Condensed Contents

Presidential Perspectives

621 Historical perspectives of The American Association for Thoracic Surgery: Thomas H. Burford (1907-1977)
S. Okada and M. R. Moon

Expert Review

626 Isolation of persistent air leaks and placement of intrabronchial valves
A. K. Mahajan, D. C. Doeing, and D. K. Hogarth

Congenital Heart Disease (CHD)

631 Prioritizing quality improvement in pediatric cardiac surgery
P. Eghtesady, A. K. Brar, and M. Hall

641 Contemporary outcomes of surgical ventricular septal defect closure

648 Arrhythmia surgery for atrial fibrillation associated with atrial septal defect: Right-sided maze versus biatrial maze

656 Complete but not partial thymectomy in early infancy reduces T-cell–mediated immune response: Three-year tracing study after pediatric cardiac surgery
H. Kurobe, T. Tominaga, M. Sugano, Y. Hayabuchi, Y. Egawa, Y. Takahama, and T. Kitagawa

663 Simulating hemodynamics of the Fontan Y-graft based on patient-specific in vivo connections

671 Unplanned reinterventions are associated with postoperative mortality in neonates with critical congenital heart disease

678 Intra/extracardiac fenestrated modification leads to lower incidence of arrhythmias after the Fontan operation
P. Sinha, D. Zaradowski, D. He, C. Yerebakan, V. Freedenberg, J. P. Moak, and R. A. Jonas

General Thoracic Surgery (GTS)

683 Surgical treatment of metachronous second primary lung cancer after complete resection of non–small cell lung cancer
M. Hamaji, M. S. Allen, S. D. Cassivi, C. Deschamps, F. C. Nichols, D. A. Wigle, and K. R. Shen

692 Treatment of stage I lung cancer in high-risk and inoperable patients: Comparison of prospective clinical trials using stereotactic body radiotherapy (RTOG 0236), sublobar resection (ACOSOG Z4032), and radiofrequency ablation (ACOSOG Z4033)

699 Commentary: The best that surgery has to offer
T. A. D’Amico

702 Lung cancer lymph node micrometastasis detection using real-time polymerase chain reaction: Correlation with vascular endothelial growth factor expression

(continued on page 4A)
Positron emission tomography combined with diagnostic chest computed tomography enhances detection of regional recurrence after stereotactic body radiation therapy for early stage non–small cell lung cancer

“Corkscrew stenosis”: Defining and preventing a complication of percutaneous dilatational tracheostomy
J. V. Jacobs, D. A. Hill, S. R. Petersen, R. M. Bremner, R. D. Sue, and M. A. Smith

A clinical prediction rule for perioperative mortality and major morbidity after laparoscopic giant paraesophageal hernia repair
N. Ballian, J. D. Laketch, R. M. Levy, O. Awais, D. Winger, B. Weksler, R. J. Landreneau, and K. S. Nason

Surgical and neurologic outcomes after robotic thymectomy in 100 consecutive patients with myasthenia gravis
G. Marulli, M. Schiavon, E. Perissinotto, A. Bugana, F. Di Chiara, A. Rebusso, and F. Rea

Commentary: Niche for a technology or technology for a niche?
S. C. Murthy

Acquired Cardiovascular Disease (ACD)

Drug-eluting stents versus coronary artery bypass graft surgery in left main coronary artery disease: A meta-analysis of early outcomes from randomized and nonrandomized studies
C. Cao, C. Manganas, P. Bannon, M. Valley, and T. D. Yan

Minimally invasive approach provides at least equivalent results for surgical correction of mitral regurgitation: A propensity-matched comparison

Elective femoro-femoral cardiopulmonary bypass during transcatheter aortic valve implantation: A useful tool
T. Drews, M. Pasic, S. Buz, G. D’Ancona, A. Mladenow, R. Hetzer, and A. Unbehaun

Hemi–aortic arch debranching for hybrid aortic arch repair by sequential transposition of the left common carotid and subclavian arteries
L. Canaud, F. Joyeux, V. Ziza, P. Branchereau, C. Marty-Ané, and P. Alric

Clinical efficacy of intermittent pressure augmented–retrograde cerebral perfusion
H. Endo, H. Kubota, H. Tsuchiya, A. Yoshimoto, Y. Takahashi, Y. Inaba, and K. Sudo

Causes and management of aortic valve regurgitation after aortic valve reimplantation
C. Giebels, D. Aicher, T. Kunihara, S. Rodionycheva, W. Schmied, and H-J. Schäfers

Gaming in risk-adjusted mortality rates: Effect of misclassification of risk factors in the benchmarking of cardiac surgery risk-adjusted mortality rates

Comprehensive surgical approach to treat atrial fibrillation in patients with variant pulmonary venous anatomy
W. Wang, D. Buehler, A. Hamzei, X. Wang, and X. Yuan

Perioperative Management (PM)

Blood product conservation is associated with improved outcomes and reduced costs after cardiac surgery

Publisher: The Journal of Thoracic and Cardiovascular Surgery (ISSN 0022-5223) is published monthly by Elsevier Inc., 360 Park Avenue South, New York, NY 10010-1710. Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to The Journal of Thoracic and Cardiovascular Surgery, Elsevier Health Sciences Division, Subscription Customer Service, 3251 Riverport Lane, Maryland Heights, MO 63043.
The influence of preoperative serum anticholinergic activity and other risk factors for the development of postoperative cognitive dysfunction after cardiac surgery
K. Plaschke, S. Hauth, C. Jansen, T. Bruckner, C. Schramm, M. Karck, and J. Kopitz

Adenosine instead of supranormal potassium in cardioplegia: It is safe, efficient, and reduces the incidence of postoperative atrial fibrillation.
A randomized clinical trial
Ø. Jakobsen, T. Næsheim, K. N. Aas, D. Sørlie, and T. Steensrud

Inspiratory muscle training for diaphragm dysfunction after cardiac surgery
M. Kodric, R. Trevisan, C. Torregiani, R. Cifaldi, C. Longo, F. Cantarutti, and M. Confalonieri

Optimized ventricular restraint therapy: Adjustable restraint is superior to standard restraint in an ovine model of ischemic cardiomyopathy
L. S. Lee, R. K. Ghanta, S. A. Mokashi, O. Coelho-Filho, R. Y. Kwong, M. Kwon, J. Guan, R. Liao, and F. Y. Chen

Prediction of the critical thermal zone during pulmonary cryoablation on computed tomography from correlated experimental and clinical findings
K. Hashimoto, Y. Izumi, Y. Yamauchi, H. Yashiro, M. Inoue, S. Nakatsuka, and H. Nomori

Immunohistochemical studies of pulmonary large cell neuroendocrine carcinoma: A possible association between staining patterns with neuroendocrine markers and tumor response to chemotherapy
Y. Tanaka, H. Ogawa, K. Uchino, C. Ohbayashi, Y. Maniwa, W. Nishio, A. Nakao, and M. Yoshimura

Healing process after total cricoidectomy and laryngotracheal reconstruction: Endoscopic and histologic evaluation in a canine model
K. Yamamoto, M. Honda, T. Yamamoto, and T. Nakamura

Inhibiting CXCL12 blocks fibrocyte migration and differentiation and attenuates bronchiolitis obliterans in a murine heterotopic tracheal transplant model
D. A. Harris, Y. Zhao, D. J. LaPar, A. Emaninia, J. F. Steidle, M. Stoler, J. Linden, I. L. Kron, and C. L. Lau

Extracorporeal membrane oxygenation as a bridge to pulmonary transplantation
C. W. Hoopes, J. Kukreja, J. Golden, D. L. Davenport, E. Diaz-Guzman, and J. B. Zwischenberger

Primary graft dysfunction does not lead to increased cardiac allograft vasculopathy in surviving patients

Have you seen an atrium bigger than this?
K. E. Al-Ebrahim

Bilateral pulmonary arterial banding for complex transposition of the great arteries
S. Weinstein, A. Liveris, R. U. Shenoy, and F. Lacour-Gayet

Hybrid approach to HeartMate II left ventricular assist device exchange
T. A. Timek, R. L. Hooker, A. Khaghani, and W. Merhi

Surgical treatment for secondary pneumothorax in patients aged more than 80 years
H. Shigematsu, A. Andou, and R. Higashi

A simple technique of commissural reconstruction in aortic valve–sparing surgery
H. A. Vohra, L. deKerchove, J. Rubay, and G. ElKhoury

Early rupture of an expanded polytetrafluoroethylene neochord after complex mitral valve repair: An electron microscopic analysis

Peripheral venoarterial extracorporeal membrane oxygenation improves survival in myocardial infarction with cardiogenic shock
G. H. L. Tang, R. Malekan, M. Kai, S. L. Lansman, and D. Spielvogel

(continued on page 8A)
Percutaneous transhepatic biliary drainage complicated with hepatic hydrothorax
P-M. Huang

Sapien XT implantation under direct vision as a bail-out procedure in case of hostile aortic root: A reasonable alternative for stentless bioprosthesis reoperation
C. Tessari, A. D’Onofrio, C. Guglielmi, and G. Gerosa

Cover Photographs
Left: Simulating Hemodynamics of the Fontan Y-Graft Based on Patient-Specific In Vivo Connections. Velocity streamlines (left), vortex core isosurfaces (Q = 800 [top], 13,000 [bottom]) (center), and viscous dissipation contours localized to the vortex isosurfaces (right) for patients 3 (top, rest) and 4 (bottom, ×3).
Center: Hemi–Aortic Arch Debranching for Hybrid Aortic Arch Repair by Sequential Transposition of the Left Common Carotid and Subclavian Arteries. Left, Postoperative computed tomographic scan after sequential transposition of the left circumflex coronary artery and of the left subclavian artery and endovascular exclusion of an acute traumatic transection of the aortic isthmus. Right, Intraoperative angiogram of an endovascular exclusion of a thoracic aortic false aneurysm after transposition of the left circumflex coronary artery into the brachiocephalic trunk and of the left subclavian artery into the left circumflex coronary artery.
Right: “Corkscrew Stenosis”: Defining and Preventing a Complication of Percutaneous Dilatational Tracheostomy. Anterior-proximal tracheal ring fracture associated percutaneous dilatational tracheostomy. Arrow depicts the force that creates torque about the axis of the tracheostomy site and may increase the risk of these tracheal ring fractures.