

Introduction

This issue continues the format of a point/counter point discussion of controversial and technically challenging areas in cardiothoracic surgery involving adult cardiac, pediatric cardiac, and general thoracic topics. In this issue, we have three complex and controversial situations in each of the specialties. The issue of ischemic mitral regurgitation is one that continues to defy surgeons and cardiologists in dealing with moderate to moderately severe mitral regurgitation despite new approaches and new annuloplasty rings. Procedures for treating hypoplastic left heart are still undergoing evolution and modification. Finally, in the staging and treatment of lung cancer, a debate still exists in today's general thoracic circles regarding the initial approach to this disease.

As always I am indebted to our Associate Editors, Drs. Sundt, Jonas, and Mentzer for organizing a superb issue of controversial technical problems.

Operative Repair of Ischemic Mitral Regurgitation

The grave prognostic consequences of mitral regurgitation secondary to ischemic coronary artery disease are now apparent. Surgeons have long recognized the increased operative risk of such patients; we are now increasingly aware of their dismal late survival as well. As experience with the surgical treatment of end-stage heart disease has grown, so too has interest in attacking the problem of ischemic mitral regurgitation head-on. Dr. Patrick McCarthy has had a longstanding interest in ischemic mitral regurgitation and, in particular, its correction using ring annuloplasty. In this issue, he and his colleague at Northwestern University, Dr. Edwin McGee, discuss the repair of ischemic mitral regurgitation both by annuloplasty alone, and by mitral replacement. As a counterpoint, Drs. Irving Kron and Benjamin Peeler present a more aggressive approach to addressing the accompanying—or perhaps causal—ventricular geometric abnormality present in this condition. Unhappy with the rate of late recurrence of mitral regurgitation for ischemic disease, these authors have added a subvalvular suture to effect posterior papillary muscle relocation in addition to annuloplasty.

The ultimate place of mitral repair in the treatment of ischemic mitral regurgitation remains controversial. To the surprise of many the operative mortality reported for mitral repair in this setting in recent years has proven low. The relative increase in risk over coronary bypass alone is a matter

of controversy. Unfortunately, the actual effectiveness of repair in improving late survival remains unproven as well. None the less, the cardiac surgeon today must be equipped to deal with this entity.

Norwood Procedure: Blalock versus Sano Shunt

The congenital cardiac controversy that is the focus of this issue is currently a hot topic. Many centers are firmly of the opinion that the right ventricle to pulmonary artery shunt popularized by Sano for the stage 1 Norwood procedure has been a remarkably important development. On the other hand, several centers with large experience with the Norwood procedure and low mortality rates for several years are less convinced that the Blalock shunt should be abandoned. Jim Tweddell from the Milwaukee Children's Hospital has illustrated his approach to the Norwood procedure incorporating a modified Blalock shunt while Shunji Sano from Okayama Japan has illustrated his technique for constructing the shunt that bears his name.

Lymph Nodes and Lung Cancer

The controversy in this issue of *Operative Techniques in Cardiothoracic Surgery* focuses on lymph nodes and lung cancer. The article "Mediastinal Staging Prior to Surgical Resection" describes the technical approach to mediastinoscopy and thoracoscopic staging. Drs. Maskovitz and Rusch describe their approach to lymphadenectomy in the article "Resection and Mediastinal Lymph Node Dissection."

"Mediastinal Staging Prior to Surgical Resection" argues that mediastinoscopy offers a safe and effective means of obtaining histologic evidence of tumor stage prior to definitive surgical resection. The role of pre-therapy staging is likely to evolve in the future; nonetheless, the ability of the thoracic surgeon to obtain pre-treatment histologic staging with a minimally morbid outpatient procedure is an advantage envied in many areas of surgical oncology. From the viewpoint of the individual patient, the histologic findings may suggest the necessity of additional radiographic staging or the utility of neoadjuvant therapy. The importance of pre-treatment histologic analysis will likely increase with the development of predictive biomarkers and targeted chemotherapy. From the viewpoint of clinical trials, pre-resectional

tissue ensures the accurate therapeutic comparisons between patients.

Drs. Maskovitz and Rusch describe an approach that is often positioned as an alternative to mediastinoscopy; however, mediastinal lymph node dissection may also complement invasive mediastinal staging. When invasive mediastinal staging is performed prior to neoadjuvant chemotherapy, lymph node dissection at the time of definitive surgery allows

for the evaluation of the treatment response like comparing tissue both before and after therapy. The ability to perform serial analyses of metastatic cancer from the same patient is a unique aspect of lung cancer therapy. It is in advantage that needs to be exploited in future clinical trials.

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