



DAILY Links

35th Annual Meeting & Scientific Sessions Acropolis Congres Centre, Nice, France

A Cabaret of Senses: A Touch of Class

The origin of Nice can be traced to ancient Greece, at least in name. The Greeks believed music had the power to change nature, heal the sick and transform the human heart. The ISHLT and its roots have been changing hearts for the sake of humanity for nearly half a century. But yesterday, it was Hermann and Andreas who orchestrated a change to the programmed arrangement of the ISHLT Plenary by immersing us into a blend of visual and auditory delight. This was accomplished by bringing their inimitable music cultures for us to witness the aesthetic beauty of the arabesque, assemblé, penché, piqué, pirouette and plié, among the many ballet terms (France formalized ballet which can provide one an introduction to the French language) performed by the Federal Youth Ballet choreographed by John Neumeier and set to none other than Beethoven's String Quartet. We were left with a bit of impressionism of *merci* by the Ballet's final piece.



Photography by [Christian Roy](#)



In terms of classical music, here in Nice, we witnessed a cabaret of cultures. This cabaret stems from the Viennese Classical style of Wolfgang Mozart's and Germany's Ludwig van Beethoven to France's own Claude Debussy who gave voice to musical Impressionism. Impressionism is a visual manifestation of the French language, an art movement celebrating blended lights, nuanced colors and blurred edges. It's the idea of an image rather than the image itself. Does Monet come to mind? Debussy's music evokes similarly water-dominated, brilliantly-colored, subtly-shaded

and blurred-edge imagery as does Impressionist painting. From music, to paintings and language, the French are more concerned with not what you say, but how you say it or rather how you express it. In contrast, the German language as manifested by its music from Beethoven and Brahms is clear, crisp, well-articulated and most of all, to the point.

On your own, carefully listen to Claude Debussy's *Prelude to the Afternoon of a Faun*, which reflects the French language of impressionism with lack of crispness and clarity with utter beauty characterized by finesse and nuance. This impressionism can be carried over into the aromatic perfumes and fragrances as well as the culinary industry. It was Hermann who told me that the World's smallest book is the German Cookbook. Think about it. In Germany they feed you. In France they dine you. There are centuries of practiced refinement and nuance in a bottle, this takes us to wine. Now reflect on the music, the ballet, the food, the drink and the cultures of Germany and France in Nice

Again, time will not permit the detail of some of the accomplished French composers:

- Claude Debussy, 1862-1918: *Trois Nocturnes; La Mer*
- Maurice Ravel, 1875-1937: *Bolero*
- Hector Berlioz, 1803-1863: *Symphonie fantastique*
- Gabriel Fauré, 1845-1924: *Claire de lune; Après un rêve*
- Camille Saint-Saëns, 1835-1921: *Danse Macabre, Opus 40; The Carnival of the Animals*

Some people wish above all to conform to the rules, I wish only to render what I can hear. There is no theory. You have only to listen. Pleasure is the law.

- Claude Debussy



Evolution of Depressive Symptomatology and Caregiver Burden in Partners of LVAD Patients A Review from Concurrent Session 7: Supporting the MCS Patient & Caregiver

Many patients receive an LVAD as a bridge to therapy in order to assist with scarce organ availability for transplantation. Discharge from the hospital post LVAD may contribute to emotional stress for both patients and caregivers, but evidence on caregiver burden is limited. This prospective study looked at patients and caregivers, at 1 and 3 months after discharge, with variables including depression, anxiety, and stress, using the stress scale (DASS-21). Additionally this study utilized the Dutch Objective Burden Inventory (DOBI). This measurement tool consisted of 4 domains: personal care, emotional, motivational, and practical support.

The study showed:

- 70% of patients and caregivers experienced symptoms at time of discharge
- 58% of patients and caregivers experienced symptoms at 1 month post discharge
- 33% experienced symptoms at 3 months post discharge.

This study was limited by a small sample size in a single center with lack of understanding of whether care provided by partners is congruent with patient's need. This study was able to establish that many caregivers experience severe depressive symptoms. Study results encourage adequate psychological screening and treatment for this specific patient population with continued ongoing assessment, and suggests not to leave known emotional strain on caregivers unattended.

Impact of the 18th Birthday on Wait-list Outcome for US Patients Listed for Heart Transplant A Review from Concurrent Session 14: Philip Caves Award Candidate Presentations

This retrospective cohort study utilized UNOS data to assess patients that ranged in age from 16-19 years. The endpoint was wait time from listing to waitlist removal due to transplant, death or clinical deterioration. The study used a large sample size of 721 patients. The adult patients wait list time was significantly longer, with median of 144 days, than pediatric patients with a median waiting time of 67, a highly significant difference. There was a trend toward significance in mortality due to longer wait time with the adult cohort. Per David Peng, MD, Stanford University, "Providers should be aware of this arbitration at the patient's 18 birthday."

LVADs and Myocardial Recovery

A Review from Concurrent Session 15: Myocardial Recovery - Moving Forward

This extremely interesting session chaired by Dr. Drakos and Dr. Rame held in the Thursday afternoon session, was dealing with myocardial recovery in LVAD patients. Dr. Birks opened the session presenting early results from the Remission From Stage D Heart Failure (RESTAGE-HF) study, a prospective Multi-center trial on myocardial recovery in LVAD patients. The early data from this study suggest that a standardized regime of optimal pharmacological therapy combined with LVAD unloading and regular testing of underlying myocardial function may result in a higher rate of explantation and remission from Stage D heart failure. However, she also critically admitted that the duration of recovery needs extended follow-up. Furthermore Dr. Pan was presenting results from the UNOS registry on myocardial recovery from short- and long-term cardiac support. He showed that incidence of myocardial recovery is still low in the current era of MCS. Looking for factors influencing myocardial recovery he found younger age and non-ischemic myopathy as statistically significant predictors.

Insight into Development of Chronic Lung Allograft Dysfunction following Lung Transplant A Review from Concurrent Session 17

Dr. Miyoshi from Okayama University Hospital presented an excellent summary of this institution's experience with chronic lung allograft dysfunction (CLAD) after bilateral living donor lobar lung transplantation. Severe national organ shortage led to Okayama University Hospital's rich and unique experience with living donor lung transplant, where thoracic surgeons perform clinical management. In this study of 77 patients who underwent living donor lobar lung transplant, 59 who underwent bilateral living donor lung transplant were included. Twenty of these patients developed CLAD with an 80.5% 5-year freedom from CLAD development. Survival outcomes were favorable for these patients after development of CLAD: 89.2% were alive at 1 year and 64.7% were alive at 10 years post-transplantation. Those patients with a pure bronchiolitis obliterans picture had better outcomes than the 9 patients with a mixed or restrictive pattern. In summary, CLAD after bilateral living donor lobar lung transplantation occurred at a low rate and had better survival than that reported for the general lung transplant population. The authors conclude that while alloimmune independent factors may be an inciting event, alloimmune dependent factors are key in the development of CLAD.

How's it done there? VADs and Transplant Around the World

A Review from Concurrent Session 19

Thursday's emerging countries session saw Dr. Pya present outcomes from the destination therapy VAD program in Kazakhstan, which began in 2011. Devices implanted were a combination of the HM II and Heartware VAD. Dr. Pya explained that as time has moved on, the cardiac transplant program has developed alongside the VAD program with greater survival due to improved patient selection. Further keys to success in establishing the program have been a dedicated, highly trained multi-disciplinary team, government support and reliable devices. The second presentation saw Dr. Chan deliver the outcomes from the LVAD program in Singapore where cardiac transplantation is infrequent despite an "opt out" system. A total of 50 patients have been treated, both as BTT and DT since the program began in 2009, similarly with the HM II or Heartware device. Chan concluded that VADs have been well tolerated in this South East Asian population and program continues to mature. Dr. Sargin from Siyami Ersek hospital in Istanbul described the current status of heart transplantation and MCS in Turkey where transplants and implants are performed in 16 licensed centers. Dr. Sargin highlighted that 78 heart transplants were performed last year, and since financial reimbursement was secured, 470 LVADs and 25 TAHs have been implanted over the 3 years between 2012-2015. A National Registry for MCS is now required in Turkey to collate further data for presentation. Heart transplantation in Saudi Arabia was presented by Dr. Selimovic who told of the 209 transplants performed between 1989-2014, with a mean age at transplant of 33 years. He outlined the improved survival rates over the past 8 years with greater numbers of procedures and tailoring of immunosuppression. This session was an intriguing insight into developing VAD and transplant programs around the world.



TODAY'S FEATURES

Concurrent Session 27 Basic Science 2: Organ Preservation Including *Ex-Vivo* Management, Ischemia/Reperfusion

How to prevent Ischemia/Reperfusion injury?

Ischemia/Reperfusion is traditionally a field of high interest among heart failure researchers. In this Concurrent Session, which is held today at 11am in Calliope, the basic science research community will present news concerning Ischemia/Reperfusion. The session chaired by Dr. Schulze and Dr. Gelman contains six presentations including one on inhibition of NF-kB Activation to attenuate Ischemia-Reperfusion injury in Heart transplantation, presented by Dr. Kawajiri and one on Ex-vivo therapeutic use of Carbon Monoxide (CO) to improve donor lungs for transplantation, which is held by Dr. Kalaf-Mussi.

Concurrent Session 35: Complex Patients Require Complex Solutions: Predicting Adherence

More use of the SIPAT

The Predictive Value of the SIPAT for Clinical Outcomes in End-Stage Heart Failure Candidates will be presented by S. D. Gordan. A valuable session to further assess the psychosocial tool.

Concurrent Session 37: The fate of the right heart after LVAD

The Black Box or the right heart?

Perhaps it could be argued that predicting and managing right heart failure after LVAD implantation remains more of an art than a science, but could there be light at the end of the tunnel? This interesting session on the fate of the right heart after VAD chaired by Drs. Teuteberg and Krabatsch will enlighten us on some of the challenges faced in current practice. The first abstract reports an attempt to determine the predictive value of commonly used indices and scoring systems to predict the need for RVAD support, this will be presented by Dr. Tchantchaleishvili. Dr. Bhama will later describe the use of temporary right ventricular MCS for the treatment of RV failure in the setting of cardiac transplantation and LVAD. The session will conclude with Dr. Takeda's presenting his group's experience with late right heart failure after LVAD and the impact this has on survival.

Concurrent Session 40: Lung, AMR: HLA and Beyond Impact of Non-HLA Antibodies on Acute Rejection in Lung Transplant

Do they matter?

Non-HLA antibodies have shown to be independent predictors of acute rejection in kidney and heart transplantation. Dr. Reinsmoen, representing the work of three institutions, will discuss the outcomes of 162 lung transplant patients with sera analyzed for antibodies to angiotensin type 1 receptor and endothelin type A receptor both pre- and post-transplantation. Be sure to attend this interesting talk at 4:45 in Hermes!

Concurrent Session 41: Heart Matters: Truth and Justice

The Question of Cost

Cost is frequently in the back of our minds in healthcare. M.R. Danger will be presenting a Comprehensive Analysis of Hospital Charges Between Direct Heart Transplantation and Patients Bridged With a Left Ventricular Assist Device.



***Available Now!* ISHLT Monograph Volume 9: Pulmonary Hypertension and Right Heart Failure**

View a sample copy at the On-site Registration Desk.

Highlights include:

- Latest on the epidemiology, mechanisms of disease, and approaches to evaluation and treatment of pulmonary arterial hypertension (WHO Group 1) including focus on combination approach and assessing response to therapy

- Pulmonary hypertension associated with heart and lung disease (WHO Group 2 and 3 PH) with focus on assessing patients and treatment approaches
- How to manage patients with chronic thromboembolic pulmonary hypertension (CTEPH WHO Group 4), how to evaluate them, where surgical interventions and medical therapies fit in the treatment plans
- A huge focus on the right ventricle, from its unique anatomy, function, and management of patients with right heart failure due to different etiologies of heart and lung diseases
- The frequently faced dilemma of perioperative management of a pulmonary hypertension patient, from perioperative risk assessment to impact of anesthesia and mechanical ventilation
- The most up-to-date on surgical support for patients with pulmonary hypertension and right heart failure, including mechanical circulatory support and lung transplantation This comprehensive compendium of topics on pulmonary hypertension and right heart failure will provide an excellent resource for anyone who manages patients with pulmonary hypertension and right heart failure.

Order a copy today at: <http://ishlt.org/publications/monographSeriesVol9.asp>

Update: Yesterday's mention of the SIPAT tool provided an expired email address. For more information and free access to SIPAT tool, contact Quincy Young: Qyoung@providencehealth.bc.ca



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