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Predictors of Survival in Postinduction Therapy Surgical T4N0-2 Non-Small Cell Lung Cancer

To the Editor:

Recently, Perentes and coworkers [1] reported a relatively large series of T4/N0-N2/M0 non-small cell lung cancer (NSCLC) patients treated surgically after induction therapy [1]. Based on a substantial "no impact" of the pulmonary functional changes after induction therapy on fundamental indicators (short- and long-term survival), they inferred that resection after induction therapy can be performed with a reasonable postoperative mortality rate and long-term survival in selected patients. In the literature, most of the studies of a trimodal approach (radio-chemo-surgery) in a neoadjuvant setting evaluated this strategy in patients with N2 involvement with or without locally advanced tumors (T1–T4/N2 [2, 3]), while very few studies analyzed the impact of the same strategy in T3–T4/N0 tumors [4]. That makes the reading of the analysis of Perentes and colleagues [1] more interesting and praiseworthy for its completeness, although executed on somewhat heterogeneous subgroups of T4 disease and limited by its retrospective nature.

Accordingly, we wish to submit our reflections to foster brainstorming on the strategy for treating locally advanced NSCLC. As noted in our recently published study [5], the rationale for planning a trimodal strategy in T4 NSCLC lies in the theoretical consideration that shrinking the tumor mass (a substantial factor when the completeness of the surgery is at stake) makes local control of the disease feasible and might therefore improve the disease-free and overall long-term survival by preventing its spread. In our study, which was biased by the same limitations as that of Perentes and coworkers, we observed a difference in long-term survival when T4/N0 patients only where considered (5-year survival 50% after induction therapy versus 0% after surgery only).

Nevertheless, this approach has its own drawbacks: for patients administered chemotherapy, despite being technically operable, potentially curative surgery is delayed, which combined with ineffective chemotherapy could prove detrimental and lead to disease spread. Therefore, induction therapy for T3–4/N0 NSCLC is not recommended universally, except as a part of controlled clinical trials (as in our study). In this scenario, we believe that the effort of Perentes and colleagues [1] to identify clinical predictors of survival in patients with T4N0 disease after induction therapy (and accordingly before surgery) has considerable merit. In fact, "correct" clinical selection is probably the first and most meaningful step when such an "aggressive strategy" is planned. The lack of validated selection criteria (indeed, their validation in randomized, controlled trials could prove flawed ethically, given the evidence from observational experience) could be the reason, for example, for the absence of relevance when time-trend pulmonary functionality changes are considered in the surgical morbidity of cases treated with induction therapy.

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Choosing Postoperative Echocardiograms Wisely: Harmonization of the Guidelines

To the Editor:

We read with interest the "Choosing Wisely" list published recently in *The Annals of Thoracic Surgery* [1], which suggests five tests that should not be performed in the perioperative evaluation of a cardiothoracic surgical patient.

We agree with the goals of the Choosing Wisely initiative to facilitate discussion between physicians and patients and reduce overuse of tests. However, the recommendation "do not perform a routine predischarge echocardiogram after cardiac valve replacement surgery" seems to differ from other guidelines. It suggests that predischarge echocardiography should only occur if the patient was unable to undergo intraoperative transesophageal echocardiography or if clinical instability arises.

Several guidelines are cited: the 2006 American College of Cardiology/American Heart Association (ACC/AHA) valvular disease guidelines [2], the 2009 American Society of Echocardiography (ASE) prosthetic valve guidelines [3] and the 2011 Echocardiography Appropriate Use Criteria (AUC) [4]. On review, there is no consensus on the appropriateness of predischarge transthoracic echocardiography (TTE).

Both the ACC/AHA 2006 and 2009 ASE guidelines suggest that a TTE should be performed at the first follow-up visit 2 to 4 weeks after discharge. The guidelines state this should be done only "if a baseline echocardiogram was not obtained

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before hospital discharge" [2], with a class I, level of evidence C recommendation. The 2009 ASE guidelines recommends a predischarge TTE if the patient is to be transferred and might not return [3].

Finally, the 2011 ASE AUC recommends "initial postoperative evaluation of prosthetic valve for establishment of baseline" as appropriate with the highest score (A9), with no specification of timing [4]. This can be interpreted specifically that predischarge TTE is appropriate.

One goal of the Choosing Wisely list is to encourage cost-effective care, and it is gaining widespread acceptance by the public and policy makers. However, some might be perplexed by inconsistencies across recommendations, resulting in practices and policies that might preclude proper evaluation of patient-prosthesis mismatch or prevent appropriate care of postoperative valve replacement patients.

Thus, it is essential to aim for harmonization of both surgical and medical guidelines. We advocate for a clear consensus on appropriate timing of postoperative TTE after valve replacement surgery.

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Devices Are Only as Safe as the Surgeons Who Use Them

To the Editor:

The case report by Tan and Coffey [1] is another instance of atrioesophageal fistula after radiofrequency ablation for treatment of atrial fibrillation. Given prior reports of this event after both percutaneous radiofrequency catheter ablation [2] and surgical radiofrequency ablation [3] and the predictable adverse outcome of patients experiencing this complication, I believe the authors have missed the most important message to readers. Specifically, absent is the critical information that might lead to an understanding of "how" rather than "what." At a minimum, we should know the experience level of the operator, the efforts made to isolate the posterior left atrium, the location of the transesophageal probe during the ablation, the parameters used to guide the radiofrequency application (e.g., temperature, duration), and the exact location of the left atrial lesion set and the repetitiveness of the ablation line.

In the absence of this minimal information, one is left with more questions than answers. Surgeons routinely use instruments and tools that have the potential to create injury when used improperly. Methods to avoid this complication have been reported in great detail [4]. In this instance, using an otherwise safe device, it is highly likely that deviation from recommended preventive techniques by an inexperienced operator produced this well-known avoidable complication and serves as a reminder to all interventionists that preventing complications is based on thorough understanding of proper device utilization.

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Warm Blood Microplegia Redosing Interval in Pediatric Surgery

To the Editor:

We read the interesting article from Bojan and colleagues [1] comparing cold custodiol cardioplegia to oxygenated warm blood microplegia (WBM) in neonatal arterial switch operation.

The authors described a WBM protocol with redosing every 10–12 minutes. As stated, this time-consuming technique carries a possible risk of coronary ostial injury. However, the rationale for such a short time interval between microplegia redosing is questionable. We described pediatric use of WBM in 2001. At that time, interval between microplegia injections was 15 min, in accordance with the Calafiore technique [2]. During our 12-year experience with warm surgery, we progressively shifted from 15-min to 35–40-min redosing intervals [3]. Therefore, for an arterial switch operation, the number of cardioplegic infusion is typically 3. The first and the third injection (after completion of the aortic suture) being performed in the aorta, the second injection is the only one performed in the coronary ostia.

For a vast majority of pediatric surgeons, tolerance of prolonged warm ischemia is surprising and totally unexpected. In our experience, tolerance was assessed on several indirect factors: spontaneous rapid resumption of sinusal rhythm following aorta unclamping, vasoactive inotropic score, blood lactate level,

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