lymph node dissections are primarily carried out [13,14], but in only approximately 20% of patients after routine extensive lymphadenectomy [15]. Finally, concern over the accuracy of intraoperative frozen section examination of junctional lymph nodes has to be expressed, as the accurate detection of micrometastatic disease depends significantly on the number of sections performed, and on special immunohistochemical staining techniques not feasible on frozen section analysis [9,16].

I agree with the authors that a system of N classification, based on anatomic and node number information, would be useful. However, an N classification based on the number of nodes involved, in the setting of a standard D2 dissection, appears to be least susceptible to the individual surgeon's or pathologist's inconsistencies, and the validity and clinical utility of such an approach has been demonstrated [17].

Because of different disease incidences and stages on presentation in Western patients, complex, confusing, and highly variable methods of lymphadenectomy, pathologic analysis, and staging are best avoided in favor of a standardized, simple, reproducible and, thus, safer approach. I would therefore suggest that all West-

ern patients with any potentially curable gastric cancer should undergo an extended retroperitoneal lymph node dissection at the time of gastrectomy by an experienced surgeon, with careful avoidance of a splenectomy or pancreatectomy whenever feasible. The minimum standard of lymphadenectomy should include left gastric, celiac, common hepatic, and splenic artery nodes (D2 dissection); removal of splenic hilar, proper hepatic, superior mesenteric, and paraaortic nodes is not mandated, and should be specified when performed. Pathologists are encouraged to identify at least 15 lymph nodes in the specimen, with no upper limits, to determine the N category and overall stage, using only numeric, hence, objective criteria. Peritoneal or hematogenous postoperative recurrences are then expected to outweigh those in the local/regional field by far, and adjuvant treatment attempts for high-risk patients can be directed accordingly. The noteworthy concept of “stage-appropriate surgery” in this setting appears to have few advantages and potentially detrimental downsides, and may have to remain a theoretic concept until some methods emerge that offer highly effective nonoperative treatment options for primary and recurrent gastric cancer, or some more reliable staging methods emerge that would accurately predict primary tumor extent and lymphatic involvement.

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Authors' Reply

To the Editor:

We are delighted that our paper has generated this worthy response from Dr Schwarz.

Firstly, with regards to the issue of staging, in particular with regard to the nodes. This is something that does need urgent discussion and resolution. At present we have two suggested systems: the Japanese and the TNM: the former anatomical and the latter numeric. The TNM system has only recently been changed from anatomical to numerical: it is confusing and assumes uniform surgery and pathology. It does need to be urgently redefined and perhaps this is something that the International Gastric Cancer Association can develop.

Dr Schwarz clearly feels that a D2 lymphadenectomy should be undertaken for all gastric cancers. He is unable to provide any evidence to support this concept. A large prospective audit of American Doctors (1) studying 3804 patients who have had curative resections showed no survival benefit for D2 resections. We would like to believe that some patients may benefit from extra gastric node dissection; the concept of “junctional nodes” may be important in defining those who may benefit. This approach could reduce the need to do D2

operations, which is associated with increased morbidity, mortality and hospital stay.

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