The Society of Black Academic Surgeons

In Joint Sponsorship With

The University of Washington

present the

19th Annual Scientific Session

April 2-4, 2009

at the

Fairmont Olympic Hotel

Seattle, Washington

UNIVERSITY *of* WASHINGTON

Objectives

The learning objectives of this activity are to:

1. Explain current concepts of cardiothoracic and vascular surgery, trauma management, oncology, and clinical trials outcomes.
2. Highlight the state-of-the-art of surgical wound healing as it relates to surgical patients.
3. Review technical advances in the management of aortic and peripheral vascular disease.
4. Explore avenues to build relationships between community physicians and academic medical centers to further disseminate scientific knowledge and development of clinical trials

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the American College of Surgeons and the Society of Black Academic Surgeons. The American College Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

American College of Surgeons
Division of Education

AMA PRA Category 1 Credits™

The American College of Surgeons designates this educational activity for a maximum of 15.5 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Registration Hours and Locations:

April 2, 3:00 – 7:00 pm, Garden Room Foyer, Fairmont Olympic Hotel

April 3, 7:00 am – 6:15 pm, Metropole Foyer, Fairmont Olympic Hotel

April 4, 7:00 am – 5:30 pm, Metropole Foyer, Fairmont Olympic Hotel

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Robert S. Higgins, MD, MSHA
Mary and John Bent Professor of Surgery
Chairman of Cardiothoracic Surgery
Rush University Medical Center

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L. D. Britt, MD, MPH
Brickhouse Professor of Surgery and Chair of Surgery
Eastern Virginia Medical School

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Cleveland Clinic

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Selwyn O. Rogers, Jr, MD, MPH
Associate Professor of Surgery, Harvard Medical School
Director of the Center for Surgery and Public Health
Division Chief for Trauma, Burns, and Surgical Critical Care
Brigham and Women's Hospital

At-Large Member
Debra H. Ford, MD
Associate Professor and Vice-Chairman, Surgery;
Head, Section of Colon and Rectal Surgery;
Director, General Surgery Residency Program
Howard University Hospital

Society Historian
Frederick D. Cason, Jr, MD
Associate Professor of Surgery
Medical University of Ohio
Toledo, OH

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Clive O. Callender, MD
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Robert S.D. Higgins, MD, MSHA
Selwyn Rodgers, MD

Committee on Local Arrangements

Carlos A. Pellegrini M.D – Co-Chair
Andre A. S. Dick, MD – Co-Chair
Carrie Balzer
Siobhan Brown
Joan Cummings

Guest Lecturers

Sir George Alleyne, MD
Chancellor, University of the West Indies
UN Secretary General's Special Envoy on HIV/AIDS in the Caribbean Region
Director Emeritus, Pan-American Health Organization (PAHO)

Edward L. Hoover,, MD
Professor, Department Surgery
SUNY-Buffalo, Akron, NY

Danny O. Jacobs, MD
Chairman, Department of Surgery,
Duke University

Christopher Murray, MD, DPhil
Director, Institute for Health Metrics and Evaluation
University of Washington

2008 Honorary Fellows

Raphael E. Pollock, MD, PhD
Division Head, Surgery; Professor, Surgical Oncology;
Professor, Molecular & Cellular Oncology;
Chair, Surgical Oncology, M. D. Anderson Cancer Center

Michael J. Zinner, MD
Surgeon-in-Chief, Brigham and Women's Hospital;
Chairman, Department of Surgery, Brigham and Women's Hospital;
Clinical Director, Dana Farber / Brigham and Women's Cancer Center;
Co-Director, Gastrointestinal Cancer Treatment Center,
Dana Farber / Brigham and Women's Cancer Center

History of The Society of Black Academic Surgeons

The Society of Black Academic Surgeons (SBAS) was founded in 1989. Its goal is to stimulate academic excellence among its members by providing a forum of scholarship in collaboration with the leading Departments of Surgery in the U.S. It encourages and supports professional development of black surgical residents and attempts to recruit the best and brightest medical students into a career in surgery.

The annual meetings of SBAS, attended by members as well as numerous residents and students, provide outstanding programs in both the science and practice of surgery. The first Annual Meeting was hosted by Dr. David Sabiston at Duke University. Annual meetings since then have been hosted by Departments of Surgery throughout the U.S., including Harvard (1991), University of California at Davis (1993), University of Texas Medical Branch at Galveston (1994), the University of North Carolina at Chapel Hill (1995), the University of Colorado at Denver (1996), SUNY Buffalo (1997), Howard University College of Medicine (1998, 2004), the University of Louisville (1999), Charles R. Drew University of Medicine and Science (2000), Harvard University (2001), Morehouse School of Medicine (2002), the University of Alabama at Birmingham (2003), the University of Pittsburgh (2005), the University of Cincinnati (2006), the University of Chicago (2007), and the Cleveland Clinic (2008).

SBAS is governed by an Executive Committee and has more than 200 members throughout the United States. Membership is not restricted by race; the criteria for membership requires that the prospective member be a "reputable surgeon or surgical investigator who occupies a faculty position in a university department of surgery or free-standing surgical residency program." In addition to its Annual Meeting, a website (www.SBAS.net) has been established to improve communication with its constituency and persons interested in the organization. The ***American Journal of Surgery*** is the official publication of SBAS.

Past Presidents of The Society of Black Academic Surgeons

1989-1991: Arthur Fleming, MD

1991-1993: Onye E. Akwari, MD

1993-1995: Eddie L. Hoover, MD

1995-1997: Claude H. Organ, Jr, MD

1997-1998: LaSalle D. Leffall, Jr, MD

1998-1999: Haile T. Debas, MD

1999-2001: L. D. Britt, MD, MPH

2001-2003: Clive O. Callender, MD

2003-2004: Edward Cornwell, III, MD

2004-2005: Robert L. McCauley, MD

2005-2006: Selwyn M. Vickers, MD

2006-2007: Michael T. Watkins, MD

2007-2008: Steven C. Stain, MD

Program Agenda

Thursday April 2, 2009

1:00-5:00 pm	**Executive Committee Retreat,** St. James Boardroom – Fairmont Olympic Hotel
5:30-6:30 pm	**Women in Surgery Reception,** Kensington – Fairmont Olympic Hotel
6:30-8:30 pm	**Welcome Reception,** Garden Room – Fairmont Olympic Hotel

Friday April 3, 2009

7:15-7:30 am	**Continental Breakfast,** William H. Foege Auditorium Foyer, University of Washington
7:30-11:30 am	**Local Program,** William H. Foege Building Auditorium, S-060, University of Washington
12:00-1:30 pm	**Lunch and Panel Discussion,** Garden Room – Fairmont Olympic Hotel
1:30-3:00 pm	**Scientific Session I – Oral Presentations,** Metropole Room – Fairmont Olympic Hotel
3:15-4:00 pm	**State of the Art Lecture – Danny Jacobs, MD,** Metropole Room – Fairmont Olympic Hotel
4:15-5:15 pm	**Scientific Session II – Oral Presentations,** Metropole Room – Fairmont Olympic Hotel
5:15- 6:15 pm	**Disparities in Cancer Care Symposium,** Metropole Room – Fairmont Olympic Hotel
7:00-10:00 pm	**The Seattle Experience Reception,** Museum of Flight

Saturday April 4, 2009

7:00-7:50 am	**Mentorship Breakfast,** Parliament – Fairmont Olympic Hotel
7:00 am	**Continental Breakfast,** Metropole Room – Fairmont Olympic Hotel
7:00-7:55 am	**Poster Sessions,** Metropole Room – Fairmont Olympic Hotel
8:00-10:00 am	**Scientific Session III – Oral Presentations,** Metropole Room – Fairmont Olympic Hotel
8:00-11:00 am	**Leadership Forum,** Senate Room – Fairmont Olympic Hotel
10:00-10:15 am	**Break/Exhibits,** Metropole Terrace and Foyer – Fairmont Olympic Hotel
10:15-11:00 am	**State-of-the-Art Lecture – Christopher Murray, MD,** Metropole Room – Fairmont Olympic Hotel
11:15 am-12:00 pm	**Business Meeting,** Metropole Room – Fairmont Olympic Hotel
12:00-1:30 pm	**Lunch and Panel Discussion,** Garden Room – Fairmont Olympic Hotel
1:45-2:30 pm	**Asa Yancey Lecture – Eddie Hoover, MD,** Metropole Room – Fairmont Olympic Hotel
2:45- 4:00 pm	**Scientific Session IV – Oral Presentations,** Metropole Room – Fairmont Olympic Hotel
4:00-4:15 pm	**Break,** Metropole Foyer – Fairmont Olympic Hotel
4:15-5:15 pm	**Presidential Address – Robert SD Higgins, MD,** Metropole Room – Fairmont Olympic Hotel
5:30 pm	**Adjourn**
6:30-7:00 pm	**Presidential Reception,** Garden Room – Fairmont Olympic Hotel
7:15-7:45 pm	**Special Performance – Mr. Vinson Cole,** Nordstrom Recital Hall
8:00-10:00 pm	**Black Tie Dinner, Awards, Keynote Speaker,** Garden Room – Fairmont Olympic Hotel
10:00-11:30 pm	**Dancing & Entertainment by Triple Treat Band,** Garden Room – Fairmont Olympic Hotel

Society of Black Academic Surgeons

Social Program

Thursday April 2, 2009

6:30-8:30 pm	**Welcome Reception,** Garden Room – Fairmont Olympic Hotel

Friday April 3, 2009

12:30-1:30 pm	**Lunch and Panel Discussion,** Garden Room – Fairmont Olympic Hotel
7:00-10:00 pm	**The Seattle Experience Reception,** Museum of Flight

Saturday April 4, 2009

12:00-1:30 pm	**Lunch and Panel Discussion,** Garden Room – Fairmont Olympic Hotel
4:15-5:15 pm	**Presidential Address – Robert SD Higgins, MD,** Metropole Room – Fairmont Olympic Hotel
6:30-7:00 pm	**Presidential Reception,** Garden Room – Fairmont Olympic Hotel
7:15-7:45 pm	**Special Performance – Mr. Vinson Cole,** Nordstrom Recital Hall, Benaroya Symphony Hall, 200 University Street, Seattle, Washington
8:00-10:00 pm	**Black Tie Dinner, Awards, Keynote Speaker,** Garden Room – Fairmont Olympic Hotel
10:00-11:30 pm	**Dancing & Entertainment by Triple Treat Band,** Garden Room – Fairmont Olympic Hotel

Local Program

SOCIETY OF BLACK ACADEMIC SURGEONS

LOCAL PROGRAM

THURSDAY — APRIL 2, 2009

1:00-5:00 pm **Executive Committee Retreat,** St. James Boardroom – Fairmont Olympic Hotel

5:30-6:30 pm **Women in Surgery Reception,** Kensington – Fairmont Olympic Hotel

6:30-8:30 pm **Welcome Reception,** Garden Room – Fairmont Olympic Hotel

FRIDAY — APRIL 3, 2009

7:15-7:30 am **Continental Breakfast,** William H. Foege Auditorium Foyer, University of Washington

7:30-11:30 am **Local Program,** William H. Foege Building Auditorium, S-060, University of Washington

7:30-8:00 am **Welcome and Introductions:**

Carlos A. Pellegrini, MD — The Henry N. Harkins Professor and Chair, Department of Surgery, University of Washington

Paul Ramsey, MD — CEO, UW Medicine; Executive Vice President for Medical Affairs; Dean, School of Medicine, University of Washington

Johnese Spisso, MPA, RN — Clinical Operations Officer, UW Medicine; Vice President for Medical Affairs, University of Washington

Sheila Edwards Lange, PhD — Vice President for Minority Affairs; Vice Provost for Diversity, University of Washington

8:00-8:15 am **"Liver Surgery at UW"**
Raymond Yeung, MD — University of Washington

8:15-8:30 am "**Craniofacial Reconstruction"**
Richard Hopper, MD — Seattle Children's Hospital

8:30-8:45 am "**Perforator Based Breast Reconstruction"**
David Mathes, MD — University of Washington

8:45-9:00 am "**Battlefield Surgery"**
Scott Steele, MD — Madigan Army Medical Center

FRIDAY *(CONTINUED)* — APRIL 3, 2009

9:00-9:15 am "**Outcomes of Burn Care at UW Medicine"**
Nicole Gibran, MD — Harborview Medical Center

9:15-9:30 am "**Current Trends in Aortic Surgery"**
Benjamin Starnes, MD — Harborview Medical Center

9:30-9:45 am **Break**

9:45-10:00 am "**Lung Transplantation: The UW Experience"**
Michael Mulligan, MD — University of Washington

10:00-10:15 am "**The Use of Remote Community Sites for the Required Medical Student Clerkship in Surgery: The University of Washington and WWAMI"**
Roger Tatum, MD — Veterans' Affairs of Puget Sound Health Care System

10:15-10:30 am "**Changing Paradigms in the Education of the Cardiac Surgeon"**
Edward Verrier, MD — University of Washington

10:30-10:45 am **"Disparities in Liver Transplantation"**
Andre Dick, MD — University of Washington

10:45-11:00 am "**Pediatric Empyema: To Cut is to Cure?"**
Robert Sawin, MD — University of Washington

11:00-11:15 am **"Integrating Quality with Simulation"**
Andrew Wright, MD — University of Washington

11:30 am **Return to Fairmont Olympic Hotel**

12:00-1:30 pm **Lunch and Panel Discussion,** Garden Room – Fairmont Olympic Hotel

"African Americans in the Northwest: Historical Perspectives and Current Opportunities for Influence"
Mr. Ronald Howell
Carver Gayton, PhD
William Bradford, PhD

Scientific Sessions

Scientific Sessions

Friday April 3, 2009

Scientific Sessions

Metropole Room — Fairmont Olympic Hotel

1:30-3:00 pm	**SESSION I — Oral Presentations**
3:15-4:00 pm	**State of the Art Lecture** "Research Paradigms" ***Danny O. Jacobs, MD, FACS*** Chairman, Department of Surgery Duke University
4:15-5:15 pm	**SESSION II — Oral Presentations**
5:15- 6:15 pm	**Disparities in Cancer Care Symposium** Fairmont Olympic Hotel **Hank C. Hill, MD (Moderator)** Saint Vincent Health Center **Malcolm Brock, MD** Johns Hopkins University School of Medicine **John Stewart, MD** Wake Forest University School of Medicine **Thelma Hurd, MD** University of San Antonio, Texas **Rhonda Henry-Tillman, MD** University of Arkansas for Medical Sciences

Scientific Sessions

Saturday — April 4, 2009

7:00- 7:55 am	**Poster Sessions I (General Surgery) and II (Trauma/Critical Care),** Metropole Room – Fairmont Olympic Hotel
8:00-10:00 am	**SESSION III — Oral Presentations**
10:15-11:00 am	**State of the Art Lecture** *Christopher Murray, MD, DPhil* Director, Institute for Health Metrics and Evaluation, University of Washington *"Global Health: Is Public Health and Medical Care Making a Difference?"*
12:00-1:30 PM	**Lunch,** Garden Room – Fairmont Olympic Hotel
	Panel Discussion: *"Minority Faculty Recruitment"* *Byron Joyner, MD (Moderator),* University of Washington *Selwyn Vickers, MD,* University of Minnesota *Edward Cornwell, MD,* Howard University *L. D. Britt, MD, MPH,* Eastern Virginia Medical School
1:45-2:30 pm	**Asa Yancey Lecture** *Eddie L. Hoover, MD* Professor, Department of Surgery, SUNY and VA Medical Center, Buffalo *"Your Past Begets Your Future: SBAS Yesterday, Today and Tomorrow – Historical Perspectives and Designs for the Future"*
2:45- 4:00 pm	**SESSION IV — Oral Presentations**
4:15-5:15 pm	**Presidential Address** *Robert S.D. Higgins, MD, MSHA* The Mary and John Bent Professor and Chairman, Department of Cardiovascular and Thoracic Surgery, Rush University Medical Center
5:30 pm	**Adjourn**

Notes

SESSION I
CARDIOVASCULAR / BASIC SCIENCE
ORAL PRESENTATIONS

FRIDAY, APRIL 3, 2009
1:30-3:00 P.M.

Moderators: Karyn Butler, MD, and Robert Higgins, MD

1. AGE IS AN INDEPENDENT RISK FACTOR FOR ATRIAL FIBRILLATION AFTER PULMONARY LOBECTOMY
   DD Hollings, RSD Higgins, WH Warren, LP Faber, MJ Liptay, S Basu, AW Kim
2. CYCLOSPORIN INHIBITS MICROVASCULAR ENDOTHELIAL CELL HYPERPERMEABILITY INDEPENDENT OF CALCINEURIN INHIBITION
   S Nurudeen, TL Delmus, T Christie, B Tharakan, FA Hunter, EW Childs
3. ECONOMIC IMPACT OF SURGICALLY MANAGED ENDOCARDITIS AT AN URBAN TEACHING HOSPITAL
   M Smith, E Weiss, J Allen, Y Patel, C Merlo, D Alejo, J Conte, D Cameron, A Shah
4. EFFECT OF INHALED NITRIC OXIDE THERAPY ON CARDIAC FUNCTION AND PULMONARY ARTERY PRESSURE IN CARDIAC SURGERY PATIENTS
   M Kralovec, J Satz, H Field, R Nubani, S Shott, RSD Higgins
5. NATURAL KILLER CELL DEPLETION ABROGATES GRAFTED CORONARY NEOINTIMAL PROLIFERATION IN VIRALLY INFECTED RECIPIENTS
   JA Graham, BA Wilkinson, T Hiroshi, CM Chase, RB Colvin, JC Madsen, JA Fishman, PS Russell
6. ATTENUATED COMPENSATORY GROWTH RESPONSE OF TELOMERASE NULL MICE FOLLOWING PARTIAL PNEUMONECTOMY
   SR Jackson, H Ford, D Warburton, B Driscoll

SOCIETY OF BLACK ACADEMIC SURGEONS
19TH ANNUAL SCIENTIFIC SESSION
SESSIONS AT A GLANCE

SESSION II
ONCOLOGY / TRANSPLANT
ORAL PRESENTATIONS

FRIDAY, APRIL 3, 2009
4:15-5:15 P.M.

Moderators: Lynt Johnson, MD, and John Stewart, MD

7. EPITHELIAL-MESENCHYMAL TRANSITION AND AKT2 UP-REGULATION IN COLORECTAL CANCER AFTER PTEN SILENCING
   KA Bowen, H Doan, P Rychahou, BM Evers
8. MORE FOCUS NEEDED ON AFRICAN AMERICAN FEMALE KIDNEY TRANSPLANT RECIPIENTS
   J McGee, TM Islam, N Mruthinti, S Florman, D Slakey
9. PREDICTORS OF POOR OUTCOMES IN PATIENTS WITH NONALCOHOLIC STEATOHEPATITIS UNDERGOING ORTHOTOPIC LIVER TRANSPLANTATION
   CN Clarke, JJ Everly, MJ Edwards, AB Lentsch, A Tevar
10. DISPARITY IN LIMB-SALVAGE SURGERY AMONG SARCOMA PATIENTS
    S Downing, N Ahuja, TA Oyetunji, D Chang, TM Fullum, EE Cornwell, WAI Frederick

SESSION III
TRAUMA / CRITICAL CARE
ORAL PRESENTATIONS

SATURDAY, APRIL 4, 2009
8:00-10:00 A.M.

Moderators: Selwyn Rogers Jr, MD, and Patricia Turner, MD

11. EVALUATION OF A NEW CIRCUIT CONFIGURATION FOR HIGH FREQUENCY PERCUSSIVE VENTILATION VIA THE VDR-4
SW Jones, WJ Hanson, KA Short, AG Charles, BA Cairns
12. POOR OUTCOMES IN OBESE TRAUMA PATIENTS MAY BE EXPLAINED BY THE EFFECT OF GHRELIN ON MICRO-VASCULAR PERMEABILITY
V Stams, RO Kwan, E Cureton, K Dozier, B Curran, J Sadjadi, A Harken, GP Victorino
13. SINGLE CONTRAST CT FOR THE TRIAGE OF PATIENTS WITH PENETRATING TORSO TRAUMA
BJA Palmer, EL Cureton, RO Kwan, KC Dozier, J Sadjadi, AH Harken, GP Victorino
14. URETERAL TRAUMA: PATTERNS AND MECHANISMS OF AN UNCOMMON INJURY
SM Siram, SZ Gerald, WR Greene, K Hughes, TA Oyetunji, K Chrouser, EE Cornwell, DC Chang
15. APOLIPOPROTEIN E REGULATES SEPTIC MORTALITY IN MICE
K Chuang, O Kattan, B Leung, N Presser, H Harris
16. ASSESSING THE PROTECTIVE EFFECT OF HYPOTHERMIA IN SPINAL CORD ISCHEMIA REPERFUSION
RS Crawford, H Albadawi, A Robaldo, CJ Abularrage, A Schufreider, B Hendrickson, RP Cambria, MT Watkins
17. INSURANCE STATUS IS A POTENT PREDICTOR OF OUTCOMES IN BOTH BLUNT AND PENETRATING TRAUMA
WR Greene, TA Oyetunji, AH Haider, V Ahuja, EE Cornwell, SM Siram, DC Chang

18. ENDOGENOUS LIGANDS CONTRIBUTE TO NATURAL KILLER T CELL ACTIVATION
K Chuang, E Elford, H Harris
19. IS DELAYED DVT PROPHYLAXIS IN THE NEUROCRITICALLY ILL PATIENT EFFECTIVE?
LS Jackson, D Drezner, J Freund, M Palter, K Butler

SESSION IV
GENERAL SURGERY
ORAL PRESENTATIONS

SATURDAY, APRIL 4, 2009
2:45-4:00 P.M.

Moderators: Keith Amos, MD, and Eddie Cornwell, MD

20. ACADEMIC SURGERY REMAINS INORDINATELY DEFICIENT OF UNDERREPRESENTED MINORITIES
PD Butler, MT Longaker, LD Britt
21. RISK FACTORS FOR BILE DUCT INJURY DURING CHOLE-CYSTECTOMY
TM Fullum, S Downing, D Chang, TA Oyetunji, EE Cornwell, PL Turner
22. RACIAL ETHNIC DISPARITIES IN LIMB SALVAGE AN ANALYSIS OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM DATABASE
K Hughes, P Turner, D Rose, T Oyetunji, N Bhayani, S Siram, W Greene, E Cornwell III, D Chang
23. A PROSPECTIVE STUDY OF PROPHYLACTIC LONG ACTING OCTREOTIDE IN HIGH RISK PATIENTS UNDERGOING PANCREATICODUODENECTOMY
LB Johnson, J Wong, N Haddad, F Al-Kawas, J Carroll, R Jha, D Maglaris, S Mertens,T Fishbein
24. LAPAROSCOPIC VS. OPEN WEIGHT LOSS SURGERY: A REVIEW OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (NSQIP) DATABASE
PL Turner, TA Oyetunji, DC Chang, EE Cornwell, TM Fullum

Posters

Poster Presentations will be located in the Metropole Room — Fairmont Olympic Hotel and available for viewing on:

April 3rd — 1:30 pm – 6:15 pm

April 4th — 7:00 am – 5:30 pm

Poster Session I

Moderators: Frederick Cason, MD, and Edward G. Helm, MD

1. EFFICACY OF PROSTATE CRYOABLATION: AN AFRICAN AMERICAN CASE SERIES
   C Ahaghotu, S Gerald, D Chang

2. THE SURGEON'S TITLE, IS IT DUE FOR A CHANGE?
   M Alfa-Wali

3. THE INFORMED CONSENT: A STUDY OF THE EFFICACY OF INFORMED CONSENTS AND THE ASSOCIATED ROLE OF LANGUAGE BARRIERS
   S Clark, E Dunn, A Mangram, R Lebron

4. THE AT RISK GASTRIC REMNANT FOLLOWING ROUX-EN-Y GASTRIC BYPASS
   TM Fullum, P Traverso, D Chang, TA Oyetunji, EE Cornwell, D Smoot, PL Turner

5. TRANSITION TO SINGLE-INCISION LAPAROSCOPY: THE UNIVERSITY OF WASHINGTON EXPERIENCE
   S Khandelwal, A Wright, B Oelschlager, C Pellegrini

6. THE VALUE OF A REGIONAL CONSORTIUM TO ADDRESS AND ASSESS OBSTACLES FOR IMPLEMENTING TECHNICAL SKILLS TRAINING OF SURGERY RESIDENTS
   AJ Mangram, DJ Scott, MM Shabahang, E Dunn

POSTERS

7. IDENTIFICATION AND MAINTENANCE OF ORGANOIDS IN MATRIGEL FOR TISSUE ENGINEERED INTESTINE IN PATIENTS REQUIRING DELAYED IMPLANTATION
   JA Matthews, TC Grikscheit, FG Sala

8. SURGICAL TRAINING IN THE INFORMATION AGE: ARE WE KEEPING PACE WITH RESIDENTS' LEARNING NEEDS?
   CM Pugh, DA DaRosa, D Glenn, RH Bell Jr

9. PERSONAL AND INSTITUTIONAL BARRIERS TO WILLINGNESS TO RESPOND AMONG GENERAL SURGEONS
   C Vendryes, R Burke, J Upperman

10. INACTIVATED ENTEROBACTER SAKAZAKII DO NOT INDUCE IEC-6 ENTEROCYTE APOPTOSIS
    ML Williams, BA Bell, EA Adams, M Petrosyan, Y Guner, N Chockshi, AV Grishin, HR Ford

Poster Session II

Moderators: Carnell Cooper, MD, and Kenneth Davis Jr, MD

11. THE UPS AND DOWNS OF PRIAPISM IN THE UNITED STATES: THE CHANGING ROLE OF SICKLE CELL DISEASE
    K Chrouser, TA Oyetunji, DC Chang

12. SUICIDE
    Cl Cooper, G Ryb

13. MRSA PREDOMINATES IN INFECTED IVDA EXTREMITY PSEUDOANEURYSMS
    DL Ray, J Lyn-Sue, G Blankinship, S Patel, D Drakes, D Rose

Poster Session II (continued)

14. SURGICAL MANAGEMENT OF BACTERIAL ENDOCARDITIS: EMERGING TRENDS AND OUTCOMES
    RSD Higgins, J Bryne, JA Sanchez, R Bernstein, E Okum, M Leacche, J Balaguer, CR Bridges

15. ENDOVASCULAR REPAIR OF PRIMARY AORTIC COARCTATION
    K Hughes, V Ramaiah, O Preventza, G Wheatley, J Rodriguez-Lopez, E Diethrich

16. IMPLEMENTING A TRAUMA REGISTRY IN ADDIS ABABA, ETHIOPIA: OBSTACLES AND OPPORTUNITIES IN INTERNATIONAL RESEARCH
    J McCord, G Tefera, M Fleming, G Tamrat

17. RACE DOES NOT INFLUENCE PENETRATING TRAUMA OUTCOMES
    RN Smith, KC Dozier, MA Miranda Jr, RO Kwan, EL Curreton, J Sadjadi, GP Victorino, A Harken

18. BLUNT TRAUMATIC ABDOMINAL AORTIC DISSECTION WITH CONCOMITANT TRAUMATIC ABDOMINAL WALL HERNIA AND SMALL BOWEL INJURY - A SURGICAL CONUNDRUM
    V Johnson, A Mangram, RC Mooty, M Truitt, H Jefferson, E Dunn

19. RELIGIOUS BELIEFS AS A NEGATIVE PREDICTOR OF KIDNEY DONATIONS IN AFRICAN AMERICAN MEN
    CS Modlin Jr, D Bairagi, A Chideme-Munodawafa, JW Yoo, L Saffore

20. RESIDENTIAL SEGREGATION AND ACCESS TO THORACIC SURGICAL CARE BY MINORITY POPULATIONS IN US COUNTIES
    JW Awori Hayanga, HE Kaiser, DC Chang

Dr. Claude H. Organ, Jr. Resident Award

Cleveland Clinic

Dr. Claude H. Organ, Jr. (1926-2005) was a world renowned academic surgeon, a giant in the field of surgery and medicine, and a major force in shaping and supporting the lives and careers of thousands. In 1989, Dr. Organ and several other black academic surgeons founded SBAS and held its first meeting at Duke University. Throughout his career he oversaw the training of dozens of surgeons, including several African-American women. His lifelong dedication to mentoring young surgeons and encouraging diversity in the field of surgery is represented in the annual Claude H. Organ, Jr. MD, FACS Resident's Award.

Delos "Toby" Cosgrove, MD, President & CEO, Cleveland Clinic, committed the Cleveland Clinic's endowment of this prestigious award. Starting in 2008 and continuing into the subsequent years, Cleveland Clinic's sponsorship of the Dr. Claude H. Organ, Jr. Resident Award helps insure the success of the future generations of surgeons.

Dr. Claude H. Organ, Jr. Resident Award Winners

2003 **Richard E. Redlinger, Jr, BS**
Children's Hospital of Pittsburgh

Donn H. Spight, MD
University of Cincinnati

2004 **Zara R. Cooper, MD, MSc**
Brigham and Women's Hospital

2005 **Sonya Walker, MD**
University of Pittsburgh

2006 **Stephen H. Gray, MD**
University of Alabama at Birmingham

Georgia Holder Haynes, MD
Texas A&M University

2007 **Sylvester Black, MD [1st Place]**
University of Minnesota

ShaRon Jackson, MD [2nd Place]
University of Cincinnati

2008 **Jeanwan Kang, MD [1st Place]**
Massachusetts General Hospital

Darrell L. Hunt, MD [2nd Place]
University of Florida

Session Moderators

Keith D. Amos, MD. Assistant Professor of Surgery, Division of Surgical Oncology, UNC Department of Surgery, UNC School of Medicine, Chapel Hill, NC.

Karyn L. Butler, MD. Director, Surgical Critical Care; Program Director, Critical Care Fellowship; Associate Director, Department of Surgery, Hartford Hospital, Hartford, CT

Edward E. Cornwell, III, M.D. Surgeon-In-Chief, Howard University Hospital; Chairman, Department of Surgery, and LaSalle D. Leffall, Jr. Professor, Howard University Hospital, Washington, DC

Robert S.D. Higgins, MD. Professor and Chairman of Cardiothoracic Surgery, Rush University Medical Center, Chicago, IL.

Lynt L. Johnson, MD. Professor, Department of Surgery; Chief, Division of Transplant Surgery; Director, Hepatobiliary Surgery; Director, Liver Transplantation; Director, Kidney Transplantation, Georgetown University Hospital, Washington, DC.

Selwyn O. Rogers, Jr. MD, MPH. Associate Professor of Surgery; Co-Director, Surgical Critical Care; Division Chief, Trauma, Burns, and Surgical Critical Care, Brigham and Women's Hospital, Boston, MA.

John H. Stewart, IV, MD. Assistant Professor of Surgery, Director, Tumor Immunotherapy Program, Wake Forest University School of Medicine, Winston-Salem, NC.

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Poster Moderators

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Edward G. Helm, MD. Professor of Surgery; Chief, Section of Surgical Endoscopy; Medical Center Director of Outpatient Surgery; Associate Dean of Community & Minority Health Education, LSU Health Sciences Center, New Orleans

ASA YANCEY LECTURE

Eddie L. Hoover, MD
Professor, Department of Surgery,
SUNY and VA Medical Center, Buffalo
"Your Past Begets Your Future:
SBAS Yesterday, Today and Tomorrow –
Historical Perspectives and Designs for the Future"

STATE OF THE ART LECTURES

Danny O. Jacobs, MD, FACS
Chairman, Department of Surgery
Duke University
"Research Paradigms"

Christopher Murray, MD, DPhil
Director, Institute for Health Metrics and Evaluation
University Of Washington
"Global Health: Is Public Health and
Medical Care Making a Difference?"

NOTES

ABSTRACTS

ORAL PRESENTATIONS

ORAL PRESENTATION #1

AGE IS AN INDEPENDENT RISK FACTOR FOR ATRIAL FIBRILLATION AFTER PULMONARY LOBECTOMY

DD Hollings, RSD Higgins, WH Warren, LP Faber, MJ Liptay, S Basu, AW Kim. Rush University Medical Center

Background: Atrial fibrillation (AF) can occur following pulmonary lobectomy. Its development can be associated with increased morbidity and mortality as well as increased costs.

Objective: The aim of this study was to identify factors that may predict the development of AF.

Methods: The records of 349 patients undergoing lobectomy between January 2004 and December 2008 at a single institution were retrospectively reviewed. Sleeve and bilobectomy were not included. Age, gender, type of lobectomy, laterality, operative approach, and pathologic diagnosis were recorded. Univariate and multivariate analysis were performed to identify if any of the recorded parameters served as prognostic variables in the development of AF. A p-value <0.05 was defined to be significant.

Results: There were 349 lobectomies performed of which 38 patients developed AF, for an overall incidence of 11% (38/349). Univariate analysis showed that the mean age of the 38 AF patients was 75 ± 8 years. This was significantly greater than the 66 ± 13 years of the 311 non-AF patients, $p<0.001$. There were 17 male and 21 female AF patients vs. 137 male and 174 female non-AF patients, p = not significant (ns). In the AF population, the types of lobectomies performed were: RUL - 11, RML - 2, RLL - 8, LUL - 10, LLL - 7. In the non-AF population, the types of lobectomies performed were: RUL - 123, RML - 24, RLL - 52, LUL - 85, LLL - 65. This distribution was not significantly different. When evaluating by laterality of lobectomy, there were 21 right-sided and 17 left-sided resections in the AF population vs. 178 right-sided and 133 left-sided resections in the non-AF population, p = ns. AF occurred in 18% of the patients (7/38) undergoing video-assisted thoracic surgery vs. 15% of patients (46/311) undergoing thoracotomy, p = ns.

Among the 38 patients with AF, the pathologic diagnosis was: NSCLC-32, neuroendocrine tumors (NE) - 0, other tumors- 2, and benign disease-4. The pathologic diagnosis of the 308 patients without AF was: NSCLC - 240, NE - 23, other tumors-16, and 29 other benign disease. While the difference in pathological diagnoses collectively was not significant between AF and non-AF patients, individually, NE tumors were associated with a marginally significant increase in AF, p = 0.094. Multivariate analysis showed that age alone is strongly predictive for the development of AF, $p = <0.001$.

Conclusions: This study shows that age is a strong risk factor for AF after pulmonary lobectomy by both univariate and multivariate analysis. Univariate and multivariate analysis showed that gender, type of lobectomy, laterality, operative approach, and pathological diagnosis did not predict the onset of AF. The findings of this study suggest that the elderly are at increased risk for AF. Therefore this population should be closely monitored or targeted for prophylactic therapy.

NOTES

ORAL PRESENTATION #2

CYCLOSPORIN INHIBITS MICROVASCULAR ENDOTHELIAL CELL HYPERPERMEABILITY INDEPENDENT OF CALCINEURIN INHIBITION

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Background: Activation of mitochondrial 'intrinsic' apoptotic signaling is an important mediator of vascular hyperpermeability following hemorrhagic shock. Studies from our laboratory have shown that cyclosporin A (CsA), a calcinuerin inhibitor and an inhibitor of mitochondrial transition pores (MTP) prevent "intrinsic" apoptotic signaling and microvascular endothelial cell hyperpermeability. We hypothesized that this effect of cyclosporin A on endothelial cell hyperpermeability is due to its inhibition of MTP and not due to its effect on calcineurin. The objective of this study was to determine if the effect of CsA on hyperpermeability calcineurin dependent or independent.

Methods: RLMEC grown as monolayers on Transwell membranes or on chamber slides were transfected with BAK peptide (5 μg/ml) with or without (CsA) or Calcineurin Autoinhibitory peptide (CIP) pre-treatment. The change in monolayer permeability was determined by FITC albumin-flux across the monolayer. Mitochondrial ROS formation was determined using dihydrorhodamine 123 and mitochondrial transmembrane potential (MTP) was determined using JC-1.

Results: In RLMEC, BAK (BH3) induced significant increase in monolayer permeability ($p<0.05$). Cyclosporin A pre-treatment (10 nM) attenuated BAK-induced monolayer hyperpermeability where as CIP treatment showed no significant decrease in permeability ($p<0.05$). The BAK (BH3) peptide transfection induced significant increase in ROS formation and decrease in MTP, which was inhibited by CsA. CIP treatment showed no significant change in ROS formation or MTP.

Conclusion: Our studies demonstrate that CsA, an inhibitor of calcineurin and MTP, attenuates pro-apoptotic BAK-induced monolayer hyperpermeability whereas CIP, a specific inhibitor of calcineurin shows no significant effect on monolayer permeability. This suggests that CsA mediated inhibition of monolayer hyperpermeability is independent calcineurin inhibition.

NOTES

ORAL PRESENTATION #3

ECONOMIC IMPACT OF SURGICALLY MANAGED ENDOCARDITIS AT AN URBAN TEACHING HOSPITAL

M Smith, E Weiss, J Allen, Y Patel, C Merlo, D Alejo, J Conte, D Cameron, A Shah. Johns Hopkins Hospitals

Background: To what extent race influences both outcomes and cost following surgery for infectious endocarditis is not well established.

Objective: We reviewed our large institutional experience to compare preoperative clinical characteristics, cost and surgical outcomes between black and Caucasian patients.

Methods: We conducted a retrospective review of our prospectively collected cardiac surgery dataset to identify 368 patients undergoing isolated mitral, aortic valve, pulmonary or tricuspid valve replacement/repair or multi-valve procedures for infectious endocarditis over 11 years (January 1996 to Dec 2006). Baseline demographic factors were identified with primary stratification by race. Total hospital charges for each patient were collected and inflation adjusted to reflect 2006 US dollars. The primary outcomes were in hospital death and total hospital charges with secondary outcomes including post operative stoke, arrhythmias, renal failure and length of stay (LOS). Multivariable logistic and linear regression analysis assessed the impact of race on outcomes adjusting for known confounders.

Results: Of 368 endocarditis patients, the distribution of procedures was a follows: aortic 158 (43%), mitral 112 (30%), aortic and mitral 45 (12%) right valve with aortic or mitral 42 (11%), right valve only 11 (3%). 45% of patients (n=167) were active endocarditis cases and 19% of patients (n=70) reported intravenous drug use (IVDU). Median total charges were $60,172 (sd ± 87,552). Examination of race revealed that black patients were younger (49 vs. 54 years, p=0.009) more likely to report IVDU (44 vs. 9%, p<0.001) had greater percentage of active endocarditis (56 vs. 41%, p=0.008) and higher pre-operative renal failure rate (22 vs.11%, p=.007).

There was no difference in major peri-operative complication rates: Post op afib (Whites 68.8%, Blacks 61.9%, p=0.54), Neurological event (Whites 12.4%, Blacks 13.1%, p=0.86), Post op heart block (Whites 11.2%, Blacks 11.2%, p=0.99), Post op renal failure (Whites 9.6%, Blacks 9.4%, p=0.94). In hospital mortality rates were not different between black and white patients (7.5 vs. 9.2%, p= 0.6). LOS and total hospital charges were significantly higher for blacks (28 vs. 19 days, p<0.001 and $105,601 vs. $78,856, p=0.004, respectively). Multivariable analysis revealed LOS and redo operation to be associated with increased hospital charges.

Conclusion: Endocarditis is an expensive problem. We present the largest series of modern patients with surgically managed endocarditis and the first to examine the economic impact of this disease at an urban teaching hospital. Despite similar outcomes, blacks have a dramatically higher incidence of IVDU and higher hospital charges.

NOTES

ORAL PRESENTATION #4

EFFECT OF INHALED NITRIC OXIDE THERAPY ON CARDIAC FUNCTION AND PULMONARY ARTERY PRESSURE IN CARDIAC SURGERY PATIENTS

M Kralovec, J Satz, H Field, R Nubani, S Shott, RSD Higgins. Rush University Medical Center

Background: Inhaled nitric oxide (iNO) has been used to empirically treat patients with respiratory distress, pulmonary hypertension, and right ventricular dysfunction. Potential therapeutic effects have been associated with pulmonary vasodilatation. We evaluated the clinical effectiveness of iNO in our current cardiac surgery practice to determine potential benefits.

Methods: Retrospective chart reviews were performed on adult cardiac surgery patients who received perioperative NO treatment from 2006 to 2008 (n=19). Cardiac procedures included: CABG (n=3), CABG & Valve Replace/Repair (n=1), CABG & Other (n=1), Valve Replace/Repair (n=10), Other (n=4). Observed values were measured at three intervals; pre-operative pre-iNO administration, post-operative iNO, and post-surgery post-iNO. Cardiac output, cardiac index, central venous pressure, pulmonary artery pressures (systolic, mean, diastolic), blood pressure, and outcomes were assessed. Statistical analyses using the Friedman test were performed to assess differences contributing to observed outcomes, with statistical significance at $p<0.05$.

Results: There was a statistically significant increase in the cardiac output (CO) of patients who were given iNO therapy during or after cardiac surgery compared to their cardiac output before iNO treatment and cardiac surgery (Fig. 1). Pre-op pre-NO administration CO was 3.58 L/min (mean), compared to 5.70 L/min (mean) Post-Op. The difference between pre-op pre-iNO administration cardiac output and post-op post-iNO treatment was also statistically significant (Pre-op pre-iNO CO mean 3.58 l/min vs post-op, post iNO CO mean 6.4 l/min, $p<0.05$). There was a significant difference between diastolic pulmonary blood pressure immediately pre-op pre-iNO, and 6-24 hours after discontinuation of iNO therapy (Fig. 2).

There were no significant differences in mean pulmonary artery pressure, pulmonary systolic pressure or central venous pressure pre-op iNO , post-op iNO or post-op post-iNO.

Conclusions: Inhaled NO appears to enhance cardiac performance in the perioperative period after cardiac surgical procedures. This effect may be due to pulmonary vasodilatation, although only diastolic PA pressure changes could be documented in this series. Higher post-operative diastolic pulmonary artery pressures may be reflective of enhanced right ventricular power. Nitric oxide induction of pulmonary artery smooth muscle relaxation may be a physiologic mechanism, particularly in cardiac patients undergoing valve procedures who are prone to experience secondary pulmonary hypertension (the majority of our patients). Inhaled nitric oxide should be considered as an important adjunct to improve cardiac performance in cardiac surgery patients. Further study evaluating potential direct inotropic cardiac effects and physiologic mechanisms is warranted.

Fig. 1
(mean L/min)

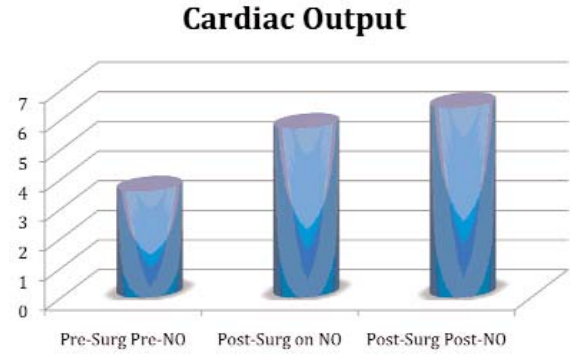
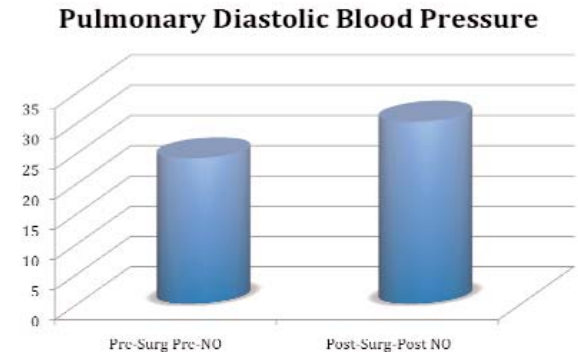


Fig. 2



ORAL PRESENTATION #5

NATURAL KILLER CELL DEPLETION ABROGATES GRAFTED CORONARY NEOINTIMAL PROLIFERATION IN VIRALLY INFECTED RECIPIENTS

JA Graham, BA Wilkinson, T Hiroshi, CM Chase, RB Colvin, JC Madsen, JA Fishman, PS Russell. Massachusetts General Hospital

Background: Coronary Allograft Vasculopathy (CAV) is a major cause of death in cardiac transplant recipients and is characterized by neointimal proliferation. Viruses have long been thought to be associated with CAV, but the nature of their involvement is difficult to appraise in complex clinical circumstances. Here we report initial observations with a well-controlled experimental system in which infection of murine recipients with a virus leads directly to advanced CAV in hearts transplanted to them. We demonstrate that the NK cell response to this virus is closely associated with lesion formation as inhibition of these cells almost completely prevents lesion formation.

Methods: C57BL/6.RAG1-/- (B6.RAG1-/-) {H2b} parental donor hearts were transplanted into F1 generation mice {C57BL/6.RAG1-/- x BALB/c.RAG1-/-}F1 (CB6F1.RAG1-/-) {H2bxd} in a heterotopic abdominal location with appropriate microsurgical anastomoses. LCMV (2.25 x 105 PFU Armstrong strain) was injected intraperitoneally into the appropriate groups on POD 1. Transplanted hearts were removed on POD56 and histologically examined for CAV. Anti-mouse NK 1.1 mAb (PK136, a mouse IgG2a) was used to deplete target cells in CB6F1.RAG1-/- recipients of B6.RAG1-/- donor hearts at a dose of 200 mg intraperitoneally on days -6,+1 then once weekly thereafter until postoperative day 56. Morphometric analysis was performed on images of coronary arteries near the aortic ostia on tissue sections stained with Weigert's elastin stain. Available software then permitted quantification of the area of neointima within the internal elastic lamina.

Results: To isolate the contributions of NK cells, parental B6.RAG1-/- (H2b) hearts were transplanted into CB6F1.RAG1-/- (H2bxd) recipients. Four recipient groups were studied; 1) no treatment, 2) viral medium injection (sham), 3) LCMV inoculation alone and 4) LCMV inoculation with anti-NK1.1 mAb administration to deplete NK cells.

Only 2 in 11 untreated recipients developed lesions of CAV and none of the 4 sham injected recipients did so. In contrast, 7 of 9 recipients infected with LCMV developed distinct CAV lesions. Most notably, only 1 of the 7 mice infected with LCMV and treated with anti-NK1.1 mAb developed CAV. The conclusions from morphometric analysis of intimal luminal encroachment emphasize the differences between the experimental groups. The median neointimal index for LCMV treated parental into F1 recipients was approximately 67%, while the mean for anti-mouse NK 1.1 treated LCMV parental to F1 mice was 5.9%.

Conclusion: Through our experiment we demonstrated that LCMV causes CAV, which corroborates the clinical evidence supporting the possibility of virally induced CAV. However more importantly, NK cell depletion was shown to abrogate CAV lesion formation. This finding may be germinal to the understanding and the prevention of chronic rejection in patients. Thus, the presence of LCMV may promote cardiac lesion formation through a systemic influence on NK cell activity that directs cytotoxity at the coronary endothelium of transplanted hearts.

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ORAL PRESENTATION #6

ATTENUATED COMPENSATORY GROWTH RESPONSE OF TELOMERASE NULL MICE FOLLOWING PARTIAL PNEUMONECTOMY

SR Jackson, H Ford, D Warburton, B Driscoll. Children's Hospital Los Angeles

Background: Partial pneumonectomy (PNX) in the mouse is a valuable research tool for those investigating pulmonary development as well as lung injury and repair. While it is known that the injury model of PNX in mice results in compensatory lung growth, a mechanistic elucidation of the biologic processes involved remains an area of active study. It has been demonstrated that telomerase, a ribonucleoprotein that stabilizes chromosomes in actively dividing and differentiating cells, is a critical marker for cellular integrity that is downregulated during aging and senescence. In normal animal models, telomerase is upregulated in a number of pulmonary cell populations following lung injury, including bronchioalveolar stem cells (BASC). We hypothesize that PNX in telomerase null mice will demonstrate an attenuated compensatory growth response marked by decreased proliferation of BASC.

Methods: Mature C57BL (WT) and telomerase null (Terc -/-F3) mice undergo resection of the left lung. A tracheotomy is placed in the mid trachea with cannulation of the airway using a 24 gauge plastic catheter. Mechanical ventilation is provided. An oblique incision in the skin from the inferior aspect of the left axilla medially to the midline followed by division of underlying soft tissues. The chest is entered. The left lung is elevated into the incision ligated, and removed. The chest is closed, anesthesia is titrated, the trachea is decannulated and the tracheotomy is closed. At POD #3, post surgery mice were sacrificed by intraperitoneal injection of phenobarbitol. The lungs are initially perfused with saline then stored overnight in paraformaldehyde fixative. The tissue was dehydrated in a graded manner and embedded in paraffin in the standard fashion. 5 micron sections were created. Bronchioalveolar stem cells stain doubly positive for SPC and CC10 and were identified using standard immunohistochemistry techniques on the paraffin sections.

Results: Six of twenty Terc-/- F3 mice survived surgery to 48 hours as compared to eighteen of thirty-nine WT mice. Otherwise stated, 70% of Terc-/- F3 died during the procedure or by POD#2 with 53% of WT mice dying either during surgery or by POD#2. WT controls not undergoing surgery exhibit 17.87% BASC per terminal airway per lung section as compared to 7.29% in Terc-/-F3 controls. By postoperative day #3 the % BASC per terminal airway per section in WT lung increased to 162% BASC per terminal airway per section while Terc -/- F3 animals increased to only 25% BASC per terminal airway per section.

Conclusion: Terc -/- F3 mice have a significantly poorer response to the injury model of PNX as indicated by decreased survival. It is theorized that BASC play an active role in reparative and regenerative processes. We hypothesize that the marked decrease in BASC numbers at baseline, as well as the attenuated BASC response to insult in terc-/- mice following PNX, are significant in light of the relatively poor rate of recovery from PNX in this model.

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ORAL PRESENTATION #7

EPITHELIAL-MESENCHYMAL TRANSITION AND AKT2 UP-REGULATION IN COLORECTAL CANCER AFTER PTEN SILENCING

KA Bowen, H Doan, P Rychahou, BM Evers. University of Texas Medical Branch at Galveston

Background: Epithelial-mesenchymal transition (EMT) is a process that occurs normally during critical phases of embryonic development in mammals, including such processes as embryonic neural crest migration and multi-organ development. The migration and organization of EMT in development has led to a comparison with the process of tumor metastasis. The phosphatidyl-inositol 3-kinase (PI3K)/Akt pathway is an important pathway in normal cellular metabolism and activation of Akt, the major downstream effector of PI3K, is frequently observed in human cancers. Snail and Twist are critical transcription factors that down-regulate E-cadherin to promote EMT and mediate cell motility and invasiveness. The goals of our current study were to evaluate the effect of PTEN knockdown on the downstream effector protein AKT2 and transcription factors Snail and Twist.

Methods: Human colon cancer cell lines HCT116 and SW480 were transfected with PTEN shRNA and stable knockdown cell lines were created. Real-time-RT PCR was used to assess knockdown of the stable cell lines. HCT116 PTEN shRNA and SW480 PTEN shRNA cells were transfected with Snail or Twist siRNA or non-targeting control (NTC). Snail and Twist expression were assessed using Western blot analysis. An adenovirus assay with myristolated and wild type control AKT2 and AKT1 was utilized.

Results: After the stable knockdown of PTEN in HCT116 and SW480 cells, AKT2 was found to be up-regulated in both cell lines. An up-regulation of EMT transcription factors Snail and Twist also occurred after PTEN silencing. In the cell lines that were infected with myristolated AKT2, there was an increase of Snail and Twist when compared to wild type control.

Conclusion: Our findings suggest a mechanistic link between PTEN deficiency and Akt2 in colorectal cancer. It also suggests an association between important EMT transcription factors and AKT2 expression. These data indicate that selective targeting of the PI3K/Akt2 pathway may provide a novel treatment strategy for colorectal cancer and interventions that could prevent metastasis. Future studies will focus on the over-expression of AKT2 and its effect on migration and invasion.

NOTES

ORAL PRESENTATION #8

MORE FOCUS NEEDED ON AFRICAN AMERICAN FEMALE KIDNEY TRANSPLANT RECIPIENTS

J McGee, TM Islam, N Mruthinti, S Florman, D Slakey. Tulane University School of Medicine, Tulane University School of Public Health and Tropical Medicine, Philadelphia College of Osteopathic Medicine, and Tulane Abdominal Transplant Institute

Background: African Americans (AAs) have worse graft survival compared to non-African Americans (NAAs) following kidney transplantation. A recent analysis from our center demonstrated that AA females have the worst graft outcomes. The purpose of this study is to determine if AA female kidney transplant recipients compared to AA male kidney recipients contribute with greater magnitude to overall poor outcomes in this population.

Methods: Eight-hundred and five patients who underwent an isolated kidney transplant between 1996 and 2005 were included in this single-center, retrospective review. Kaplan-Meier estimates for graft survival were performed by race, gender and combined race and gender categories. Multivariate adjusted Cox proportional hazards model was used to determine risk factors predicting graft failure.

Results: The analysis included 186 AA female recipients, 260 AA male recipients, 150 NAA female recipients and 209 NAA male recipients. African Americans compared to NAAs had decreased graft survival at one, two and three years (89%, 84%, 82% vs. 93%, 89%, 87%; respectively [log-rank p=0.03]). Graft survival did not differ significantly by overall gender groups. After stratification by combined race and gender, AA females demonstrated the worst graft survival and had 6% less survival than AA males at all three years. Compared to NAA males and females, AA females continued to have the poorest graft outcomes-7% and 10% less survival at year one and three, respectively. When AA females were excluded from the univariate analysis for graft survival stratified by race, survival between AAs and NAAs became similar.

Multivariate Cox proportional hazards model among AAs showed an increased risk for graft loss for females compared to males (hazard ratio=1.51, 95% CI: 0.89-2.56) though statistical significance was not achieved.

Conclusion: African American female kidney transplant recipients have the worst 3-year graft survival. Our findings suggest that overall poor outcomes among AA kidney transplant patients are largely due to AA females. Thus, substantial emphasis should be focused on the AA female kidney transplant recipient in order to improve graft survival in the AA kidney transplant population.

NOTES

ORAL PRESENTATION #9

PREDICTORS OF POOR OUTCOMES IN PATIENTS WITH NONALCOHOLIC STEATOHEPATITIS UNDERGOING ORTHOTOPIC LIVER TRANSPLANTATION

CN Clarke, JJ Everly, MJ Edwards, AB Lentsch, A Tevar. *Kenneth Davis, MD, Sponsor. University of Cincinnati

Background: Nonalcoholic steatohepatitis (NASH) is a prevalent cause of liver failure requiring orthotopic transplantation. While its exact etiology is unknown, it is believed to be a manifestation of obesity leading to steatosis, oxidative hepatocellular injury and ultimately progressing to cirrhosis of the liver. Currently NASH accounts for approximately 3-5% of all orthotopic liver transplantations. That number is expected to increase significantly as obesity rates continue to increase within the US population. As the demand for liver transplantation continues to outweigh organ availability, the need for optimal selection of recipients to maximize graft and patient survival becomes vitally important.

Objective: To identify predictors of patient and allograft failure in NASH patients undergoing orthotopic liver transplantation.

Methods: A retrospective review of the deceased donor liver transplants reported to the UNOS/Organ Procurement and Transplantation Network (OPTN) between January 2000 and August 2008 was conducted. NASH recipients were identified, and patients with other co-existing liver disease including hepatocellular carcinoma, hepatitis B and hepatitis were excluded. The remaining cohort of NASH induced liver disease form the basis of this study. Continuous variable were described as mean and standard deviation, discrete variables were described as count and percent of study population. Kaplan-Meier product-limit methodology was used for patient and allograft survival estimates. The association of donor, transplant and recipient characteristics with patient survival and allograft survival was assessed by multivariable Cox proportional hazards regression models. Statistical analysis was performed using STATA/SE v9.2 (College Station, Texas). p values of ≤ 0.05 were considered statistically significant.

Results: We identified 1,274 NASH patients who underwent orthotopic liver transplantation during this eight year period. Demographics revealed an equal number of males and females, average age 57.2±8.6 years. One and three year graft survival in these patients was higher than the general liver transplant population at 92% and 89%. Regression analysis to define independent risk factors for death, revealed male donor gender (HR = 2.77, 95% CI = 1.15 - 6.70, p = 0.02) and recipient age (HR = 1.10, 95% CI = 1.02 - 1.15, $p < 0.001$) were associated with a higher risk of death. Alternatively, higher recipient albumin was associated with a lower risk of death (HR = 0.33, 95% CI = 0.17 - 0.65, $p < 0.001$). Recipient albumin was the only significant variable in the final model and was associated with a lower risk of allograft failure (HR = 0.25, 95% CI = 0.11 - 0.61, $p < 0.001$).

Conclusion: Recipient pre-operative serum albumin is the only significant predictor of increased morbidity and mortality in NASH-only patients undergoing liver transplantation. Nutritional maximization in this group of patients pre-operatively may significantly improve outcomes after transplantation.

Table I: Demographics of study population

	N = 1,274
Recipient Age (years)	57.2 ± 8.6
Male	646 (51%)
Female	628 (49%)
Recipient Body Mass Index	31 ± 23
Non-diabetic	635 (50%)
DM Type I	72 (5%)
DM Type II	284 (22%)
Other DM	4 (1%)
Type Unknown	255 (20%)
Status Unknown	24 (2%)
Total Bilirubin (mg/dL)	6.3 ± 8.4
Serum Creatinine (mg/dL)	1.8 ± 1.4
INR	1.8 ± 0.9
Albumin (g/dL)	2.9 ± 0.6
MELD Score	26 ± 6
Total Warm Ischemic Time (Minutes)	40.0 ± 18.5
Total Cold Ischemic Time (Minutes)	7.9 ± 4.3
Days on Liver Waiting List	214 ± 339
Allograft Survival	
3 Months	95%
6 Months	94%
1 Year	92%
3 Years	89%
5 Years	86%
Patient Survival	
3 Months	94%
6 Months	90%
1 Year	87%
3 Years	80%
5 Years	72%

ORAL PRESENTATION #10

DISPARITY IN LIMB-SALVAGE SURGERY AMONG SARCOMA PATIENTS

S Downing, N Ahuja, TA Oyetunji, D Chang, TM Fullum, EE Cornwell, WAI Frederick. Howard University College of Medicine and Johns Hopkins School of Medicine

Background: Sarcomas are a diverse group of rare cancers with few population-based studies of them. Recent studies have shown that aggressive pre-operative radiation increases the likelihood of limb salvage in these patients.

Objective: To investigate the treatment and survival of patients with sarcomas including the use of limb salvage amongst different ethnic groups.

Methods: The Surveillance, Epidemiology and End Results (SEER) database (1973-2003) was queried for cases of adult sarcoma in the United States. A logistic regression was performed with an outcome variable of cancer-directed treatment modalities, adjusting for demographics and tumor characteristics. Subset analysis was then performed on patients who had information on limb sparing procedures (SEER 1998-2003). Excluded from subset analysis were osteogenic limb sarcomas due to the necessity of amputation for treatment of these cancers.

Results: In total, 15984 cases of sarcoma were identified. Median age at diagnosis was 50 years. Most cases were limb sarcomas (88.5%), with 9.9% retroperitoneal sarcomas and 1.6% breast sarcomas. The most common histological diagnoses were malignant fibrous histiocytomas (17.8%) and liposarcomas (16.0%). Most were defined as localized (56.5%), with only 16.7% of patients presenting with distant disease. Whereas 84.4% of the patients received surgical treatment and 37.6% received radiation treatment, only 2.3% received pre-operative radiation. On logistic regression no differences were seen in receipt of surgical intervention by ethnicity, gender or radiation status. Significantly associated with improved survival were surgical resection (HR=0.55, 95%CI=0.51-0.60, P<0.001) and female gender (HR=0.80, 95%CI=0.77-0.85, P<0.001), while decreased survival was associated with African-American ethnicity (HR=1.09, 95%CI=1.00-1.20, P=0.049).

Of those patients with specific surgical procedures recorded (n=2104), 86.0% had a limb sparing procedure. On bivariate analysis, African-American patients were less likely to receive a limb sparing procedure than white patients (80.4% vs. 86.9%, P=0.02). On multivariate analysis, African Americans were significantly more likely to receive pre-operative radiation (OR=2.31, 95%CI=1.22-4.40, P=0.011), yet this did not translate into an increase in limb salvage (OR=0.67, 95%CI=0.42-1.08, P=0.10). Limb salvage significantly increased for all groups in 2001 and after (OR=2.75, 95%CI=1.55-4.88, P=0.001) without a decrease in survival. When stratified by tumor size, there was no difference in limb salvage between ethnic, age, histologic, or gender groups for those tumors 4cm or larger. However, for those with tumors less than 4cm, there was a trend away from limb salvage for African-Americans (OR=0.59, 95%CI=0.32-1.07, P=0.08).

Conclusion: Our analysis demonstrates the survival benefit associated with surgical resection and female gender. The increase in limb salvage surgeries after 2001 without a decrease in survival supports previous studies. The trend away from limb salvage for African-Americans cannot be answered by this study, Further research is needed to better understand the amputation disparity in this population, which may be contributing to their decreased survival.

NOTES

ORAL PRESENTATION #11

EVALUATION OF A NEW CIRCUIT CONFIGURATION FOR HIGH FREQUENCY PERCUSSIVE VENTILATION VIA THE VDR-4®

SW Jones, WJ Hanson, KA Short, AG Charles, BA Cairns. The North Carolina Jaycee Burn Center, University of North Carolina-Chapel Hill

Background: High frequency percussive ventilation (HFPV) via the VDR-4® has been the preferred ventilator mode in the management of inhalation injuries for nearly 20 years (Cioffi, J Trauma, 1989). One limitation of the standard VDR-4® circuit has been the connection of the sliding venturi manifold directly to the patient's endotracheal tube (ETT) resulting in potentially hazardous torque. In this study, we evaluate the mechanics of a new circuit for the VDR-4® that relocates the venturi manifold away from the ETT into the ventilator proper.

Methods: Two configurations (New vs Old) of the VDR-4® ventilator were connected to the Ingmar Demonstration Test Lung set with an inspiratory time of 2 seconds, respiratory rate of 12 bpm, high frequency percussive rate of 600 Hz, and oscillatory PEEP of 5 cm H2O (PEEPs). Experimental peak inspiratory pressures (PIPs) varied from 20 to 40 cm H2O, compliance varied from 20 to 40 ml/cm H2O and resistance varied from 10 to 50 cm H2O/Liter.

Results: Measured PIP (PIPm) was not significantly different for the New vs. Old circuit at all conditions. Surprisingly, measured PEEP (PEEPm) was significantly more accurate in the New vs. Old circuit at low compliance of 20 cm H20 ($p<0.05$, see TABLE).

TABLE
(Resistance fixed at 10 cm H_2O/L/min)

Vent Type	Compliance	PIPs	**PIPm**	PEEPs	**PEEPm**
New	20	20	**21.3**	5	**6.4***
Old	20	20	**22.2**	5	**8.1**
New	40	40	**41.2**	5	**8.8**
Old	40	40	**41.6**	5	**9.7**

Mean values shown; *$p<0.05$, Student's t-text

Conclusions: Relocation of the VDR-4® venturi manifold into the ventilator proper results in potentially more accurate levels of PEEP and PIP while decreasing dangerous torque on the airway. This new VDR-4® configuration may have an important impact on patient safety as well as the use of HFPV in the management of inhalation injury

NOTES

ORAL PRESENTATION #12

POOR OUTCOMES IN OBESE TRAUMA PATIENTS MAY BE EXPLAINED BY THE EFFECT OF GHRELIN ON MICROVASCULAR PERMEABILITY

V Stams, RO Kwan, E Cureton, K Dozier, B Curran, J Sadjadi, A Harken, GP Victorino. University of California, San Francisco-East Bay, and Alameda County Medical Center

Background: Obesity continues as a growing trend in the United States, with over 32% of the adult population with a BMI ≥30. Moreover, unintentional injury remains the fifth leading cause of death among adults. Obese trauma patients continue to be clinically challenging as they are more than five times more likely to die from their injury than their non-obese counterparts. In fact, obesity is an independent risk factor for increased morbidity and mortality after trauma. Ghrelin is a recently discovered hormone that was first described for its growth hormone releasing activity in the pituitary gland as well as its role in appetite stimulation. Though it stimulates appetite, obese patients have low circulating levels of Ghrelin. Recent studies suggest that ghrelin may have anti-inflammatory and protective effects on endothelial cells. However, the direct effect of ghrelin on endothelial microvascular permeability remains to be elucidated.

Hypothesis: Our hypothesis was that ghrelin modifies microvascular permeability. The purposes of this study were: 1) to determine the effect of lipopolysaccharide (LPS) on microvascular permeability, 2) to determine the effect of ghrelin on microvascular permeability, and 3) to determine the effect of ghrelin on microvascular permeability during LPS-induced inflammation.

Methods: An in vivo micro-cannulation technique was used to measure hydraulic permeability in rat mesenteric post-capillary venules. Hydraulic permeability (Lp), is a measure of trans-endothelial fluid leak or microvascular permeability. Lp was measured during administration of 1) systemic LPS (10 mg/kg), 2) ghrelin alone (3 μM), and 3) ghrelin plus systemic LPS (10 mg/kg). (n=5 in all groups). All values for Lp are reported as mean ± SEM x 10-7 cm * s-1 * cm H20-1

Results: LPS increased microvascular permeability approximately 2-fold ($p<0.001$). Ghrelin alone had no effect on basal microvascular permeability ($p>0.7$). However, ghrelin administration during LPS-induced inflammation decreased microvascular permeability approximately 30% compared to LPS alone (Lp: ghrelin + LPS = 1.60 ± 0.16 vs. LPS = 2.27 ± 0.14, $p<0.006$).

Conclusions: Although ghrelin has no effect on microvascular permeability in the basal state, it decreases microvascular permeability during LPS-induced inflammation. Ghrelin is a key mediator of inflammation and may contribute to the increased morbidity and mortality in obese trauma patients that are known to have low circulating levels of ghrelin.

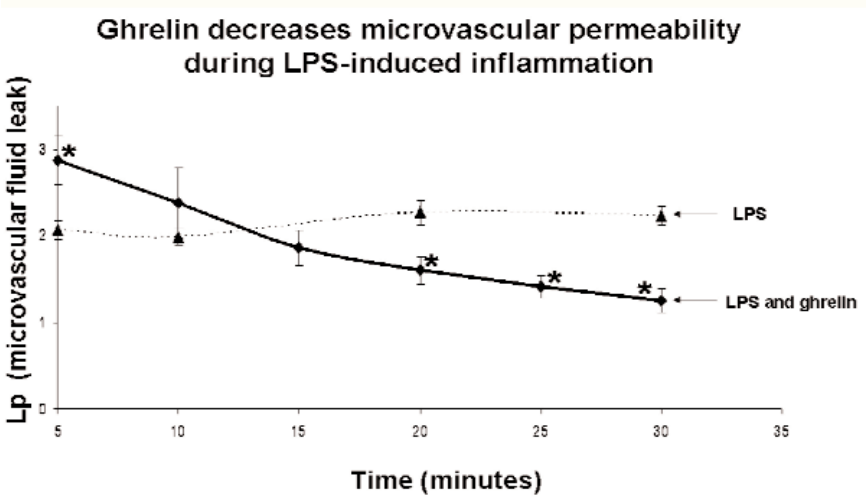


Figure 1: Ghrelin decreases microvascular permeability during LPS-induced inflammation. Continuous perfusion of ghrelin during LPS-induced inflammation had a bimodal effect on microvascular permeability. By 20 minutes, a marked decrease in microvascular leak was observed with continuous perfusion of ghrelin during LPS-induced inflammation (Lp ghrelin and LPS = 1.60± 0.16 vs. LPS= 2.27± 0.14, $p<0.006$), and continued to decrease microvascular leak to 30 minutes (Lp ghrelin and LPS = 1.25±0.14 vs. LPS= 2.23±0.11, $p<0.0001$). This data suggests that ghrelin reduces microvascular fluid leak during LPS-induced inflammation. Error bars denote ± SEM; Lp units are x 10-7 cm/sec/cmH20. * denotes statistically significant difference in microvascular leak of ghrelin and LPS compared to LPS alone.

ORAL PRESENTATION #13

SINGLE CONTRAST CT FOR THE TRIAGE OF PATIENTS WITH PENETRATING TORSO TRAUMA

BJA Palmer, EL Cureton, RO Kwan, KC Dozier, J Sadjadi, AH Harken, GP Victorino. University of California, San Francisco-East Bay, and Alameda County Medical Center

Background: Improvements in diagnostic technology have resulted in the widely practiced selective management of hemodynamically stable patients with penetrating torso trauma. Although triple contrast helical computed tomography is commonly used as an adjunct to the evaluation of these patients, the efficacy of single contrast (intravenous contrast only) computed tomography (SCCT) has only recently been investigated in penetrating injuries despite its usefulness in the evaluation of blunt abdominal trauma. We used SCCT when triaging hemodynamically stable patients with penetrating torso trauma. In addition to expediting treatment, SCCT may minimize costs and limit the risks of oral and rectal contrast. Our objective was to evaluate the utility of SCCT in determining the need for operative exploration.

Objective: We hypothesized that SCCT safely determines the need for operative exploration. Furthermore, trauma surgeons without specialized training in body imaging can accurately apply this modality.

Methods: The records of patients with penetrating torso injuries at our university-based urban trauma center were retrospectively reviewed to establish the accuracy of SCCT in determining the need for exploratory laparotomy. The SCCT was considered positive or negative with respect to the need for exploratory laparotomy as documented by the attending surgeon, who may have considered the read of the on call radiologist if available. In a separate study, four trauma surgeons independently reviewed 42 SCCT scans to establish whether the scans alone could be used to determine if operative exploration was necessary.

Results: There were 306 hemodynamically stable patients with penetrating torso trauma who were triaged by SCCT. Overall, SCCT predicted the need for laparotomy with 98% sensitivity and 90% specificity. The positive predictive value (PPV) was 84% and the negative predictive value (NPV) was 99%. In the gunshot wound patients (n=222), SCCT had 100% sensitivity and 100% NPV. In the stab wounds patients (n=84), SCCT had 92% sensitivity and 97% NPV. Trauma surgeon agreement in the retrospective review of 42 CT scans was "nearly perfect:" PPV was 93% and NPV was 92% for determining the need for exploratory laparotomy.

Conclusions: SCCT is safe and effective for triaging hemodynamically stable patients with penetrating torso trauma. It successfully determined the need for operative intervention with appropriate clinical accuracy without the additional costs, morbidity, or delay associated with oral and rectal contrast. Trauma surgeons can reproducibly interpret SCCT with high predictive accuracy as to whether patients with penetrating torso trauma require operative exploration.

NOTES

ORAL PRESENTATION #14

URETERAL TRAUMA: PATTERNS AND MECHANISMS OF AN UNCOMMON INJURY

SM Siram, SZ Gerald, WR Greene, K Hughes, TA Oyetunji, K Chrouser, EE Cornwell, DC Chang. Howard University College of Medicine

Introduction: Ureteral injuries are uncommon and are usually iatrogenic. Traumatic ureteral injuries occur even less frequently, and thus large series are lacking.

Objective: The purpose of this study was to characterize ureteral injuries secondary to trauma in a large database.

Methods: Retrospective analysis of the National Trauma Database (NTDB, 1.8 million patient records) was performed for years 2002 - 2006. Incidence of ureteral injuries during this time interval, associated injuries, procedures performed, and outcomes in these patients were recorded.

Results: Of the 22,706 urologic trauma injuries recorded in the database, a total of 587 ureteral injuries were identified in 587 patients. These patients were predominantly male (84%), with 38% white, 37% black and 18% Hispanic. The mean age was 31. There were 224 (38.5%) blunt and 356 (61.5%) penetrating injuries. The overall median Injury Severity Score (ISS) for patients presenting with ureteral trauma was 16.5, with median ISS of 21.5 among blunt ureteral trauma and 16.0 for penetrating trauma patients ($p<0.001$). Among ureteral traumatic injuries, 16.6% presented with shock (17.2% blunt and 16.4% penetrating) (table 1). Penetrating ureteral trauma patients had a higher incidence of associated bowel injuries (small bowel 46.4% vs. 3.1%, large bowel 44.4% vs. 6.7%, $p<0.000$), followed by vascular injuries (37.7% vs. 13.4%, $p<0.000$) compared to blunt ureteral trauma patients. In contrast, blunt ureteral trauma patients were more likely to have pelvic injuries than penetrating ureteral trauma (19.64% vs. 1.1%, $p=0.001$). Among penetrating ureteral trauma, there were more venous injuries than arterial injuries (27.09% vs. 16.48%), while among blunt ureteral trauma; there were more arterial injuries than venous injuries (9.38 vs. 4.91%).

Associated Injuries n=582	Blunt n=224	%	Penetrating n=358	%	P value
Vascular	30	13.39%	135	37.71%	<0.001
-Artery	21	9.38%	59	16.48%	0.015
-Vein	11	4.91%	97	27.09%	<0.001
Small Intestines	7	3.13%	166	46.37%	<0.001
Colon and Appendix	15	6.70%	159	44.41%	<0.001
Rectum	2	0.89%	25	6.98%	0.001
Pancreas	5	2.23%	26	7.26%	0.009
Pelvic Fracture	44	19.64%	4	1.12%	0.001
Vertebral Fracture	7	3.13%	1	0.28%	0.001

The mean length of stay was significantly lower for penetrating ureteral trauma than for blunt trauma (17.24 days vs. 13.52 days, $p=0.037$). Mortality rates were not significantly different between the two groups (8.93% vs. 5.90%, blunt and penetrating, respectively, $p=0.166$).

Conclusion: Ureteral trauma is extremely rare and is seen in approximately 4 per 10,000 trauma admissions. Unlike typically seen with most traumas, ureteral injury occurs more commonly in penetrating than in blunt trauma (a ratio of approximately 2:1). Nevertheless, patients presenting with blunt ureteral injury tend to be more severely injured. The most common associated injury for blunt ureteral trauma is lumbosacral vertebral injury, while penetrating ureteral trauma patients are more likely to have small bowel and vascular injuries. Arterial injuries are more common in blunt trauma whereas venous injuries are more common in penetrating trauma. Ureteral trauma, regardless of mechanism, has a uniformly high mortality rate.

ORAL PRESENTATION #15

APOLIPOPROTEIN E REGULATES SEPTIC MORTALITY IN MICE

K Chuang, O Kattan, B Leung, N Presser, H Harris. University of California, San Francisco

Background: Apolipoprotein E (apoE), a component of plasma lipoproteins, plays an important, but poorly defined role in sepsis. Our lab has shown that injecting apoE increases septic mortality in a rat model of sepsis. We questioned whether the observed hyperactive inflammatory response induced by supra-physiologic concentrations of apoE represents an epiphenomenon. Alternatively, it may represent the concentration-dependent, apoE-mediated activation of host immunity. Thus, we sought to determine the effect of normal versus sub-physiologic concentrations of apoE on septic mortality and systemic cytokine levels.

Methods: Conditional apoE knock down mice (hypomorphic apoE), which express 2-5% of wild-type levels of apoE yet remain normolipidemic, were subjected to cecal ligation and puncture (CLP). Serum cytokines were measured at 24 h and survival monitored for 28 days after CLP.

Results: Hypomorphic apoE mice consistently had a lower CLP-induced mortality rate than their induced, wild-type counterparts (Fig. 1). The serum concentration of apoE in septic mice also corresponded to higher levels of T_H1 cytokines, as detected by multiplex analysis (IFN-γ, IL-1β, TNF-α; $p<0.05$ for CLP hypomorphic versus wild-type).

Conclusions: These findings indicate that the serum concentration of apoE directly correlates with the magnitude of the T_H1 cytokine response and mortality rate following CLP in mice. Further, these data provide support for apoE as a genuine regulator of the host response to infection.

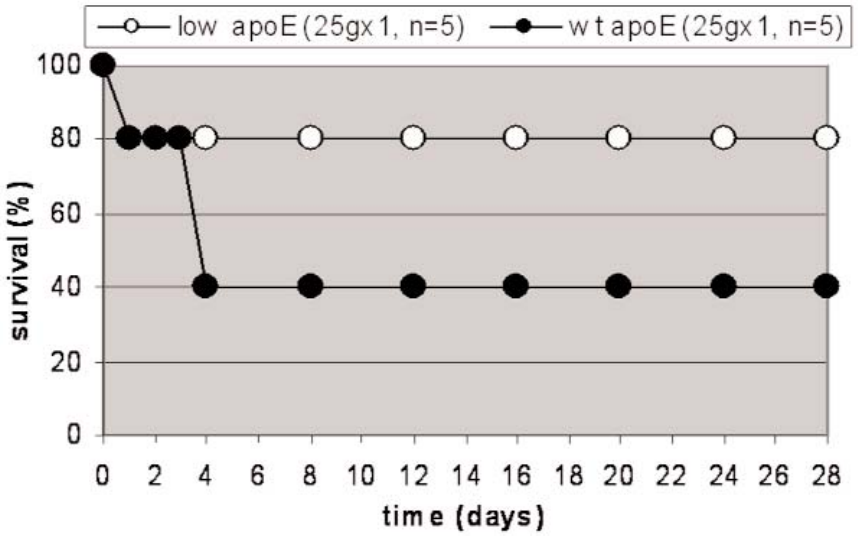


Figure 1. Decreased plasma apolipoprotein E protects against CLP-induced mortality in mice. Induced (wt apoE) and non-induced (low apoE) hypomorphic apoE mice were made septic via CLP and their survival monitored for 28 days. 25g x 1: 25 gauge needle, one cecal perforation

NOTES

ORAL PRESENTATION #16

ASSESSING THE PROTECTIVE EFFECT OF HYPOTHERMIA IN SPINAL CORD ISCHEMIA REPERFUSION

JRS Crawford, H Albadawi, A Robaldo, CJ Abularrage, A Schufreider, B Hendrickson, RP Cambria, MT Watkins. Massachusetts General Hospital

Objective: Hypothermia confers protection against spinal cord ischemia through incompletely defined mechanisms. This study sought to evaluate metabolic, inflammatory components of spinal cord ischemia reperfusion injury, and the expression of Heme Oxygenase-1(HO-1) in spinal cord tissue (SC) under hypothermic and normothermic conditions.

Methods: C57BL6 mice were subjected to 8 minutes thoracic aortic ischemia (ISC) under total body normothermic (NT, 38.0±0.5 ºC) or hypothermic (HT, 34.0±0.5 ºC) conditions. Mice were sacrificed immediately at the end of clamping (ISC), or after 2, 6 and 24hrs reperfusion (TAR). Sham mice served as controls. Neurologic function was graded using rodent paralysis score (PS; 0=no injury to 6=complete paralysis). SC levels of ATP, pro-inflammatory chemokine (KC), myeloperoxidase (MPO) and HO-1 were assayed.

Results (Table 1): Upon awakening, both HT and NT mice had severe neurologic deficit. By 2hrs, HT mice completely recovered neurologic function while the NT group maintained a dense neurologic deficit. Sham mice showed no neurologic abnormality. SC ATP levels decreased significantly in the NT group as compared to HT at ISC (*p=0.002), however by 2hrs ATP levels in both groups were equivalent to sham. In NT mice, SC KC was greater than HT mice at 2, 6 and 24hrs TAR (**p<0.01). In NT mice, SC MPO levels were only greater than HT and sham mice by 24hrs. HT SC had higher levels of HO-1 compared to NT mice at 2 and 6hrs TAR (+p<0.05).

	Sham		TAR							
			0 Hour		2 Hour		6 Hour		24 Hour	
	HT	NT	HT	NT	HT	NT	HT	NT	HT	NT
PS	0	0	-	-	0	6	0	6	0	6
ATP nmole/ mg	0.20± 0.01	0.17± 0.03	0.17± 0.01*	0.06± 0.01	0.23± 0.02	0.24± 0.04	-	-	-	-
KC pg/mg	2.3± 0.5	1.1± 0.2	-	-	2.3± 0.1	4.7± 0.7**	9± 2	29± 5**	1.2± 0.5	89± 11**
MPO ng/mg	2.7± 0.2	3± 0.2	-	-	2.4± 0.3	3± 0.4	2.4± 0.2	2.6± 0.2	2.3± 0.2	5± 1**
HO-1: Tubulin AU	0.2± 0.03	0.3± 0.04	-	-	0.3± 0.05+	0.3± 0.05+	0.4± 0.08+	0.25± 0.03	0.4± 0.08	0.4± 0.01
*p=0.002; **p<0.01; +p<0.05										

Conclusions: Hypothermia preserved energy levels in the SC during ischemia, reduced inflammatory cytokines and enhanced early expression of cytoprotective molecule HO-1 during reperfusion. Preservation of neurologic function by hypothermia preceded activation of inflammatory pathways (increase in KC and MPO in SC). Further delineation of mechanisms of hypothermia induced cytoprotection will guide therapeutic strategies aimed at reducing complications following complex repair of the thoracoabdominal aorta.

NOTES

ORAL PRESENTATION #17

INSURANCE STATUS IS A POTENT PREDICTOR OF OUTCOMES IN BOTH BLUNT AND PENETRATING TRAUMA

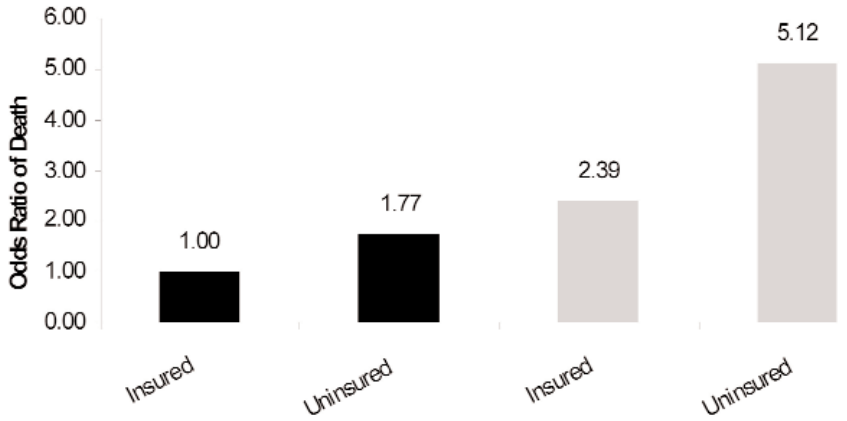
WR Greene, TA Oyetunji, AH Haider, V Ahuja, EE Cornwell, SM Siram, DC Chang. Howard University College of Medicine and Johns Hopkins School of Medicine

Background: Prior reports have identified outcomes disparities amongst critically injured patients when analyzed by race and health insurance status. These reports have also identified that penetrating trauma, a more lethal injury subset, are disproportionately experienced by minorities, males, and the uninsured. This raises the question as to the contribution of type of injury (penetrating/ blunt) vs. insurance status to the aforementioned disparity.

Hypothesis: We hypothesize that within each injury type there should be no outcome difference between insured and uninsured patients.

Methods: This study utilized the NTDB 7 database. Patients age ≥65 years and burn patients were excluded, as were patients with unknown insurance status and mechanism of injury. The insurance status was categorized as insured (private, government/military, or Medicaid) or uninsured. Multivariate analysis adjusted for insurance status, type of injury, age, race, sex, ISS, shock, head injury, extremity injury, teaching hospital status, and year.

Results: A total of 920,269 patients were analyzed [578,274 (62.8%) insured blunt, 215,866 (23.5%) uninsured blunt, 62,980 (6.8%) insured penetrating, and 63,149 (6.9%) uninsured penetrating], with an overall mortality rate of 3.5%. The death rate was significantly higher in penetrating trauma patients (7.6% vs. 2.8%, $p<0.001$), and higher in the uninsured (5.3% vs. 2.7%, $p<0.001$). On multivariate analysis, uninsured patients had a greater risk of death than insured patients regardless of type of injury (Figure). The impact of insurance status persists even when analyzing young patients (ages 18-30) who presumably have few co-morbidities.



Conclusions: Insurance status exerts a strong impact on mortality in both penetrating and blunt trauma patients, even among young adults. The evidence continues to mount in support of the proposition that a productive first step in eliminating health outcome disparities would be to address health coverage disparities.

NOTES

ORAL PRESENTATION #18

ENDOGENOUS LIGANDS CONTRIBUTE TO NATURAL KILLER T CELL ACTIVATION

RK Chuang, E Elford, H Harris. University of California, San Francisco

Background: Our lab has shown that septic mice given supraphysiologic doses of apolipoprotein E (apoE) demonstrated increased mortality, with concomitant hepatic natural killer T cell (NKT) proliferation and activation. A possible mechanism for this apoE-potentiated mortality is that apoE can bind and traffic antigens, presumed to be lipopolysaccharide (LPS) in our specific model, and promote activation of dendritic cells (DC) with subsequent NKT activation and cytokine release. Thus, we sought to prove that LPS was the antigen responsible for the increased NKT activation enhanced by the presence of apoE.

Methods: We isolated murine marrow-derived DC's, pulsed them with lipid antigen (LPS, and positve controls alpha-galactosylceramide (α-GalCer) and isogloboside 3 (iGb3)) with or without apoE, and then co-incubated the DC's with hybridoma NKT's. NKT activation was measured by interleukin-2 (IL-2) supernatant levels using ELISA.

Results: LPS at multiple concentrations was a weak stimulus for NKT activation regardless of apoE presence. Interestingly, iGb3 in the presence of apoE elicited over a two-fold increase in IL-2 response when compared to iGb3 alone (Figure 1, $p<0.05$).

Conclusions: These results indicate an endogenous ligand, not LPS, is responsible for NKT activation. A molecular remnant similar to iGb3 could act as a damage associated molecular pattern (DAMP) and play a prominent role in animal models of sepsis.

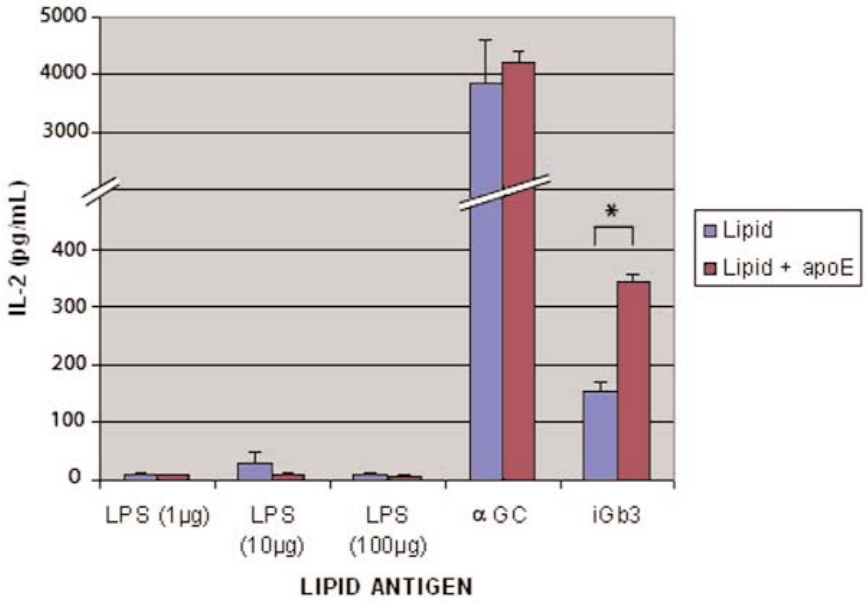


Figure 1. ApoE facilitates NKT cell activation by iGb3 endogenous ligand. Murine marrow derived dendritic cells pulsed with iGb3 and then co-incubated with D32 hybridoma NKT's generated a moderate IL-2 response. The addition of apoE enhanced the IL-2 response 2-fold plus. * indicates $p<0.05$.

NOTES

ORAL PRESENTATION #19

IS DELAYED DVT PROPHYLAXIS IN THE NEUROCRITICALLY ILL PATIENT EFFECTIVE?

LS Jackson, D Drezner, J Freund, M Palter, K Butler. Hartford Hospital, Division of Surgical Critical Care

Background: Deep venous thrombosis (DVT) is a significant cause of morbidity and mortality in critically ill patients. Although prophylaxis with unfractionated or low molecular weight heparin is effective in reducing clot formation, prophylaxis may be associated with untoward bleeding in certain patient populations. The neurocritically ill patient is both at high risk (5-25%) for developing DVT and at risk for increased morbidity or mortality if hemorrhagic complications develop. Therefore, appropriate chemoprophylaxis is often withheld until the risk for hemorrhagic complications is minimized. We hypothesized that delayed DVT chemoprophylaxis in the neurocritically ill patients would result in an increased incidence of DVT.

Methods: A retrospective review of consecutive admissions to the neurocritical care unit at a large tertiary referral center from September 2008 to November 2008 was performed. Data collected included age, gender, time to initiation of chemoprophylaxis (days following admission), admitting diagnosis, chemoprophylactic agent used, hemorrhagic complications and outcome (pulmonary embolism and mortality). All patients underwent weekly duplex ultrasound examinations (DUE) of the lower extremities as part of the best practice protocol at Hartford Hospital. Select patients also underwent DUE of the upper extremities if clinically indicated. Continuous data are expressed as mean ± SEM and were analyzed using t-test. Categorical data were analyzed using 2 and Fisher's Exact Test; $P<0.05$ was considered significant.

Results: During the study period, 98 surveillance duplex studies were performed on 62 patients in the neurocritical care unit. Sixty-one percent of the patients were male and there were no differences in mean age between the DUE (+) and DUE (-) patients (55.1±2.1 years vs. 51.9 ± 2.5 years, P=0.4). The admitting diagnosis and DUE results are detailed in Table 1.

Table 1

Admitting Diagnosis	DUE (+)	DUE (-)
Trauma	6	17
Stroke	1	3
Intracranial hemorrhage	5	19
Other	3	8

Chemoprophylaxis was initiated with unfractionated heparin in 56% of patients, low-molecular weight heparin in 18% of patients, both in 21% of patients and none in 5% of patients. There were 69 (70%) negative and 29 (30%) positive DUE 's. There was no significant difference in the mean time to chemoprophylaxis between the DUE (+) and DUE (-) patients (2.8 ±0.4 days vs. 3.1±0.3 days, P=0.5). Interestingly, mortality was slightly higher in the DUE (-) group compared to the DUE (+) group, (13% vs. 10%, P=0.7), however this difference was not statistically significant. There was one (1.6%) pulmonary embolism in the DUE (-) group but overall, no hemorrhagic complications related to the use of chemoprophylaxis.

Conclusions: Delayed chemoprophylaxis against DVT was not associated with hemorrhagic complications in the neurocritically ill patient. Withholding chemoprophylaxis for three days however, was associated with a high incidence of DVT but no significant increase in mortality. Additional studies are needed to determine if earlier chemoprophylaxis in this high risk population can further reduce DVT formation without increasing hemorrhagic complications.

NOTES

ORAL PRESENTATION #20

ACADEMIC SURGERY REMAINS INORDINATELY DEFICIENT OF UNDERREPRESENTED MINORITIES

PD Butler, MT Longaker, LD Britt. University of Virginia School of Medicine, Stanford University School of Medicine, and Eastern Virginia Medical School

Background: Eliminating healthcare disparities in the US will require a multifaceted approach that will include increasing diversity in the healthcare workforce. Historically, the field of medicine, and particularly surgery, has had an incumbent that grossly misrepresents the patient population. Delineating the exact demographics of the US surgical residents and faculty could provide outstanding information, yielding insight into a possible deficit that, if rectified by the medical education system, could change the face of surgery and the entire health care system.

Methods: Demographic information regarding medical students, surgical residents, and surgical faculty was retrieved and analyzed from the Association of American Medical Colleges (AAMC) data files dating back to 1966.

Results: Caucasians comprise 64.4% of US surgical residents, while Asian-, African-, and Latino-Americans comprise 17.2%, 4.7%, and 5.1%, respectively. Caucasians comprise 74.1%, of academic surgeons, while Asian-, African-, and Latino-Americans comprise 10.8%, 2.9%, and 3.6%, respectively. In 2004, African- and Latino-Americans comprised 5.4% and 4.8% of all US surgeons, but only 2.9% and 3.6% of the academic surgeons, respectively. Caucasians comprise 85.7% of tenured surgical professors, while Asian-, African-, and Latino-Americans comprise 4.9%, 1.8% and 2.7%, respectively.

Conclusions: Academic surgery is exceedingly deficient of minority residents, junior faculty, and professors. Correcting this misrepresentation would facilitate establishing a more culturally and ethnically sensitive healthcare environment for patients who otherwise would not seek care. Additionally, with more minority academic surgeons, there will likely be a commensurate increase in investigative studies highlighting minority specific healthcare needs and provide additional role models and mentors for future minority surgeons.

Notes

ORAL PRESENTATION #21

RISK FACTORS FOR BILE DUCT INJURY DURING CHOLECYSTECTOMY

TM Fullum, S Downing, D Chang, TA Oyetunji, EE Cornwell, PL Turner. Howard University Hospital and University of Maryland Medical Center

Background: Iatrogenic bile duct injury (BDI) is an uncommon but serious complication of laparoscopic (LC) and open cholecystectomy (OC). Previous reviews have identified acute cholecystitis, male gender, older age, aberrant biliary anatomy, and LC as risk factors for BDI. Nevertheless, LC has become the standard of care for symptomatic gallbladder disease due to overall decreased morbidity, shortened hospital stay, and faster return to normal activities. This manuscript reviewed recent US data to identify which patient and hospital factors were associated with BDI during cholecystectomy.

Hypothesis: Laparoscopic cholecystectomy is not a risk factor for bile duct injury.

Methods: A 9-year retrospective analysis of the Nationwide Inpatient Sample (NIS) from 1998 though 2006 was performed. The inclusion criterion was cholecystectomy as the primary procedure code performed on hospital day zero or one. Procedure codes for BDI repair were used as a surrogate for BDI. Using multivariate analysis, we examined patient-and hospital-level factors potentially associated with BDI, including age, race, gender, morbid obesity, presence of acute cholecystitis, performance of intraoperative cholangiography (IOC) insurance status, academic hospital status, and hospital annual volume of cholecystectomies.

Results: We identified 377,424 cholecystectomy patients (312,522 (82.8%) LC and 64,902 (17.2%) OC). There were 1124 BDI (0.30%), with 177 (0.06%) in the LC group and 947 (1.46%) in the OC group ($p<0.001$). The overall mean (median) length of stay (LOS) was 2.9 (2) days (2.4 for LC and 5.3 for OC, $p<0.001$), with a LOS of 8.1 (7) days among patients with BDI.

A total of 120,222 patients underwent IOC. Although the rate of BDI was significantly higher among patients with IOC (556/120,222, or 0.46%) vs patients without IOC (568/257,202, 0.22%) ($p<0.001$), we could not determine whether the IOC was performed prior to the BDI. Mortality was significantly higher in patients with a BDI than without (24/1,122 or 2.14%, vs 1,634/376,218 or 0.43%, $p<0.001$). On multivariate analysis, significant risk factors for BDI were male gender (OR 1.21, 95% CI 1.06-1.38, $p=0.006$), age$\geq$60 (OR 2.23, 95% CI 1.61-3.09, $p<0.001$), and academic hospital status (OR 1.37, 95% CI 1.05-1.79, $p=0.02$). Interestingly, acute cholecystitis was associated with a lower risk of BDI (OR 0.67, 95% CI 0.46-0.99, $p=0.044$). There was no association between BDI and obesity, insurance status, or hospital volume.

Conclusion: BDI significantly increased LOS and mortality. Independent risk factors for BDI included OC, male gender, age$\geq$60, and academic hospital status. The longer-than-expected LOS may be due to the inpatient nature of this database, potentially limiting the extrapolation of these results to the more typical outpatient cholecystectomy. The data were inconclusive regarding the benefit of routine IOC in preventing BDI. Surprisingly, acute cholecystitis appeared to be protective. LC was not associated with an increased risk of BDI.

NOTES

ORAL PRESENTATION #22

RACIAL ETHNIC DISPARITIES IN LIMB SALVAGE AN ANALYSIS OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM DATABASE

K Hughes, P Turner, D Rose, T Oyetunji, N Bhayani, S Siram, W Greene, E Cornwell III, D Chang. Howard University College of Medicine and University of Maryland School of Medicine

Background: Previous reports have suggested that Black patients have a higher rate of major lower extremity amputation and a lower rate of peripheral revascularization for limb salvage when compared to White patients

Objective: We undertook this study to determine the extent of this racial disparity in recent years and to evaluate how the widespread adoption of endovascular techniques may modulate this disparity..

Methods: The National Surgical Quality Improvement Program (NSQIP) Database was queried to identify all patients who had undergone an above- or below-knee amputation as well as all patients who had undergone an open or endovascular revascularization procedure for critical limb ischemia for the years 2005 – 2006. Patient demographics, and 30-day outcomes were recorded and comparisons were made amongst the different ethnic groups.

Results: 1568 patients were identified in the NSQIP database as having undergone a major limb amputation in 2005 or 2006. Of these patients, 54% were White, 29% Black, 8% Hispanic and 0.7% Asian. Eight percent of patients did not have identifying ethnic data and 0.8% were listed as other. 61% of amputation patients were male and 39% female with a mean age of 65. Median length of stay was 11 days and 30-day mortality was 9% after amputation. During this same time interval, 4191 patients underwent an open surgical procedure and 569 patients an endovascular procedure for the purposes of limb salvage. Of those patients undergoing an open procedure, 74% were White, 12% Black, 4% Hispanic and 0.4% Asian. 10% did not have identifying ethnic data.

63% of open surgical patients were male and 37% female with a mean age of 66. Median length of stay was 6 days and 30-day mortality was 3.3%. Of those patients undergoing an endovascular procedure, 79% were White, 10% Black, 2% Hispanic and 1% Asian. 8% of endovascular patients did not have identifying ethnic data. 61% of endovascular patients were male and 39% female with a mean age of 68. Median length of stay was 5 days and 30-day mortality was 4%. When co-morbidities were compared across ethnicities (see table), Blacks undergoing open or endovascular reconstruction were significantly more likely to have renal co-morbidities and diabetes mellitus as compared to Whites; whereas Whites undergoing open surgery were more likely to have pulmonary co-morbidities. Concerning patients undergoing amputation, there was no statistically significant difference in cardiac co-morbidity amongst ethnic groups. Blacks, however, were more likely to have renal co-morbidities as compared to Whites; while Whites were more likely to have pulmonary co-morbidites as compared to Blacks.

Conclusions: There remains a significant racial disparity in limb salvage. Blacks comprise 29% of patients undergoing a major lower extremity amputation, but only 12% of those undergoing an open surgical procedure and 10% of those undergoing an endovascular procedure for limb salvage. The widespread adoption of endovascular limb salvage techniques does not seem to have had much impact on this disparity. Whereas cardiac co-morbidities are not significantly different between different ethnic groups undergoing amputation, Whites are more likely than Blacks to have pulmonary co-morbidities, while Blacks are more likely than Whites to have renal co-morbidities.

NOTES

ORAL PRESENTATION #23

A PROSPECTIVE STUDY OF PROPHYLACTIC LONG-ACTING OCTREOTIDE IN HIGH RISK PATIENTS UNDERGOING PANCREATICODUODENECTOMY

LB Johnson, J Wong, N Haddad, F Al-Kawas, J Carroll, R Jha, D Maglaris, S Mertens, T Fishbein. Georgetown University Hospital

Background: Postoperative pancreatic fistula (POPF) is the most common complication following pancreaticoduodenectomy.We and others have reported that patients with small pancreatic ducts have a higher risk of POPF. Despite some studies showing little effect of octreotide in unselected patients, we hypothesized that in selected high risk patients depot octreotide may reduce the risk of POPF.

Methods: Between January 2000 and November 2008, 206 patients underwent a Whipple procedure. The last 68 patients were prospectively evaluated for inclusion in the current study. Information on Pancreatic duct size was available for 66 of 68 patients preoperatively. Drain amylase and volume data was available for all patients. Pancreatic duct measurements were available through computed tomography, ERCP, endoscopic ultrasound, and/or direct operative calibration. Two groups were prospectively identified; those patients with ducts less than or equal to 3 mm (High Risk) and those with duct size greater than 3 mm (Low Risk). Thirty-two patients were Low Risk, while 36 patients were High Risk. Two of the High Risk patients were not identified preoperatively and thus underwent surgery off protocol. High Risk patients were treated preoperatively with 20mg intramuscular Depot octreotide 1 hour prior to induction and begun on an intravenous octreotide drip at 25 micrograms/hour for 24 hours. Low risk patients underwent pancreaticoduodenectomy without pharmacologic intervention. POPF was defined as drain fluid amylase greater than 3 times normal on or after day 5 with a 24 hour volume greater than 30 ml. Patient demographic and clinical outcome data was analyzed to correlate with the duct size. Results were compared to the control cohort of patients treated prior to the study commencement. Data was evaluated by chi square, student's T test and Cox proportional hazards ratio.

Results: Overall POPF was 11 of 68 (16.2%), two patients with POPF were high risk who were not identified preoperatively and thus were not placed on preoperative depot octreotide. 9 of 36 high risk patients developed POPF (25.0%)* and 2 of 32 low risk patients developed POPF (6.2%). These results compare similarly to the control cohort of high-risk patients with POPF, 9 of 44 (20.4%) * and to the control cohort of low risk patients, 3 of 62 (4.8%), who underwent pancreaticoduodenectomies before initiation of the protocol (* P = 0.628).

Conclusions: Prophylactic use of Depot Octreotide in high risk patients does not result in reduced incidence of POPF following pancreaticoduodenectomy. Duct size has a significant impact on the occurrence of POPF following pancreaticoduodenectomy.

NOTES

ORAL PRESENTATION #24

LAPAROSCOPIC VS. OPEN WEIGHT LOSS SURGERY: A REVIEW OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (NSQIP) DATABASE

PL Turner, TA Oyetunji, DC Chang, EE Cornwell, TM Fullum. University of Maryland Medical Center and Howard University Hospital

Background: The incidence of morbid obesity and the use of bariatric surgery as a weight loss tool have increased significantly over the last decade. In many procedures, laparoscopic techniques have led to decreased pain, shortened hospital stays, improved cosmesis, and faster return to normal activities. Randomized controlled trials have demonstrated lower wound and respiratory complications after laparoscopy, but limited outcomes data exist from large rigorously collected databases comparing approaches.

Hypothesis: Laparoscopic bariatric procedures will have reduced morbidity and mortality when compared to the open technique, and gastric bypass will have a higher complication rate than adjustable gastric bands, but a lower complication rate than bilio-pancreatic diversion/duodenal switch.

Methods: An analysis of the National Surgical Quality Improvement Program (NSQIP) database from 2005-2006 was performed. The following bariatric procedures were identified: Open Roux en Y (ORY) (CPTs: 43846 & 43847), laparoscopic Roux en Y (LRY) (43644), adjustable gastric band (AGB) (43770), Vertical Banded Gastroplasty (VBG) (43842), restrictive procedures other than VBG (OVBG) (43843), and bilio-pancreatic diversion/duodenal switch (BPD/DS) (43845). Outcomes examined were 30-day mortality and NSQIP-defined morbidities. Multivariate analysis was performed adjusting for age, gender, race, and body mass index (BMI).

Results: A total of 7,127 bariatric procedures were identified, including 1146 ORY (16.1%), 4440 LRY (62.3%), 1177 AGB (16.5%), 186 VBG (2.6%), 124 OVBG (1.7%), and 54 BPD/DS (0.8%). The median (mean) patient age was 45 (44.5), and most (80.4%) were female. The median (mean) BMI was 46.2 (47.7). Median (mean) length of stay was 2 (2.6) days. On multivariate analysis, LRY patients were significantly less likely to die than ORY (OR 0.27, 95% CI 0.09-0.84) after adjusting for preoperative co-morbidities and other demographic factors; other bariatric surgery groups had no significantly different mortality risk. Other significant associations with mortality were BMI (OR 1.06 for every point increase in BMI) and diabetes (OR 4.02, 95% CI 1.21-13.4). There was no association with mortality by age or race. When analyzed against morbidity outcomes, LRY, AGB, VBG had lower risk of morbidity than ORY (OR 0.55, 0.22, 0.29, respectively, all $p<0.01$), while BPD/DS had higher risk of morbidity (OR 2.3, $p=0.017$). BMI and diabetes were positively associated with morbidity, while age, race, and gender were not.

Conclusions: NSQIP is widely regarded as one of the most clinically accurate databases, with its data derived from clinical chart review, rather than from administrative data. These data confirm that laparoscopic Roux en Y gastric bypass and adjustable gastric banding are superior from the standpoint of 30-day mortality and overall morbidity when compared to open gastric bypass. As expected, morbidity was positively correlated with BMI and diabetes, but interestingly, older age was not a risk factor for poorer outcomes, after adjusting for preoperative co-morbidities.

NOTES

Notes

Abstracts

Poster Presentations

POSTER #1

EFFICACY OF PROSTATE CRYOABLATION: AN AFRICAN AMERICAN CASE SERIES

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Background: Prostate cancer is the most commonly diagnosed cancer in U.S.men and the second leading cause of cancer-related mortality. Despite early trends towards reduced mortality, the incidence and death rates continue to be disproportionately higher among African American men compared to other ethnic groups. Minimally invasive treatment strategies are being evaluated for organ-confined disease with the intent of reducing morbidity associated with traditional methods of prostate cancer treatment. One strategy gaining popularity is targeted cryoablation of the prostate (TCAP) in which precise freezing and thawing technology is used to produce total gland ablation

Objective: This study examines the early outcomes of patients treated with TCAP at a single center consisting of a predominantly African-American based population.

Methods: Medical records of 43 men treated with TCAP at Howard University Hospital between 2004 and 2008 by one surgeon were reviewed. All patients had histological proven prostate cancer without evidence of regional or distant metastasis. The patients were stratified into low, intermediate and high risk groups based on clinical stage, Gleason score and prostate specific antigen (PSA) levels consistent with D'Amico risk stratification. Treatment outcomes were assessed with three measures: achievement of a PSA nadir of $\leq$ 1.0 ng/mL, biochemical disease-free status (BDFS) assessed by a PSA threshold of 1ng/mL, and three consecutive rises in PSA (ASTRO criteria). Additionally, patient charts were reviewed to determine treatment specific morbidity.

Results: The mean age for patients treated with primary cryoablation was 66.8 ±10.2 years. Mean pretreatment PSA was 20.2 ng/mL, median Gleason score was 7 (range 5-10) and median clinical stage was T1c.

Patients were followed for 15.34 ± 13.09 months (median 12 months). A nadir PSA value of $\leq$ 1.0 ng/mL was achieved in 77.42% of the population. Using a threshold PSA of 1.0 ng/mL, the mean period for BDFS was 9.9 months. By risk category, the mean period of BDFS was 13.1 months for low risk, 3.9 months for moderate risk and 11 months for high risk. Fifty-two percent (16/31) of patients achieved BDFS (5 – low risk, 4 – moderate risk, 7 – high risk) remained below a PSA of 1.0 ng/mL for the study. Twenty-one of 31 (67.7%) of patients did not three consecutive rises in PSA with the mean follow-up period of 10.5 months. Of the 32 patients potent at the time of therapy, 21 (65.6 %) returned to intercourse with or without assistance. For more than half, urinary symptoms (urgency, dysuria and nocturia) following surgery resolved within 3 months. Only 3 of 38 patients were considered incontinent after treatment using the definition of use of one pad.

Conclusion: Targeted cryoablation of the prostate is a viable, minimally-invasive option for the treatment of prostate cancer in appropriately selected patients and is associated with limited urinary and incontinence related morbidities.

NOTES

POSTER #2

THE SURGEON'S TITLE: IS IT DUE FOR A CHANGE?

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Introduction: Surgeons in the UK are traditionally called 'Mr/Miss' rather than 'Dr'. However, there are now an increasing number of non-medically qualified professionals getting involved in surgical procedures which brings about the potential for patients to be confused as to who is the surgeon and who is not. As these individuals are do not hold the 'Dr' title, they use the 'Mr/Miss' title as well. This study shows the opinions of doctors and other professionals on this matter and if surgeons should continue to be addressed as 'Mr/Miss'.

Methods: Two hundred paper questionnaires were sent to doctors, nurses and medical secretaries in a district general hospital.

Results: 164 recipients replied. Overall, 53% felt surgeons should be addressed by 'Mr/Miss', 41% felt they should be called 'Dr". 91 recipients felt that surgeons should continue to be called 'Mr/Miss'.

Conclusion: Despite the increasing number of non-medically qualified individuals carrying out surgical procedures, the use of 'Mr/Miss' is still the preferred title by surgeons and other health professionals.

NOTES

POSTER #3

THE INFORMED CONSENT: A STUDY OF THE EFFICACY OF INFORMED CONSENTS AND THE ASSOCIATED ROLE OF LANGUAGE BARRIERS

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Background: Obtaining informed consent before performing invasive procedures and operations has become a standard practice at all medical institutions in the United Sates. All agree that patients should be both conscious of and in agreement with their medical care. Though patients routinely sign consent forms with numerous risks and complications detailed, there are only a limited amount of reports that study if these patients have a thorough understanding of those risks and complications. Confounding the issue of the efficacy of informed consents is the growing population of patients who do not speak English. To obtain objective data on the efficacy of informed consents and the role of language barriers we looked at how well patients who consented to have a laparoscopic cholecystectomy understood the complications associated with this procedure.

Methods: We conducted a randomized prospective study of all patients seen in the General Surgery Resident Outpatient Clinic who presented for an elective cholecystectomy. Fifty patients agreed to participate in our study. Participants were split into two groups. In the first group (the control group) surgical benefits, risks and complications were explained in the usual fashion. In the second group, after hearing the standard explanation of surgical risks, complications and benefits, patients watched a PowerPoint presentation with illustrations on laparoscopic cholecystectomy. Patients from both groups then took a ten question assessment based on the presentations that they encountered. Spanish speaking patients were addressed with an interpreter and given a Spanish PowerPoint presentation with a Spanish assessment. The patients' age, education level, income, and birth country were also studied.

Results: Fifty-two percent of the patients in the study were born outside of the United States. All of the non-US born patients were Hispanic and their primary language was Spanish. The average age of the studied patients was 38. Sixty-eight percent of the patients reported an education level no higher than high school. The majority of the studied patients noted an income of less than $40,000. Differences were seen between patient native to the US and those born outside the United States. US born patients had an 80% correct response rate versus non-US born patients who had only a 63% correct response. Differences were seen between US born patient and non-US born patients concerning the topics of the severity of a common bile duct injury, gastrointestinal changes after cholecystectomy and the safety concerning conversion from laparoscopic to open cholecystectomy. No difference was appreciated in the PowerPoint group versus the non-PowerPoint group.

Conclusions: The addition of a PowerPoint presentation did not increase understanding of the risks and benefits associated with a laparoscopic cholecystectomy. This study did however highlight the problem of obtaining consent from foreign born patients. Patients who were not US natives showed a decreased understanding of the surgical procedure and the severity of the complications in both the control group and the PowerPoint group. Better methods of educating foreign patients should be investigated to truly obtain informed consents from this patient population.

NOTES

POSTER #4

THE AT RISK GASTRIC REMNANT FOLLOWING ROUX-EN-Y GASTRIC BYPASS

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Background: The number of Americans undergoing weight-loss surgery annually has more than quadrupled between 1998 and 2002 with 250,000 operations performed in 2006. Roux en Y gastric bypass (RYGB), the most commonly performed procedure, results in the creation of a gastric remnant, which is inaccessible by conventional esophagogastroduodenoscopy (EGD). Ulcers, bleeding and malignancy in the gastric remnant have all been reported. The identification of a pre-operative endoscopic abnormalities in a patient undergoing RYGB theoretically creates an “at risk” gastric remnant. In order to establish guidelines for the management of this “at risk” gastric remnant, the incidence of pre-operative endoscopic abnormalities must be established.

Objective: To determine the incidence of pre-operative endoscopic abnormalities in patients undergoing RYGB.

Methods: We reviewed prospectively collected data on 764 patients who underwent laparoscopic RYGB from 8/2001 to 12/2005 by a single surgeon. All patients who underwent pre-operative EGD were reviewed for abnormalities.

Results: Of the 764 patients reviewed, 636 patients had a preoperative EGD. The morbidity and mortality associated with the EGD procedures was zero. Thirty-four patients (5.3%) were determined to have “at risk” gastric remnants. EGD identified gastric polyps in 15 patients, gastric ulcers in 15 patients, duodenal ulcers in 3 patients, and duodenal polyps in 1 patient. The incidence of gastric or duodenal cancer from EGD polypectomy or gastric ulcer biopsy was zero.

Conclusions: A small but significant proportion (5.3%) of patients undergoing RYGB had abnormalities on pre-operative EGD. This observation needs to be considered in creating guidelines for pre-operative screening EGD.

NOTES

POSTER #5

TRANSITION TO SINGLE-INCISION LAPAROSCOPY: THE UNIVERSITY OF WASHINGTON EXPERIENCE

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University of Washington

Background: Single-incision laparoscopy is a developing method of performing standard operations using a single small incision. Single-incision laparoscopy has several proposed advantages over standard laparoscopy, including decreased postoperative pain, improved cosmesis, and earlier return to function. The technique brings new challenges to laparoscopy with differences in triangulation, retraction, instrumentation, in-line vision, and altered perception. The learning curve for single-incision skills acquisition is unknown and there are no current standard recommendations for training in single-incision laparoscopy or for adoption of this new technique into clinical practice. We present our early experience in this evolving new field.

Methods: Two fellowship-trained minimally invasive surgeons performed all procedures. Pre-clinical training included extensive dry-lab training in the simulation laboratory and multiple animal laboratories, including both cholecystectomy and appendectomy (fallopian tube excision) models. One surgeon attended an industry-sponsored course on single-incision cholecystectomy and laparoscopic adjustable gastric band (LAGB). Our approach to clinical adoption began with using single-incision techniques for gallbladder retraction during standard laparoscopic cholecystectomy. This was followed by two-incision cholecystectomy and eventually the true single-incision technique. We then introduced single-incision appendectomy and LAGB. Complications and changes in operative technique were analyzed.

Results: We performed two standard laparoscopic cholecystectomies using single-incision techniques for gallbladder retraction, followed by three two-incision procedures. We have subsequently performed eight single-incision cholecystectomies. Our technique has been stable over

this limited case series, and involves two 5 mm low-profile ports placed in a single incision hidden within the umbilicus. Stay sutures are used for gallbladder retraction and an articulated dissector is used to isolate the cystic duct and artery. We use a critical view technique and perform routine intra-operative cholangiography. We converted to open in one patient due to severe inflammation. In this patient a common duct injury followed conversion and was unrelated to the single-incision technique. We have performed ten single-incision appendectomies. The first two cases were performed using three trocars within the umbilical incision. Subsequently we have eliminated one trocar, using an endoloop for retraction. Two cases required additional port placed at another site: in one case due to inflammation and adhesions, and in the other for exploration due to negative appendiceal findings. There were no complications in this group. We have performed two single-incision LAGBs. The second patient had a gastric perforation recognized post-operatively with significant resulting morbidity. It is unclear whether this complication was due to the single-incision technique; however we have suspended performing single-incision LAGB.

Conclusions: No standard curricula exist for training or certifying surgeons in single-incision procedures. We recommend pre-clinical practice in a simulation center and/or animal laboratory, as well as participation in a formal training course. We also recommend careful clinical adoption, beginning with relatively simple cases and progressing to more challenging patients and procedures. One should have a low threshold for conversion to standard laparoscopy or open surgery. Critical and frequent examination of outcomes is essential.

NOTES

POSTER #6

THE VALUE OF A REGIONAL CONSORTIUM TO ADDRESS AND ASSESS OBSTACLES FOR IMPLEMENTING TECHNICAL SKILLS TRAINING OF SURGERY RESIDENTS

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Introduction: The Residency Review Committee in Surgery mandates that all residency programs have curricula for technical skills training. The purpose of this study was to identify how one regional area has worked together to identify obstacles, create solutions, and assess each individual program's skills lab activities.

Methods: Educators from 11 of 14 surgical residency programs in Texas formed the "Texas Association of Surgical Skills Laboratories" (TASSL) to exchange information about their progress and foster collaboration. They began to meet bi-annually in Fall 2007. Three meetings have since occurred.

Results: The first meeting was devoted to documenting skills lab training currently available in each residency program and their resources. There was a large variation in physical space, equipment, faculty support, and usage of a structured curriculum between the 11 institutions. The second meeting occurred during the Association of Program Directors (APDS) spring meeting. At that time it was evident that progress had been made in many of these areas throughout the different programs. During the fall meeting 2008, all the programs had now identified physical space and faculty directors. This meeting was devoted to standardizing the curricula to include Fundamentals of Laparoscopic Surgery (FLS) training for the instructors and residents. One center in the state was identified as a resource for FLS certification. In addition, a plan was developed to share equipment for the upcoming endoscopy curricula, which is in the process of being validated. Future meetings are scheduled for the spring and fall of 2009.

Conclusions: Skills training is fundamentally important to ensuring competency but resources and education practices differ widely. This consortium "TASSL" has shown that thru cooperation and group effort standardized curriculum can be developed and resources shared in a regional manner. This should allow individual programs to move ahead at a faster pace than if proceeding alone.

POSTER #7

IDENTIFICATION AND MAINTENANCE OF ORGANOIDS IN MATRIGEL FOR TISSUE ENGINEERED INTESTINE IN PATIENTS REQUIRING DELAYED IMPLANTATION

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Background: Organoid units are multicellular units derived from neonatal intestine of the mouse or rat. It contains a mesenchymal core surrounded by intestinal epithelium, and containing all of the cells of a full thickness section. Included within the organoid unit are intestinal stem cells capable of differentiating into the cell types of the native intestine and maintaining its overall function. We have developed a technique to construct tissue-engineered intestine by loading these organoid units on a microporous, biodegradable scaffold and allowing it to develop in vivo. We have not however fully characterized the contents of these units or demonstrated their long term maintenance in vitro. Previously, it has been demonstrated that by day 4 there is epithelial proliferation from the organoid edges and subsequent loss of architecture (McCartney, et al. 2000). Maintenance of these units for a longer period in vitro is vital, as it will prove useful for reimplantation into patients otherwise unsuitable for immediate surgery. Moreover, by fully characterizing the cellular contents of the organoid we may optimize their design thereby requiring a much smaller biopsy for construction of tissue-engineered intestine.

Objective: To demonstrate a novel technique for long term maintenance of organoid units in vitro without change in morphology.

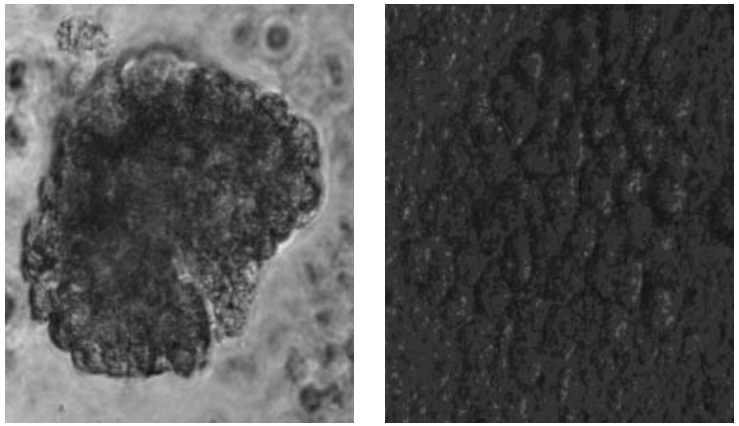
Methods: Organoid units were extracted from a full thickness section of murine small intestine. Organoids were added to glass slides coated with 50% matrigel in DMEM with 2% FBS (200 organoids/ml). Organoids were studied for histology with hematoxylin and eosin (H & E) staining, antibody staining with Pancytokeratin and standard light microscopy after 24 hours and 7 days in culture.

Results: After 1 week in culture there was no difference in the morphology of the organoid units when compared to those that were in culture for 24 hours.

Pancytokeratin staining of the organoids demonstrated a spheroid, uniform outer layer of epithelial cells as predicted. There was no proliferation of intestinal epithelium from the edges of each unit. H & E staining demonstrated no change in morphology of the organoids after 7 days.

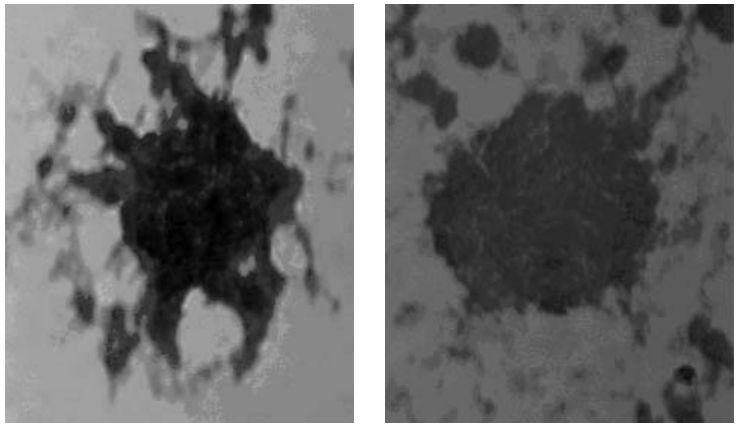
Conclusions: Organoid units can be successfully maintained for 1 week in vitro without changes in morphology by culturing under standard conditions on a matrigel coated surface.

Figure 1: Light microscopy of organoid units after 24 hours (A) and 7 days (B) in culture.



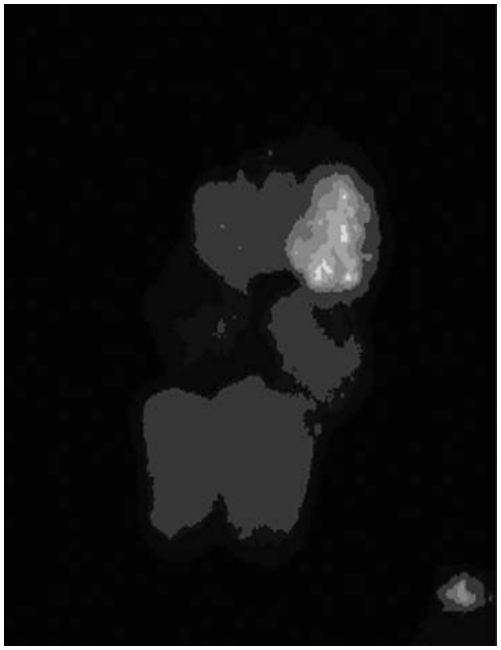
(A) **(B)**

Figure 2: H & E stain of organoid after 24 hours (A) and 7 days (B) in culture.



(A) **(B)**

Figure 3: Pancytokeratin staining of organoid unit after 7 days in culture demonstrating outer surface of epithelium.



POSTER #8

SURGICAL TRAINING IN THE INFORMATION AGE: ARE WE KEEPING PACE WITH RESIDENTS' LEARNING NEEDS?

CM Pugh, DA DaRosa, D Glenn, RH Bell Jr.
Northwestern University and American Board of Surgery

Background: The surgical profession has changed drastically over the past 20 years. New procedures, and more advanced diagnostic and treatment regimens top the list of occurrences that have changed the face of surgery. From a training perspective, it is widely known that today's residents are taking care of sicker patients and performing more complex operations compared to trainees in previous decades.

Objective: The objective of this study was to assess resident learning needs and resource use when preparing for cases in the operating room.

Methods: Participants for this study included resident volunteers attending the annual American College of Surgeons' Clinical Congress Meeting and residents from a local program (N=125). A previously validated, 27-item survey was used to determine (1) the extent to which traditional learning resources are used by residents when preparing for cases in the operating room and (2) which operative management topics residents felt deficient in despite preoperative preparation. Data were analyzed using descriptive and comparative statistics including Mann-Whitney U and Chi-Square analysis. The goal of our analysis was to compare chief resident (PGY-5) and intern level (PGY-1) responses. This comparison would help us to understand the differences in learning needs when comparing junior and senior residents.

Results: On a scale of 1-5, with 5 indicating frequent use, PGY-5 residents (N=39) indicated Surgical Atlases (4.15, SD = .90) and Surgical Texts (4.15, SD = .90), as their most frequently used resources when preparing for a case in the operating room. In contrast, PGY-1 residents (N=32) indicated Anatomy Atlases (3.97, SD = .93) and Advice from Colleagues (3.64, SD = .90), as their most frequently used resources when preparing for a case in the operating room. Despite the differences

in how PGY-5's and PGY-1's prepare for a case, out of 12 operative management topics both groups felt least prepared for 'Instrument Use/Selection' and 'Suture Selection'.

Conclusions: Laparoscopic component separation results in significantly less postoperative morbidity and earlier hospital discharge. Given these advantages along with the comparable myofascial advancement and equivalent hernia reToday's residents represent a heterogeneous group of individuals with different learning needs based on level of experience, knowledge, and learning style. While several types of operative educational resources are available, their relative value to today's surgical residents remains unclear. Our study highlights critical learning needs that can and should be readily addressed.

Table 1. Mean resource ratings and mean rank (Mann-Whitney U) for PGY-1's and PGY-5's (Scale 1- rare use, 5 = frequent use).

LEARNING RESOURCE	PGY - I (N=32) Mean (SD) [mean rank]	PGY - V (N=39) Mean (SD) [mean rank]	z
Anatomy Atlas	3.97 (.93) [43.88]	3.15 (1.11) [29.54]	-3.02**
Advice From Colleagues	3.64 (1.34) [25.86]	3.92 (.87) [27.41]	-.34
Surgical Atlas	3.42 (1.28) [29.03]	4.15 (.90) [40.64]	-2.48*
Web-based Resources	3.39 (1.05) [43.65]	2.51 (1.19) [29.03]	-3.09**
Surgical Text	3.25 (1.31) [27.61]	4.15 (.99) [41.77]	-3.01**
Journals	2.16 (1.17) [31.33]	2.61 (1.18) [39.83]	-1.78
Surgical Videos	1.19 (.47) [29.67]	1.72 (1.02) [41.19]	-2.71*
* $p < .05$; ** $p \leq .003$			

Table 2. Chi-Square analysis comparing PGY-1's and PGY-5's learning needs regarding operative management.

OPERATIVE MANAGEMENT TOPIC	PGY - I (N=32)	PGY - V (N=39)	P-Value Chi-Square
Instrument Use/Selection	90.6%	56.4%	.001*
Selection of Suture Material	84.4%	53.8%	.006*
Operative Field Exposure	53.1%	46.2%	.365
Post-operative Care	50.0%	41.0%	.303
Sequence of Procedures	43.8%	30.8%	.189
Patient Positioning	43.8%	38.5%	.417
Procedure Choices	37.5%	48.7%	.240
Patient Selection	34.4%	30.8%	.472
Follow-up Procedures	34.4%	33.3%	.562
Anatomy	21.9%	35.9%	.152
Patient Outcomes	21.9%	25.7%	.466
Natural Hx of Disease	12.5%	15.4%	.501
* $p < .01$			

POSTER #9

PERSONAL AND INSTITUTIONAL BARRIERS TO WILLINGNESS TO RESPOND AMONG GENERAL SURGEONS

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Background: Given recent events surrounding mass casualty events, such as September 11, 2001; Hurricane Katrina 2005; Virginia Tech Massacre 2007, disaster preparedness is essential for hospitals. In the event of an emergency or disaster, the surgeon's role is vital. However, sparse literature exists on factors that influence a surgeon's willingness to respond to a disaster.

Objective: We hypothesize that certain personal and institutional factors will decrease a surgeon's willingness to respond to a natural or man-made disaster.

Methods: A 35–item survey was sent to members of the American College of Surgeons in July 2008. Information collected included demographics, disaster-related preparedness and training, and barriers to disaster response. The outcome of interest was willingness to respond in the event of a disaster. Statistical analysis included descriptive statistics, odds ratios (OR) and 95% confidence intervals (CIs), which were estimated by unconditional logistic regression.. All analyses were performed using SAS v9.2 (SAS Institute, Cary, NC), and all P-values were two sided.

Results: Of the 433 surgeons who responded (15.5%), 88% were male (n=381), with an average age of 54 (standard deviation=11.3). Forty percent (n=169) were employed in an urban setting, and 43% (n=185) were affiliated with an academic program. A greater number of personal factors posed a barrier to surgeons' willingness to respond to a disaster than institutional factors. The majority responded that they were willing to respond in a disaster (n=357, 83%). Personal factors such as family (OR =0.37; 95% CI =0.17-0.78), health (OR=0.48; 95% CI=0.26-0.89), lack of a defined role (OR=0.36; 95% CI=0.20-0.65), lack of compensation (OR=0.02; 95% CI=0.003-0.18) and personal unpreparedness (OR=0.25; 95% CI=0.12-0.54) prohibited call to duty. The only institutional factor that played a significant role in determining willingness to respond was shelter and supplies (OR= 0.37; 95% CI= 0.20-0.66).

Conclusions: The results of this study support the hypothesis that personal and institutional factors are critical obstacles in the surgeon's decision making to respond to natural or man-made disasters. With shelter and supplies at the disaster site being the decisive institutional concern for surgeons, institutions can use these findings, to provide proper assurance and planning to ensure that surgeons respond in the event of a disaster.

NOTES

POSTER #10

INACTIVATED ENTEROBACTER SAKAZAKII DO NOT INDUCE IEC-6 ENTEROCYTE APOPTOSIS

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Background: Necrotizing enterocolitis (NEC) is one of the most devastating gastrointestinal disorders that affects 1-5% of all pre-mature infants. Contamination of infant formula with Enterobacter Sakazakii (ES) has been associated with outbreaks of NEC. The mechanisms by which ES causes NEC are unknown. Because NEC is characterized by increased levels of enterocyte apoptosis, we hypothesized that ES-induced apoptosis may be a factor in NEC. Our previous studies (Hunter et al., 2008) demonstrated that ES is indeed capable of inducing apoptosis in IEC-6 enterocytes.

Purpose: To investigate the mechanisms by which ES bacteria induce apoptosis in the intestinal epithelium. Specific aims: to test whether live bacteria are important for the induction of apoptosis, and whether ES is capable of inducing pro-inflammatory responses in enterocytes.

Methods: IEC-6 cells were treated with live ES, or equivalent amounts of inactivated ES, or bacteria-free ES-conditioned medium for 0-6 h. Induction of apoptosis was assessed by terminal transferase deoxyuridine nick-end labeling (TUNEL). Phosphorylation of p38 mitogen-activated protein kinase (MAPK) and levels of the inhibitory subunit of the transcriptional activator nuclear factor kappaB (IkB) were examined by Western blotting. Differences in percentages of apoptotic cells were evaluated using Student's t test.

Results: 6 h incubation of IEC-6 or IEC-18 enterocytes with 107 cfu/ml live ES causes significant induction of apoptosis, as judged by TUNEL staining. The induction of apoptosis is largely abolished if bacteria are inactivated by treatment with chloroform, sonication, or boiling. Apoptosis is not significantly induced by incubation of enterocytes with bacteria-conditioned medium. Although inactivated bacteria fail to induce apoptosis, they retain the ability to activate pro-inflammatory responses in enterocytes, including activating phosphorylation of the p38 MAPK, and degradation of IkB.

Conclusion: Live ES bacteria are required for the induction of apoptosis, but not for pro-inflammatory responses in cultured enterocytes. Our cell culture model is useful in dissecting the mechanisms of bacteria-induced gut barrier failure during NEC.

NOTES

POSTER #11

THE UPS AND DOWNS OF PRIAPISM IN THE UNITED STATES: THE CHANGING ROLE OF SICKLE CELL DISEASE

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Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, and Howard University

Introduction: Priapism is associated with many risk factors, including hematologic dyscrasias (such as sickle cell disease/trait-SCA), neurologic disorders, direct malignant infiltration, trauma, drugs used to treat erectile dysfunction, as well as alcohol and recreational drugs. Most cases of priapism are treated in the emergency room and discharged. Few patients with priapism require inpatient management, unless they are not responsive to intracavernosal therapy or have other serious medical problems. Because of the rarity of the occurrences, demographic and risk factors and outcomes of these cases are unknown. Textbook references often cite small single-instutitional series that are many decades old.

Methods: This is a retrospective analysis of Nationwide Inpatient Sample (NIS) for 9 years from 1998 through 2006. Priapism patients were identified through ICD-9 diagnosis code of 607.3 in any position. Demographic factors examined included age, race, sickle cell diagnosis SCD (identified through ICD-9 diagnosis codes of 282.5 or 282.6x in any position), drug abuse (identified through ICD-9 codes of 304x), and year of hospitalization. Penile operations were identified using procedure codes 64, 64.4, 64.49, 64.92, or 64.98.

Results: A total of 4237 hospitalizations for priapism were identified, which extrapolates to between 1868 to 2960 cases per year in the entire US. The incidence has been increasing over the years, with an estimated national incidence of 1868 in 1998, to 2561 in 2006. Mean (median) age was 33.7 (31), and there were 973 (30.0%) whites, 1978 (61.1%) blacks, and 204 (6.3%) Hispanics. There were 1,879 (44.35 %) patients who had a diagnosis of sickle cell, and this proportion was significantly higher among patients under age 18 than in adults (74.8% vs 39.3%, $p<0.001$).

The proportion of priapism patients with sickle cell diagnosis has been decreasing through this time period, from 50.4% in 1998 to 38.3% in 2006. There were 30 deaths over this time period (0.71%). Approximately 1/3 of the patients (1534, or 36.2%) required penile surgery, and this proportion was significantly lower among patients with sickle cell diagnosis than without (17.1% vs 51.4%, $p<0.001$). Overall, 7.9% of patients with priapism also had a diagnosis of drug abuse, and this was significantly higher in non-sicklers compared to those with SCA (9.5% vs. 6.0%, $p<0.001$).

Conclusions: Most cases of priapism are treated in the emergency room and do not appear as part of the NIS (which is a database that evaluates only inpatients). Despite that, there is an increasing incidence of inpatient diagnoses of priapism over the years (1998-2006), with decreasing proportion (but relatively constant numbers) of sickle cell patients, suggesting that non-hematologic causes of priapism are increasing. One theory is that increasing use of aggressive therapies for erectile dysfunction might play a role, especially when combined with drug abuse.

NOTES

POSTER #12

SUICIDE

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and Prince Georges Hospital Center

Introduction: Self inflicted injuries are a common cause of admission to trauma centers. The objective of this study is to describe the characteristics and outcomes of patients admitted to a trauma center for self inflicted injuries.

Methods: Self inflicted injury cases admitted to a regional level 1 trauma center between 01/96 through 7/07 were selected from our trauma registry. Population was analyzed in relation to demographics (age, gender, and race), mechanism, blood alcohol concentration (BAC), ISS, injured body regions, mortality and disposition. Associations between variables were explored using chi square. Multiple logistic regression (MLR) models were built to explore the probability of death adjusting for confounders. An $\alpha = 0.05$ was used for all tests.

Results: Self inflicted injuries represented 1.3% (n=890) of all admission. Mechanisms included cutting (31%), firearms (26%), gas/CO poisoning (13%), jumping (12%), hanging (9%), vehicular crashes (5%) and others (4%). Sixty nine percent of the patients were younger than 45 years, 77% were male and 71% were of White race. BAC+ status was present in 37% of the cases. ISS >25 was present only in 22% of the cases. The majority of patients were discharged to a psychiatric institution (48%) with the remaining discharged home (17%), to inpatient rehabilitation (13%) or died (16%). The most common injured regions with an AIS≥3 were the brain (19%), Thorax (13%) and Lower extremities (6%). Jumping occurred more commonly among females and among Black than among the other patients. Blacks were also less likely to use firearms and gas/CO poisoning. Mortality was higher for firearm injuries (51%), representing 82% of all deaths, and for individuals with AIS≥3 involving the brain (61%) and neck (64%). MLR models adjusting for confounders revealed an increase in the odds of death only for firearm injuries [OR=13.10 (5.68-32.66)] and AIS≥3 brain injuries [OR=14.01 (6.63-31.29].

Conclusion: Self inflicted injuries admitted to a trauma center include multiple mechanisms, and patient characteristics. Mortality is mainly related to the use of firearms and the presence of AIS>3 injuries to the brain.

NOTES

POSTER #13

MRSA PREDOMINATES IN INFECTED IVDA EXTREMITY PSEUDOANEURYSMS

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Background: Pseudoaneurysms are localized arterial disruptions caused by blunt or penetrating trauma, vascular intervention or anastomotic disruption. Blood is contained by the adjoining tissues and subsequent fibrous reaction. The objectives of the study were to describe the characteristics of intravenous drug abuser (IVDA) pseudoaneurysms, factors that affected the hospital course for these patients, and treatment options for IVDA induced extremity pseudoaneurysms..

Methods and Results: From 1995 to 2006, a total of 26 patients were diagnosed with pseudoaneurysms and subsequently treated at a university hospital in an urban setting. All patients were IVDA. Associated comorbidities included hypertension (23%), HIV infection (19%), diabetes mellitus (7%), history of myocardial infarction (7%), and syphilis (3%). The sites of pseudoaneurysm formation involved the common femoral artery (CFA, 46%), superficial femoral artery (SFA, 11%), brachial artery (34%), radial artery (3%) and subscapular artery (3%). Patients with infected femoral artery pseudoaneurysms (IFAP's) stayed an average length of 26.5 days in the hospital and those with brachial artery pseudoaneurysms stayed an average of 8.0 days.

The most common symptoms were pain at the affected site (84%), swelling (61%), bleeding (50%) and fever (30%). 88% of patients had a palpable pulse distal to the pseudoaneursym on admission. The average white blood cell count for patients on admission was 11,600. With regards to detection of pseudoaneurysms, clinical exam revealed bruits, thrills, and active bleeding which accounted for the major diagnostic tool in 53% of patients. Doppler ultrasound was the diagnostic modality in 38% and computed tomography (CT) scans in 15% of patients.

Treatment of all patients included operative exploration with 96% undergoing isolated ligation of the affected artery. 84% of IFAP's were ligated only and 11% were ligated and bypassed with saphenous vein. 100% of brachial artery pseudoaneuryms were ligated. One patient had a debridement and patch repair of a femoral artery pseudoaneurysm. All patients had a documented post operative pulse. One patient after ligation with bypass required a below the knee amputation of the affected extremity on index admission.

Methicillin resistant staphylococcus aureus (MRSA) was cultured in 50% of patients with antibiotics sensitive to this organism administered. The average duration of antibiotic treatment was 12.7 days. MRSA infected patients stayed an average length of 27.1 days in the hospital compared to 9.8 days for non-MRSA infected patients (p=0.004). Among infected pseudoaneurysms, MRSA infections were found in 80% of IFAP's but only in 11% of brachial artery psuedoaneurysms (p=0.0008).

Heroin drug addiction was treated with methadone in 69% of patients while in the hospital.

NOTES

POSTER #14

SURGICAL MANAGEMENT OF BACTERIAL ENDOCARDITIS: EMERGING TRENDS AND OUTCOMES

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Background: The surgical management of infective endocarditis continues to be among the most challenging problems in cardiac surgery. Given the emergence of resistant organisms causing IE, coexistent neurologic complications and aggressive anatomic destruction in advanced disease,additional management insight may be gained by evaluating the current trends in surgical management of infective endocarditis (IE) based upon the reported experience of the Society of Thoracic Surgeons database.

Methods: In order to determine the relevant incidence of surgically treated IE, we queried the Society of Thoracic Surgeons National Adult Cardiac Surgery Database to determine the number of patients who underwent operations for active and/or current endocarditis as well as patients who underwent re-operations for IE requiring valve repair or replacement from 1994 to 2006.

Results: The total number of valve cases performed with a reported indication of IE was:

Aortic Endocarditis: 19,062 cases / 362,849 total AVR cases (5.25%)

Mitral Valve Endocarditis: 18,982 / 261,075 total mitral cases (7.27%)

Tricuspid Valve Endocarditis: 3,346 / 35,007 total tricuspid cases (9.55%)

Multiple Valve Endocarditis (AVR/MVR/ and/or TRV): 5,023 / 41,477 cases (12.1%)

The incidence of cerebrovascular accidents in the STS database was higher for left-sided endocarditis on average: Aortic valve procedures for endocarditis (IE) with CVA - 17.2%; Mitral valve procedures for IE with CVA - 20.6%; Tricuspid valve procedures for IE with CVA - 14%; Multiple valve (AVR/MVR/TRV) procedures for IE with CVA -19%. There has been a significant increase in the use of bioprosthetic valves versus mechanical valves in all categories over the past 10 years (Fig 1).

The results of surgery for IE have improved significantly over the past decade (Fig 2). Operative intervention for aortic endocarditis < 7 days led to a 30 day operative mortality of less 6%; delays in intervention > 7 days (7-14 days and 14-21 days) had a significant impact on mortality. Similar trends are reported in the treatment of mitral valve IE with operative mortality between 5-10% for patients operated on <7 days and significant increase in operative mortality for patients operated on between 7 and 21 days after admission for IE

Conclusion: Emerging trends in the surgical management of IE suggest that in spite of a significant incidence of neurologic complications, early intervention with valve repair may be growing ; if replacement is necessary, bioprosthetic valves are becoming more commonly employed.

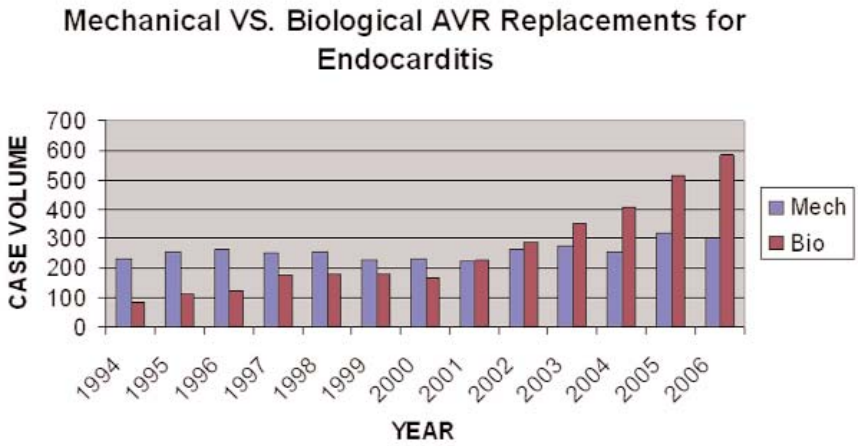

Figure 1

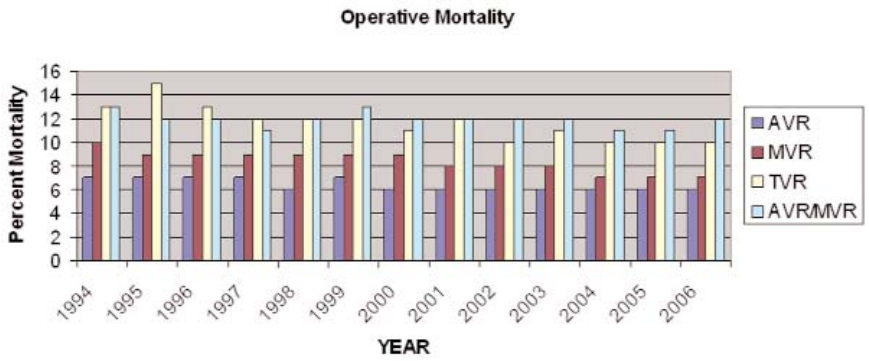

Figure 2

NOTES

POSTER #15

ENDOVASCULAR REPAIR OF PRIMARY AORTIC COARCTATION

K Hughes, V Ramaiah, O Preventza, G Wheatley, J Rodriguez-Lopez, E Diethrich.
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Purpose: To review a single center experience with endovascular repair of primary aortic coarctation in adults.

Methods: From September 2004 to July 2006, five patients with newly diagnosed coarctation of the descending thoracic aorta were referred to our institution for elective endovascular repair. These were four men and one woman with ages ranging from 29 to 52 years. In each case, treatment consisted of angioplasty and stenting using a palmaz stent. Intravascular ultrasound was routinely employed in all cases. All repairs were technically and clinically successful.

Results: All patients were discharged home on post-operative day one. There were no complications.

Conclusions: Endovascular repair of primary aortic coarctation may be a viable and potentially attractive option.

NOTES

POSTER #16

IMPLEMENTING A TRAUMA REGISTRY IN ADDIS ABABA, ETHIOPIA: OBSTACLES AND OPPORTUNITIES IN INTERNATIONAL RESEARCH

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Background: An area of public health coming to the forefront and of interest to surgeons is traumatic injuries. A collaborative research venture to pilot a simplified trauma registry in two teaching hospitals in Addis Ababa, Ethiopia was pursued by faculty and a general surgery resident from the University of Wisconsin (UW) and surgeons from Addis Ababa University (AAU) Department of Surgery.

Objective: While there is a growing body of literature about international surgical research efforts, increased reporting on current research experiences can help guide future endeavors. We report our experience in starting this collaborative project with AAU, highlighting obstacles and opportunities encountered in international research.

Methods: Several surgeons from AAU were hosted by the UW Department of Surgery for a six week period in 2007. During their stay the surgeons attended Adult Trauma Life Support Training (ATLS) as well as other interdisciplinary activities. Beginning in January 2008, A UW general surgery resident doing a two year research fellowship began collaborating with the AAU surgeons to implement the registry through several trips to Ethiopia and via email communication. A one page trauma data form was created and prospective collection of data on injured patients presenting to the two AAU affiliated hospitals was planned. A computer database for organizing and analyzing the data was also set up.

Results: The registry has been implemented and is currently collecting data. The planning and set-up process have highlighted possible obstacles when considering international research projects. Some of these areas include navigating a foreign IRB process, working around inconsistent communication due to technology gaps, and understanding how to transfer project funding within a foreign university system.

Additionally, identifying some basic administrative support services to coordinate project logistics, particularly on the non-U.S. side, is essential to avoid frustrating project delays. On the other hand, some opportunities and satisfactions in international research are highlighted by this project as well. These include learning about cultural differences and how to bridge them, providing some technological tools to enhance research capacity in the developing world, and demonstrating an alternative research outlet for surgery trainees interested in global health work.

Conclusion: Collaborative international research projects can offer increased research and educational opportunities for both parties despite obstacles along the way. With commitment and persistence from both sides, gaps in global health can begin to be bridged.

NOTES

POSTER #17

RACE DOES NOT INFLUENCE PENETRATING TRAUMA OUTCOMES

RN Smith, KC Dozier, MA Miranda Jr, RO Kwan, EL Curreton, Sadjadi, GP Victorino, A Harken.
University of California San Francisco-East Bay

Introduction: Racial health disparities exist in many areas of medicine, including the field of surgery. Some studies suggest that racial disparities are responsible for increased mortality among trauma victims. However, the relationship between race and outcomes among gunshot victims is unknown. The objective of our study was to determine the relationship between race and morbidity and mortality among gunshot victims.

Method: We reviewed the trauma records between January 1998 and December 2007 of our urban, university-based trauma center. Only adult gunshot victims aged 18-64 were included in this study. African American and Hispanic victims were compared to their Caucasian counterparts. Chi-square analysis was used to compare various outcomes such as need for operative intervention as well as ICU stay. Odds ratios generated by logistic regression analysis were used to determine in-hospital mortality after adjusting for race, age and injury severity.

Results: Of the 2,366 individuals treated at our hospital for gunshot injuries, a large majority were African American (African American n=1747, 73.8%; Hispanics n=479, 20.2%; Caucasian n=140, 5.9%). The median age was 28 years. Ninety-two percent were male. Overall mortality rate was 16.1%. There was no difference in mortality rates between African Americans and Hispanics when compared to Caucasian (17.3% vs 10%, p=0.3; 13.8% vs 10%, p=0.4, respectively). The need for operative intervention was no different between African Americans and Hispanics when compared to Caucasians (33.2% vs 33.6%, p=0.5; 29.6% vs 33.6%, p=0.4). Additionally there was no differences in ICU use between the groups (African Americans 20.6%, Hispanics 14.2%, Caucasians 19.3%) or ICU length of stay ; the average length of ICU stay for four days for African Americans and Hispanics and six days for Caucasians. There were 203 individuals (8.6%) who arrived pulseless to the trauma bay and were declared dead on arrival (DOA). Of these individuals, a large majority were African American (African American n=162, 79.8%; Hispanics n=35; 17.2%; Caucasians n=6; 3%). When DOAs were removed from data analysis, there was still no difference in mortality rates between African Americans and Hispanics when compared to Caucasians (8.9% vs 6.0%, p=0.2; 7.0% vs 6.0%, p=0.4, respectively).

Conclusion: Race is not an independent factor of poor outcomes among gunshot victims. Additionally, there was no difference in injury severity or resource allocation as measured by operative intervention and ICU stay among the various racial groups. However, a disproportionate number of young African American males were victims of penetrating trauma. Public health efforts should be aimed at preventing injuries from firearms in this demographic.

NOTES

POSTER #18

BLUNT TRAUMATIC ABDOMINAL AORTIC DISSECTION WITH CONCOMITANT TRAUMATIC ABDOMINAL WALL HERNIA AND SMALL BOWEL INJURY: A SURGICAL CONUNDRUM

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Background: Acute traumatic dissection of the abdominal aorta secondary to blunt trauma is an infrequent and potentially fatal injury. These injuries can initially be overlooked due to the presence of concomitant thoracic, abdominal, and/or pelvic injuries.

Objective: We report a case of an acute abdominal aortic dissection with associated traumatic abdominal wall hernia and small bowel injury.

Results: A 45 year-old female presented to our emergency department (ED). She was a restrained passenger involved in a high speed motor vehicle collision with a tree. On presentation, she was hypotensive, tachycardic, and complaining of right-sided abdominal pain. Chest radiography was negative and focused abdominal sonography for trauma was equivocal. The patient responded to intravenous fluids, and received computer assisted tomography (CT) of the chest/abdomen/pelvis. The scan noted free fluid in the abdomen and pelvis, a traumatic right flank abdominal hernia containing bowel, as well as, an abnormal appearance of the para-renal aorta with what appeared to be a circumferential dissection. Before and after CT, the patient's vascular exam was intact. With the above findings, the patient was emergently taken to the operating room for exploratory laparotomy. Intra-operatively, there was a large right flank abdominal hernia, two complete small bowel mesenteric disruptions, and a 1.5 cm segment of contusion to the surrounding abdominal aortic tissue. Vascular surgery staff assisted in the exploration/evaluation of the abdominal aorta recognizing no aortic adventitial disruption or extravasation. With the patient's multiple injuries, contaminated surgical field, and lack of vascular compromise; decision was made to non-operatively manage the aortic injury. In a two-staged operation, the patient required small bowel resection with primary anastomosis, followed by repair of the traumatic hernia with biologic tissue matrix. Post-operatively, the patient had no signs of vascular compromise. Follow-up CT angiogram, compared to initial CT, showed no change in the 1.5 cm segment of circumferential distal abdominal aortic dissection. The patient's remaining hospital course was uneventful. The patient was discharged home on anti-platelet therapy and scheduled for close clinical follow-up of her aortic injury including repeat imaging studies.

Conclusions: Blunt abdominal aortic injury is an uncommon occurrence in trauma. It is well cited that such an injury commonly presents as multi-trauma. Trauma surgeons need a high index of suspicion for potential aortic injury in patients with significant blunt abdominal trauma. Understanding the mechanisms of injury and clinical presentations will allow for prompt recognition and necessary intervention.

NOTES

POSTER #19

RELIGIOUS BELIEFS AS A NEGATIVE PREDICTOR OF KIDNEY DONATIONS IN AFRICAN AMERICAN MEN

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Introduction: African Americans (AAs) have a disproportionate incidence of renal disease and need for kidney transplantation and also exhibit greater mistrust regarding the equity of the organ donation system compared with whites and are less likely to be registered organ donors. Religious beliefs have been purported for this phenomenon.

Objective: This study was designed to investigate the factors that influence AA male's decision-makings to become organ donors.

Methods: Data were gathered from 169 AA men, age 18 years and older at Cleveland Clinic Minority Men's Healthfair in Cleveland, Ohio. Participants were questioned about their willingness to donate their kidneys as a hypothetical cadaveric status, and, were asked to choose one out of four reasons behind their decisions: religious beliefs, trust in organ donation system, ethical issues of brain death, and medical needs. Religious beliefs were defined as influence for or against organ donation according to their perceived faith traditions. Logistic regression analysis was used to investigate associations between decision-makings to donate kidneys and demographic and socioeconomic factors. Chi-square analysis was used to reveal associations between decision-makings to donate kidneys and reasons.

Results: 32% AA men were willing to donate their kidneys. Age (Odds Ratio=1.10, CI 1.02-1.18, p=0.014), documentation of Advance Care Planning (Odds Ratio=3.34, CI 1.05-10.64, p=0.041), and religious beliefs (Odds Ratio=13.51, CI 4.72-38.46, p=0.001) were negative attributable factors for deciding to donate their kidneys. Religious beliefs (Odds Ratio=1.93, p=0.041) was a barrier, however, medical needs (Odds Ratio=2.33, p=0.034) was a facilitator of deciding organ donations. Ethical issues of brain death (p=0.340) and trust in organ donation system (p=0.528) did not affect their decision-makings.

Conclusion: Contrast to medical needs, religious beliefs worked as a negative predictor in AA men s willingness of donating their kidneys in a hypothetical cadaveric status. We believe that development and implementation of organ donation awareness programs in partnership/collaboration with religious leaders in AA s communities will increase AA males willingness to become organ donors.

NOTES

POSTER #20

RESIDENTIAL SEGREGATION AND ACCESS TO THORACIC SURGICAL CARE BY MINORITY POPULATIONS IN US COUNTIES

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Johns Hopkins Bloomberg School of Public Health,
University of Michigan, and
Johns Hopkins School of Medicine

Background: Minority groups in the United States (US) have comparatively poorer access to a range of healthcare services. Access can be considered a function of opportunity and utilization and may vary depending on the level of segregation within a county. In this report we evaluate the opportunity to seek thoracic surgical care, diagnostic radiology or radiation oncology services within the same county. We hypothesized that with varying levels of segregation, increasing the proportion of the minority population within a county influenced access to thoracic surgical care.

Methods: Retrospective analysis was performed on data from the Area Resource File (ARF). Each county in the US was categorized into one of three levels: most, moderately, or least segregated using the Isolation Index. Multivariate linear regression analysis was performed to examine the association between access to thoracic surgical services, radiologists and radiation therapists and proportion of minority population with varying levels of segregation.

Results: In the most segregated counties, each percentage point increase in Hispanic or Black population was associated with a statistically significant decrease in thoracic surgeons ($p<0.0001$), radiologists ($p<0.0001$), and radiation oncologists ($p<0.0001$). In the least segregated counties, these associations showed no statistical significance.

Conclusions: In the most segregated counties, an increase in minorities is accompanied by a decrease in the availability of diagnostic and therapeutic thoracic surgical oncological services.

NOTES

Notes

Constitution

Constitution of the Society of Black Academic Surgeons

ARTICLE I: Designation

The name of the organization shall be the Society of Black Academic Surgeons (SBAS). It shall be incorporated as a non-profit organization and have no capital stock or shareholders. The address of the President will be the official address of the Society.

ARTICLE II: Objective

The paramount objectives of the Society of Black Academic Surgeons shall be supportive of and consistent with the enhancement of the academic surgical community both nationally and internationally. The specific objectives are as follows:

A. Identify and promote professional and intellectual exchange among surgeons and scientists involved in their related fields.

B. Promote the participation of minority surgeons and scientists in the activities of all academic surgical organizations.

C. Stimulate and assist government, private industry and voluntary organizations to develop and promote programs to increase the participation of minority surgeons in the academic community.

D. Encourage and assist minority surgeons to conduct original research in both the basic and clinical sciences.

E. Support and strengthen the surgical section programs of the National Medical Association.

ARTICLE III: Members

Active members will be designated as Fellows of the Society of Black Academic Surgeons and will be comprised of reputable surgeons. All Fellows will be elected to membership according to the Constitution and Bylaws. Termination of a member by resignation, death, or any other manner will end all rights and privileges in the Society. None of the assets or privileges will be transferable to any representative of a member's estate.

ARTICLE IV: Officers/Council

The Officers of the Society shall be President, President-Elect, Secretary and Treasurer. The President and President-Elect shall be elected for a one-year term; the President-Elect shall automatically become President. The Secretary and the Treasurer shall be elected for three-year terms. This slate of officers, along with two Fellows (appointed by the President) will be designated as the Executive Council.

ARTICLE V: Organization Structure

A. The Society's organizational structure will consist of General Membership, Officers, Executive Council, and Standing Committees. The span of authority, rights and privileges shall be based on the Constitution and Bylaws.

B. The duties, powers and regulations governing the Society's organizational structure shall be defined and delineated in the Society's Bylaws.

ARTICLE VI: Meetings

A. The Society shall hold an annual scientific and business meeting, the time and place determined by the Executive Council at least two years in advance of the meeting. Only members of the Society may attend the business meeting.

ARTICLE VII: Rules

The conduct of all Society meetings including those of the Executive Council shall be governed by the Bylaws of the Society and Robert's Rules of Order.

ARTICLE VIII: Governance

Section 1 The Society shall be governed by this Constitution and Bylaws, the latter document to provide specific direction for the organization, administration and services of the Society.

Constitution of the Society of Black Academic Surgeons

(CONTINUED)

Section 2 The Society's Constitution and Bylaws shall be consistent with provisions and content of any organizational charter or certificate of incorporation the Society may propose and/or execute.

ARTICLE IX: Certificate of Incorporation

Section 1 The Society may propose and execute an organizational charter or certificate of incorporation in accordance with all local, state and federal (U.S.) regulations, codes and laws.

Section 2 The certificate of incorporation shall not vitiate any provision of this Constitution or the Society's Bylaws, unless a court of competent jurisdiction expressly rules, orders or directs otherwise. If any such provision or the certificate, in whole or part, is held to be unlawful, only the unlawful provision or certificate will be null and void. The remaining provisions and/or certificate, in whole or part, will continue in effect as valid.

Section 3 The certificate of incorporation shall not govern the application and administration of the Constitution or the Society's Bylaws.

Section 4 Notwithstanding any other provisions of these articles, the organization is organized exclusively for one or more of the purposes as specified in Section 501C (3) of the Internal Revenue Code of 1954, and shall not carry on any activities not permitted to be carried on by an organization exempt from Federal income tax under IRC 501C(3) or corresponding provisions of any subsequent Federal tax laws.

Section 5 No part of the net earnings of the organization shall inure to the benefit of a member or any private individual (except that reasonable compensation may be paid for services rendered to or for the organization), and no member of the organization or any private individual shall be entitled to share in the distribution of any of the organization's assets on dissolution of the organization.

Section 6 No substantial part of the activities of the organization shall be carrying on propaganda, or otherwise attempting to influence legislation (except as otherwise provided by IRC 501C(h) and does not participate in, or intervene in (including the publication or distribution of statements), and political campaign on behalf of any candidate for public office.

Section 7 In the event of dissolution, all of the remaining assets and property of the organization shall after payment of necessary expenses thereof be distributed to such organizations as shall qualify under section 501(c)(3) of the Internal Revenue Code of 1986 and approved by the Executive Committee.

Section 8 In any taxable year in which the corporation is a private foundation as described in IRC 509(a), the organization shall distribute its income for said period at such time and manner as not to subject it to tax under IRC 4942, and the organization shall not (a) engage in any act of self-dealing as defined in IRC 4941(d), retain any excess business holdings as defined in IRC 4943(c), (b) make any investments in such a manner as to subject the organization to tax under IRC 4944, or C, make any taxable expenditures as defined in IRC 4945(d) or corresponding provisions of any subsequent Federal tax laws.

ARTICLE X: Funds and Expense

Funds for the Society may be raised by approved dues and/or in any manner approved initially by the Executive Committee and the organization. Funds may be appropriated by the Executive Council to

Constitution of the Society of Black Academic Surgeons

(CONTINUED)

defray the expense of the Society to carry out the necessary functions, and for any other purpose approved by the Council; provided, however, that no funds or assets shall be used to inappropriately benefit one member of the unit.

ARTICLE XI: Amendments

This Society, at any annual business meeting of the Fellows, may amend any Article of this Constitution by a two-thirds majority of the Fellows present, provided that a copy of the proposed Amendment has been furnished to each active Fellow at least thirty days in advance of the meeting.

ARTICLE XII: Effective Date

These revised Bylaws shall take effect immediately upon acceptance by a simple majority of the membership and extend indefinitely, subject to alteration, amendment or repeal in whole or part, as specifically provided in the Constitution.

BYLAWS: SOCIETY OF BLACK ACADEMIC SURGEONS

Section 1 Annual Meeting

The Society of Black Academic Surgeons shall meet annually at such time and place as designated by the Executive Council.

Section 2 Quorum

The Fellows present shall constitute a quorum for business. All questions before the Society shall be determined by the vote of the majority of those present at any regular business meeting.

Section 3 Fiscal Year

The fiscal year shall begin on January first. The annual dues of each member shall be determined by the Executive Council with approval of the membership, payable on January first of each year. Each member of the Society who reaches the age of sixty-five years shall automatically have his dues rescinded.

Section 4 Parliamentary Procedure

Robert's Rules of Order shall govern the sessions of the Society.

Section 5 Membership

A. Eligibility

1. An individual who occupies a faculty position in a university department of surgery or its affiliated hospitals.

2. An individual who occupies a faculty position in a free-standing surgical residency program.

3. An investigator or teacher in an academic department of surgery or an ACGME-approved surgery program.

4. An individual in a surgical specialty (Neurosurgery, Orthopedics, Urology, Otorhinolaryngology, Plastic and Reconstructive) shall be eligible for membership.

B. Membership Certification

Membership in the Society shall include the following categories: Active, Senior, Associate and Honorary.

1. Active Fellow: Any person who is a Doctor of Medicine (M.D.) or the equivalent, a Doctor of Philosophy (Ph.D.) Degree or the equivalent who shares an interest in the purpose of the Society and is approved by the Fellowship Committee. Only active members have the right to vote and hold office.

2. Senior Fellow: Any active Fellow upon reaching the age of seventy years shall become a Senior Fellow. Senior Fellows are exempt from paying dues, and shall continue to vote, but shall not have the privilege of holding office.

Constitution of the Society of Black Academic Surgeons

(CONTINUED)

3. Associate Fellow: Any surgical resident in good standing in an ACGME-approved residency program who desires to pursue an academic surgical career.

4. Honorary Fellow: Any person who is a Doctor of Medicine (M.D.) (or equivalent) or Doctor of Philosophy (Ph.D.) degree (or equivalent) and has distinguished himself/herself by outstanding achievement and dedication to the objectives of the Society. Honorary Fellows shall pay no due or initiation fees and may not vote or hold elected office.

Section 6 Responsibilities of the Officers

A. It shall be the duty of the President to (1) preside at all meetings of the Society, (2) give the deciding vote, (3) ensure that Robert's Rules of Order and decorum are properly enforced in all deliberations of the Society, and (4) sign the approved proceedings of each meeting.

B. In the absence of the President, the President-Elect shall preside, and in his absence the Secretary.

C. It shall be the duty of the Secretary to (1) keep a true and correct record of the proceedings of the Meetings, (2) preserve all books, papers, and articles belonging to the Society, (3) keep an account of the Society with its Fellows, and (4) keep a register of the Fellows with the dates of their admission and places of residence. The Secretary shall report unfinished business at previous meetings requiring action, and attend to such other business as the Society may direct. The Secretary shall assist with the correspondence of the Society.

D. It shall be the duty of the Treasurer to collect the dues of the Society and make disbursements for expenses. The Treasurer shall present an annual report of the financial condition of the Society. The accounts of the Treasurer shall be audited once yearly by a committee appointed by the President.

Section 7 Vacancies, Resignations and Removal from Membership

A. Vacancies

Vacancies occurring in the offices of the Society, other than that of the President, shall be filled by appointment by the President until the next meeting. The President shall appoint members to all Committees.

B. Resignations

Any Fellow may resign from the Society by delivering a written resignation to the President or Secretary.

C. Expulsions

The removal of a Fellow from the society shall be based on gross negligence or poor character as determined by the Executive Council and a majority of the full membership.

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Honorary Members

SBAS gives Honorary Fellowships to outstanding surgeons who have mentored minority surgeons and championed diversity in surgery.

Honorary Fellowship Award Recipients for 2008

Michael J. Zinner, MD
Raphael E. Pollock, MD, PhD

Previous Honorary Fellowship Award Recipients

Judah M. Folkman, MD
R. Scott Jones, MD
Frank R. Lewis, MD
Olga Jonasson, MD
Arthur J. Donovan, MD
Lloyd M. Nyhus, MD
Hiram C. Polk, Jr., MD
Walter J. Pories, MD
Basil A. Pruitt, Jr., MD
George F. Sheldon, MD
William Silen, MD
James C. Thompson, MD
Benard F. Ribeiro, MD
Walter Lawrence, Jr., MD
John Najarian, MD
James A. O'Neill, Jr., MD
Thomas E. Starzl, MD
Dean Warren, MD (posthumous)
Kirby I. Bland, MD
Wallace P. Ritchie, JR., MD
Courtney M. Townsend, Jr., MD
Arnold G. Diethelm, MD
Thomas R. Russell, MD
Richard L. Simmons, MD
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Jeffrey Matthews, MD
Carlos Pelligrini, MD

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Society of Black Academic Surgeons

National Library of Medicine – "Opening Doors Exhibit"

American College of Surgeons Foundation

Pfizer

Covidien

Sponsor displays and exhibits will be located in the Metropole Terrace – Fairmont Olympic Hotel on:
April 3rd – 1:30 pm – 6:15 pm
April 4th – 7:00 am – 5:30 pm

Previous SBAS Meetings

1989 Duke University, Chapel Hill, NC
1991 Harvard University, Boston, MA
1993 UC Davis-East Bay (Meeting held in Napa Valley, CA)
1994 UTMB, Galveston, TX
1995 University of North Carolina, Chapel Hill, NC
1996 University of Colorado, Denver, CO
1997 State University of New York, Buffalo, NY
1998 Howard University College of Medicine, Washington, DC
1999 University of Louisville, Louisville, KY
2000 Charles R. Drew University, Los Angeles, CA
2001 Harvard University, Boston, MA
2002 Morehouse School of Medicine, Atlanta, GA
2003 University of Alabama at Birmingham, Birmingham, AL
2004 Howard University, Washington, DC
2005 University of Pittsburgh, Pittsburgh, PA
2006 University of Cincinnati, Cincinnati, OH
2007 University of Chicago, Chicago, IL2006
2008 The Cleveland Clinic, Cleveland, OH

Future SBAS Meetings

2010 Durham - Duke University

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