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EDITORIAL – GASTROINTESTINAL ONCOLOGY

Is Extended Lymphadenectomy Needed for Elderly Patients with Gastric Adenocarcinoma?

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Investigators Passot et al.[1] from the French Esogastric Tumor (FREGAT) Working Group in France are to be congratulated for compiling data from 19 medical centers during 13 years in France to assess the relationship of lymphadenectomy extent and outcomes after gastrectomy for gastric adenocarcinoma in a large cohort of patients (n = 1348) stratified by patient chronological age. This report represents a collaborative national effort to address a clinically relevant question geared toward lowering postoperative morbidity for higher-risk patients by comparing two surgical approaches: standard and extended lymphadenectomy. The report is well written, and the statistical analysis is sound.

The extent of lymphadenectomy is a topic debated since the days of Owen Wangensteen.[2] Eastern and Western data are discrepant, with retrospective Eastern studies demonstrating a survival benefit associated with extended lymphadenectomy[3–5] and prospective Western studies not showing this benefit.[6,7]

In analyzing the design and results of this work, certain aspects need to be considered. The current analysis suggests that no survival benefit exists for extended node dissection among elderly patients (age >75 years), so extended dissection should not be performed. The authors conclude that an intermediate lymphadenectomy, with 15–25 nodes resected, should be recommended for elderly patients who undergo surgery for gastric adenocarcinoma.

The authors define the terms “limited”, “intermediate”, and “extended” lymphadenectomy based on the number of nodes identified in the specimen rather than the actual surgical technique used to harvest lymph nodes at the time of surgery. This may be a flawed assumption because the number of nodes reported is influenced by surgical technique, pathologic analysis, and patient factors. At one end of the spectrum, a surgeon may set out to perform an extended (D2) lymphadenectomy and receive a report 1 week later that 10 or fewer nodes were identified in the specimen, whereas at the other end, a surgeon may perform a more limited perigastric lymphadenectomy (D1) and find the more than 25 nodes were assessed.

We know from the Dutch Gastric Cancer Group Trial, which analyzed extent of lymphadenectomy and survival for more than 700 patients, that more than 50 % of the specimens in the D2 group lacked nodes in at least two of the lymph node stations required for completion of this procedure (noncompliance) and that 42 % of the D1 specimens had too many nodal stations included (contamination). Similarly, in the Medical Research Council (MRC) trial, the D2 dissection group had an average of only four more nodes in their final reports than the D1 dissection group.[6] A recent National Cancer Data Base study of 22,409 patients demonstrated that 62 % had inadequate lymph node staging.[8] Perhaps before deciding on the patients for whom extended lymphadenectomy should be avoided, we must educate our surgeons and pathologist on how to perform these tasks appropriately.

Sound surgical technique is important to the harvesting of appropriate tissue with minimal damage to the celiac vasculature and surrounding structure. But the pathology team also must perform their assessment with appropriate due diligence. The method used and the individual pathologist analyzing the specimen are known to have an impact on nodal yield.[9] We see this with other cancer operations as well.[10]

Patient factors also are associated with variable node counts after gastrectomy. Some patients just have fewer nodes to harvest, and in other patients, it is more difficult to

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harvest existing nodes due to body habitus, fibrosis, and obesity. Studies such as this can provide basic guidelines, but the operating surgeon must be empowered to use his or her judgment when considering the extent of dissection and lymphadenectomy.

The Dutch Gastric Cancer Group Trial showed no survival benefit from extended lymphadenectomy (D2) over standard lymphadenectomy (D1), with an increase in postoperative morbidity. As such, why would we anticipate that a subset of patients defined as elderly would have anything but the same or worse survival than the nonelderly patients in this study? The fact that survival was no worse for elderly or young patients who underwent extended lymphadenectomy suggests that it may still be appropriate to use this approach for fit elderly patients. Improved nodal yield allows us to stage our patients adequately, and a minimum of 16 nodes is required to stage patients adequately according to the 7th Edition of the AJCC TNM staging system.

Finally, should the age of 75 years be the "hard-stop" age discriminator between elderly and not elderly? Some 80-year-olds still play tennis and ski, and thus may tolerate aggressive adjuvant therapy. This group of patients may merit adequate staging. The decision to proceed with extended lymphadenectomy should be influenced by a combination of factors such as patient chronological age, vitality, body mass index, and surgical complexity because the surgeon must balance extent of resection with potential patient morbidity.

I applaud the effort by this group in harnessing the power of an entire country to address an important question. For now, I will still individualize my approach and offer appropriate patients older than 75 years extended lymphadenectomy (without splenectomy and distal pancreatectomy) if they are vital active members of society who may benefit from the staging information and adjuvant therapy.

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