President Volkmar Falk Revisits ISMICS’ Origins

Volkmar Falk, MD, the 17th president of ISMICS, began his address with reflections on the founding of the organization and its original objectives. “When ISMICS was founded in 1997, the idea was to establish an organization that would serve as a platform to promote the international scientific exchange of new ideas on minimally invasive surgery. While established organizations and societies such as the STS, AATS and EACTS were struggling with their position toward some of the new technologies and minimally invasive access surgery, ISMICS was designed to embrace and foster these developments,” said Dr. Falk.

As ISMICS began to develop as an active group of innovators, it was poised to fill a void in the specialty for those surgeons who wanted to continue the pursuit of cutting-edge technologies. “The

(continued on page 7)
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Optimal application of new devices typically evolves naturally with time and experience. Yet despite the advantages of rapid deployment (or sutureless) valves, including ease of implantation, fast learning curves and the associated reduction of procedural times, clear-cut indications remain broadly undefined.

As Minimally-Invasive Surgical Aortic Valve Replacement (MISAVR) requires easily implantable devices, rapid deployment devices are especially suitable for UHS and RAT videothoracoscopy; in our view, potentially one of the more interesting applications is for redo-MISAVR patients.

Indeed patients undergoing redo-MISAVR due to a failed conventional stented, stentless or full root prosthesis, often require lengthy procedures, with a high risk of injury during debridement especially in small calcified annuli or during the removal of degenerated aortic root stentless bioprostheses. In these challenging cases RDA VR could prove the difference.

We report herein our first two implants of an EDWARDS INTUITY Elite valve in complex redo-MISAVR.

The first patient was a 55-year-old male with systemic and pulmonary hypertension, HCV chronic infection and persistent AFib. The patient underwent AVR in 2006 for severe AR and a 29 mm Toronto SPV (St. Jude Medical, Minneapolis, MN) bioprosthesis was implanted. In 2015, the patient underwent a minimally invasive upper J-reresternotomy due to the recurrence of severe AR due to post-endocarditis with perforation of the non-coronary leaflet and a peak pressure gradient (PPG) of 37 mmHg.

Externally the aortic root was heavily calcified with massive mediastinal adhesions; the valve had a fully calcified root, and severe fibrosis with a perforation of the non-coronary cusp. After leaflet excision, a 23 mm EDWARDS INTUITY Elite valve was easily implanted. Aortic cross clamp and CPB time were 57 and 117 minutes respectively. The patient was weaned from CPB with a minimal inotropic support. Postoperative TEE showed no PVLs and low gradients. The patient was extubated after 5 hours of AMV. Inotropic agents were suspended after 6 hours. ICU stay and hospital stay were 2 and 9 days respectively. No transfusions were needed.

The second patient was a 57-year-old male affected by systemic hypertension. In 2009 the patient underwent AVR for severe AR due to aortic root enlargement; at that time a 25 mm homograft was implanted. In 2015, the patient presented with a severe calcific degeneration of the homograft and underwent a minimally invasive upper J-reresternotomy with a 21 mm EDWARDS INTUITY Elite. Aortic cross clamp and CPB time were 62 and 113 minutes respectively. No inotropic agents were needed. AMV time, ICU stay and hospital stay were 3 hours, 1 and 6 days respectively.

These two cases demonstrate how the prosthetic choice at the time of the first and second operation is crucial. The classical surgical approach would have required a redo-Bentall-de Bono procedure with a higher grade of surgical complexity and risk.

Rapid deployment bioprostheses demonstrated to be safe and suitable for redo-MISAVR patients, allowing performing fast and efficient reoperation in a safe minimally invasive fashion. In our experience redo-MISAVR has finally become “minimal” for patients and “simpler” for surgeons.
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Industry Symposium
The following companies are supporting industry symposia on Friday, which are not part of the official ISMICS scientific program:

- **Siemens (Breakfast)**
  06.30-07.50 / Tiergarden Room

- **HeartWare (Luncheon)**
  12.00-13.30 / Charlottenburg II Room

- **Medtronic (Luncheon)**
  12.00-13.30 / Charlottenburg I Room

Subramanian Innovation Award
Paul F. Grundeman, MD, PhD, Secretary (far left) and Volkmar Falk, MD, President, (far right) acknowledge Valavanur “Mani” Subramanian, MD (center) for his generous donation to the ISMICS’ Research and Education Fund in support of the Subramanian Innovation Award.

ISMICS Annual Business Meeting
MEMBERS ONLY
All ISMICS members are requested to attend the Members’ Business Meeting, on Saturday, 08.30-09.00 in the Scientific Session Hall in Potsdam I.
Congratulations to the following finalists who will be advancing to the final round, which will be delivered from the podium in the main scientific session today from 16.30 - 17.30. Presenters are again allowed a maximum of three minutes, followed by two minutes for audience questions and discussion. Judges will review and the winner will be announced on Friday evening during the Attendee Reception.

**Topic 1: Minimal Invasive General**
Robotic Cardiac Surgery: 7-year Single-center Follow-up Results
Changqing Gao, Ming Yang, Huajun Zhang, Cangsong Xiao, Yang Wu, Gang Wang, Yao Wang, Jiali Wang.

**Topic 2: Imaging, Perfusion, and Clotting**
Prediction Of Perpendicular Projection For Transcatheter Aortic Valve Implantation Using A New Automatic 3D Computed Tomography Analyzing-Tool
Arnaud Van Linden, Johannes Blumenstein, Helge Möllmann, Won-Keun Kim, Tibor Ziegelhöffer, Christian Hamm, Thomas Walther, Jörg Kempfert.

**Topic 3: Assist Devices, Heart Failure and Pediatric**
Minimally-invasive surgery for congenital atrial septal defects vs. catheter based device-occlusion in adults
Yvonne Schneeberger, Jens Brickwedel, Tobias Deuse, Hendrik Treede, Hermann Reichenspurner, Christian Detter.

**Topic 4: Arrhythmia Surgery**
Health-Related Quality of Life after Minimally Invasive Cardiac Surgery
Niv Ad, Sari D. Holmes, Deborah J. Shuman, Graciela Pritchard, Lisa M. Martin.

**Topic 5: Coronary Grafting and Conduits**
Total Arterial MIDCAB Facilitated by the Trinity Clip Connector
David Stecher, Gerard Pasterkamp, Marc P. Buijsrogge.

**Topic 6: Revascularization Strategy**
Heparin Infusion During Off-Pump Coronary Artery Bypass Grafting Safely Maintains Steady Level Of Anticoagulation
Kamalees Kumar Saha, Ajay Kumar, Mandar M. Deval, Kakalée K. Saha, Rinu V. Jacob, Ratnaprabha Adsul, Lukash Jagdale.

**Topic 7: Cancer**
Therapeutic efficacy of Single- Incision Thoracoscopic Surgery (SITS) for stage I lung cancer
Kyoji Hirai, Shingo Takeuchi, Yoshiito Iijima, Jitsuo Usuda.

**Topic 8: Thoracic General**
Awake Thoracic Surgery: Our Experience

**Topic 9: Aortic Valve**
Does ministernotomy improve postoperative outcome in aortic valve operation? A real-world multicenter study
Khalil Fattouch, MD, Pietro Dioguardi, MD, Mauro DelGiglio, MD, Alberto Albertini, MD, Renato Gregorini, MD, Roberto Coppolo, MD, Giuseppe Nasso, MD, Giuseppe Speciale, MD.

**Topic 10: Mitral**
Patient Reported Outcomes Measures following Mitral Valve Repair: Minimally Invasive Video-Assisted compared to Sternotomy
Jennifer Whiteley, Matthew Shaw, Klare Exarchou, Sion Jones, Ken Palmer, Omar Al-Rawi, Paul Modi.

**Topic 11: Valve - Transcatheter Therapies**
Treatment of coronary artery disease (CAD) in TAVI patients: why, when, what to treat?
Tine E. Philipsen, MD, Johan M. Bosmans, MD, PhD, Guy D. Lenders, MD, Valérie M. Collas, MSc, Rodrigo A. Salgado, MD, Bernard P. Paeldinck, MD, PhD, Inez E. Rodrigus, MD, PhD.

President Falk’s Address (continued from page one)

cardiac surgical community was run by an established group of giants that had forgotten about their own pioneering efforts a few decades before and was, by large, not ready for new adventures and the cost of change.”

Industry embraced those founding pioneers and acknowledged their spirit of innovation. “As one former CEO of one of the medical device companies phrased it, cardiac surgeons “were the button salesmen in the age of zippers.”

Dr. Falk also discussed the advances in today’s environment, and noted that there has been tremendous growth in percutaneous valve therapies. In addition, meetings are rapidly evolving based on interventional therapies. He has observed that industry is also paying more attention to interventional therapy, as demonstrated by the decline in research and development expenditure within companies, and also by venture capitalists.”

“The acceptance of minimally invasive concepts into the mainstream of cardiac surgery was a clear validation of the early work performed by ISMICS members and is underscored by the fact that two of ISMICS’ former Presidents, Michael Mack and Randolph Chitwood, later in their careers, also served as Presidents of STS.”

In looking at today’s overall healthcare landscape, Dr. Falk opined that “Creating value means providing new ways of health care delivery that have value for life.”

Dr. Falk concluded his address by challenging the audience to “Ask not what ISMICS can do for you. Ask what you can do for ISMICS.”
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ISMICS members receive their certificates and congratulations from L. Wiley Nifong, Chair of the Membership Committee, Volkmar Falk, President, and Paul F. Grundeman, Secretary.

Masters’ Day Courses Successfully Kick off ISMICS Annual Meeting
Ralph Damiano, MD, Editor, (left) and Volkmar Falk, MD (right) announced the award winners: J. Scott Rankin, MD, Vanderbilt University, “A Geometric Model of the Normal Human Aortic Root and Design of a Fully Anatomic Aortic Root Graft” and Gregory D. Trachiotis, MD, George Washington University, “Long-term Outcomes After Off-Pump or Conventional Coronary Artery Bypass Grafting Within a Veteran Population.” Conor Hynes, MD (center) accepted on behalf of Dr. Trachiotis.
ISMICS Chitwood Educational Travel Award Winners

Awarded for the first time in 2015, Volkmar Falk, MD (far left) and W. Randolph Chitwood, Jr., MD, (far right) presented the awards to Vivek Srivastava, MD from The James Cook University Hospital in Middlesbrough, UK and Matthew C. Henn, MD from Washington University in St. Louis, Missouri. They will receive a $1,000 travel award, complimentary Annual Meeting registration, and one year of Candidate membership in ISMICS.
ISMICS wishes to thank these companies for their support of the Society and for their commitment to developing minimally invasive surgery techniques and technologies:

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