See Article page 1524.

Commentary: Progress, or just movement, on thymoma staging?

Joseph B. Shrager, MD

Joseph B. Shrager, MD

CENTRAL MESSAGE

The recent TNM staging system for thymoma, while providing limited benefits in the short term to surgeons, will over time improve research, allowing faster treatment advances in this rare disease.

Despite the fact that virtually all other malignancies have had a tumor, node, metastasis (TNM) staging system for decades, one for thymic epithelial malignancies (TEMs) was introduced only in 2014.[1] Before this project of the International Association for the Study of Lung Cancer and International Thymic Malignancy Interest Group, which evaluated more than 10,000 cases, several conflicting TEM staging systems existed. The lack of consistent staging has clearly hampered research allowing advancements in this disease, as without a shared "language," investigators and physicians could not join together their cases for well-powered studies.

Adoption of the recently introduced TNM system for TEM has been sporadic. Many recent publications still use the older systems. More telling, even in our tumor boards, we often continue to fall back on the old terminologies.

Ahmad's article[2] is both a plea for adoption of the new system and a targeted education in what surgeons should remember about it. He argues convincingly that adoption of the system will advance management of TEM. He highlights what in my opinion is the major change with the new system—that even macroscopic invasion into the fat/thymus and/or mediastinal pleura is stage I in the TNM system. Other important changes are moving pericardial invasion from stage III to II, and the separation of nodal disease into N1 (IVA) and N2 (IVB). These changes will frequently stage tumors lower (eg, many Masaoka–Koga stage II will be TNM stage I), which will—appropriately, in my opinion—reduce recommendations for adjuvant radiotherapy when it is unlikely to provide benefit.

The author, however, shows perhaps insufficient recognition that there are points of conflict between the new TNM system and the way thymoma resections are actually performed today. For example, should surgeons really alter their current thoracoscopic approaches to stage I/II TEMs to allow N2 (middle mediastinal) lymph node dissection, when only 2% of thymomas have involved nodes? Anterior port sites used for thymectomy do not allow good access to level 7; unilateral video-assisted thoracoscopic surgery (VATS)/robotic approaches will always leave contralateral lymph node stations unexplored. It would be more appropriate to suggest an aggressive search for lymph nodes only with frankly invasive tumors and known thymic carcinomas.

Finally, I do have concern that since the majority of tumors used to create the TNM system were resected "open," before the wide adoption of thoracoscopy for TEMs, that the system may only be appropriately applied to "open" resections. For example, if one performs a VATS/robotic "thymomectomy" rather than the "total thymectomy/thymomectomy" typically performed "open," one may be more likely to have a recurrence with a Masaoka stage II tumor invading extracapsular fat. That risk may not be reflected, however, in a staging system developed from data derived from "open" operations. Might the aforedescribed stage-shift downward from Masaoka stage II to TNM stage I tumors be inappropriate for VATS/robotic resections?

From Division of Thoracic Surgery, Department of Cardiothoracic Surgery, Stanford University School of Medicine, Stanford, Calif.

Disclosures: The author reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication Oct 28, 2020; revisions received Oct 28, 2020; accepted for publication Nov 3, 2020; available ahead of print Nov 6, 2020.

Address for reprints: Joseph B. Shrager, MD, Division of Thoracic Surgery, Department of Cardiothoracic Surgery, Stanford University School of Medicine, 300 Pasteur Dr, Falk Research Building, Stanford, CA 94305-5407 (E-mail: shrager@stanford.edu).

J Thorac Cardiovasc Surg 2021;161:1530-1

0022-5223/$36.00

https://doi.org/10.1016/j.jtcvs.2020.11.009

Overall, using a shared, worldwide staging system for TEMs will certainly accelerate progress in this disease, and thus surgeons should embrace it despite a few specific concerns about its current iteration. As cases are accumulated using the new system, including more minimally invasive cases, the staging will be progressively refined.

References

1. Detterbeck FC, Stratton K, Giroux D, Asamura H, Crowley J, Falkson C, et al. The IASLC/ITMIG thymic epithelial tumors 284 staging project: proposal for an evidence-based stage classification system for the forthcoming 285 (8th) edition of the TNM classification of malignant tumors. *J Thorac Oncol*. 2014;9(9 suppl 2): S65-72.
2. Ahmad U. The eighth edition TNM stage classification for thymic tumors: what do I need to know? *J Thorac Cardiovasc Surg*. 2021;161:1524-9.