

**PROBLEM-BASED LEARNING DISCUSSION  
LEARNING OBJECTIVES**

**Thursday June 19, 2008**

**1. Endovascular Stenting for TAA: To Drain or Not to Drain?**

*Albert Chung, MD and Maged Argalious, MD*

- a. Become familiar with the current indications for lumbar CSF drainage
- b. Understand the complications associated with CSF drainage and learn techniques to avoid them
- c. Become familiar with practical techniques and pitfalls associated with CSF drainage

**2. Blue Sky at Night: Techniques for Managing Congenital Heart Disease Patients for Non-cardiac Surgery**

*Emad Mossad, MD and Kathryn Rouine-Rapp, MD*

- a. Become familiar with common lesions seen in cyanotic and acyanotic congenital heart disease
- b. Become familiar with key anesthetic principles for the management of these patients
- c. Understand the indications for endocarditis prophylaxis in patients with congenital heart disease

**3. Stop The Heart, Not The Head: Managing Circulatory Arrest for Aortic Arch Surgery**

*Annette Mizuguchi, MD, PhD and Al Perrino, MD*

- a. Discuss the current data on cerebral protection, and monitoring in terms of impacting outcomes
- b. Discuss the advantages and disadvantages of antegrade and retrograde cerebral perfusion
- c. Become familiar with alternative cannulation techniques

**4. It's Just a Ten Minute Case: Providing Support for AICD Testing**

*Benjamin Sohmer, MD and Mark Chaney, MD*

- a. Understand current nomenclature and indications for resynchronization and defibrillator therapy
- b. Discuss the anesthetic implications of inducing ventricular fibrillation and techniques to improve chances for return to sinus rhythm
- c. Discuss difficult case scenarios and how to avoid common pitfalls

**5. Blood is Thicker Than Water: Making Sense of Current Anticoagulants**

*Linda Shore-Lesserson, MD and Wanda Popescu, MD*

- a. Discuss the pharmacology and indications of platelet inhibitors, direct anti-thrombins and fibrinolytic agents
- b. Understand the indications for each of these agents

- c. Learn techniques for managing patients receiving “non-reversible” anti-coagulants
- 6. I Can’t Put it Back: Managing Problems After Lung Resection**  
*Christopher O’Connor, MD and Katherine P. Grichnik, MD*
- a. Become familiar with the pathophysiology of hypoxemia and right ventricular failure after lung resection and pneumonectomy
  - b. Discuss the data on limiting fluid resuscitation in these patients
  - c. Understand the indications for nitric oxide in managing these patients
- 7. Just Pull, It’ll Reach: Managing Patients for Tracheal Resections**  
*Javier H. Campos, MD and Andra Duncan, MD*
- a. Discuss the surgical indications for tracheal resection
  - b. Discuss anesthetic techniques and tools available to provide ventilation to all lung segments
  - c. To understand advantages and disadvantages of early extubation in these patients
- 8. Inflammation and Cardiac Surgery: Impact the Cascade, Impact Outcomes?**  
*David Collard, MD and Brian Birmingham, MD*
- a. Review the inflammatory cascade as it relates to cardiac surgical procedures.
  - b. Discuss the role of interventions to reduce the inflammatory response on outcomes in cardiac surgery.

**Friday June 20, 2008**

- 9. Cardiac Testing for Non Cardiac Surgery: An Evidence-based Approach**  
*Sue Garwood, MD and Josh Stearns, MD*
- a. To understand the importance of thoroughly evaluating patients with cardiovascular disease undergoing non cardiac surgery.
  - b. To identify specific preoperative evaluative procedures that are recommended for patients with cardiovascular disease undergoing non cardiac surgery.
  - c. To discuss the impact of preoperative testing and perioperative outcomes for patients with cardiovascular disease.
- 10. Robotic-Assisted MV Repair: Practical Management Issues**  
*Pierre LeVan and Robert Savage, MD*
- a. To understand the surgical mechanics and procedures involved for robotic mitral valve repair.
  - b. To plan management strategies in terms of anesthetic technique, invasive monitoring and echocardiographic assistance for patients undergoing robotic assisted valve repair.
  - c. To discuss complications related to robotic-assisted repair procedures.
- 11. Off-Pump CABG: Management Issues that Impact Outcomes**  
*Jack Shanewise, MD and Hong Liu, MD*

- a. To gain an understanding of perioperative management strategies in terms of anesthetic management, patient monitoring, coagulation strategies and postoperative management for patients undergoing off-pump CABG procedures.
- b. To be able to formulate a comprehensive anesthetic plan for patients having off-pump CABG.

**12. Who is at risk for SAM after MV repair?**

*Andrew Maslow, MD and Mohammed Minhaj, MD*

- a. To understand echocardiographic details of patient anatomy and surgical procedure that places a patient 'at risk' for SAM with left ventricular outflow tract obstruction following mitral valve repair.
- b. To be able to identify SAM with left ventricular outflow obstruction following MV repair with intraoperative TEE.
- c. To understand the impact of intraoperative management maneuvers that may alter outcomes in patients with SAM following MV repair.

**13. Protecting the 'Beans': Strategies for Perioperative Renal Protection in Cardiac Surgery**

*Robert Sladen, MD and Ted Alston, MD*

- a. To examine clinical factors which place a patient at high risk for perioperative renal dysfunction.
- b. To discuss the impact of perioperative renal failure on patient outcomes following cardiac surgery.
- c. To discuss interventional measures that may impact perioperative renal function.

**14. Carotid Revascularization: Are Stents Replacing Open Procedures?**

*Galina Leyvi, MD and Joseph Miller, MD*

- a. To understand the risk and benefits for carotid artery stenting procedures and open carotid revascularization.
- b. To review recent outcome data examining morbid outcomes following carotid stenting and open revascularization.

**15. Echocardiography in the Endovascular Suite**

*Jill Morganstern, MD and Jacob Gutsche, MD*

- a. To recognize the utility of TEE in the evaluation of patients undergoing endovascular procedures
- b. To understand and recognize complications related to endovascular procedures and the role of TEE in the detecting complications during endovascular procedures

**16. Cool Down, Warm Up: Temperature Management Strategies and Outcomes in Cardiac Surgery**

*Hilary Grocott, MD and Michael D'Ambria MD*

- a. To understand the role temperature management in terms of perioperative outcomes for patients undergoing cardiac surgical procedures.
- b. To develop management strategies for patients undergoing cardiac surgical procedures that necessitate active patient cooling and rewarming.

**Saturday June 21, 2008**

**17. Atrial Fibrillation Following Cardiac Surgery: Do Pharmacologic Interventions Impact Outcomes?**

*Joseph Mathew, MD and Nannette Schwann, MD*

- a. To understand the prevalence of postoperative atrial fibrillation and impact on postoperative outcomes for patients undergoing cardiac surgical procedures.
- b. To discuss perioperative management approaches to reducing the occurrence of postoperative atrial fibrillation.
- c. To understand the data regarding the risk/benefit and impact of perioperative amiodarone on the prevalence of postoperative atrial fibrillation.

**18. ARDS Update: Prevalence and Management Strategies**

*Mike Wall, MD and James Ramsay, MD*

- a. To discuss the prevalence and impact of ARDS on perioperative outcomes
- b. To understand and discuss the role of current clinical management strategies and how they impact outcomes in patients with ARDS

**19. Is Cerebral Oximetry Useful in Cardiac Surgery?**

*Dean Andropoulos, MD and James DiNardo, MD*

- a. To review how cerebral oximetry works and what patient and perioperative factors can influence cerebral oximetry readings.
- b. To discuss the evidence for and against the utility of cerebral oximetry for influencing postoperative outcomes in both adult and pediatric cardiac surgical patients.
- c. To discuss how perioperative surgical and anesthetic management could be guided by cerebral oximetry measures.

**20. Carcinoid disease and Myasthenia Gravis: Disorders with Unique Perioperative Implications for Cardiothoracic Surgery**

*Mark Kanchuger, MD and Roman Sniecinski, MD*

- a. To understand the symptoms of carcinoid disease as well as why these patients present for both cardiac and thoracic surgery
- b. To understand the perioperative management issues for the cardiothoracic surgical patient with carcinoid disease.
- c. To understand why thymectomy is frequently indicated in patients with myasthenia gravis, and to become familiar with perioperative management strategies.

**21. Management Considerations for Axial Flow Ventricular Assist Device Implantation: How are These Devices Different From Pulsatile VADs?**

*Alina Grigore, MD and Michelle Capdeville, MD*

- a. To understand the differences between axial flow and pulsatile VADs.
- b. To become familiar with the different types of axial flow devices, including the percutaneous Impella device.

- c. To understand the perioperative implications of managing patients with axial flow devices.

**22. Major Vascular Surgery (AAA, CEA) in Patients with Coronary Artery Disease Requiring CABG. Which should come first?**

*Davy Cheng, MD and Andy Ochroch, MD*

- a. To review the evidence for and against combining versus staging CABG and vascular surgeries.
- b. To become familiar with the unique perioperative implications of combined versus staged procedure and to discuss related anesthetic management strategies.

**23. Epicardial Echocardiography in Cardiac Surgery: Indications and How to**  
*Jutta Novaljia, MD, PhD and Steven Kondstadt, MD*

- a. Understand situations in which epicardial echocardiography may be useful in terms of impacting surgical procedure and patient outcomes.
- b. Understand how to achieve and interpret standard views with the epicardial echo probe.

**24. Ethics: Organ Donation after Cardiac Death: Should Anesthesiologists be Involved?**

*Richard Wolman, MD and Michael O'Connor, DO, MPH*

- a. Understand the background for the formation of the ASA's statement on physician participation in donation after cardiac death (DCD) and the new model guidelines for DCD policies.
- b. Become aware of specific ethical issues involved in the use of non-irreversibly cerebrally injured donors as DCD donors (ALS, pulmonary cripples, etc).
- c. Better understand patient management issues for critical care anesthesiologists to keep these donors alive until withdrawal of life-support and necessary management strategies to keep the organs viable during withdrawal.