Editorial Commentary

Aggressive surgical therapy in late stage thymoma: durable long-term control of disease

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Comment on: Choe G, Ghanie A, Riely G, *et al.* Long-term, disease-specific outcomes of thymic malignancies presenting with de novo pleural metastasis. J Thorac Cardiovasc Surg 2019. [Epub ahead of print]. doi: 10.1016/j.jtcvs.2019.08.037.

Received: 11 May 2020; Accepted: 27 May 2020; Published: 30 June 2020.

doi: 10.21037/med-20-02

View this article at: http://dx.doi.org/10.21037/med-20-02

Pleural metastatic thymic epithelial tumors (TETs) are rare, challenging to treat, and challenging to study. Among patients with TETs, stage IVa tumors (pleural metastases) represent less than 20% of all patients (1) and such rarity has limited our ability to scientifically evaluate the comparative effectiveness of current treatment paradigms. Choe and colleagues at Memorial Sloan-Kettering Cancer Center (MSKCC) have, to some degree, bridged this knowledge gap with their institutional study of 72 patients presenting the pleural metastatic thymoma or thymic carcinoma at diagnosis who were treated with surgery. The study period of 20 years further emphasizes the rarity of this presentation (2).

By our account, this is the largest series of patients with stage IVA TETs treated surgically at a single center. Where retrospective studies are often criticized for their lack of multiple participating centers, a single center approach such as this one certainly has some benefits, for one being the feasibility of completion. Other advantages here include the long-term follow-up of these particularly complex patients where granularity is important to understand in search of a message. For example, in this series 46 patients (64%) were found to develop recurrent disease after resection, of which 21 patients had at least one additional surgical resection. Such treatment courses are important to contextualize overall and recurrence-free survival metrics, and are important for providers to understand when explaining expectations of surgery to patients suffering from stage IV TETs.

Whereas some may consider a surgical approach taken by the MSKCC group to be somewhat aggressive, and whereas a non-surgical group is not available to investigate the contribution of surgery, the outcomes of 5- and 10-year overall survival of 73% and 51% are favorable and comparable to data from national and international databases (2,3). Similar approaches are offered at other relatively high volume, tertiary care centers around the world, however many centers are not equipped with the required expertise to perform extended resections. In addition, most cases are treated with chemotherapy and/or radiotherapy and the contribution of these modalities to the favorable survival results presented cannot be well parsed. Even more confounding to this field is that many patients are additionally treated with intraoperative pleural therapies (the "fourth dimension") such as heated chemotherapy or Betadine irrigation (4,5), which may, or may not, contribute to the outcomes reported in our field.

Fortunately, a number of groups continue to analyze national and international data in this rare disease process, and continue to study minimally invasive and late-stage surgical approaches (3,6). In addition, these data in conjunction with other working groups such as the International Thymic Malignancy Interest Group (ITMIG) will continue to move forward with study of this and other rare malignancies (7). The current study by Choe *et al.*, adds to the patients treated aggressively with surgery and found to have a durable long-term survival. We will look forward to further contributions from this group to move the state of the art forward.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned and reviewed by the Section Editor Zhuoqi Jia (Thoracic Department, the First Affiliated Hospital of Xi'an Jiaotong University, Xi'an, China).

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at http://dx.doi.org/10.21037/med-20-02). BMB reports as below: Bayou Surgical, Inc. Ownership equity and intellectual property (a start-up surgical device company developing a trocar for minimally invasive surgery; not relevant to this proceeding). Momotero-Gene, Inc. Funding for a clinical trial of immunotherapy for mesothelioma patients. AstraZenica, Inc. Funding for a clinical trial of immunotherapy for mesothelioma patients. The other author has no conflicts of interest to declare.

Editorial Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

doi: 10.21037/med-20-02

Cite this article as: Burt BM, Carrott P. Aggressive surgical therapy in late stage thymoma: durable long-term control of disease. Mediastinum 2020;4:17.

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