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565  Bone marrow–derived mononuclear cell transplantation improves myocardial recovery by enhancing cellular recruitment and differentiation at the infarction site
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Bone marrow–derived mononuclear cell transplantation improves the function of the heart and enhances myocardial recovery after severe experimental infarction. Cells injected into the myocardium participate in the repair process by means of direct cell differentiation and guidance of the natural healing process.

574  Left ventricular pacing site and timing optimization during biventricular pacing using a multielectrode patch in pigs
George Berberian, MD, T. Alexander Quinn, MS, Santos E. Cabreriza, MBA, Jon-Emile S. Kenny, BS, Cara A. Garofalo, MD, Alan D. Weinberg, MS, and Henry M. Spotnitz, MD, New York, NY

Left ventricular pacing site and right ventricular–left ventricular delay can be optimized with a multielectrode patch and randomized data collection.

579  Time-dependent response of both ventricles after septal ablation: Implications for biventricular support after left ventricular assist device placement
James Mau, BSc, MB, BS, Stuart Menzie, MB, BS, FRACS, Michael Ward, MB, BS, PhD, FRACP, Henning Bundgaard, MD, PhD, and Stephen Hunyor, MB, BS, MD, MTM, FRACP, FACC, Sydney, Australia

The acute response to interventricular septal ablation differs from the chronic response. In contrast with decreasing LV function, RV function increases acutely. After 4 weeks, biventricular function normalizes. These results in an ovine model have implications for the choice of a mechanical LV or biventricular assist.

(continued on page 12A)
Elevated flow rate during cardiopulmonary bypass is associated with fluid accumulation
Oddbjørn Haugen, MD, Marit Farstad, MD, PhD, Venny Kvalheim, MD, Olav Bøe, DDS, MSc, and Paul Husby, MD, PhD, Bergen, Norway

The relationship between different CPB flow rates and fluid shifts was studied in a porcine model. CPB flow rate of 110 mL · kg⁻¹ · min⁻¹ resulted in a higher net fluid balance and fluid extravasation rate than those with a flow rate of 80 mL · kg⁻¹ · min⁻¹. The difference was mainly seen in the initial phase of CPB.

Prolonged extracorporeal membrane oxygenation-assisted support provides improved survival in hypothermic patients with cardiocirculatory arrest
Elfriede Ruttmann, MD, Annemarie Weissenbacher, MD, Hanno Ulmer, PhD, Ludwig Mühler, MD, Daniel Höfer, MD, Juliane Kilo, MD, Walter Rabl, MD, Birgit Schwarz, MD, Günther Laufer, MD, Herwig Antretter, MD, and Peter Mair, MD, Tyrol, Austria

Extracorporeal circulation is considered the gold standard in the treatment of hypothermic patients with cardiocirculatory arrest. This study presents the use of prolonged extracorporeal membrane oxygenation support as an alternative treatment option for this indication and investigates whether extracorporeal membrane oxygenation support provides improved outcome in hypothermic patients with cardiac arrest.

Neurologic outcomes of thymectomy in myasthenia gravis: Comparative analysis for the effect of thymoma
Hong Kwan Kim, MD, Min Soo Park, MD, Yong Soo Choi, MD, Kwhannien Kim, MD, Young Mog Shim, MD, Joungho Han, MD, Byoung Joon Kim, MD, and Jhingook Kim, MD, Seoul, South Korea

We compared the neurologic outcomes after thymectomy in patients with myasthenia gravis (MG). Neurologic outcomes of the thymoma group were no worse than those of the nonthymoma group. It is expected that earlier thymectomy is likely to result in a better prognosis by shortening the disease period, even for patients with nonthymomatous MG.

Use of tissue expanders in adult postpneumonectomy syndrome
Anne Floor M. Macare` van Maurik, MD, Bart M. Stubenitsky, MD, PhD, Henny A. van Swieten, MD, PhD, MsSc, Vincent A. M. Duurkens, MD, Erik Laban, MD, and Moshe Kon, MD, PhD, Nieuwegein and Utrecht, The Netherlands

We present our 15-year experience using tissue expanders in 20 adults with pneumonectomy syndrome. Perioperative and postoperative complications, outcome (among others, bronchoscopic evidence of decompression of the main bronchus), and patient satisfaction were retrospectively analyzed. The treatment proved to be effective, although additional operations were necessary in 6 cases.
613 Effects of head-down tilt on intrapulmonary shunt fraction and oxygenation during one-lung ventilation in the lateral decubitus position
Yong Seon Choi, MD, Sou Ouk Bang, MD, Jae Kwang Shim, MD, Kyung Young Chung, MD, PhD, Young Lan Kwak, MD, PhD, and Yong Woo Hong, MD, PhD, Seoul, South Korea

Surgical positions significantly affect deterioration of oxygenation during one-lung ventilation. Head-down tilt during one-lung ventilation in the lateral decubitus position caused significant increase in intrapulmonary shunt, faster decrease in percent change of PaO₂, and significant increases in cardiac filling pressures without any increase in cardiac output.

619 Sarcomatoid lung cancer (spindle/giant cells): An aggressive disease?
Nicolas Venissac, MD, Daniel Pop, MD, Sandra Lassalle, MD, Frederic Berthier, MD, Paul Hofman, MD, PhD, and Jérôme Mouroux, MD, PhD, Nice, France

Investigation of 39 surgical specimens to determine the clinical, surgical, and pathologic features of sarcomatoid lung carcinomas with spindle/giant cells confirmed the aggressive nature of these rare tumors that are difficult to diagnose preoperatively. Death from recurrent disease is frequent, but long-term survival is sometimes obtained after surgical intervention.

624 Risk-adjusted econometric model to estimate postoperative costs: An additional instrument for monitoring performance after major lung resection
Alessandro Brunelli, MD, Michele Salati, MD, Majed Refai, MD, Francesco Xiumé, MD, Gaetano Rocco, MD, and Armando Sabbatini, MD, Naples, Italy

A clinically risk-adjusted econometric model was developed to predict the postoperative costs of patients submitted to major lung resection. This model was used as an internal audit instrument to evaluate the economic performance of our unit, revealing lower than expected costs in the most recent period.

630 Surgical treatment of synchronous multiple primary lung cancers: Experience of 92 patients
Yih-Leong Chang, MD, Chen-Tu Wu, MD, and Yung-Chie Lee, MD, PhD, Taipei, Taiwan

Ninety-two cases of synchronous unilateral and bilateral multiple primary lung cancers were analyzed for treatment and outcome. Lymph node metastasis was an independent adverse prognostic factor, and aggressive surgical resection was safe and justified in these patients.

638 Prognostic factors in resected stage I non–small cell lung cancer with a diameter of 3 cm or less: Visceral pleural invasion did not influence overall and disease-free survival
Jung-Jyh Hung, MD, Chien-Ying Wang, MD, Min-Hsiung Huang, MD, Biing-Shuang Huang, MD, Wen-Hu Hsu, MD, and Yu-Chung Wu, MD, Taipei, Taiwan

Tumor size, smoking index, and number of mediastinal lymph nodes dissected were prognostic factors for both overall and disease-free survivals in resected stage I NSCLC with a diameter of 3 cm or less. Small tumors (<3 cm) of stage IB NSCLC with visceral pleural invasion should be treated as T1 disease and not T2 disease.
Description of regional mitral annular nonplanarity in healthy human subjects: A novel methodology
Liam P. Ryan, MD, Benjamin M. Jackson, MD, Yoshiharu Enomoto, MD, Landi Parish, MD, Theodore J. Plappert, CVT, Martin G. St. John-Sutton, MBBS, FRCP, Robert C. Gorman, MD, and Joseph H. Gorman III, MD, Philadelphia, Pa

Novel echocardiographic and analytic techniques were applied to the regional geometric characterization of the normal human mitral annulus. Both global and regional annular geometry were found to be highly conserved when normalized according to commissural width in healthy human subjects.

Patency rates of endoscopically harvested radial arteries one year after coronary artery bypass grafting
Sabine Bleiziffer, MD, Ina Hettich, MD, Birgit Eisenhaeuer, Daniel Ruzicka, MD, Michael Wottke, MD, Joerg Hausleiter, MD, Stefan Martinoff, MD, Martin Morgenstern, MD, and Ruediger Lange, PhD, MD, Munich, Germany

In addition to the cosmetic superiority of endoscopically harvested radial arteries, we found patency rates of greater than 90% 1 year after coronary artery bypass grafting when the radial artery was anastomosed to target vessels with a 90% or greater stenosis. Thus, we recommend endoscopic harvesting as the technique of choice for radial artery harvesting.

Opening and closing kinematics of fresh and calcified aortic valve prostheses: An in vitro study
Farhad Bakhtiary, MD, Omer Dzemali, MD, Ulrich Steinseiffer, PhD, Christof Schmitz, PhD, Birgit Glasmacher, PhD, Anton Moritz, MD, PhD, and Peter Kleine, MD, PhD, Frankfurt/Main and Aachen, Germany

The study investigates changes in opening and closing functions in fresh and calcified porcine and pericardial aortic valve prostheses. Leaflet kinematics showed a progressive prolongation of opening and closing times for pericardial valves, leading to higher closing volumes.

Cumulative sum failure analysis for eight surgeons performing minimally invasive direct coronary artery bypass
David M. Holzhey, MD, Stephan Jacobs, MD, Thomas Walther, MD, PhD, Michael Mochalski, MD, Friedrich W. Mohr, MD, PhD, and Volkmar Falk, MD, PhD, Leipzig, Germany

Cumulative sum failure analysis of more than 1400 MIDCAB procedures revealed significant differences between surgeons with regard to individual learning curves and perioperative complications despite a similar patient risk profile. CUSUM analysis allows for a breakdown of complication rates over time, displaying individual surgeons’ strengths.
670 **Staphylococcus aureus** poststernotomy mediastinitis: Description of two distinct acquisition pathways with different potential preventive approaches

Rafael San Juan, MD, Fernando Chaves, MD, Maria Jesús López Gade, MD, Carmen Díaz-Pedroche, MD, Joaquín Otero, MD, José María Cortina Romero, MD, Juan José Rufilanchas, MD, and Jose María Aguado, MD, Madrid, Spain

Nasal colonization often precedes methicillin-susceptible *S. aureus* (MSSA) poststernotomy mediastinitis, which suggests that decontamination is adequate for preventing MSSA poststernotomy mediastinitis, whereas hospital infection control measures seem to be the major factor in preventing cases resulting from MRSA.

677 Does right thoracotomy increase the risk of mitral valve reoperation?

Lars G. Svensson, MD, PhD, A. Marc Gillinov, MD, Eugene H. Blackstone, MD, Penny L. Houghtaling, MS, Kyung-Hwan Kim, MD, Gösta B. Pettersson, MD, PhD, Nicholas G. Smedira, MD, Michael K. Banbury, MD, and Bruce W. Lytle, MD, Cleveland, Ohio

In reoperations including mitral valve repair or replacement, a median sternotomy approach is associated with fewer strokes and a higher likelihood of valve repair than is right thoracotomy. We therefore recommend the median sternotomy approach to mitral valve reoperation, with few exceptions.

683 Long-term outcomes after coronary artery bypass grafting: Preoperative kidney function is prognostic

Michel B. Chonchol, MD, Victor Aboyans, MD, PhD, Philippe Lacroix, MD, Gerard Smits, PhD, Tomas Berl, MD, and Marc Laskar, MD, Denver, Colo, Limoges, France, and Santa Barbara, Calif

In a longitudinal study on 931 patients undergoing CABG, moderate-to-severe CKD was associated with adverse cardiovascular outcomes and death. The measurement of kidney function by prediction equations before CABG provides important information on long-term cardiovascular outcomes and mortality.

690 Impaired cerebral autoregulation distal to carotid stenosis/occlusion is associated with increased risk of stroke at cardiac surgery with cardiopulmonary bypass

Julia Schoof, MD, Wiebke Lubahn, MD, Matthias Baeumer, MD, Regina Kross, MD, Claus-Werner Wallesch, MD, Alf Kozian, MD, Christof Huth, MD, and Michael Goertler, MD, Magdeburg, Germany

Severe carotid disease is associated with an increased risk of stroke after CABG or valve surgery with CPB. Our data indicate that only patients with carotid stenosis/occlusion and impaired cerebral autoregulation as detected by preoperative transcranial Doppler carbon dioxide testing had this increased risk.
697  Patient–prosthesis mismatch after mitral valve replacement: Myth or reality?
Pasquale Totaro, MD, and Vincenzo Argano, MD, Brescia and Palermo, Italy

Stented mitral bioprostheses showed satisfactory postoperative hemodynamic performance even in smaller prosthesis sizes ($\leq 27$ mm). Risk of in vivo postoperative PPM seems to be less relevant than preoperative prediction based on in vitro data. Further studies are needed to evaluate the potential clinical impact of mitral PPM.

702  Usefulness of microsimulation to translate valve performance into patient outcome: Patient prognosis after aortic valve replacement with the Carpentier–Edwards supra-annular valve
Martijn W. A. van Geldorp, MD, W. R. Eric Jamieson, MD, A. Pieter Kappetein, MD, PhD, John P. A. Pavimanasinghe, MD, PhD, Marinus J. C. Eijkemans, PhD, Gary L. Grunkemeier, PhD, Johanna J. M. Takkenberg, MD, PhD, and Ad J. J. C. Bogers, MD, PhD, Rotterdam, The Netherlands, Vancouver, Canada, and Portland, Ore

This article provides insight into microsimulation methodology and gives an overview of advantages and disadvantages of simulation methods in comparison with standard methods of outcome analysis. By using microsimulation, detailed insight into patient outcome after aortic valve replacement can be provided. This can be useful for prosthesis selection and patient counseling.

710  Feasibility, safety, and efficacy of totally endoscopic coronary artery bypass grafting: Multicenter European experience
Didier de Cannière, MD, PhD, Gerhard Wimmer-Greinecker, MD, PhD, Romuald Cichon, MD, Vassilios Gulielmos, MD, Frank Van Praet, MD, Usha Seshadri-Kreaden, MSc, and Volkmar Falk, MD, PhD, Brussels and Aalst, Belgium, Frankfurt am Main, Dresden, and Leipzig, Germany, and Sunnyvale, Calif

Feasibility, safety, and efficacy of totally endoscopic CABG were investigated in 228 patients. Feasibility was demonstrated, with initially high conversion rates that diminished with time without compromising patient safety. Patency was 97% as measured by angiography or stress electrocardiography; 6-month incidence of major adverse cardiac events was 5%.

717  The multi–purse string maze procedure: A new surgical technique to perform the full maze procedure without atriotomies
Niv Ad, MD, Falls Church, Va

A description of a new surgical approach to perform the maze IV without atriotomies ($n = 11$ patients) is presented. In a mean follow-up of $13 \pm 6$ months, 91% of the patients were free from atrial fibrillation or flutter. Our experience suggests that the maze IV procedure can be performed without the need for atriotomies using the multi–purse string approach.
723 Trial of new vascular clips for aortic anastomosis in a canine model
Shinya Masuda, MD, Yoshikatsu Saiki, MD, Satoshi Kawatsu, MD, Ichiro Yoshioka, MD, Hidenori Fujiiwa, MD, Shunsuke Kawamoto, MD, Sadahiro Sai, MD, Atsushi Iguchi, MD, Naoya Sakamoto, PhD, Toshiro Ohashi, PhD, Masaaki Sato, PhD, and Koichi Tabayashi, MD, Sendai, Japan

By replacing the descending thoracic aorta in a canine model, we assessed the applicability of newly designed stainless steel vascular clips. The new vascular clips were effective in this clinically relevant model, with appropriate biomechanical strength, and the sites underwent histologic changes similar to those observed after suture anastomosis.

Surgery for Congenital Heart Disease (CHD)

731 Surgical atrial septal defect closure after interventional occluder placement: Incidence and outcome
Thomas Walther, MD, PhD, Christian Binner, MD, Ardawan Rastan, MD, Ingo Dähnert, MD, Nicolas Doll, MD, PhD, Volkmar Falk, MD, PhD, Friedrich W. Mohr, MD, PhD, and Martin Kostelka, MD, PhD, Leipzig, Germany

Secondary surgical therapy owing to complicated ASD device closure (dislocation = 5, neurologic events = 5, residual defects = 4, sepsis = 1) was evaluated. Patient outcome was excellent. The risk of potential complications occurring after interventional ostium secundum ASD closure has to be evaluated against the extremely low risk of a standard surgical closure.

738 Coarctation Long-term Assessment (COALA): Significance of arterial hypertension in a cohort of 404 patients up to 27 years after surgical repair of isolated coarctation of the aorta, even in the absence of restenosis and prosthetic material
Alfred Hager, MD, Simone Kanz, MD, Harald Kaemmerer, MD, VMD, FESC, Christian Schreiber, MD, and John Hess, MD, FESC, Munich, Germany

Two hundred seventy-three patients (16–73 years old, 1–27 years after surgical intervention) underwent a structured clinical investigation to assess the contribution of other causes of arterial hypertension than restenosis in a cross-sectional cohort of 404 patients after surgical repair of isolated aortic coarctation. Only 117 (43%) patients were normotensive. In only 21 (13%) patients this was caused by restenosis, defined by a gradient of greater than 20 mm Hg. Prosthetic material, male sex, minor-grade restenosis, and older age at follow-up contributed significantly but not exclusively to the high incidence of arterial hypertension.

746 Utility of intravenous catheters for femoral arterial cannulation in infants having complicated sternal re-entry
Brian Kogon, MD, Jordan Voss, CCP, Craig Villari, BS, Neil Shah, BS, Kathy Spitzer, CCP, Marney Moore, CCP, AnnMarie McGoldrick, CCP, Paul Kirshbom, MD, and Kirk Kanter, MD, Atlanta, Ga

Peripheral arterial cannulation may be lifesaving in cases of complicated sternal re-entry in children. Intravenous catheters can be used when vessels are too small for standard cannulas. Flow rates that provide adequate support while maintaining acceptable arterial line pressures are achievable with peripheral intravenous catheters until central cannulation can be accomplished safely.

(continued on page 24A)
Replacement of the systemic atrioventricular valve with a mechanical prosthesis in children aged less than 6 years: Late clinical results of survival and subsequent replacement

Kilian Ackermann, MD, Gunter Balling, MD, Andreas Eicken, MD, Thomas Günther, MD, Christian Schreiber, MD, and John Hess, MD, Munich, Germany

Replacement of the systemic atrioventricular valve is considered the last therapeutic option after failed attempts of valvuloplasty and is associated with high early mortality and the need for subsequent replacement. Early mortality is the result of the complexity of the underlying cardiac defect rather than geometric disparity between the prosthesis and the cardiac dimensions.

Evolution of surgical techniques for atrial septal defect repair in adults: A 10-year single-institution experience

Koray Ak, MD, Tayfun Aybek, MD, PhD, Gerhard Wimmer-Greinecker, MD, PhD, Feyzan Özslan, MD, Farhad Bakhtiary, MD, Anton Moritz, MD, PhD, and Selami Dogan, MD, Frankfurt/Main, Germany

Currently there is a growing interest in minimally invasive approaches in all fields of cardiac surgery. In this report, we retrospectively reviewed our experience with minimally invasive ASD repair in adult patients.

Determinants of early outcome after neonatal cardiac surgery in a developing country


This study reports early outcomes after neonatal cardiac surgery in a tertiary referral center in South India. There was a significant reduction in mortality in the later era of surgical intervention, although infectious complications remained the same. Neonatal cardiac surgery can be performed with excellent outcomes in developing countries with resource limitations.

Two-year general and neurodevelopmental outcome after neonatal complex cardiac surgery in patients with deletion 22q11.2: A comparative study

Joseph Atallah, MD, Ari R. Joffe, MD, Charlene M. T. Robertson, MD, Norma Leonard, MD, Patricia M. Blakley, MD, PhD, Alberto Nettel-Aguirre, PhD, Reg S. Sauve, MD, David B. Ross, MD, Ivan M. Rebeya, MD, and the Western Canadian Complex Pediatric Therapies Project Follow-up Group, Edmonton and Calgary, Alberta, Saskatoon and Regina, Saskatchewan, and Winnipeg, Manitoba, Canada

Infants (n = 16) with deletion 22q.11.2 who had heart surgery when 6 weeks old or younger were compared with 16 matched infants without deletion 22q11.2. Those with deletion 22q.11.2 had significantly lower mental and psychomotor developmental scores and significantly more mental and motor delay at 18 to 24 months’ follow-up than had those in the comparison group.
Simvastatin attenuates cardiac isograft ischemia-reperfusion injury by down-regulating CC chemokine receptor-2 expression
Rong Yin, MD, Jiaquan Zhu, MD, Zhongqiu Wang, MD, Hairong Huang, MD, Jianjun Qian, MD, Zhongdong Li, MD, and Hua Jing, MD, Nanjing, China

Statins have been shown to alleviate myocardial ischemia-reperfusion injury in coronary artery ligation and Langendorff isolated heart perfusion models. By using a rat model of cardiac transplantation, we demonstrated that simvastatin attenuated isograft myocardial IRI by retarding intragraft monocyte chemoattractant protein-1 accumulation and CC chemokine receptor-2 expression in vivo.

Relation of waveform of transit-time flow measurement and graft patency in coronary artery bypass grafting
Atsutoshi Hatada, MD, Tatsuya Yoshimasu, MD, PhD, Masahiro Kaneko, MD, Mitsumasa Kawago, MD, Mitsuru Yacaki, MD, Kentaro Honda, MD, Shigeru Komori, MD, Masahiro Iwahashi, MD, Hiroki Hayashi, MD, Shoji Yamamoto, MD, Yoshiharu Nishimura, MD, PhD, Takeshi Hiramatsu, MD, PhD, and Yoshitaka Okamura, MD, PhD, Wakayama, Japan

Intermittent incomplete closure of Medtronic Advantage aortic valve leaflets causes unnecessary reoperation
Rune Haaverstad, MD, PhD, Nicola Vitale, MD, PhD, Arve Tronsdal, MD, Knut Hegbom, MD, and Asbjørn Karevold, MD, Trondheim, Norway

Transaortic resection of an apical left ventricular fibroelastoma facilitated by a thoracoscope
Jon-Cecil Walkes, MD, Charudatta Bavare, MD, Shanda Blackmon, MD, MPH, and Michael J. Reardon, MD, Houston, Tex

Left atrial myxoma: The role of multislice computed tomography
Mohammad Hossein Mandegar, MD, Hussein Rayatzadeh, MD, and Farideh Roshanali, MD, Tehran, Iran

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Primary intrapulmonary thymoma associated with congenital hyperhomocysteinemia
Alessando Stefani, MD, Edouard Boulenger, MD, Sylvie Mehaut, MD, Adrian Ciupea, MD, and Marco Alifano, MD, Paris and Troyes, France
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<td>823</td>
<td>The sinuses of Valsalva: They should be anatomically correct and</td>
<td>Francis Robicsek, MD, PhD, Charlotte, NC</td>
</tr>
<tr>
<td></td>
<td>physiologically compliant</td>
<td></td>
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<tr>
<td></td>
<td>Reply</td>
<td>Anton Moritz, MD, PhD, and Tayfun Aybek, MD, PhD, Frankfurt am Main, Germany</td>
</tr>
<tr>
<td>824</td>
<td>If older donors are acceptable, then older recipients should also be</td>
<td>Francis Robicsek, MD, PhD, Charlotte, NC</td>
</tr>
<tr>
<td></td>
<td>acceptable</td>
<td></td>
</tr>
<tr>
<td>825</td>
<td>Independent lung ventilation in adult single-lung transplantation:</td>
<td>Marc de Perrot, MD, and Shaf Keshavjee, MD, Toronto, Canada</td>
</tr>
<tr>
<td></td>
<td>Is it time for fast-track anesthesia and early tracheal extubation?</td>
<td>John G. T. Augoustides, MD, FASE, Philadelphia, Pa</td>
</tr>
</tbody>
</table>

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825  Reply
David V. Pilcher, MRCP, FJFICM, Georg M. Auzinger, MRACP, Biswadev Mitra, MBBS,
David V. Tuxen, FRACP, FJFICM, Robert F. Salamonsen, FANZCA, Andrew R. Davies, FRACP,
Trevor J. Williams, FRACP, and Gregory I. Snell, FRACP, Melbourne, Victoria, Australia

826  Iatrogenic coronary stenosis
Hendrick Boyer Barner, MD, St Louis, Mo

Events of Interest 827  Events

Announcements

The American Association for Thoracic Surgery

829  Annual Meeting Notes

831  Announcement of 2008 Annual Meeting

831  Evarts A. Graham Memorial Traveling Fellowship, 2008-2009

831  Resident Traveling Fellowship, 2007-2008

832  Norman E. Shumway Research Scholarship, 2008-2010

The Western Thoracic Surgical Association

832  Announcement of 2008 Annual Meeting

The American Board of Thoracic Surgery

832  Notices

832  Requirements for Recertification/Maintenance of Certification

Notices of Correction 34A  Correction of article by Mark S. Slaughter, Steven S. Tsui, Aly El-Banayosy,
Benjamin C. Sun, Robert L. Kormos, Dale K. Mueller, H. Todd Massey, Timothy
B. Icenogle, David J. Farrar, and J. Donald Hill, on behalf of the IVAD Study
Group, entitled “Results of a multicenter clinical trial with the Thoratec
Implantable Ventricular Assist Device” (2007;133:1573-80).

Correction of article by P. Feindt, U. Boeken, J. D. Schipke, J. Litmathe, N.
Zimmermann, and E. Gams, entitled “Ventricular constraint in dilated
cardiomyopathy: A new, compliant textile mesh exerts prophylactic and
therapeutic properties” (2005;130:1107-13).

(continued on page 34A)
Notices of Retraction


Notices of Correction


The data contained in Table 3B is incorrect. Corrected results are shown below.

Table 3B. Bridge to transplant outcomes for patients requiring LVADs and BVADs

<table>
<thead>
<tr>
<th></th>
<th>IVAD</th>
<th></th>
<th>Total</th>
<th></th>
<th>IVAD</th>
<th></th>
<th>Total</th>
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<tr>
<td></td>
<td>LVAD</td>
<td>BVAD</td>
<td></td>
<td>LVAD</td>
<td>BVAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implanted</td>
<td>16</td>
<td>14</td>
<td>30</td>
<td>22</td>
<td>49</td>
<td>71</td>
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<tr>
<td>Survived</td>
<td>13 (81.3%)</td>
<td>8 (57.1%)</td>
<td>21 (70.0%)</td>
<td>17 (77.3%)</td>
<td>32 (55.3%)</td>
<td>49 (69.0%)</td>
<td></td>
</tr>
<tr>
<td>Weaned</td>
<td>0 (0.0%)</td>
<td>1 (7.1%)</td>
<td>1 (3.3%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Transplanted</td>
<td>13 (81.3%)</td>
<td>7 (50.0%)</td>
<td>20 (66.7%)</td>
<td>17 (77.3%)</td>
<td>32 (55.3%)</td>
<td>49 (69.0%)</td>
<td></td>
</tr>
<tr>
<td>Died on Device</td>
<td>3 (18.7%)</td>
<td>6 (42.9%)</td>
<td>9 (30.0%)</td>
<td>5 (22.7%)</td>
<td>17 (34.7%)</td>
<td>22 (31.0%)</td>
<td></td>
</tr>
</tbody>
</table>


The authors would like to add the following acknowledgment to the article:

We greatly appreciate the cooperation of Anja Kroneberg, Christiane Weis, Thomas Witte, and Lale Umutlu, who contributed considerably to the successful completion of the study.