



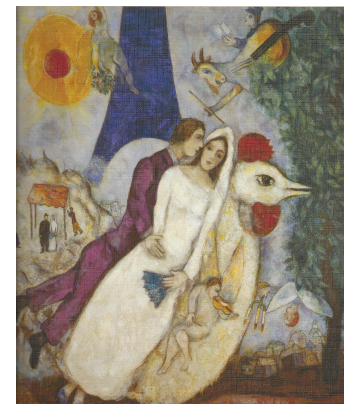
DAILY Links

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

Feast Your Eyes

In 1889, Debussy wrote, "To a Frenchman, finesse and nuance are the daughters of intelligence." This can be more applicable to static artistry, which can move us as much as art in motion and in music. However, words cannot begin to express the impression the Musée Marc Chagall and Musée Matisse will leave on us from their static artistry. When one thinks of France and Paris, it's the visual stills created that have moved humanity and will continue to do so in perpetuity. It is from France, as alluded to yesterday, and the "impression" we'll have as we approach our departures with the "blurs" and "wisps of clouds" now a part of us because of the 35th Annual ISHLT in Nice. Perhaps we'll carry back with us more clarity than what we had just prior to our arrivals.

Regarding Marc Chagall, visit his museum, but one fascinating fact; his wife Bella, the inspiration for so many of the newlyweds and lovers in his paintings, died suddenly in 1944. Penicillin could have saved her, but was unavailable as it was reserved for military use. With grief, he turned all his canvases to face the wall and did not paint for nine months.



Les Maries de la Tour Eiffel, Chagall

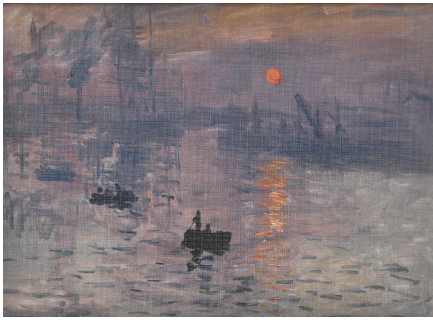
Regarding Henri Matisse, visit his museum, but one fascinating fact; he became confined to a wheel chair following operations for duodenal cancer. He refused to be defeated. As a gesture of thanks to a young nurse, Monique Bourgeois,



The Dessert: Harmony in Red, Matisse

Matisse designed the beautiful Chappelle du Rosaire de Vence (Chapel of the Rosary), in France (1949-1951). Matisse stated: "In spite of all its imperfections, I consider it as my masterpiece." Because his stubbornness against defeat and confinement, he perfected another art form with scissors and bright-colored paper which resulted in stunning and joyful collages of les gouaches découpées - paper-cut outs. On viewing these works, his doctor boldly advised the "master of colors" to wear dark glasses!

The famous art movement – Impressionism – may have come about by accident from an independent exhibition of painters in Paris in 1874: “Exhibition of Impressionists.”



Sunrise, Monet

The works of Monet, Degas, Renoir, Cezanne, Morisot, Sisley and Pissarro were on this impressive roster, but at the time these artists were derided for their revolutionary new techniques. It was Louis Leroy who came up with impressionism and was actually scorning their works by bluntly stating that their paintings were less finished than the most basic of wallpapers. This term stuck and gradually lost its negative connotations, and voilà “Impressionism” was born.

It should be obvious that Impressionism and Claude Monet can be linked to the ISHLT and Nice, but other than Impressionism what would Pierre-Auguste Renoir have in common with Nice. Well, in 1880, Renoir met Aline Charigot, young girl sitting at the table playing with the dog in *Luncheon of the Boating Party*. He was 20 years her senior. They had three sons, Pierre, Jean and Claude. Jean Renoir became one of the greatest film directors of all time. How about that for a “Link” to pictures in motion!



Luncheon of the Boating Party, Renoir

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

- Camille Pissarro, 1830-1903
- Edgar Degas, 1834-1917
- Alfred Sisley, 1839-1899
- Paul Cézanne, 1839-1906
- Claude Monet, 1840-1926
- Berthe Morisot, 1841-1895
- Pierre-Auguste Renoir, 1841-1919
- Henri Matisse, 1869-1954
- Marc Chagall, 1887-1985

In our life there is a single color, as on an artist's palette, which provides the meaning of life and art. It is the color of love.

- Marc Chagall



Age, Kidneys and Time from Symptom Onset: Variables in the VAD Equation A Review from Concurrent Session 22: LVADs: Factors influencing outcomes

This session, addressing the factors influencing LVAD outcomes opened with Dr. Loyaga-Rendon presenting data illustrating that patients with acute heart failure seem to have better long term outcomes despite more severe acuity of illness at the time of support. Next, Dr. Gosev presented results from an American multi-center study, the largest series to date with extended survival on cLVAD support. The series included 129 patients who had ≥ 4 years support with a mean survival of 7.6 years. He showed that in this cohort, 50% of patients who had survived 4 years after LVAD implantation would survive another

4.5 years. Baseline patient characteristics in the study were similar to other contemporary studies. Readmissions of long-term survivors were mainly due to infection and bleeding.

Dr. Ciarka delivered an interesting abstract focusing on the associations between age, BTT cfLVAD use and outcomes after cardiac transplant. She reiterated the dramatic increase of MCS as BTT particularly in older patients, despite the on-going donor organ shortage. Older age was associated with worse crude post transplant survival both overall and in patients with a cfLVAD. However cfLVAD was not associated with worse crude or adjusted post transplant outcomes in any age group. Pre-implant GFR as a predictor of adverse outcomes post LVAD placement was presented by Dr. Mohamedali. This was a retrospective study of 232 patients with cfLVAD (predominantly DT), risk stratified based on a baseline GFR cut off of 60. Post device implantation, in patients with GFR<60 there was a higher incidence of early right heart failure, stroke and need for RVAD support, and pre implant GFR<60 was associated with poorer survival outcomes.

Finally Dr. Brisco discussed albuminuria in patients undergoing LVAD (HM II devices) as a predictor of subsequent renal recovery. She told of how albuminuria is often incorrectly assumed to indicate irreversible structural kidney disease and is common and underappreciated amongst the HF patients undergoing LVAD. Albuminuria can serve as a marker of cardiorenal syndrome and an unrecognized burden of renal dysfunction, with the potential for improvement in intrinsic renal function post LVAD.

Mechanical Cardiac Support in Children: Outcomes and Registry Data

A Review from CONCURRENT SESSION 32

This Friday afternoon session chaired by Dr. Almond and Dr. Sheel discussed outcomes of mechanical cardiac support in children with a focus on registry data. In adults, the continuous flow LVADs have largely replaced the pulsatile devices. In pediatric patients, however, only little data is available on outcomes of patients with continuous flow assist devices. Important questions like the influence of timing of LVAD implantation on post transplant survival were addressed. In his presentation, Dr. Keeshan showed that patients with VAD implantation after listing have worse outcome compared to those supported at time of listing. However, he admitted that the optimal time-point of VAD implantation has to be defined in further studies.

The Pediatric Interagency Registry for Mechanical Circulatory Support (PediMACS) is an NIH-supported national registry for FDA-approved VADs in patients < 19 years of age. Dr. Rossano presented the utilization and outcomes of continuous-flow ventricular assist devices pediatric patients from this registry. In this study, 72 patients undergoing placement of durable CF VADs were included and their outcomes were compared to adults from INTERMACS. The 6 months post-implant results, Dr. Rossano presented in this session, showed that 57% of patients were transplanted, 40% were alive with the device in place, and 3% died before transplantation. The overall adverse event rate was very low with a number of 4.4/100 patient months. These outcomes compared favorably to the outcomes in adults supported with CF VADs as a bridge to transplant. At the end of his presentation, Dr. Rossano, however, remarked that there is a need for further studies to determine impact of patient and device characteristics on outcomes in pediatric patients.

'Don't Push Me 'Cause I'm Close to the Edge'

A Prospective Randomized Trial of EVLP in Standard Donor Lungs: Can it Improve Results?

A Review from Concurrent Session 30

Dr. Aigner presented the interim results of a randomized trial comparing EVLP and cold static preservation for standard lung donors at a single institution. The objectives of this trial were to compare post-transplant outcomes, identify functional impairments unrecognized in the donor, and to safely prolong total preservation time. This study utilized 1:1 randomization between groups. The EVLP arm used 4 hours of EVLP using the Toronto protocol. To date, there have been 32 recipients each in the EVLP and control groups. Four lungs were rejected from the EVLP group, two due to functional decline. The recipients and donors were comparable for all characteristics aside from a longer preservation in the EVLP group. The authors found no difference in functional parameters or short-term outcomes. Five patients in the EVLP died within one year while 1 patient in the control group died within one year. The authors conclude that short term outcomes are comparable between groups and that EVLP has the potential to detect previously unrecognized impairments, safely allows prolongation of preservation time, and may reduce the need for post op ECMO. Following this presentation, there was a heated discussion concerning the two pair of lungs that did not make it to the study. We look forward to the final results of this interesting trial!

A Fine-Tooth Comb Look at Psychosocial Scoring Tool Predictions

A Review from Concurrent Session 35: Complex Patients Require Complex Solutions

Dr. Ashrith presented this psychosocial risk assessment tool comparison. These tools are not only to identify risk factors for criteria and acceptance, but additionally to heighten surveillance of weakness areas post LVAD. The SIPAT tool is validated to predict outcomes for medical and psychosocial outcomes. This talk reviewed 3 psychosocial evaluation tools. PACT, SIPAT and mPACT. PACT scores have been associated with poor outcomes post LVAD in BTT population. The mPACT tool has better accuracy than PACT. A higher mPACT score is associated with a decreased 30-day readmission rate. Score of >40 is associated with a 75% chance of being denied an LVAD. In patients that were readmitted to hospital post LVAD secondary to infection SIPAT was a significant predictor with a score of >25. Psychosocial scores were not associated with mortality after LVAD implantation in this particular study. In the future it would be beneficial to focus on the caregiver and burden as well. Currently the author is in the process of developing a decision tool to predict how well a patient may do after LVAD. It is unfair to withhold life saving therapy based on SIPAT score alone. The presenter stated that the "tool is utilized to identify higher risk patients that may require additional therapies and assistance to optimize success".

The Detriment of These Life Saving Measures is the Hospital Charges

A Review from Concurrent Session 41: Heart Matters: Truth and Justice

Dr. Nick Heglund discussed financial charges related to an LVAD. Health care expenditures (2.9 trillion dollars) account for 22% of the federal budget in the United States and 18% of the gross domestic

product in 2013. These economic realities need greater attention. The study goal was to provide a costing platform to determine where the cost was going. Continuous flow devices was the patient population that was specifically assessed. The research team identified 12 categories that were assessed to focus efforts for cost reduction. This analysis according to the presenter "suggests that reducing length of stay and improving patient selection may be most impactful in cost reduction as many of the ancillary charges relate to inpatient status and related complications".



TODAY'S FEATURES

Concurrent Session 43: Mechanical Circulatory Support - New Surgical Approaches

How to Implant the New Generation VADs?

Continuous-flow LVADs have become a routine treatment tool for end-stage heart failure patients as bridge to transplant, bridge to recovery or bridge to destination therapy. However there is still a lot of progress in this field. This session chaired by Dr. Simon and Dr. Zimpfer, which is held today at 8.15 am in Athena, deals with new techniques of LVAD as well as BIVAD implantation with a special focus on minimally invasive implantation techniques.

Concurrent Session 45: Candidate Selection – the Who, When and Why?

The 3-W's of Candidate Selection

Candidate selection for cardiac transplantation and timing of listing remains a hot topic. Saturday morning sees Drs. Crespo-Leiro and Bacal chair the concurrent session addressing these issues. Dr. Yang will present the abstract entitled "Evolution of status 1A heart transplant candidates" which will lead us through the impact of increasing numbers of VAD patients amongst those in status 1A. Dr. Herre will then discuss the improvements in waiting list survival amongst patients with end stage heart failure listed for transplantation. He will compare and contrast the improvement in survival amongst status 1 and status 2 candidates between the eras of 1990-2013. We look forward to these, and the other thought provoking abstracts within this early morning session.

Concurrent Session 46: A New Protocol for Heart Allocation in Iran

Dr. Mirhosseini and colleagues will present the results from 591 heart transplants in Iran from 1993-2014. A retrospective review revealed significant disparities in the policies for heart allocation, which led to the development of the Iranian Network for Organ Procurement and Transplantation. Since July 2014, 40 patients have undergone heart transplantation under a new allocation protocol using medical urgency, wait time, blood group compatibility, size, and ischemic time. Don't miss this intriguing presentation in Hermes at 8:30 AM!

Concurrent Session 51: Risky Business – Transplant in High-Risk Populations

It's Like a Jungle Sometimes, It Makes Me Wonder...

As we near the end of this splendid rendezvous in Nice, it would be disappointing to miss the interesting session covering transplantation in high risk populations chaired by Dr. Isaac from Calgary and Dr Pham from Stanford. The opening abstract presented by Dr. Zafar and will provide outcome data from the United States on multi-organ transplantation (MOTx) in adults with congenital heart disease. In brief, simultaneous MOTx is more commonly performed in adults with congenital heart disease (CHD) than in adults without CHD. The overall frequency of MOTx in adults with CHD has declined over the years primarily due to decreased number of heart-lung transplantations in this population. Survival in adults with CHD following MOTx is similar to adults without CHD. The second abstract will be delivered by Dr. Jasseron and will report on the French experiences with heart transplantation for patients on V-A ECMO and the survival benefits.



Pass It On

On Friday morning, Hermann officially passed the gavel to incoming ISHLT President Duane Davis, MD, MBA.



By the way, did you know that this year's Program Chair Andreas is an avid New Orleans Saints fan? Notice the iconic French symbol used throughout this year's *Daily Links*?

ASIA PACIFIC-ISHLT JOINT MCS SYMPOSIUM 2015

6-7 NOV 2015, SINGAPORE

Lectures, Discussions, Breakout sessions, Surgical & Echocardiography workshop

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