MEDICALLY CHALLENGING CASES
CARDIAC ANESTHESIA

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC13

Adult Dysphagia Associated With a Double Aortic Arch
Danielle Doyle, M.D., Vanayak Kamath, M.D., Mary Arthur, M.D., Anesthesiology, Georgia Health Sciences University, Augusta, GA.

Double aortic arch is a rare vascular anomaly, particularly in adults, that can result in encirclement of the trachea or esophagus causing respiratory and gastrointestinal symptoms. Few studies document symptomatic vascular rings in adults. We present a case of a 52 year old male who presented with a one year history of dysphagia secondary to double aortic arch. Anesthetic management included lung isolation for left thoracotomy, cardiopulmonary bypass availability, and strict blood pressure management whilst the atretic arch was divided. Because of carefully planned perioperative care he had a smooth intraoperative and postoperative course. He reported complete resolution of his dysphagia.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC14

Anesthetic Management of Pacemaker Endocarditis
Danielle Doyle, M.D., Vijay Patel, M.D., Mary Arthur, M.D., Anesthesiology, Georgia Health Sciences University, Augusta, GA.

Pacemaker infection is rare. Severe cases cause large vegetations which can shear during removal and cause massive pulmonary embolism. Delay in treatment is associated with a poor prognosis. We present a case of a 67 year old man who experienced fevers and fatigue for 18 months. He presented with sepsis from a golf ball sized vegetation on the ventricular lead of his pacemaker. He was taken for removal of his pacemaker and valve replacement. Anesthetic management included the use of cardiopulmonary bypass, intraoperative TEE to evaluate for the presence of embolic phenomena, and maintaining hemodynamic stability in the presence of sepsis.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC15

Innovative Approach Using Amplatzer Device to Repair a Giant Ascending Aortic Pseudoaneurysm
Jason Drennan, D.O., Yong G. Peng, M.D., Anesthesiology, University of Florida, Gainesville, FL.

54 year-old male with a history of hepatitis C/alcoholic cirrhosis, diabetes, hypertension, and coronary artery disease, status-post coronary artery bypass graft presented with a giant ascending aortic
pseudoaneurysm. Considering the patient’s multiple comorbidities, coagulopathic status, an endovascular technique was employed to avoid cardiopulmonary bypass and possible deep hypothermic circulatory arrest associated with an open approach. Patient was extubated immediately after procedure without any complications. Transesophageal echocardiogram proved useful, not only in evaluating cardiac function, but also to monitor placement of the guidewire into the pseudoaneurysm neck and confirm placement of the Amplatzer device to seal the leakage of pseudoaneurysm.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC16
**Aortic Tear Presenting as Acute Myocardial Infarction**
Stanlies D’Souza, M.D., F.R.C.A., Anesthesiology, Baystate Medical Center, Tufts University School of Medicine, Springfield, MA.

A 49 year-old male patient with progressive dyspnea, hypertension, hyperlipidemia, and obesity presented with acute onset of severe chest pain. An acute MI was diagnosed based on increased blood levels of troponin. Cardiac catheterization defined normal coronary arteries, but ventriculogram revealed 5.5 cm aortic root aneurysm. TTE, TEE and MRI imaging confirmed the presence of an aortic root aneurysm with severe aortic insufficiency without dissection. His chest pain abated with medical management. Repeat MRI four days later showed no evidence of aortic dissection. During scheduled operation for aortic valve and root replacement surgeon noticed a large intimal tear aortic dissection.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC17
**Ischemic Leg After Placement of Femoral Arterial Line**
Stanlies D’Souza, M.D., F.R.C.A, Kelley Kalin, D.O., Anesthesiology, Baystate Medical Center, Tufts University School of Medicine, Springfield, MA, Anesthesiology, University of Illinois at Chicago, Chicago, IL.

A 45 year-old partial wheelchair bound female with a history of muscle weakness, hypertension, smoking, and insulin dependent diabetes, presented with chest pain and was found to have a NSTEMI. Emergent catheterization showed triple vessel disease and she was scheduled for coronary artery bypass procedure (CABG). Following attempted insertion of a left femoral arterial line after induction of general anesthesia, she developed severe left leg ischemia. Aortogram revealed severe bilateral aortoiliac occlusive disease. The CABG procedure was aborted and she underwent bilateral lower limb revascularization procedure. CABG was done a week later with an uneventful perioperative course.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC18
**Systemic Thrombosis After Cardiopulmonary Bypass in a Patient With Systemic Lupus Erythematosus**
Ghassan Aljafar, M.D., Stanlies D’Souza, M.D., F.R.C.A, Karthik Raghunathan, M.D., Anesthesiology, Baystate Medical Center, Tufts University School of Medicine, Springfield, MA.

58 year-old female with hypertension, diabetes mellitus, systemic lupus erythematosus and severe CHF (with severe mitral and tricuspid regurgitation) underwent mitral valve replacement and tricuspid valve annuloplasty via Heartport surgery. Post CPB, TEE showed reduced biventricular function and relative stability on intravenous infusions of epinephrine, norepinephrine and inhalational epoprostenol. Acute hemodynamic deterioration occurred 60 minutes after chest closure with brady-asystolic arrest. CPR per ACLS protocol was initiated and invasive arterial pressures were used to guide depth and frequency of
chest compressions. TEE showed intra-mural thrombus in the ascending aorta and re-heparinization followed by recannulation for CPB encountered high line pressures.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC19
**Anesthetic Management of a 12 Year-Old Male With C. Diphtheria Endocarditis Requiring Cardiac Surgery**
Shahbaz A. Farnad, Steve D. Barnes, M.D., Arvind Rajagopal, M.D., Anesthesiology, Rush University Medical Center, Chicago, IL.
Cardiac surgery for patients with C. Diphtheria endocarditis presents several anesthetic management challenges. A thorough assessment including imaging, echocardiography, laboratory testing, and evaluation of cardiac involvement, flow reversal, cardiopulmonary status, hepatorenal function, and airway involvement and function are needed in guiding anesthetic technique. Adherence to the appropriate hemodynamic goals related to the particular cardiac pathology is essential. We present the anesthetic management of a young male with Diphtheria endocarditis and severe mitral and aortic insufficiency, requiring aortic valve replacement and mitral valve repair.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC20
**TTE and TEE-Assisted PA Catheter Placement in a Patient With a Right Atrial Synovial Sarcoma**
Dalia Figueroa, M.D., Kathleen McDonald, M.D., Brian Johnson, M.D., John T. Cleaves, M.D., Anesthesia, Walter Reed National Military Medical Center, Gaithersburg, MD.
A 21 year-old male with a recurrent synovial sarcoma invading the right atrium and posterior ascending aorta presented for resection and reconstruction. Transthoracic echocardiography (TTE) showed no involvement of the SVC or IVC prior to save insertion of a right internal jugular vein introducer sheath. Transesophageal echocardiography (TEE) revealed an echogenic mass of the right atrium, which would complicate PA catheter placement. After uneventful resection and reconstruction, TEE-directed PA catheter insertion was performed. This case illustrates the novel use of TTE and TEE to safely direct the stepwise insertion of a PA catheter in a patient with a right atrial tumor.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC21
**Retrieval of a Dislodged Arteriovenous Stent From the Left Pulmonary Artery With Cardiopulmonary Bypass**
Dislodgment of intravascular foreign bodies is common. The literature contains case reports of their retrieval using percutaneous approaches. Outside of the management of dislodged foreign bodies, the assistance of cardiopulmonary bypass (CPB) has been described in the removal of massive pulmonary emboli. We describe a case of a 56 y/o patient who presented with a thrombosed atriovenous graft with subsequent displacement of the stent into his left pulmonary artery. Due to failed attempts at percutaneous retrieval, the patient was taken to the OR to undergo retrieval with CPB assistance. The patient tolerated the procedure well and was discharged on POD#4.
Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC22
A Case of Persistent Tracheobronchial Collapse After Repair of Vascular Ring Involving a Kommerell’s Diverticulum in an Adult Patient
Mariya A. Geube, Jennifer Hargrave., Anesthesiology Institute, Cardiac and Thoracic Anesthesia, Cleveland Clinic Foundation, Cleveland, OH.
48 year-old male with a right sided aortic arch, aberrant left subclavian artery and a large Kommerell’s diverticulum forming a vascular ring around the trachea, which produced severe compression on the distal trachea and main bronchi underwent reconstructive aortic surgery which ultimately failed to provide decompression of the airway. The postoperative course was complicated by an extremely complex airway pathology and ventilatory management. The patient underwent stenting of the trachea and main bronchi to stabilize the airway with subsequent weaning from mechanical ventilation. The persistence of the tracheobronchomalacia caused significant morbidity and exposed the patient to additional procedures.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC23
An Uncommon Surgical Technique: Minimally Invasive Surgery on Pulmonic Valve for Resection of Tumor
Kriti Goel, M.D., Muhammad Muntazar, M.D., William Bentley, M.D., Marc Torjman, M.D., Michael Goldberg, M.D., Cooper University Hospital, Camden, NJ.
Surgical valvular repair using a minimally invasive approach is increasingly becoming the common surgical technique. However, an invasive sternotomy is required for surgery on the pulmonic valve due its difficult anatomic location. Furthermore, pulmonic valve dysfunction is commonly a result of congenital heart disease and, or long standing pulmonary hypertension, conditions not amenable to one lung ventilation. However, 57-year-old man had successful surgical removal of fibroelastoma tumor located on pulmonic valve using left thoracotomy with one lung ventilation when his history revealed prior sternotomy. Resection of tumor is necessary while avoiding pulmonary valve incompetence and right ventricular outflow obstruction.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC24
A Shocking Dilemma: Perioperative ICD Management in Setting of Non-Cardiac Surgery for Heart Transplant Candidate
Emily C. Graham, M.D., Priya Kumar, M.D., Department of Anesthesiology, University of North Carolina at Chapel Hill, Chapel Hill, NC.
A 66-year-old with chronic sinusitis presented for nasal endoscopy prior to being listed for cardiac transplant. His history included heart failure (EF 35%), complete heart block s/p biventricular implantable cardioverter-defibrillator (ICD) placement and frequent ventricular tachycardia (VT) episodes treated with anti-tachycardia pacing (ATP) therapy. We were faced with the dilemma of intraoperatively disabling the ICD and using external defibrillation versus leaving the ICD on to utilize ATP. We discuss perioperative management of ICDs, effectiveness of internal versus external defibrillation, strategies to minimize damage to ICDs with central line placement and concerns of the surgery team regarding intraoperative ICD firing.
Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC25

Intra-Operative Diagnosis of Traumatic Aortic Arch Transection by TEE

Emily C. Graham, M.D., Warner J. Lucas, M.D., Harendra Arora, M.B.,B.S., Department of Anesthesiology, University of North Carolina at Chapel Hill, Chapel Hill, NC.

A 56 year-old female was brought emergently to the operating room with hemodynamic instability after a head-on motor vehicle collision. En route, she had suffered cardiovascular collapse, the etiology of which was unclear. Hemodynamics improved somewhat after bilateral chest tubes for pneumothorax. Additionally, a previously undiagnosed aortic transection at the level of the left subclavian artery was detected with intraoperative TEE. The transection was repaired emergently by cardiothoracic surgery. We discuss the differential diagnosis of hemodynamic collapse in the setting of massive trauma, the use of intraoperative TEE as a diagnostic modality, and treatment options for aortic arch transection.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC26

Refractory Cardiogenic Shock Following Aortic Valve Repair: A Challenging Case Report

Christopher Gratian, M.D., Priya Kumar, M.D., Department of Anesthesiology, University of North Carolina, Chapel Hill, NC.

Introduction: We present a case of a patient transferred to UNC requiring multiple interventions due to complications during aortic valve repair. Case Report: A 72 year-old female status post aortic valve repair requires subsequent unplanned coronary artery bypass grafts of the RCA and LAD, Intra-aortic balloon pump placement, and CentriMag ventricular assist system with inline oxygenation. Patient failed weaning of the ventricular assist system on first attempt in the setting of newly discovered increased peak left ventricular outflow tract velocities on intraoperative trans-esophageal echo. We describe this patient’s recovery and ultimate discharge from the hospital.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC27

Elective Minor Surgery Within 1 Year of Drug Eluting Stent: To Proceed or Not Proceed?

Shaun E. Gruenbaum, M.D., Marcelle E. Blessing, M.D., Paul G. Barash, M.D., Department of Anesthesiology, Yale University School of Medicine, New Haven, CT.

CASE: A 56 year-old lady presented 6 months after placement of a drug eluting stent to the RCA for a right shoulder lipoma excision. Aspirin was continued, but Plavix was discontinued 1 day before the surgery. Intraoperatively, 2 mg midazolam was administered intravenously, and a propofol infusion was initiated at 125 mcg/kg/min. The patient did well without any event, and was discharged to home after the procedure. DISCUSSION: Anesthesia within 1 year of percutaneous intervention with a drug-eluting stent is associated with a significantly increased risk of morbidity and mortality, particularly when dual antiplatelet therapy is discontinued.
**Role of Platelet Response Test in CABG Surgery**

*Qiao Guo, M.D., Christopher Tam, M.D., Sandeep Gupta, M.D., Bharathi Scott, M.D., Anesthesiology, Stony Brook University Medical Center, Stony Brook, NY.*

Antiplatelet therapy with clopidogrel reduces atherothrombotic complications in patients undergoing percutaneous coronary intervention (PCI) with stenting (1). Some of these patients will require CABG surgery, and it is recommended that plavix be discontinued 7 days prior to surgery. There are several commercial tests that have been developed to rapidly examine the percentage of platelets inhibited in patients treated with plavix. KC is a patient with platelet response of 54% 7 days after stopping plavix. Should surgery be cancelled due to high percentage inhibition? What could explain this result?

**Syncopal Anesthesia**

*Deepak Gupta, Lucy Pullis, Mona Arabi, Hong Wang., Detroit Medical Center, Detroit, MI.*

49 year-old female presented for loop recorder placement to diagnose underlying pathology for her recurrent syncope. General endotracheal anesthesia without neuromuscular blockers was given. During baroreceptor testing by cardiologist, the patient was intermittently hypotensive. Despite decreasing the minimum alveolar concentration of isoflurane to 0.3 and sustained bispectral index of 60-70s, the patient was deeply relaxed and unresponsive. On wake up and during follow up, patient did not complain of intra-operative awareness. It was concluded by the anesthesia provider team that this may be an example of syncopal anesthesia wherein amnesia is secondary to borderline global or regional cerebral hypo-perfusion.

**Massive Aortic Dissection From Coronaries to Iliacs: A Case Report**

*Genaro Gutierrez, M.D., Brian Kim, Italo Ibi, M.D., Seth Akst, M.D., Anesthesiology and Critical Care Medicine, The George Washington University School of Medicine and Health Sciences, Washington, DC.*

Our patient presented to the ER with sudden onset severe chest/back pain and bilateral lower extremity weakness. He was promptly diagnosed with an aortic dissection from his coronary arteries to the iliac artery bifurcation followed by massive transfusion protocol initiation. After induction, we placed: an arterial line, double central venous access, rapid infusion catheter and spinal drain for intrathecal pressures. Total operative time was over 24 hours and included: a 3 vessel CABG, aortic graft placement with cardio-pulmonary bypass and period of circulatory arrest. Our patient received over 100 units of blood products and 2 doses of recombinant factor seven.
Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC31
Successful Treatment of an Acute Intraoperative Pulmonary Embolus With ECMO Support and Low Dose Tissue Plasminogen Activator (tPA) via Pulmonary Artery Catheter
Ricky S. Harika, M.D., Cynthia Wells, M.D., Dennis Phillips, M.D., Anesthesiology, University of Pittsburgh Medical Center, Pittsburgh, PA.
44 year-old obese female with uncontrolled diabetes presented for repeat debridement of necrotizing fasciitis. Soon after induction, she acutely became hemodynamically unstable and hypoxic. An acute pulmonary embolus was highly suspected. An emergent TEE exhibited an obstructive thrombus in the right pulmonary artery and worsening right heart function. Despite maximum inotropic support and inhaled nitric oxide, she progressed to right heart failure, which required initiation of venoarterial ECMO. After transfer to the ICU, a tPA infusion was started via the PA catheter for directed thrombolysis. Within 24 hours, her hemodynamics improved, ECMO was removed and she regained normal biventricular function.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC32
Anesthetic Implications and Transesophageal Evaluation of a Right Atrial Synovial Sarcoma
Noah C. Heilbrun, M.D., Wayne Jacobsen, M.D., Samata R. Paidy, M.D., Department of Anesthesiology, University of Arizona, Tucson, AZ.
Right atrial masses are an uncommon clinical finding with numerous etiologies. Determining the exact anatomic location and the extent of the obstruction has implications for both surgical resection as well as potential hemodynamic compromise. We present the case of a right atrial synovial sarcoma. This is an extremely rare tumor that is noted for its rapid and invasive growth. Identification of the margins and stability of the tumor by transesophageal echocardiographic investigation is essential for the delivery of a safe cardiac anesthetic.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC33
Stress-Induced (Takotsubo) Cardiomyopathy Diagnosed in the Immediate Postoperative Period
Two patients with no previous cardiac history were diagnosed with stress-induced cardiomyopathy following uneventful general anesthetics. A 50 year-old Caucasian male developed ventricular bigeminy in PACU following direct laryngoscopy and biopsy of pharyngeal squamous cell carcinoma. Transthoracic echocardiography revealed reduced LVEF and apical wall akinesis; cardiac catheterization revealed no significant stenosis. Subsequent cardiac MRI was normal. A 56 year-old Asian female developed ventricular tachycardia upon emergence from an uneventful general anesthetic for temporal craniotomy with tumor excision. Transthoracic echocardiography revealed markedly reduced LVEF and apical wall akinesis. Stress cardiac MRI revealed apical ballooning and no ischemia.
A Case of Mitral Valve Repair for Fibroelastoma Complicated by Antiphospholipid Syndrome
Jeremy L. Hensley, M.D., Kyle Boyce, M.D., George Ranier, M.D., Department of Anesthesiology, West Virginia University Hospital, Morgantown, WV.
We present a 42 year-old female with a history of a Left MCA stroke. Work-up included a TTE which demonstrated a 10 mm fibroelastoma on the posterior leaflet of the mitral valve. In addition to this source for thromboembolism, her hypercoagulation labs were positive for anticardiolipin antibodies and lupus anticoagulant antibodies. The concurrency of a fibroelastoma in the face of antiphospholipid syndrome is exceedingly rare and presents a unique challenge to the cardiac anesthesiologist who must ensure appropriate anticoagulation for CPB.

Anesthetic Management of a Patient of Madelung's Disease Undergoing Off Pump CABG
Rajnish K. Jain, M.D., Deepak Hingwe, Swaminathan Srinivasan, M.D., Anesthesiology & Critical Care, BMHRC, Bhopal, India.
A 67 years, ASA III male with Coronary artery disease, Diabetes Mellitus, hypertension and Benign multiple systemic lipomatosis (Madelung's disease) was posted for off pump CABG. Airway management was challenging due to abnormal adipose tissue in neck and shoulder causing large circumference and distorted anatomy. Patient was Mallampatti III, but Thyromental, Sternomental distance and tracheal orientation were impossible to evaluate. Flexion and extension at neck were limited due to tissue at the nape of the neck. After awake fibreoptic intubation, CVC was done under USG guidance. Venous and tracheal compression by neck mass posed problems to surgeon. Perioperative course was uneventful.

Three-Dimensional Echocardiograph: A New Way to Look at Old Information
Jayant S. Jainandunsing, M.D., Justin Lee, M.D., Feroze Mahmood, M.D., Pete Panzica, M.D., Robina Matyal, M.D., Anesthesiology and Pain Medicine, University Medical Center Groningen, Netherlands, Beth Israel Medical Center, Harvard Medical School, Boston, MA.
A 77 year-old male with moderately depressed systolic function and a trace mitral regurgitation was scheduled for Coronary Artery Bypass Graft Surgery (CABG). Pre-operative Trans-Thoracic Echocardiographic examination could not visualize the aortic valve. A post-induction, pre-bypass Trans-Esophageal Echocardiographic examination was performed and revealed a moderate to severe aortic stenosis. The surgeon asked the following questions, what is the pressure gradient? How severe is the stenosis? Should we replace the aortic valve or not?
Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC37
Anterior Mediastinal Mass: The Anesthetic Conundrum
Mandisa-Maia Jones-Haywood, M.D., Anesthesia, Wake Forest University School of Medicine, Winston Salem, NC.
The patient is a 64 year-old male with a past medical history of a neck mass, who presented to ENT clinic with dyspnea and stridor. He was found to have a large anterior neck mass extending from the mandible to the clavicles. Pre-operative imaging revealed a massively enlarged thyroid gland with significant tracheal compression and extension into the anterior mediastinum. Total thyroidectomy was performed under general anesthesia with the support of veno-venous extracorporeal circulation without incident. The patient had an unremarkable post-operative course and was discharged on post-operative day six.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC38
Jehovah’s Witness Presents for Emergent Repair of Post-Infarction Ventricular Septal Defect
John A. Judd, M.D., Michael J. Bouvette, M.D., Heidi M. Koenig, M.D., Department of Anesthesiology and Perioperative Medicine, University of Louisville, Louisville, KY, Department of Anesthesiology, Jewish Hospital, Louisville, KY.
A 56 year-old Jehovah’s Witness female presented for emergent post infarction ventricular septal defect (VSD) repair. She underwent successful angioplasty with stent placement for a NSTEMI one day prior. She was noted to have a large VSD and intra-aortic balloon pump supplementation was initiated. On emergent presentation to the operating room, the patient was thrombocytopenic, anemic, and suffering from acute renal failure. We review the literature and present the management of this case - specifically highlighting the goals of minimizing blood loss and O2 consumption while optimizing perfusion and O2 delivery without blood transfusion.

Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC39
A Rare Case of Intracardiac Thromboembolism Causing Cardiac Arrest During Orthotopic Liver Transplantation
Alwafa Khatib, M.D., Vadivelu Sivaraman, M.D., Seema Deshpande, M.D., Department of Anesthesiology, University of Maryland, Baltimore, MD.
62 year-old male with ESLD secondary to alcohol abuse for orthotopic liver transplantation. Induction and the initial part of the procedure was uneventful. Immediately after portal vein unclamping, patient went into PEA arrest. ACLS protocol initiated, with patient unresponsive to treatment. Internal cardiac massage was started. Intraoperative TEE showed large clots in right atrium, right ventricular outflow tract and left atrium. 10,000 units of heparin was administered and ACLS continued with cardiac massage for 16 minutes. Patient regains normal sinus rhythm and upon repeat TEE, intracardiac clots had resolved.
Saturday, October 13, 2012
8:00 AM - 9:30 AM
MC40
Use of the Transversus Abdominis Plane (TAP) Block With Light Sedation for Placement of a Tunneled Paracentesis Catheter in a Patient With Failed Fontan Physiology
Ashfaq Kitaba, M.D., David P. Martin, M.D., Anesthesiology, Nationwide Children's Hospital, Columbus, OH.
We present a case of 33 year-old adult patient with Fontan physiology presenting with recurrent severe ascites requiring insertion of a tunneled abdominal drain under mild sedation and a transversus abdominis plane (TAP) block placed with ultrasound guidance.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC265
Acute Right Heart Failure During Orthopedic Surgery
Prashanth Reddy, M.D., New York University, New York, NY.
51 year-old female presented for knee surgery. Intra-operatively, pt developed severe hypotension that was non-responsive to vasopressors. TEE revealed severe right heart failure and decision made to explore pulmonary arteries under cardiopulmonary bypass. Pt abruptly became bradycardic resulting in PEA and ACLS initiated. After resuscitation, main pulmonary artery is explored without evidence of embolus. Pt remained hypotensive requiring multiple vasoactive agents and could not be weaned from cardiopulmonary bypass. A RVAD was placed and pt weaned from bypass. Post-op, patient developed multiple episodes of ventricular fibrillation that were unresponsive to amiodarone and cardioversion and pt expired.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC266
Anesthetic Considerations for Video-Assisted Thoracoscopy PDA Ligation in a Patient With Edward’s Syndrome
Luis I. Rodriguez, M.D., Christopher Tirotta, M.D.,M.B.A., Redmond Burke, M.D., Anesthesia, University of Miami Medical Group, Miami, FL, Cardiac Anesthesia, Pediatric Cardiac Surgery, Miami Children’s Hospital, Miami, FL.
Trisomy 18 (Edward’s Syndrome) is a chromosomal disorder characterized by multiple dysmorphic features and organ malformation with extremely poor prognosis. Patients require cardiac investigation, as often they present with ASD, VSD, PDA, or coarctation of the aorta. We present a 3.4Kg, 5 month girl with this syndrome and persistent ductus arteriosus complicated with pulmonary hypertension and restrictive cardiomyopathy. The procedure was performed via VATs with challenging technical difficulties that required close communications with the surgeons. Hemodynamic improvement was seen after ligation and patient was extubated at the end of procedure and transferred to ICU for observation.
Malignant Hyperthermia During Cardio-Pulmonary Bypass in a Pediatric Patient
Luis I. Rodriguez, M.D., Amanda Saab, M.D., Anesthesia, University of Miami Medical Group, Miami, FL.
Malignant hyperthermia is a severe reaction triggered by commonly used drugs during general anesthesia in susceptible patients, leading to an uncontrolled increase in skeletal muscle metabolism. Common signs (tachycardia, elevated temperature, increase CO2 production, acidosis) can go unnoticed during cardio-pulmonary bypass, making the diagnosis and initiation of treatment a challenge. We present a case of a 10 year old undergoing an aortic valve replacement, in which signs of MH were recognized soon after initiation of CPB and treatment started. Patient tolerated the procedure and continued to show signs of MH up to 24h post-op, with complete improvement and eventual discharge.

Incidental Finding of Severe Portopulmonary Hypertension (PPH) With Excellent RV Function in a Patient Undergoing Orthotopic Liver Transplantation (OLT); To Proceed or Not to Proceed?
Faith J. Ross, M.D., Ibtesam Hilmi, M.B., Ch.B., University of Pittsburgh Medical Center, Pittsburgh, PA.
A patient with history of ESLD was diagnosed with severe PPH after induction of anesthesia for OLT. Severe PPH is a contraindication for OLT due to high mortality and morbidity as it often leads to RV and hepatic allograft failure. Given this patient’s unusually excellent RV function with minimal TR and high likelihood of mortality on the waiting list, the decision was made to proceed with transplantation. She was treated intraoperatively with pulmonary vasodilator but the procedure was complicated by near-systemic PAP briefly after reperfusion. PAP slowly normalized postoperatively and she was discharged home on postoperative day 13.

Management of Ebsteins Anomaly With Severe Right Ventricular Dysfunction
Prabodh Sasidharan, M.D., F.R.C.A, Nial O’Keeffe, M.B., B.Ch., Department of Anaesthetics, Manchester Royal Infirmary, Manchester, United Kingdom.
20 year-old man with Ebsteins anomaly presented for surgical repair. Pre operative TTE showed severe TR with grossly dilated RA and RV. Procedure involved plication of atrialised RV and repair of Ebsteins anomaly. Glenn shunt was performed to off load the right ventricle. Post operatively patient was placed on V-A ECMO to support circulation. Post operative period involved massive coagulopathy, renal failure and multiple chest explorations. Eventually ECMO was weaned off on day 7. Inotrope support was weaned off in the next 92 hours. Tracheostomy was performed to assist weaning off ventilatory support. Discharged to ward in 5 weeks.
**Management of Type A Aortic Dissection Presenting With Gut Ischemia**

*Prabodh Sasidharan, M.D., F.R.C.A, Lee Winslow, M.B., B.Ch., Department of Anaesthetics, Manchester Royal Infirmary, Manchester, United Kingdom.*

58 year-old female presented with acute onset of chest pain and bloody diarrhoea. Blood biochemistry revealed raised lactate and acidaemia. CT angiogram revealed Aortic dissection extending to both renal arteries with occlusion of superior mesenteric artery. TEE showed severe AI with involvement of non coronary sinus and dilating left ventricle. Dissection was managed conservatively for the first 48 hours to exclude worsening gut ischemia. Lactate normalised in the next 48 hours with no further episodes of GI bleed. She subsequently underwent AVR and interposition graft of the ascending aorta. Procedure was uneventful with minimal inotrope requirement after CPB separation.

**Iatrogenic Massive Aortic Intramural Hematoma Complicating Acute Type A Aortic Dissection Surgery Using Ascending Aortic Cannulation: Perfusion Emergency Resulting in Circulatory Collapse**

*Keita Sato, M.D., Takehiko Adachi, M.D., Ph.D., Anesthesiology, Kitano Hospital, Osaka, Japan.*

A 38 year-old man was emergently brought to the operation room for acute type A aortic dissection surgery. He underwent cannulation of the ascending aorta and right atrium. Although we confirmed the ascending aortic cannula in the true lumen by epiaortic and transesophageal echocardiography, massive intramural hematoma occurred with circulatory collapse on initiating cardiopulmonary bypass (CPB) due to abutment of the cannula tip against the aortic intima. He underwent femoral arterial cannulation, which established CPB and ascending aorta replacement was performed under circulatory arrest. We highlight the perfusion emergency in this surgery using ascending aortic cannulation.

**Anesthetic Management for Mediastinoscopy in a Patient with Cardiomyopathy, Arrhythmia and Active Ischemic Heart Disease**

*Andres F. Sepulveda, M.D., Jagan Devarajan, M.D., Anesthesiology Institute, Cleveland Clinic Foundation, Cleveland, OH.*

We describe the anesthetic management of a 57 year-old male for mediastinoscopy. He presented with SOB and palpitations; initial workup showed afib, dilated ischemic cardiomyopathy with EF 25% and 80% blockade of LAD and mediastinal mass. He had unsuccessful cardioversion and cardiologist opined that patient needed diagnosis of mediastinal lesion to rule out malignancy, followed by stenting. He was optimised with beta blocker and antithrombin agents for CAD and Afib. He had invasive monitoring and hemodynamically stable anesthetic regimen and we were prepared to detect and manage bleeding and myocardial ischemia. Surgery was uneventful, patient was discharged successfully without complications.
Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC273
Pulmonary Veno-Occlusive Disease What is the Best Intraoperative Management

Ricardo A. Serrano, M.D., Emily A. Singer, M.D., Department of Anesthesiology, Boston Medical Center, Boston, MA.

A 34 year-old male with increasing dyspnea is admitted. CT scan revealed bilateral mosaic pattern. Evaluation for connective tissue disease was negative. Transthoracic echocardiogram showed pulmonary artery pressures of 48mmhg, right ventricular volume overload, and impaired relaxation of left ventricle. A right heart catheterization showed PA pressures of 78 and PCWP of only 3mmhg. These results indicated pulmonary hypertension. The presumptive diagnosis was pulmonary hypertension secondary to pulmonary venous occlusive disease. The patient was scheduled for VATS/lung biopsy for definitive tissue diagnosis. General anesthesia, one-lung ventilation, and lateral decubitus positioning were requested.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC274
Difficult Airway in a Patient With Descending Thoracic Aortic Dissection

Sudarshan Setty, M.D., Tatyana Rozenthal, M.D., Montefiore Medical Center, Bronx, NY.

68 year-old morbidly obese male with chronic dissection of descending thoracic aorta, chest pain and unexplained hypoxia with 89% SaO2 on face mask presented for endovascular stenting. Ultrasound guided a-line and peripheral IV placement. After lidocaine topicalization, nasal FOB used to secure airway easily. Esmolol infusion titrated to control BP. Patient received propofol, rocuronium after securing airway. USG for placing right IJ cords. Difficulty placing lumbar drain, Fluoroscopy used to place lumbar drain. TEE probe placed easily. Patient required FiO2 0.8, PEEP 10 to maintain SaO2>90. Postoperative day 1 patient weaned and extubated in ICU. Patient had an uneventful recovery.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC275
A Case of Saddle Pulmonary Embolus in a Patient With Patent Foramen Ovale

Tanmay Shah, M.D., Douglas Jackson, M.D., Anesthesiology, UMDNJ-NJMS, Newark, NJ.

40 year-old female with PMH of CRPS with intrathecal morphine pump, presented to ER with acute onset of shortness of breath, pleuritic chest pain and cough. CT Chest: saddle embolism. TTE:mobile clot in right and left atria communicating via PFO, severe RV dilation and PASP of 75 mm Hg. Patient taken to OR for emergent thrombectomy and closure of PFO. Post-induction TEE:severe RV dilatation and massive clot in RA, LA and both pulmonary arteries. Severe hypotension treated with epinephrine, dobutamine and initiation of CPB. A huge clot extracted in one piece. Pre and post-op evaulation negative for DVT and hypercoagulable state.
Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC276
Intraoperative Placement of Percutaneous Left Ventricular Assist Device for Hemodynamic Support of the Patient With Severe LV Dysfunction
Usman A. Shah, M.D., Roger Fan, M.D., Igor Izrailtyan, M.D., Anesthesiology, Cardiovascular Medicine, Stony Brook University, Stony Brook, NY.
A 57 year-old man with advanced coronary artery disease and severe left ventricular (LV) dysfunction presented for ventricular tachycardia (VT) ablation. Mapping and ablation of ongoing VT during this lengthy procedure causes prolonged periods of hemodynamic instability with significant compromise in cardiac output. A small percutaneous LV assist device (LVAD - Impella, Abiomed) was placed intraoperatively for preservation of hemodynamics. A cerebral oximeter (Nonin) was used to facilitate organ perfusion monitoring. The procedure was tolerated well. We will discuss indications for the temporary placement of percutaneous LVAD and implications of this decision for anesthetic management.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC277
Anesthetic Challenges in a Patient With Superior Vena Cava Syndrome and Critical Aortic Stenosis
Omair Shakil, M.D., Melanie Kalmanowicz, M.D., Feroze Mahmood, M.D., Robina Matyal., Anesthesia, Critical Care and Pain Medicine, Beth Israel Deaconess Medical Center, Boston, MA.
A 74 year-old woman with history of breast cancer, coronary artery disease, complete heart block with DDD pacemaker and critical aortic stenosis presented with dyspnea and symptoms of superior vena cava syndrome secondary to bulky mediastinal lymphadenopathy. Due to extensive aortic root calcification the patient was not a candidate for valve replacement. She was scheduled for a transbroncical needle aspiration under endobronchial ultrasound guidance to determine the diagnosis and future treatment plan. Anesthetic challenges in this patient included airway management in the presence of an obstructive mediastinal mass and critical aortic stenosis.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC278
Spontaneous Resolution of Prolonged QTc Interval Following Total Hip Arthroplasty Under GETA With Favorable Outcome
Harry Singh, M.B., B.S., Anesthesiology, Culpeper Regional Hospital, Culpeper, VA.
A 72 year-old ASA III male with HTN, NIDDM, COPD, h/o ETOH and RBBB with QTc interval of 440 (QT 396) underwent THA. Anesthesia comprised of propofol, fentanyl and rocuronium induction followed by O₂ and sevoflurane maintenance. Intraoperative hypotension was treated with phenylephrine. His PACU and POD-3 EKGs demonstrated QTc intervals of 486 (QT 416) and 458 (QT 368). His pre and postop Hbs were 11.2 and 7.3 gms/dl, respectively. He had occasional intra and immediate postoperative ventricular ectropics with spontaneous resolution. Cause of prolonged QTc interval though indeterminate was either from ischemia or electrolyte imbalance in our patient.
Left Ventricular Noncompaction An Interesting Echocardiographic Finding in a Parturient with Cardiomyopathy: A Case Report
Dina E. Soliman, M.D., Zuyue Wang, M.D., Steven Goldstein, M.D., Cardiology-Non-Invasive Echocardiography, Washington Hospital Center, Washington, DC.
A case report of a 19 year-old parturient female, 37 weeks gestation, wt: 107 lbs, Ht: 60 meters, with a diagnosis of cardiomyopathy, poor left ventricular systolic function and ejection fraction (EF) of 20%. Left Ventricular Non Compaction is a distinct genetic cardiomyopathy, secondary to a disorder of endomyocardial morphogenesis during embryonic life, resulting in failure of trabecular compaction of the developing myocardium, predominantly in the left ventricle. High clinical suspicion is important for early diagnosis and treatment. 2D-echocardiography is considered the diagnostic test of choice.

The Role of Transesophageal Echocardiography in Transcatheter Aortic Valve Implantation (TAVI): An Important Cardiac Imaging Device a Review of a Challenging Case Report
Dina E. Soliman, Zuyue Wang, M.D., Steven Goldstein, M.D., Cardiology-Non-Invasive Echocardiography, Washington Hospital Center, Washington, DC.
This is a case report of a 97 year-old male who underwent a successful Transcatheter Aortic Valve Implantation (TAVI). TAVI is an evolving technique in interventional cardiology for treatment of high risk patients with severe symptomatic aortic stenosis. Imaging is crucial for TAVI, and echocardiography plays an essential role in identifying patients suitable for the procedure, providing intra-procedural high resolution real-time images of the aortic valve annulus, identifying the origin of the coronary ostia, properly selecting prosthesis size, guiding the procedure for proper valve position, and assessing postprocedural paravalvular aortic regurgitation and other complications.

A Difficult and Challenging Case of Relapsing Polychondritis Undergoing Tracheostomy
Sriharsha Subramanya, M.D., Anesthesiology, Cleveland Clinic, Cleveland, OH.
31 year-old male with relapsing polychondritis causing tracheobronchomalacia. Refused awake tracheotomy under local. Planned awake intubation failed since patient couldn’t tolerate subglottic spray of lidocaine causing dynamic collapse of airway with desaturation. Saturation improved with 100% FiO2, but patient refused awake intubation. Proceeded to Inhalational induction using sevoflurane, but glottic collapse made intubation with 6 or 7mm tubes difficult. Intubation successful with 11Fr airway exchange catheter and jet ventilation started. Saturation improved but patient developed hemodynamic collapse, secondary to tension pneumothorax. Chest tube inserted bilaterally resulting in hemodynamic stablity. Surgical tracheostomy was completed successfully and patient transferred to ICU sedated.
Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC282
**Post-Op SVC Syndrome**
*Miguel A. Telleria, Faisal Huda, M.D., Ashish Udeshi, M.D., Edgar Pierre, M.D., Javier Lopez, M.D., Anesthesiology, University of Miami, Miami, FL, Anesthesiology, Kendall Regional Medical Center, Miami, FL.*

A 69 year-old morbidly obese female with NIDDM and a known congenital heart defect of right upper pulmonary vein draining into right atrium was brought to the OR for a modified Warden procedure. She had a remote history of progressively worsening DOE. After the Warden procedure was completed and after coming off of bypass, the patient was noted to be cyanotic and swollen in her neck, head, and bilateral upper extremities. The diagnosis of SVC syndrome was made. She was placed back on bypass and additional repairs were attempted. She was brought back POD 3, for a sternal closure.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC283
**Can a Patient With Severe Pulmonary Hypertension and Eisenmenger’s Syndrome be Sedated With Dexmedetomidine?**
*Sarena Teng, M.D., Justin Smith, M.D., Tamas Seres, M.D., University of Colorado, Aurora, CO.*

A patient with large atrial septal defect, severe pulmonary hypertension and Eisenmenger’s syndrome presented for ablation of rapid atrial fibrillation. Sedation was achieved with dexmedetomidine infusion (0.5 mcg/kg/hour) and midazolam boluses. During the procedure, 25mg IV ketamine was administered for pain. The patient developed upper airway obstruction, which resolved quickly with airway manipulation without hemodynamic compromise. The patient had an episode of refractory hypotension in the Coronary Care Unit requiring phenylephrine infusion. Dexmedetomidine can be used safely in pulmonary hypertension with Eisenmenger’s syndrome; however combination with ketamine may cause upper airway obstruction and postoperative hypotension can be a significant problem.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC284
**Intra-Cardiac Mass Presenting as ST Elevation MI**
*Michael T. Tran, D.O., Paul Kempen, M.D., Anesthesia, Cleveland Clinic Foundation, Cleveland, OH.*

This case presents a 51 year-old female with past medical history significant for squamous cell esophageal cancer with cardiac metastasis was found to have a new anterior STEMI on the day of surgery for bronchoscopy due to T-E fistula. However, serial troponin levels were found to be negative. Imaging studies later revealed that cardiac conduction abnormalities presenting as a STEMI was due to the mass in the inter-ventricular septum.
Interdisciplinary Management of an Openly Ruptured Iliac Artery Aneurysm
Natalie Urwyler, M.D., Stefanie Krebs, Arno Stellmes, M.D., Bruno Kaempfen, M.D., Anesthesiology, Vascular Surgery, University Hospital of Bern, Bern, Switzerland, Anesthesiology, Spitalzentrum Oberwallis, Visp, Switzerland.
Case report of a 68 year-old male presenting with an openly ruptured iliac artery aneurysms. In the ED the sonographic examination showed free liquid in the abdomen, presumably blood. The patient was still conscious with a blood pressure of 60/40mmHG. We immediately transferred him to the OR without any further diagnostic. He was installed only with two peripheral lines and a femoral arterial catheter. Anesthesia was induced with Succinycholin/Ketalar. After abdominal incision the patient showed a PEA. Resuscitation was immediately started. The patient received a massive transfusion of 9EC, 11FFP and 1PLTS and survived without any neurological defect.

How Long Should Dabigatran be Held Prior to Cardiovascular Surgery?
Jerran S. Vascoe, M.D., Sreelatha Panthayi, M.D., Anesthesiology, UTHSC Houston, Houston, TX.
This case illustrates prolonged intraoperative bleeding with dabigatran in a patient with chronic kidney disease taking amiodarone. The patient had a past episode of heparin-induced thrombocytopenia with positive antibodies on preoperative screening. A redoascending aortic arch repair was performed on this patient who was prescribed dabigatran for the prevention of embolic stroke with atrial fibrillation. The patient’s dabigatran was held 4 days prior to surgery. Intraoperatively the patient was placed on cardio-pulmonary bypass, deep hypothermia and circulatory arrest. We suggest discontinuing dabigatran 4 days prior to major surgery is insufficient in patients with kidney disease and/or concurrent amiodarone usage.

Insertion of a Pulmonary Artery Catheter in a Patient With Severe Pulmonary Hypertension: A Novel Approach
Steven J. Voskanian, M.D., Derek Lowe, M.D., Peter Roffey, M.D., Duraiyah Thangathurai, M.D., USC, Los Angeles, CA.
Patients with pulmonary hypertension are at risk for developing PA rupture during placement of a pulmonary artery catheter (PAC). We report a precautionary method of inserting a PAC. A 72yo female with severe pulmonary hypertension (PAP96/39 ) is scheduled for a laparoscopic partial nephrectomy. During advancement of the PAC, NTG was attached to the infusion (white port) and incrementally injected. We propose the idea that during insertion of a PAC in patients with pulmonary hypertension, injection of NTG dilates the vessels distal to the tip providing an easier conduit and thereby decreasing the incidence of PA rupture.
Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC288
22 Year-Old Female With a Right Adrenal Tumor With Extension Into the Inferior Vena Cava Up to the Right Atrium Presenting for Surgical Treatment
Stylianos Voulgarelis, M.D., Timothy Olund, M.D., Douglas Evans, M.D., Thomas Gamblin, M.D., Alfred Nicolosi, M.D., Anesthesiology, General Surgery, Surgical Oncology, Cardiothoracic Surgery, Medical College of Wisconsin, Milwaukee, WI.
A 22 year-old female diagnosed with an adrenal tumor with extension into the Inferior Vena Cava (IVC), presents for surgical resection. We present the pre-operative evaluation and then the decision making process that unfolded as intraoperative findings drastically altered the initial surgical and anesthetic plan. Ultimately the patient required hypothermic cardiac arrest to remove the adherent tumor from right atrium and IVC. Radical right adrenalectomy with enblock right hepatectomy and PTFE interposition tube graft placement for resected IVC then proceeded without incidence.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC289
Isolated Liver Perfusion for Isolated Liver Metastasis of Ocular Melanoma
Stylianos Voulgarelis, M.D., Kathryn Lauer, M.D., Sylvia Dolinski, M.D., Thomas Gamblin, M.D., Kiran Turaga, M.D., Anesthesiology, Anesthesiology and Critical Care, Surgical Oncology, Medical College of Wisconsin, Milwaukee, WI.
45 year-old otherwise healthy male with history of ocular melanoma, s/p intraocular brachytherapy developed isolated liver metastasis. He was scheduled for isolated liver perfusion. During this case the liver was bypassed with a venovenous circuit from the suprarenal IVC to the SVC - right atrium junction. The liver was perfused through a different bypass circuit with 100mg melphalan (40c /pH :7.15).
We present a discussion of the preoperative evaluation, the intraoperative management, the hemodynamic intraoperative changes and the considerations of postoperative pain management. We also present the cumulative experience from the management of these cases at our institution.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC290
Takotsubo Cardiomyopathy in Emergency Surgery: A Diagnostic and Intraoperative Management Challenge
Eric L. Vu, M.D., Department of Anesthesiology, Baylor College of Medicine, Houston, TX.
Takotsubo Cardiomyopathy is transient depression of the LV which imitates STEMI. We describe a 51 year-old female who was a diagnostic and intraoperative management challenge. She presented with abdominal pain, chest pain, tachycardia, and was found to have ST elevations / elevated troponins but no coronary lesions on catheterization. LVEF was 30-34%. However, she required emergent cholecystectomy for severe abdominal pain, fever, and leukocytosis. She underwent GETA and RSI was performed (etomidate and succinylcholine). A necrotic gallbladder was removed, and postoperatively, she was treated with antibiotics for E. coli sepsis. Her 3 month ECHO demonstrated improvement in LVEF of 50-54%.
Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC291
**Double Lung Transplant in a Patient With Myasthenia Gravis**
Caron Hong, M.D., Andrew Walker, M.D., Anesthesiology and Critical Care Medicine, University of Maryland School of Medicine, Baltimore, MD.
52 year-old male with Myasthenia Gravis had a Bilateral Lung Transplantation. h/o multiple pneumonias, chronic bronchiectasis, increasing oxygen requirements and severe native lung damage. Treated with Mestinon, Prednisone, IVIG and plasmaphresis. Myasthenia gravis decreases the efficacy of cough and secretion clearance by reducing respiratory muscles strength and nerve conduction. Copious thick sputum throughout his lungs after double lumen tube placement intraoperatively. Left lung graft ventilation was not successful, secondary to copious mucus secretions, requiring bronchoscopy, multiple lavages and suctioning. This case depicts how neuromuscular dysfunction, combined with immunosuppression from disease management, can lead to significant infection and post operative sequelae.

Sunday, October 14, 2012
8:00 AM - 9:30 AM
MC292
**Kawasaki’s Disease Resulting in Coronary Artery Bypass in the Young Adult**
Andrea L. Westman, M.D., Anesthesiology, Vanderbilt University, Nashville, TN.
17 year-old male with Kawasaki’s Disease complicated by known coronary artery aneurysms presented to the emergency room with chest pain and ST elevation on EKG. His coronary aneurysms were followed by echocardiography and intermittent cardiac catheterizations since 2003. Shortly after presentation, he underwent left heart catheterization and was found to have an occlusive LAD thrombus, felt to be chronic with good collateral flow in addition to left main and RCA aneurysms. He underwent MID-CAB with a single vessel graft of the LIMA to LAD. The patient did well postoperatively with improved ejection fraction assessed by transesophageal echocardiography.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC499
**Ruptured Tricuspid Papillary Muscle With Flail Septal and Anterior Leaflets S/P Blunt Cardiac Trauma**
Vanston Masri, D.O., Charles E. Smith, M.D., Anesthesiology, MetroHealth Medical Center, Cleveland, OH.
53 year-old male unrestrained driver sustained blunt trauma following a motor vehicle collision, car vs pole. Injuries consisted of acetabular fracture, rib fractures (multiple), hemotorax and pleural effusion. Echocardiography showed severe tricuspid regurgitation. He underwent tricuspid valve annuloplasty and reattachment of ruptured papillary muscle. His post-operative course demonstrated worsening of tricuspid regurgitation and he required redo sternotomy and tricuspid valve repair. The anesthetic considerations of blunt cardiac injuries including the use of echocardiography will be discussed.
A Bursting Heart and a Healthy Appetite: Anesthetic Management for Reentry Sternotomy in a Patient With a Full Stomach and Pericardial Tamponade From Left Ventricular Rupture
Bryan G. Maxwell, M.D., Katherine B. Harrington, M.D., Nate E. Kelly, M.D., Department of Anesthesia, Department of Cardiothoracic Surgery, Stanford University, Stanford, CA, Department of Anesthesia, Veterans Affairs Palo Alto Health Care System, Palo Alto, CA.
A 57 year-old man presented with chest pain and shortness of breath one month after LV aneurysmectomy and VSD closure for post-infarct LV aneurysm and VSD. Echocardiography revealed a large recurrent ruptured inferior LV aneurysm with high-velocity flow into a 5cm posterolateral pericardial effusion. Thirty minutes prior, the patient ate a full meal including Salisbury steak and mashed potatoes. RSI was performed with midazolam, ketamine, and succinylcholine. BP decreased from 90/72 to a nadir of 69/61 but stabilized. Under CPB, the LV defect was oversewn and reinforced with bovine pericardium. The patient had a difficult but ultimately successful recovery.

Pulmonary Thromboendarterectomy in a Patient With Chronic Thrombotic Pulmonary Embolism and Severe Pulmonary Hypertension Secondary to Factor V Leiden
Jennifer Maziad, M.D., Mias Pretorius, M.D., Department of Anesthesiology, Vanderbilt University Medical Center, Nashville, TN.
This is a 72 year-old man with past medical history of Factor V Leiden and severe pulmonary hypertension secondary to chronic pulmonary embolism. He presented for pulmonary thromboendarterectomy under deep hypothermic circulatory arrest (DHCA) and coronary artery bypass of the obtuse marginal. A total of 43 minutes of DHCA and challenging dissection was necessary to remove clot from the left and right pulmonary arteries. After rewarming, inhaled flolan was started. Following weaning from cardiopulmonary bypass, the pulmonary artery pressures were severely elevated but rapidly decreased following initiation of inhaled milrinone. He was taken to the ICU in critical condition.

Sudden-Onset Pericardial Tamponade During Femoral Venous Cannulation
Jordan T. Mazur, M.D., Anesthesiology, University of Maryland, Baltimore, MD.
A 77 year-old male with past medical history significant for coronary artery disease presented for single vessel totally endoscopic coronary artery bypass (TECAB). The operation was complicated by perforation of the right ventricle during femoral venous drainage catheter insertion necessitating emergent conversion to open sternotomy and cardiopulmonary bypass. The complication was noticed when pericardial tamponade was seen by way of transesophageal echocardiography (TEE). The patient did well the remainder of the operation and post-operative course was without significant complication. The patient was discharged home on post-operative day seven.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC503

Intraoperative Management of Atrial Fibrillation by Using Dexmedetomidine
Too Jae Min, Sr., Department of Anesthesiology and Pain Medicine, Ansan Hospital, Korea University College of Medicine, Ansan, Korea, Republic of.
Dexmedetomidine, α2-adrenoreceptor agonist, like other α2-agonists, possesses a dose-dependent bradycardiac effect, mediated primarily by the decrease in sympathetic tone and partly by baroreceptor reflex and enhanced vagal activity. Here, we report two cases of atrial fibrillation patients who were undergoing emergency surgeries. Their heart rate were over 120 rates and regulated by administrating dexmedetomidine infusions without hemodynamic deterioration during operation. It is suggested if dexmedetomidine is used in a proper manner, it might be good alternative to β-blockers which causes hypotention, especially in hemodynamically unstable patients.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC504

Myocardial Ischemia Test in a Carotid-Subclavian Bypass With Previous Left Internal Mammary Coronary Artery Bypass Graft
Roberto Murillo, Sr., William Amaya Zuñiga, M.D., Daniel Benítez Ávila, M.D., Juan Camilo Diaz., Anesthesia, Hospital Universitario Fundación Santa Fe de Bogotá, Bogotá, Colombia.
A 65 year-old male, with multivessel coronary artery bypass graft, who needed surgical repair of the Descending Thoracic Aortic Aneurism which compromised the origin of the Left Subclavian Artery (LSA), therefore needed to be covered. A Carotid Subclavian Bypass was required before the final treatment in order to maintain coronary flow. An intraoperative abnormal size of the LSA was found, increasing the likelihood of cardiac ischemia. To provide a real time cardiac function monitory during the procedure, a transesophageal echocardiography was used to ensure an adequate coronary perfusion focused on the prevention of cardiac ischemia.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC505

Pericardial Tamponade in a Patient With Recent Myomectomy for Hypertropic Cardiomyopathy
Harika Nagavelli, M.D., Anesthesiology, Yale New Haven Hospital, New Haven, CT.
61 year-old male with PMHx of Hypertrophic Cardiomyopathy (HOCM) and severe Mitral Regurgitation (MR), presented with acute pericardial tamponade physiology after recently having a myomectomy and mitral valve repair. Patient presented with severe dyspnea, increased work of breathing, tachycardia with HR over 115, and hypotension. His lab values demonstrated AKI with Cr of 4.1, hyponatremia and anion gap metabolic acidosis, along with leukocytosis with suspicion for endocarditis. The concern was hemodynamic management during induction, maintenance, and post-pericardial effusion drainage.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC506
Portable 2-D Transesophageal Echocardiography in the Catheterization Laboratory for the Management of Interatrial Septal Defects: Special Considerations in Unique Medical Environments
Erik Nagel, D.O., Chris Cornelissen, D.O., Anesthesiology, Naval Medical Center San Diego, San Diego, CA.
Transesophageal echocardiography plays an important role in the closure of large atrial septal defects. The authors participated in a unique subject matter expert exchange in a Vietnamese hospital where adult patients presented to the catheterization laboratory for percutaneous closure of large atrial septal defects. Austere practice environments may not have the processing equipment, personnel and oversight that we encounter in daily practice. It is the opinion of these authors that portable TEE is a valuable tool that provides accurate real time information to assist the practitioner in unique patient care settings.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC507
Don't Go Breaking My Heart
Dahlia Naqib, M.D., Wendy K. Bernstein, M.D., Department of Anesthesiology, University of Maryland, Baltimore, MD.
We present a 72 year-old man s/p orthotopic heart transplant with a post-operative course complicated by RV failure, and multi-drug resistant pseudomonas aeruginosa. POD #4, he underwent a wound exploration with chest closure. A large tracheal defect was discovered, with direct communication of the airway with the intrathoracic cavity. The endotracheal tube was advanced, moving the cuff past the defect, with improvement in airway pressure and tidal volumes. Thoracic surgery was consulted and placed a pericardial patch over the defect. Anesthetic management was confronted by the need to decrease FiO2 and avoidance of hypoxia to prevent exacerbating pulmonary hypertension.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC508
Management of an Elderly Trauma Patient With Unknown Eisenmenger Physiology
Sachin Narain, M.D., Jadelis Giquel, M.D., Anesthesiology, University of Miami, Miami, FL.
An 80 year-old female with a history of dextrocardia and polycythemia presents after a fall with multiple pelvic fractures and a pelvic hematoma with active extravasation. She was alert with stable vital signs but had a saturation of 67-80% on room air; she was also cyanotic with fingernail clubbing. Anesthesia was induced for coil embolization of the right hypogastric vessels. Intraoperative transesophageal echocardiogram (TEE) showed a large atrial septal defect with right to left shunt and severe pulmonic stenosis. This case illustrates the value of intraoperative TEE in diagnosing unknown Eisenmenger’s syndrome and reviews the syndrome’s anesthetic implications and management.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC509
Laparoscopic Surgery in Jehova’s Witness Patient with Symptomatic Hypertrophic Obstructive Cardiomyopathy
William D. Nelson, M.D., Kimberly Ngo, M.D., Aaron Sandler, M.D., Department of Anesthesiology, Duke University, Durham, NC.
A 39 year-old female with symptomatic hypertrophic obstructive cardiomyopathy (HOCM) who refuses all blood products for religious reasons presented for laparoscopic distal pancreatectomy. Management challenges included maintaining hemodynamic goals for HOCM (adequate preload and afterload, minimized contractility, normal rate and rhythm) in the presence of pneumoperitoneum and without the ability to transfuse. Our plan included preinduction arterial line, thoracic epidural, gentle induction, central venous access, and transesophageal echocardiography. Pneumoperitoneum was achieved incrementally. The patient tolerated the procedure well. The challenges of preparing for and managing a patient with HOCM who refuses blood products during a laparoscopic procedure will be discussed.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC510
Anesthetic Management of Undiagnosed Severe Cardiomyopathy in a Hypertensive Patient Undergoing Robotic Nephrectomy
Thienkim (Kim) V. Ngo, M.D., Janak Chandrasoma, M.D., Susan Jimenez, M.D., Peter Roffey, M.D., Durai Thangathurai, M.D., Anesthesiology, University of Southern California, Los Angeles, CA.
72 year-old ASA IV male presented for left partial nephrectomy for a renal mass. His past medical history included poorly controlled hypertension and coronary artery disease. Intraoperative transesophageal echocardiogram (TEE) was performed when he developed sudden bradycardia and hypotension, which demonstrated severe intraventricular septal hypertrophy with poor ventricular filling and outlet obstruction. A combination of TEE guided fluid administration and norepinephrine was used to maintain preload and afterload, respectively. Esmolol was used to maintain heart rate. Anesthesia was maintained with isoflurane and intermittent doses of fentanyl and morphine. Intraoperative monitors confirmed adequate tissue perfusion, and the case was uneventful.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC511
How Long Is Too Long? Should we Ever Quit? An Amazing Recovery After 506 Min on CPB With DHCA
Stavroura Nikolaidis, M.D., Anesthesiology, Temple University, Huntingdon Valley, PA.
A 52 year-old male with history of HTN presented with acute type A aortic dissection and severe AI, for emergent repair. The operation was technically difficult. Several steps of the repair had to be redone as the tissue was tearing off. At the conclusion of the repair, as we were about to come off CPB, sudden akinesis detected by TEE in the distribution of the left coronary artery, necessitated CABG. After 8.5 hours on CPB with 30 min DHCA, the patient was separated successfully from CPB. He was extubated on the second post op day and remained well until discharge home.
3D TEE Evaluation of a Mitral Valve Abscess
Bryan Noorda, M.D., Giuseppe Trunfio, M.D., Anesthesiology, Maimonides Medical Center, Brooklyn, NY.
An 81 year-old female presented for CABG/MVR. Pre-operative TTE revealed severe MR with an annular abscess. 2D TEE showed the mitral valve free from vegetations, but with the appearance of chordae from the posterior leaflet moving freely into the left atrium, giving the impression of a flailing posterior leaflet. 3D TEE revealed instead an appendage extending from the abscess above the valve. This picture allowed the surgeon to avoid a lengthy inspection of the chordal structures and opt instead for the debridement of the annular abscess. The 3D visualization induced a critical rethinking of the surgical strategy in this case.

Thoracotomy With an Unstable Neck
Peter H. Norman, Tanner Baker, M.D., Elizabeth A. David, M.D., Jack A. Roth, M.D., Anesthesiology and Perioperative Medicine, Thoracic and Cardiovascular Surgery, UT MD Anderson Cancer Center, Houston, TX.
A patient presented for a right thoracotomy after formal anesthetic and surgical assessment. Careful questioning in the preoperative holding room revealed that he had an unstable neck. After awake intubation it was discovered that his right main stem bronchus was almost non-existant. To permit adequate one-lung ventilation a double blocker technique was utilized. To use two blockers one blocker adapter had to feed into the second adapter. Both blockers were placed separately into the right lower/middle secondary bronchus and the right upper lobe bronchus.

Anesthetic Management of Ruptured Abdominal Aortic Aneurysm Associated With Duodenal Perforation
Katsuyoshi Obata, M.D., Minobu Ozaki, M.D., Hiroyuki Matsuyama, M.D., Anesthesiology, Izuka Hospital, Izuka, Japan.
78 year-old man presented melena ,but endoscopic exploration failed to diagnose the bleeding focus in first visit hospital.Next day,he presented shock state.He transported to our hospital, His body CT showed ruptured Abdominal aortic aneurysm (AAA) associated with GI tract penetration. Emergent surgery was performed for life saving.Surgical finding revealed the aneurysm perforated neighboring duodenum. Intraoperatively, massive projectile bleeding occured through nose and mouth, then caused profound hypotension.Finally, poor bleeding control due to DIC resulted in death before completion of surgery. Conclusion: Ruptured AAA is one of the differential diagnosis of melena. In our anesthetic experience, Naso-gastric tube should be exchanged before surgery.
Coronary Artery Bypass Surgery in a Patient With Hemophilia Type B
Jeana Pasternak, M.D., Candice Montzingo, M.D., John Um, M.D., Susan Kambhu, M.D., Anesthesiology, Cardiothoracic Surgery, Hematology, UNMC, Omaha, NE.
This case report discusses the perioperative management and treatment of a patient with hemophilia B undergoing multivessel coronary artery bypass grafting.

Anesthetic Considerations for Resection of a Large Pulmonary Vein Mass Extending Into the Left Atrium
Ronak Patel, M.D., Douglas Sharp, GWU, Washington DC.
A 45 year-old otherwise healthy male presented with hemoptysis to his primary care physician. On imaging, a mass was noted in the pulmonary veins extending into the left atrium. Initial biopsies were inconclusive. The patient was scheduled for a thoracotomy, resection of the pulmonary vein mass and left atrial mass, and possible pneumonectomy.

Cell Saver Induced Sepsis and Death Following Aortic Valve Replacement
Eric C. Peters, M.D., Peter R. Lichtenthal, M.D., Anesthesiology, University of Arizona Medical Center, Tucson, AZ.
Cell saver use is increasing in order to decrease the need for allogeneic blood transfusion, but is not without risks itself. This is a case report of a 34 year-old male with a history of endocarditis who underwent an uneventful aortic valve replacement. However, in the ICU he received cell saver blood that had been recovered from his chest tubes. Within minutes of the infusion, the patient required drastic increases in pressor support with follow-up labs supporting septic shock. Unfortunately, the patient was eventually pronounced deceased from refractory distributive shock due to endotoxin or exotoxin from the cell saver transfusion.

Porcelain Aorta in Severe Aortic Stenosis
Shannon M. Peters, M.D., Barry A. Harrison, M.B., B.S., Anesthesiology, Mayo Clinic, Rochester, MN, Anesthesiology, Mayo Clinic Florida, Jacksonville, FL.
A 59 year-old patient presented with severe aortic stenosis (valve area 0.73 cm). Following induction, transesophageal echocardiography (TEE) revealed severe concentric calcification of the ascending aorta. Due to the high risk of stroke from manipulation of the calcified aorta, the procedure was aborted. The patient then underwent a second operative procedure: apicoaortic conduit placement, avoiding ascending aortic manipulation. Following induction of anesthesia, a left-sided double-lumen endotracheal tube was placed to allow visualization of the descending aorta and left ventricular apex. TEE was essential to the successful completion of the operation and the patient was dismissed nine days postoperatively.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC519
Thoracic Anesthetic Care of Massive/Chest Wall Invasive Tumor
Andrew J. Pierwola, M.D., Anesthesiology and Critical Care, University of Pennsylvania, Philadelphia, PA.
Medically Challenging case regarding a Thoracic Surgery patient with a 20cm diameter tumor invading chest wall and superficial vascular structures. Patient had a small mouth opening with a fairly anterior airway, scoliosis as well as a protrusion of the tumor on the affected (right) side. Our approach included paramedian thoracic epidural, ultrasound guided arterial line, and triple lumen subclavian central line. Our airway approach involved double lumen tube placed under video laryngoscope (GlideScope) visualization with the aid of Pediatric Bronchoscope. Particularly difficult concerns were thoracic epidural placement and difficult airway access, both of which required utilization of alternative/enhanced approaches.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC520
Anterior Mediastinal Mass Biopsy and Resection: Anesthetic Techniques and Perioperative Concerns
Lindsey R. Rath, M.D., Greg Gullahorn, M.D., Theodore Pratt, M.D., Chris Cornelissen, D.O., Nick Connolly, M.D., Anesthesia, Cardiothoracic Surgery, NMC San Diego, San Diego, CA.
This is the case of a 39 year-old male who presented with a large anterior mediastinal mass causing significant right heart compression without tracheobronchial involvement. Biopsy was planned via anterior mediastinotomy with an anesthetic plan for MAC/sedation and local anesthesia. Preparations were made for emergent sternotomy and initiation of cardiopumonary bypass in the event of hemodynamic collapse. Sedation was initiated with versed and maintained with ketamine and dexmedetomidine. Local anesthesia was provided by the surgeon. Spontaneous ventilation was preserved throughout the case and conversion to general anesthesia was not necessary. Biopsy was obtained and the procedure was well-tolerated.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC521
Vasoplegic Syndrome Following Aortic Valve Repair and Coronary Artery Bypass
Anna Weyand, M.D., Victor Moulin, M.D., John Porter, M.D., Baylor College of Medicine, Houston, TX.
62 year-old man with severe aortic stenosis, multi-vessel coronary artery disease, and depressed ejection fraction (LVEF<20%) presented for aortic valve repair and coronary artery bypass. Prior to aortic cross-clamping, cardiac output was poor; milrinone and dobutamine infusions were started to optimize cardiac function. Upon removal of cardiopulmonary bypass, cardiac output was noted to be significantly improved, but arterial pressures remained markedly inadequate. Fluid status, acidosis, and calcium deficits were addressed and infusions including norepinephrine, epinephrine, vasopressin, and amiodarone were started. Milrinone and dobutamine were discontinued. A dose of methylene blue was administered. Patient was ultimately transferred to SICU in critical condition.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC522
Vaginal Hysterectomy in a Cyanotic Patient With Uncorrected Congenital Heart Disease
Stephen D. Wilkins, Jr., M.D., Meredith A. Albrecht, M.D., Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, MA.
We illustrate the anesthetic management of a patient with uncorrected cyanotic congenital heart disease and endometrial bleeding presenting for vaginal hysterectomy. Specifically, her heart disease consists of an ASD, VSD, pulmonary atresia, and three pulmonary arteries arising from the descending aorta resulting in chronic cyanosis. General endotracheal anesthesia was implemented with sevoflurane and fentanyl. A phenylephrine infusion was necessary to maintain adequate SVR. An arterial line was utilized to closely monitor systemic blood pressure and arterial blood gases. Many physiological perturbations are present in patients with uncorrected congenital heart disease that require careful consideration and increased levels of monitoring.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC523
Cardiogenic Shock After Tandemheart Placement
Sloan C. Youngblood, M.D., James M. Anton, M.D., Department of Anesthesiology, Division of Cardiovascular Anesthesiology, The Texas Heart Institute at St. Luke's Episcopal Hospital, Baylor College of Medicine, Houston, TX.
An 86 year-old gentleman who underwent transcatheter aortic valve implantation suffered postoperative left ventricular failure. A percutaneous ventricular assist device was inserted. Shortly thereafter, pulseless electrical activity refractory to intravascular fluids and vasoactive medications developed and flow through the ventricular assist device diminished significantly. Upon return to the operative suite, a transesophageal echocardiogram revealed a loculated pericardial fluid collection compressing the left atrium and severe right ventricular failure. After sternotomy and evacuation of the pericardial effusion, pulsatile blood flow resumed. Right ventricular function was supported with ionotropes and inhaled epoprostenol, and the patient returned to the intensive care unit.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC524
A Case of a Ruptured Chordae Tendinae Secondary to Bacterial Endocarditis After Dental Surgery in a Patient With Hypertrophic Cardiomyopathy
Jason Yu, M.D., Lynn Belliveau, D.O., Walter Bethune, M.D., Kalpana Tyagaraj, M.D., Anesthesiology, Maimonides Medical Center, New York, NY.
We describe a case of a 61 year-old male with a past medical history remarkable for hypertrophic obstructive cardiomyopathy, mitral regurgitation, hypertension, and recent dental surgery who presented with severe SOB requiring intubation. Subsequent lab work revealed positive blood cultures, leukocytosis, and TEE demonstrating a torn chordae tendinae, partial flail of the posterior mitral valve leaflet, SAM, and torrential mitral regurgitation. Pressor support and nitric oxide were required intraoperatively for persistent vacillations in hemodynamics and poor oxygenation, respectively. In the setting of suprasystemic PA pressures, emergent mitral valve replacement and LVOT myomectomy-myotomy was successfully performed.
Preemptive Insertion of Pacing Swan-Ganz Catheter to Rescue an Episode of Asystole During Carotid Artery Stenting

Kewei Yu, M.D., Ph.D., Yong G. Peng, M.D., Ph.D., Department of Anesthesiology, University of Florida College of Medicine, Gainesville, FL.

A 69 year-old morbid obese male with a history of bilateral carotid stenosis, AV block, and recent episodes of asystole was scheduled for right carotid stenting. Prior attempts at permanent pacemaker placement were unsuccessful. Angiogram confirmed total occlusion of the left carotid artery and 80% right carotid in-stent stenosis. A pacing Swan-Ganz catheter was placed preemptively. Twenty seconds of asystole occurred after balloon angioplasty and was rescued with right ventricular pacing. This case demonstrates that catheter based right ventricular pacing is a viable alternative to traditional (transcutaneous or trans-esophageal) pacing modalities for certain patients undergoing carotid artery stenting.

LVOT Pseudo-Aneurysm Percutaneously Closed With Amplatzer Septal Occluder Device

Manxi Zhao, M.D., Takahiro Shiota, M.D., Saibal Kar, M.D., Anesthesiology, Cedars-Sinai Medical Center, Los Angeles, CA.

A 22 year-old man status post Ross procedure at age 9 presented with shortness of breath. CT angiogram revealed LVOT pseudo-aneurysm. Percutaneous closing was proceeded under general anesthesia. TEE revealed pseudo-aneurysm of 2.25 cm with neck of 0.9 cm arising from the posterior aspect of the LVOT next to non-coronary cusp of aortic valve. Amplatzer septal Occluder device (ASD) was deployed under fluoroscopy and TEE guidance. There is trace communication across ASD. Patient was extubated at the end of the procedure. To our best knowledge, this is the first case of LVOT pseudo-aneurysm undergoing percutaneous closure using ASD device.

A Case of Paroxysmal Obstruction of Right Coronary Ostium

Adam C. Adler, M.D., Toni Chahla, M.D., Srinivasa Gatta, M.D., Stanlies D'Souza, M.D., Anesthesiology and Pain Medicine, Baystate Medical Center, Springfield, CT, Anesthesiology and Pain Medicine, Baystate Medical Center, Springfield, MA.

A 61 year-old female presented with a non-sustained ventricular tachycardia and STEMI. An echocardiogram showed a fluctuating mass originating from the right aortic valve cusp with paroxysmal ostial obstruction of the right coronary artery. Awake arterial and central venous lines were placed. A controlled IV induction was performed with both cardiothoracic surgeon and perfusionist available and after the patient was prepped and draped. Patient had an emergent resection of the obstructing lesion, identified as a fibroelastoma followed by an uneventful perioperative course.
Monday, October 15, 2012
8:00 AM - 9:30 AM
MC528
Cardiac Tamponade in the PACU
Nasrin Aldawoodi, M.D., Susan Martinelli, M.D., Anesthesiology, University of North Carolina - Chapel Hill, Chapel Hill, NC.
Percutaneous ablation of atrial fibrillation is a common electrophysiology procedure. It involves transseptal puncture from the right to the left atrium, high radiofrequency energy, and prolonged anticoagulation. As such, perforation of the myocardium can occur with resulting pericardial effusion. A 63 year old female underwent an ablation for paroxysmal atrial fibrillation. In the PACU, she became increasingly hypotensive over two hours, with increasing chest pain, nausea, and somnolence. During resuscitation with crystalloid and vasopressors, a bedside transthoracic echocardiogram revealed cardiac tamponade. She underwent emergent pericardiocentesis with removal of 600 mL of blood with immediate improvement in vitals and mental status.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC529
Use of Intraoperative Transesophageal Echocardiography in Surgical Decision Making in a Case of Mitral Stenosis After Mitral Valve Repair
Shaan Ali, M.D., Alexander Wolf, M.D., Stefan Ianchulev, M.D., Department of Anesthesiology, Tufts Medical Center, Boston, MA.

Monday, October 15, 2012
8:00 AM - 9:30 AM
MC530
Critical Aortic Stenosis Requiring Creative Anesthetic Support
Minah Attia, M.D., Sara Guzman-Reyes, M.D., University of Texas Health Science Center at Houston, Houston, TX.
84 year-old male with h/o CAD, Afib, CHF, critical AS (0.56 cm2), with AICD/pacemaker undergoing hemiarthroplasty for traumatic left hip fracture. Positioning and pain control were challenging because patient also had right humerus fracture. Awake arterial line and lumbar plexus block for pre-emptive and intra-op analgesia placed pre-operatively using IV Alfentanil; no Versed to minimize post-op delirium. Induction performed with Etomidate and Rocuronium, maintenance with remifentanil and 0.3% Isoflurane to ensure hemodynamic stability. CVP and Flow-track Vigileo used to monitor SvO2 and CI. Patient tolerated surgery well and successful recovery was achieved after short stay in SNF with physical therapy.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC762
**Combined Heart-Liver Transplantation**
David W. Barbara, M.D., Kent H. Rehfeldt, M.D., James Y. Findlay, M.B., Ch.B., Anesthesiology, Mayo Clinic, Rochester, MN.
A 64 year-old female with familial amyloidosis and severe restrictive cardiomyopathy presented for combined heart-liver transplantation. Intraoperative management consisted of orthotopic bicaval cardiac transplantation with subsequent weaning from cardiopulmonary bypass and heparin reversal followed by orthotopic liver transplantation utilizing venovenous bypass. Despite administration of multiple blood products, coagulopathy ensued, and temporary sternal closure was performed at the end of the 13.5 hour anesthetic. Combined heart-liver transplantation is an uncommon procedure most often performed for amyloidosis. Multiple intraoperative management strategies exist. An individualized approach is paramount with respect to potential multiorgan dysfunction and hemodynamic goals of each transplanted organ.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC763
**Use of TEE to Detect Thrombus in an Anticoagulated Patient With an IMPELLA Device and Low Flow State**
Mauree Beard, M.D., Department of Anesthesiology, Albany Medical Center, Albany, NY.
A 59 year-old male presented with an acute MI and EF of 25%. An Impella LP 2.5 device was placed to improve cardiac function. The patient’s condition quickly progressed to cardiogenic shock with multi-organ system failure, requiring mechanical ventilation and ECMO. The patient was heparinized and returned to the operating room for subsequent bleeding. During this procedure, the Impella device was also removed. An intraoperative TEE revealed an LV thrombus. We demonstrate that despite anticoagulation, the risk of thrombus formation is increased in a low flow state. TEE is helpful in diagnosis and surgical decision making in this setting.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC764
**Complete Heart Block in the Setting of Trauma: Management Options**
Kara Bennett, M.D., Pamela E. Fox, M.D., Anesthesiology, UT Southwestern Department of Anesthesiology & Pain Management, Dallas, TX.
72 year-old male brought to the OR for laparotomy and thoracic endovascular aortic repair for a liver laceration and aortic rupture. EKG with 1 degree A-V block and LBBB. After induction of GETA patient went into complete heart block. HR was 29 bpm BP 90/27. Given glycopyrrolate and atropine without response. External pacemaker pads placed without capture. Isoproterenol started with increase in heart rate to 42 bpm. BP stable at 104/30. TEE normal LV function, no aortic dissection. Cardiology decided to not place a transvenous pacemaker. Patient converted to NSR with RBBB post operatively. Taken for permanent pacemaker next day.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC765
Anesthetic for a Large Mediastinal Chondrosarcoma
Matthew A. Benshoff, M.D., Allison Dulaney, M.D., Benjamin Morris, M.D., Anesthesiology, Wake Forest University, Winston Salem, NC.
A 53 year-old male with no significant past medical history presented with a slowly-growing mediastinal mass measuring 24 cm by 16 cm and compressing the right ventricle and pulmonary artery. He was referred for surgical resection. The patient was brought to the OR where a radial arterial line, a femoral arterial and central venous catheter were placed. A perfusionist with a primed bypass pump was present. Mask induction was accomplished with the patient in right-lateral-tilt position. A single lumen ETT and a right-sided bronchial blocker were placed. The patient tolerated the procedure well and a large chondrosarcoma was removed.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC766
Intrathoracic Fire During Lung Transplantation
Josh Bigham, D.O., F. Chris Massa, M.D., John H. Eichhorn, M.D., University of Kentucky Medical Center, Lexington, KY.
61 year-old male for bilateral lung transplant. Severe disease and distorted bronchial architecture both prevented proper DLT placement and caused the requirement for 100% FiO2 to maintain PO2. During dissection of the native lung, a lap pad over a bleb was set on fire by the electrocautery. O2 was immediately discontinued and the flame was doused with saline. Oxygen was gradually resumed and the surgery successfully completed utilizing cardiopulmonary bypass. The inability to isolate each lung, along with an unintended oxygen-rich atmosphere near the electrocautery created a set-up for this surgical fire. Prompt management prevented any further complications.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC767
Anesthetic Considerations for Cervical Fusion Surgery in Advanced Rheumatoid Arthritis and Severe Pulmonary Hypertension
Robert J. Canelli, M.D., Anesthesiology, University of Massachusetts, Worcester, MA.
67 year-old female with a history of rheumatoid arthritis and pulmonary hypertension presented for urgent C4-C5 anterior disectomy and C3-C6 posterior fusion for cervical subluxation. MRI showed anterolisthesis of C4 on C5 with canal stenosis and cord impingement. The patient was brought to the operating room with minimal sedation to avoid exacerbation of pulmonary hypertension. Awake fiberoptic intubation was performed after which the patient was able to move all extremities. The procedure was uneventful with no change in baseline SSEP deficits. The patient was extubated at the end of the case and discharged to rehab on post-operative day 5.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC768
Laparoscopic Cholecystectomy in a Morbidly Obese Patient With Fontan Physiology
Destiny Chau, M.D., University of Kentucky Medical Center, Lexington, KY.
A 25 year-old, 120 kg, 5’3” female with acute appendicitis presents to the operating room for urgent laparoscopic appendectomy. Her medical history includes hypoplastic left heart syndrome palliated through the Fontan pathway and pacemaker placement. Her room air saturations range from 85-90% with a recent echocardiogram showing preserved systemic ventricular function, mild atrioventricular valve regurgitation, patent Fontan pathway and ventricular outflow tract. In addition, this patient also has hypertension, obstructive sleep apnea, gastroesophageal reflux and tobacco abuse. Her most recent hematocrit is 53%. Airway assessment reveals Mallampati class 2, thick neck and adequate neck range of motion.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC769
Wounded Heart: Anesthetic Management of Patient With Penetrating Cardiac Trauma
Nikhil Chawla, M.B., B.S., Vyachislav Abayev, M.D., Kesavan Sadacharam, M.D., Mian Ahmad, M.D., Drexel University College of Medicine, Philadelphia, PA.
A 19 year-old female presented to emergency room with gunshot injury to upper back. After initial resuscitation, patient was unstable and was intubated. After insertion of left chest tube for hemothorax patient was taken to operating room and a negative exploratory laparotomy was performed. Due to continued cardiovascular instability a pericardial window was performed with frank blood encountered in pericardium. Massive transfusion was initiated and emergency thoracotomy was done. Diagnosis was confirmed by visualization of wound in the left ventricle and right atrium which was repaired immediately. Hemodynamic stability was achieved and patient transferred to intensive care unit.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC770
Pacemaker Lead Perforation Through the Apex of the Heart
Sreekanth R. Cheruku, M.D., Anesthesiology, University of Mississippi Medical Center, Jackson, MS.
We report the case of a 79 year-old lady with sick sinus syndrome who presented with worsening shortness of breath after implantation of a dual chamber pacemaker. She was found to have a left hemothorax resulting from her right ventricular pacing wire perforating through the apex of the right ventricle into the pleural space. She underwent lead extraction through a medial sternotomy under general anesthesia. Anesthetic management for lead extraction, surgical complications and their hemodynamic consequences, and the role of echocardiography in these cases will be discussed.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC771
Right-Sided Aortic Arch With Aberrant Left Subclavian Artery With Kommerell Diverticulum Causing Significant Tracheal Stenosis
Katherine Chiu, M.D., Renata Kowal, M.D., Erin Brown, M.D., Sandeep Gupta, M.D., Slawomir Oleszak, M.D., Department of Anesthesiology, Department of Surgery, Division of Cardiothoracic Surgery, Stony Brook University Medical Center, Stony Brook, NY.
51 year-old male presents with respiratory distress, fatigue, and dysphagia for three months. He was diagnosed with a right aortic arch aneurysm with an aberrant left subclavian artery severely compressing the trachea and esophagus with coronary disease requiring complex operation. &nbsp;Due to unknown ability to intubate and ventilate the patient based on CT Angio results,&nbsp;decision was made to establish femoral access for emergent CPB prior to anesthetic induction. Extensive and complex surgery requiring Vascular and Cardiothoracic teams was complicated by massive blood loss and acute airway collapse. &nbsp;After a prolonged post-operative course, the patient was discharged eight weeks later.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC772
Duration of CPR: How Long Is Too Long? Positive Outcome After 90 Minutes of CPR
Laura Cohen, D.O., Shubjeet Kaur, M.D., Diana Kouznetsov, M.D., Anesthesia, University of Massachusetts Memorial, Worcester, MA.
A 73 year-old male with coronary artery disease presented for elective coronary angiography after experiencing exertional dyspnea. The angiogram demonstrated significant left main and mid-right coronary artery disease. Coronary artery bypass grafting was recommended. Following an uneventful induction, the patient became hypotensive, then asystolic. CPR was performed for 90 minutes during which time an intra-aortic balloon pump was inserted and the patient was transferred to angiography and placed on extracorporeal membrane oxygenation (ECMO). A stent was deployed in the left main coronary artery. Within 24 hours ECMO was discontinued. When sedation was weaned, the patient was able to follow commands.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC773
Anesthetic Management of a Patient With a Large Mediastinal Tumor Undergoing Tracheo-Bronchial Stent Placement
Markus Kaiser, M.D., Derek De Vry, M.D., Department of Anesthesiology, Medical College of Wisconsin, Milwaukee, WI.
A 48 year-old male patient is admitted for progressive dyspnea. CT scans show a large central mediastinal tumor circumferentially enclosing and compressing the distal trachea, the left and right main bronchus as well as the superior vena cava. The patient is scheduled for a flexible and subsequent rigid bronchoscopy to place a trachea-bronchial stent to prevent further airway compromise. Risks assessment, development of an anesthetic plan including airway management during the different stages of the procedure, choice of anesthetic agents and intra-operative and postoperative management is described in detail.
Noncardiogenic Pulmonary Edema After Cardiopulmonary Bypass
Matthew A. D’Haenens, M.D., Muhammad F. Sarwar, M.D., Anesthesiology, Upstate University Medical Center, Syracuse, NY.
71 year-old female underwent an uneventful aortic valve replacement and CABG on CPB. Thirty minutes after CPB weaning, peak airway pressures became elevated and a continuous flow of straw colored fluid filled the endotracheal tube and ventilator circuit. Ventilation became unobtainable without regular ETT suctioning. Simultaneously the patient’s hemodynamics deteriorated requiring rapid institution of multipressor support. In an effort to institute continuous PEEP an ICU Galileo ventilator with in-line suction ballard was brought to the OR. Progression to ECMO was briefly discussed prior to deciding to proceed with supportive measures and transport to the Cardiac ICU.

Metastatic Hepatocellular Carcinoma Resulting in Right Ventricular Outflow Obstruction
Mary DiMiceli, M.D., Anesthesia, Cardiac Anesthesia Department, Yale New Haven Hospital, Hamden, CT.
71 year-old male with PMHx of hepatocellular carcinoma s/p resection and infrarenal AAA s/p EVAR was admitted with chest pain and new RBBB and positive pharmacologic stress test for anterior ischemia and affixed inferoseptal defect with inferior ischemia. An Echocardiogram upon admission demonstrated a large RV mass with mild MR and TR and mild diastolic dysfunction with MRI confirming presence of large hypervascular RV mass involving 50% of interventricular septum and significant narrowing of RV outflow tract. Pt was then scheduled for resection of right ventricular mass. The challenge of this case was to induce anesthesia without compromising patient’s hemodynamic status.

Myocardial Ischemia in a Patient With Patent LIMA to LAD Bypass Undergoing Reoperation on Carotid Subclavian Bypass
Nicholas DeFilippis, M.D., Attila Dobos, Cardiovascular Anesthesiology, The Methodist Hospital, Houston, TX, University of Szeged, Szeged, Hungary.
A 71 year-old patient with history of subclavian steal syndrome, status-post CABG and carotid-subclavian bypass presented with acute onset angina. Workup identified a stenosed carotid-subclavian bypass graft and patent LIMA to LAD bypass. Due to the unique anatomy of the patient, anesthetic management included bilateral femoral access with CPB on standby, placement of defibrillator pads, invasive blood pressure monitoring, TEE and EEG. Test clamping of the carotid-subclavian bypass graft resulted in global hypokinesis, ST-elevation, profound hypotension and EEG changes that resolved upon removal of the clamp. The carotid-subclavian graft was then replaced using femorofemoral bypass support without incident.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC777
Management of the Adult Patient With Hypoplastic Left Heart Syndrome
Anjali Dogra, M.D., SUNY at Stony Brook, Selden, NY.
RS is a 33 year-old female who presents for anesthetic care for a transesophageal echocardiogram. She has a past medical and surgical history significant for hypoplastic left heart syndrome that is status post a Fontan procedure as well anxiety. Given the rarity of survival of these patients to the second and third decades of life, this case identifies challenges in optimizing patients with this condition for safe perioperative management and anesthetic care and demonstrates the echocardiogram findings that can be expected for such a patient.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC778
Complex Adult Congenital Heart Disease for a Simple Procedure
Ramesh Kodavatiganti, M.D., Saravanan Ramamoorthy, M.D., Anesthesiology, Penn State M S Hershey Medical Center, Hershey, PA.
A 21 year 142 cms(4'8''), 102.5kgs (226 lbs) old male was scheduled for Perm-a-cath insertion in the radiology suite. The patient has a Fontan after Norwood repair. Past history of multiple Fontan revisions, along with multiple cardiac catheterizations for Left Pulmonary artery angioplasty and stenting. Subsequently patient developed Protein losing enteropathy requiring steroid treatment resulting in osteoporosis, chronic hyponatremia, hypoalbuminemia, depression, obesity, vertebral stress fractures and anxiety attacks. Physical examination revealed a Mallampati Class 4 airway, short stiff neck with a large pad of nuchal fat, small mouth opening and cushingoid body habitus. Room air Oxygen saturations were 65-70%.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC779
Pulmonary Valve Replacement for Patient With Noonan’s Syndrome: Pulmonary Artery Aneurysm, Regurgitant Valve, and Fibromuscular Subpulmonary Stenosis
Jonathan C. Koning, M.D., Ellen Roberts, M.D., Anesthesia, University of Nebraska, Omaha, NE.
We present a case of a 49 year-old male with Noonan’s syndrome status post pulmonic valvuloplasty at age five who presented for repair of a 7.5cm pulmonary artery aneurysm and replacement of a regurgitant pulmonic valve. Management included an arterial line, central venous access and transesophageal echocardiography. Echocardiography showed a narrowed right ventricular outflow tract with moderate pulmonic insufficiency and a large pulmonary artery aneurysm. Noonan’s syndrome can be associated with cystic hygroma, micrognathia, and a difficult airway; as well as cardiac septal defects and pulmonic valve stenosis. These patients can present as adults with multiple cardiac abnormalities.
Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC780
Anesthetic Management of Traumatic VSD and Mitral Regurgitation After Motor Vehicle Collision
Pulsar Li, D.O., Pranav Shah, M.D., Daniel Cormican, M.D., Jose Marquez, M.D., John C. Caldwell, M.D.,
Anesthesiology, University of Pittsburgh Medical Center, Pittsburgh, PA.
23 year-old male presented with chest pain and open femur fracture following MVC; trauma evaluation revealed 3/6 holosystolic murmur, ECG findings of anterior-septal ST elevations, & troponin of 29. TTE revealed VSD and septal akinesis. Cardiac catheterization showed left to right shunt of 1.8:1 and partial rupture of anterior LV free wall, which prompted urgent repair of the VSD in the OR. Operative findings also revealed near-complete avulsion of anterior papillary muscle with mitral regurgitation. He underwent successful patch repair of the VSD and free left ventricular wall and reimplantation of the papillary muscle.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC781
Paradoxical Hemodynamic Collapse After Subxiphoid Pericardial Window
Benita T. Liao, M.D., Sansan Lo, M.D., Anesthesiology, Columbia University, New York, NY.
We report a 56 year-old male with a history of coronary artery disease and four months of cough and shortness of breath who presented to the operating room emergently for a subxiphoid pericardial window for cardiac tamponade. After drainage of 1200 cc of pericardial fluid, the patient’s condition acutely worsened and immediate right heart failure was seen via transesophageal echo. The patient experienced cardiovascular collapse necessitating high dose pressors and venous-arterial extracorporeal membrane oxygenation.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC782
28 Year-Old Male With Severe Right Sided Cardiac Thrombus
Albert Y. Lin, M.D., M.P.H., Kathleen Cho, M.D., Anesthesia, University Hospitals Case Medical Center, Cleveland, OH.
A 28 year-old male with history of a lower extremity DVT presented with progressive shortness of breath. A contrast CT and echocardiogram showed a large right heart mass and he was taken emergently to the OR. A massive clot was removed that tracked from the right atrium through to the right ventricle. Despite supportive care in the ICU, he acutely decompensated on POD#7 and was brought back to the operating room for a right ventricular assist device placement. After a lengthy recovery, he survived and was eventually discharged from the hospital.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC783
Soft Tissue Tamponade in CABG
Jeffrey Martin, M.D., Anesthesia, Vanderbilt, Nashville, TN.
67 year-old male with pmhx of CAD, CHF, and DM underwent an off pump four vessel CABG. On chest closure the patient became hypotensive and tachycardic with elevated filling pressures necessitating fluid and pressor adjustment. TEE findings demonstrated decreased RV size and contractility without wall motion abnormalities. The chest was reopened resulting in immediate improvement in RV cavity
size and hemodynamics. No excessive bleeding or clot was found. Soft tissue tamponade was suspected as a diagnosis of exclusion. The patient was transported to the ICU and underwent active diuresis. He returned to the OR for chest closure with no further complications.

Tuesday, October 16, 2012
11:00 AM - 12:30 PM
MC784
Anesthetic Management of a Patient With Constrictive Pericarditis for Pericardiectomy
Daniel G. Mason, M.D., Marc E. Stone, M.D., Anesthesiology, Mount Sinai School of Medicine, New York, NY.
A 22 year-old male with constrictive pericarditis presented for pericardiectomy. Medical history included possible tuberculosis, pulmonary hypertension and renal failure. Epinephrine, milrinone, nitric oxide and vasopressin were used intra-operatively to optimize hemodynamics. Intra-operative TEE showed classic findings of constrictive physiology, as well as severe mitral and tricuspid regurgitation, and moderate right ventricular dysfunction. Post-pericardiectomy TEE showed improvement in right ventricular function, and lessening of mitral and tricuspid regurgitation. This case demonstrates how constrictive pericarditis affects cardiac function and will discuss the anesthetic management of a patient presenting for pericardiectomy.