Surgical Treatment of Myasthenia Gravis: Evident Benefits and Insidious Pitfalls of Mini-Invasive Techniques

To the Editor:

When surgery is indicated in the treatment of myasthenia gravis (MG), a total thymectomy is mandatory; this should be accomplished to achieve complete remission from symptoms. The embryology and anatomy of the mediastinal region and the thymus gland make the removal of all the thymic tissue—a prerequisite for symptom control given the autoimmune nature of the MG— a difficult surgical task that is usually performed in the vast majority of cases via an open-access transsternal approach. However, this approach significantly affects the postoperative morbidity, pain, and cosmesis; in recent years, many efforts have been undertaken to develop and validate less invasive techniques [1, 2]. All these approaches invariably use innovative video-assisted thoracic surgery technologies.

Jurado and coworkers [3] performed a comprehensive comparative analysis of minimally invasive thymectomy performed via video-assisted thoracic surgery versus open thymectomy in a large series of patients affected mostly by MG [3]. Based on the results of this analysis, the authors conclude that, to control the effects of surgery itself on frail patients with MG (by decreasing the postoperative morbidity), the less-aggressive techniques should be preferred. We would support a cautionary attitude with this recommendation. In fact, Jaretzki and colleagues [4] clearly showed that transternal approaches provide worse results in terms of long-term remission rate from MG if compared with less invasive approaches, given that the operation executed at the level of the mediastinum is the same. Moreover, ectopic thymic foci are found in more than half of cases [5] in which an extended thymectomy is performed (a type of operation virtually unfeasible through a non-trans-sternotomy or bilateral transthoracic access). One point of caution is that the feasibility and efficacy of all mini-invasive surgical techniques in the treatment of MG should be evaluated, accounting for the postoperative surgical outcomes and long-term neurologic outcomes.

Insufficient data about the neurologic outcome in the MG subgroup of patients [3] makes it difficult to interpret the results, substantially weakening the conclusion that less invasive approaches should be preferred. We would welcome a comment from the authors on this point, in light of the firm principle that the completeness of the operation as defined by the extended thymectomy approach is the goal of any approach. In addition, we would welcome additional reasoning on the relative weight of the postoperative and cosmetic outcome patterns versus the long-term neurologic and quality-of-life outcome in patients with MG and what factors a surgeon should prioritize in the clinical decision-making process at the moment of the surgical indication.

Thus, any attempt at ameliorating morbidity and cosmetic patterns in the postoperative setting is, in our opinion, to be carefully matched with the fact that long-term substantial benefit in such patients can be provided only if the thymic tissue resection is complete.

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References


Malignant Pleural Effusion: One Size Does Not Fit All

To the Editor:

We read with interest the article by Hunt and colleagues [1]. They conclude that tunneled pleural catheters (TPC) (versus thoracoscopic talc pleurodesis; video assisted thoracic surgery [VATS]) is associated with significantly reduced length of stay and fewer reinterventions. This adds to evidence suggesting that percutaneous intermittent drainage is equivalent, or better, than VATS pleurodesis. We would like to inject caution into this pronouncement.

We suspect that these authors appreciate that their study is more descriptive than analytic. Because propensity scoring or another matching algorithm was not performed, comparison of VATS and TPC groups remains confounded [2]. Competing risk of death was not in the analysis. These authors used concomitant VATS in 20% of TPC patients, and this might enhance efficacy of TPCs. This use is not quite in the spirit in which the catheter was conceived. Some readers might consider each drainage of TPC as a reintervention as well.

The endpoint “length of stay” is soft and influenced by many variables. Our typical VATS-talc patient remains hospitalized for 2 to 3 days and is discharged without home care. Our TPC patients are hospitalized for 24 hours for teaching and require organization of outpatient services. A downside of TPC includes continued reliance on outside services or family members for care. The negative effects of TPC on body image, psyche, and reliance on others cannot be discounted, especially in the end-of-life setting.

Nonetheless, we agree that TPCs are effective; however, we typically restrict their use to more complicated presentations [3]. Specifically, we favor TPCs for trapped lung, high-volume output, poor performance status, or failure of conventional pleurodesis. In these settings, we have noted excellent palliation of dyspnea and low reintervention rate. We continue to favor...
VATS-talc pleurodesis for simple MPE and good performance status because it is an effective and durable intervention.

In summary, we do not think that one size fits all, and we treat each patient’s presentation as unique. We believe that we can tailor the intervention to fit the patient and remain proponents of having as many arrows in our quiver as possible. To this end, TPCs are valuable, but we prefer to let the judgment of the surgeon show the way.

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References

Reply
To the Editor:

We agree with Murthy and colleagues [1] that “one size does not fit all” for the management of malignant pleural effusion, as shown by our published algorithm [2]: some patients are better served with a tunneled pleural catheter (TPC) and others by pleurodesis. We are providing palliative care, and the ideal approach is to educate and counsel patients on palliative options and then provide assistance. Lastly, palliation of malignant pleural effusion deserves the same critical review of data as any other process in thoracic surgery.

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References

Combined Repair of Pectus Excavatum and Cardiopulmonary Bypass Surgery. What Is the Best Strategy?

To the Editor:

In their recent article, Sacco Casamassima and coworkers [1] advocate for combined repair of pectus excavatum and surgery under cardiopulmonary bypass (CBP) in patients with connective tissue disorders. We congratulate the authors for their interesting contribution to the field. Such concomitant surgery requires (1) optimal operative exposure during CBP procedure; (2) minimal bleeding during pectus excavatum correction and efficient breastplate stabilization, using a device allowing an urgent postoperative reentry or cardiopulmonary resuscitation maneuvers; and (3) satisfactory cosmetic result [2]. The Nuss technique, however, incompletely addresses these criteria because the curved Lorenz bar used for chest wall stabilization impedes effective external cardiac compression [3] or prompt reentry owing to multiple clips and wire sutures. Furthermore, after CBP surgery this technique is a risk factor for catastrophic outcomes such as transmural cardiac bridge or aortic injury leading to fatal or near-fatal hemorrhage during bar removal [4, 5].