STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

The STS (EACTS) Going Global

Joseph Bavaria, MD
Roberts-Measey Professor and Vice Chair
Department of CV Surgery
University of Pennsylvania

Immediate Past-President:
The Society of Thoracic Surgeons (STS)
Past Member: EACTS Vascular Domain

The Society of Thoracic Surgeons

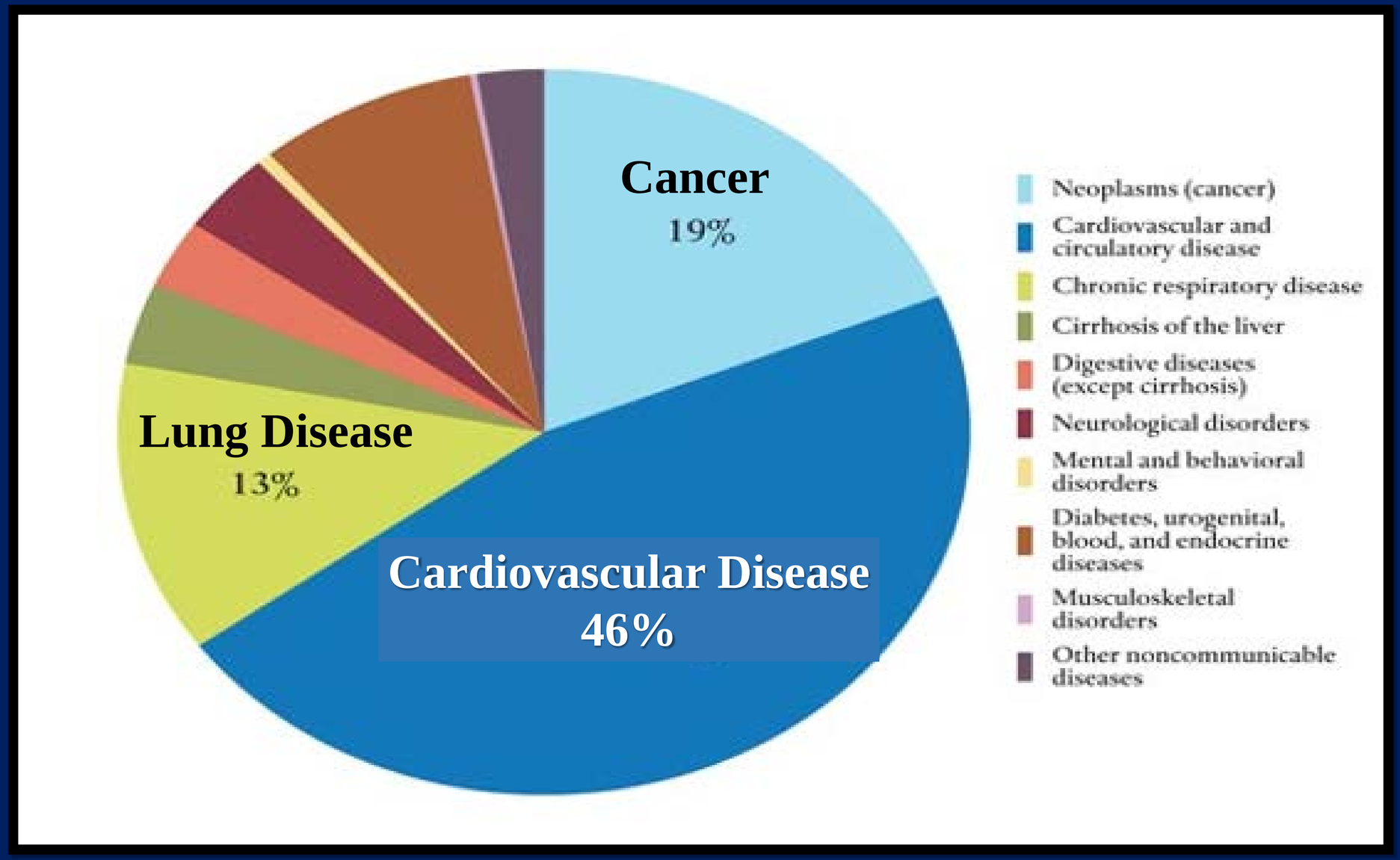
EACTS
European Association For Cardio-Thoracic Surgery

STS (EACTS) Going Global: What does that Mean?

- The Strategic Plan says so!!
- Globalization of Association
  - Membership
  - CV Surgical Outcomes and Databases
  - Collaborative Global Education events
- Globalization of Disease
  - An Increasing Global “Burden” of CV Disease (that needs treatment)
- The Globalization of CV Innovation and the Global “Surge” towards improving Outcomes
  - “Our only way towards continued success in the Future”

The Society of Thoracic Surgeons
EACTS European Association For Cardio-Thoracic Surgery

DEATHS FROM NCD IN DEVELOPING COUNTRIES



David Fullerton, MD; STS 2015 Presidential Address

David Fullerton, MD; STS 2015 Presidential Address

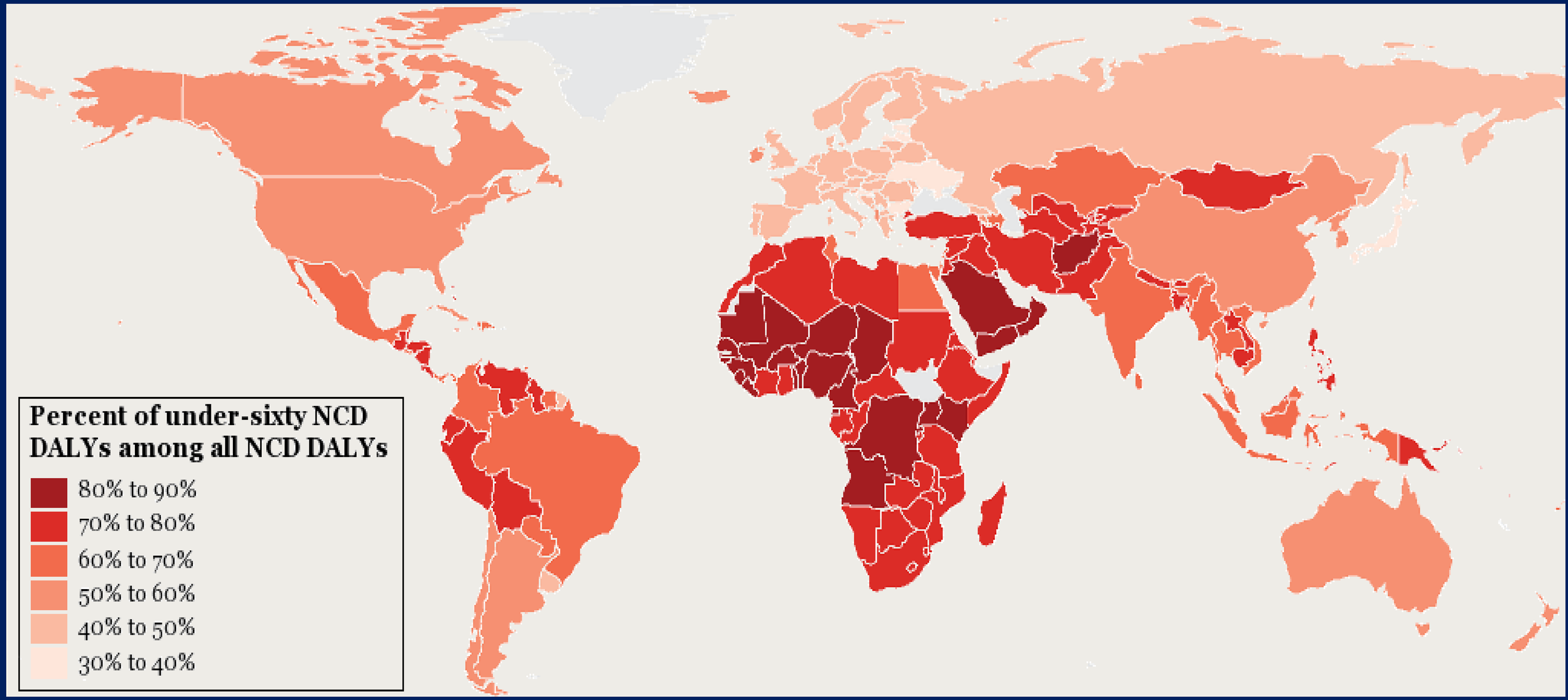
“NCDs are a public health emergency in slow motion”

Ban Ki-moon

Secretary-General, United Nations

David Fullerton, MD; STS 2015 Presidential Address

PREMATURE DISABILITY FROM NCDs



STS (EACTS) Going Global: What does that Mean?

- The World is getting smaller and …… We all really want the SAME thing:
  - Access and Good Outcomes for our patients as CV Disease reaches epidemic

- We start with CONNECTION
- Over time, We must CONNECT globally through our Associations, our Outcomes Databases, our Educational Meetings and shared membership
  - The TACTICS of this Connection are obvious and frankly, it's the duty of "open" Societies like STS and EACTS to Lead these efforts. (database integration, common definitions, globally supported educational events, global internet platforms specific to our community, Training standards, etc.)

Treaty of Westphalia

- The birth of the Nation-State
- Good?
- Bad?

The Treaty(s) of Westphalia - 1648

- Precedents

- Westphalian “Sovereignty”
- Co-Existing Sovereign States
- Aggression against Sovereign states is to be checked
- No Interference in Domestic Affairs of another Sovereign State

- The Prevailing World Order …. Now!! (375 years later)

The Society of Thoracic Surgeons

euroSCORE for doctors
euroSCORE for patients
calculator
references

How is this germane to the Cardiovascular Surgeon/Physician ???

A Reflection on the Separate Worlds of the Global Politician (an Oxymoron?) and the Cardiovascular Surgeon/Physician

- It seems most Politicians actually are not “Global” but seem to be restricted to robust and defensive “Sovereignty”.
- Sovereignty, in Politics, has won!! Or at least has great momentum presently. There are many examples of this.
- However,
- Cardiovascular Physicians are becoming more “Globalized”
  - New devices, procedures, guidelines …. knowledge
- We can’t operate in a “Sovereign” vacuum. A world of restricted borders. Why:
  - The best treatment for a Valve or Aortic issue is the **SAME** globally for all patients. There are no REAL cultural/national “BEST” operations!! Medicine and Surgery transcend Politics.

A Global Perspective is mandatory

- Treatments are Globally performed and generally standardized
- The CV disease processes is Globally contracted
- Treatment Guidelines are Globally applicable to all patients
- Outcomes expectations are globally understood
- CV Innovation is Globally paced, dispersed, and accelerated

- CV Surgery is a “Global” community speaking the same language

The Society of Thoracic Surgeons

EACTS European Association For Cardio-Thoracic Surgery

The Society of Thoracic Surgeons

euroSCORE for doctors
euroSCORE for patients
calculator
references

However, in the end analysis, We are the same Specialty, and All patients are fundamentally the same ….. Therefore the most important concept is:

The Global Imperitive of <u>Innovation and Quality</u>

We live or die (as a specialty) on this reality!!

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

Another Title??:

The Globalization of CV Innovation and Global Surge towards improving Outcomes

The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

INNOVATION

The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

Examples from Thoracic Aortic Surgery: Emerging and Innovative Therapy and Future Landscape

1. Innovation occurs at a number of Levels:
    1. Conceptual
        1. New operations based on new and improved Knowledge
    2. Device Related
        1. New operations based on availability of New Theraputic Devices
    3. Conceptual and Device Related

2. All need a CULTURE of Innovation and Early Adoption **(with Audit)**

EACTS European Association For Cardio-Thoracic Surgery

The Society of Thoracic Surgeons

Examples: Thoracic Aortic Surgery: Emerging and Innovative Therapy and Future Landscape

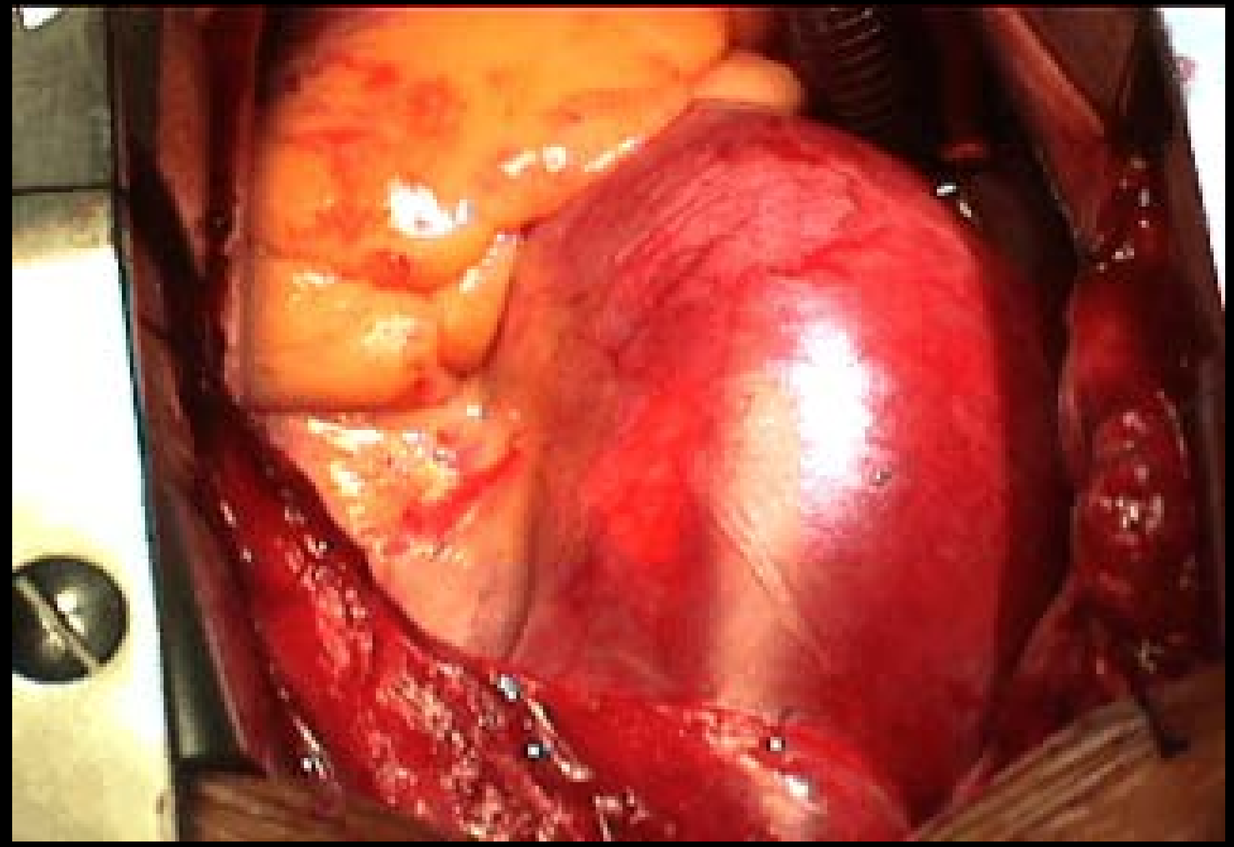
1. Increased Valve Sparing Root Surgery (ALWAYS for AI) David V (and BAV repair techniques) .. **(Conceptual)**
2. Distal Aortic TEVAR Adjunct in Type A Dissection **(Conceptual and Device)**
3. Hybrid Arch +/- Endo-Arch (Mixture) …… The march towards "More Proximal" Reconstruction **(Conceptual and Device)**
4. Chronic Type B Dissecting Aneurysms **(Mostly Conceptual also Device)**

Thoracic Aortic Surgery: Emerging and Innovative Therapy and Future Landscape

1. Increased Valve Sparing Root Surgery (ALWAYS for AI) David V (and BAV repair techniques) .. **(Conceptual)**
2. Distal Aortic TEVAR Adjunct in Type A Dissection **(Conceptual and Device)**
3. Hybrid Arch +/- Endo-Arch (Mixture) …… The march towards "More Proximal" Reconstruction **(Conceptual and Device)**
4. Chronic Type B Dissecting Aneurysms **(Mostly Conceptual also Device)**

What about Acute Type A Dissection?

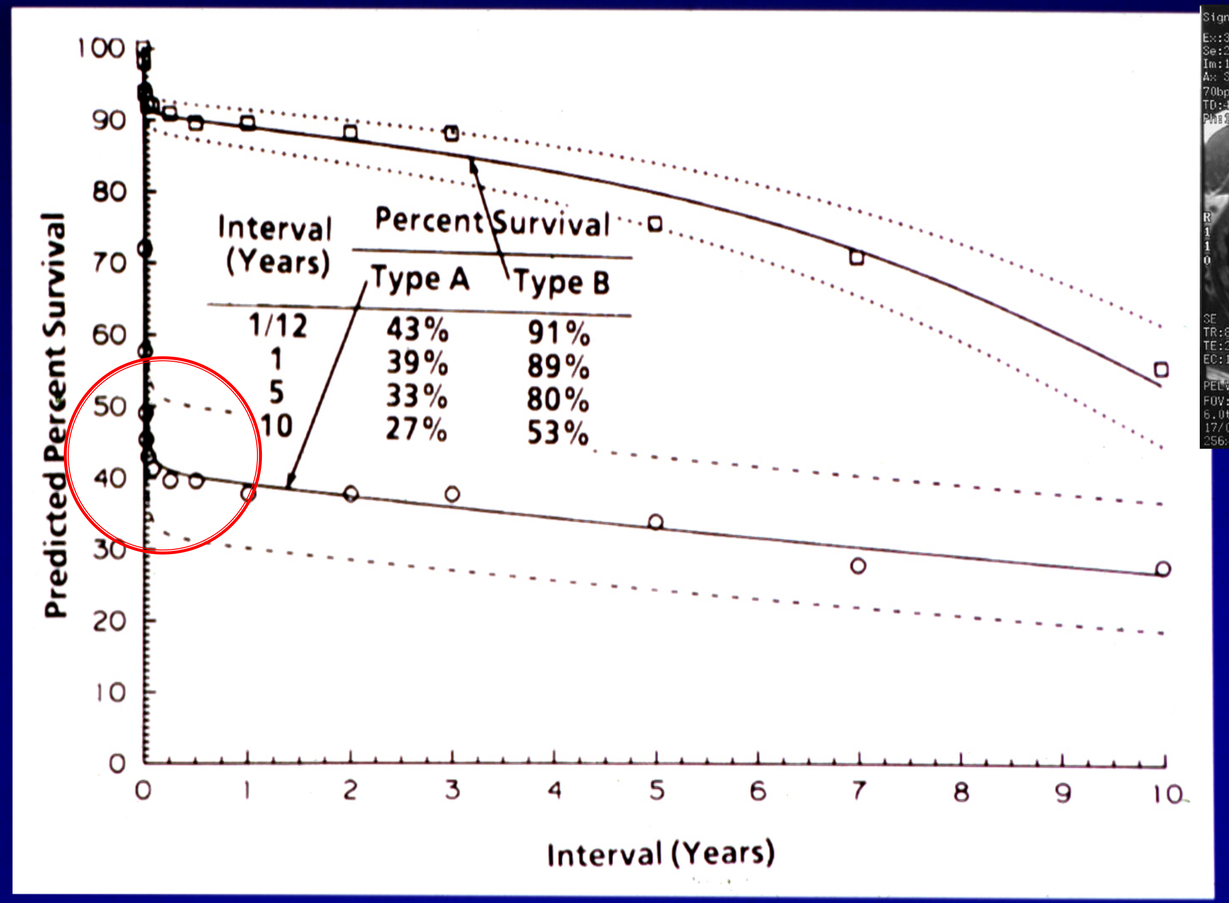
- Can we decrease late Proximal and Distal Aortic Complications of Re-operation and Rupture?

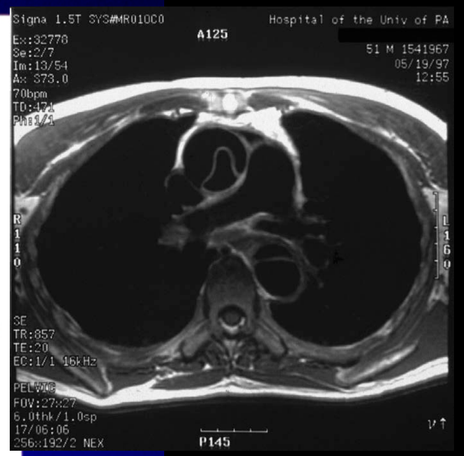


Why Do We Operate??!!

Natural History: Survival

From Masuda Y et. al. Prognosis of patients with mediacally treated aortic dissection. Circulation1991: 84(supplII):III-7

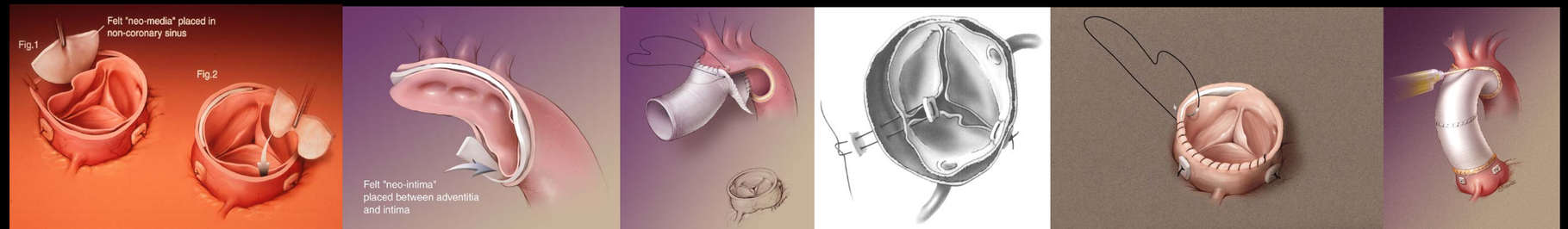




IRAD Data (2004) very Similar = 58% one month mortality in NON-Operated group!

Acute Type A Dissection: Rational Design of an Operation
(Conceptual Innovation 1994-2001)

Cause of death	Treatment
Acute CHF due to AI	Aortic valve resuspension
Coronary malperfusion	Aortic root repair
Cerebral malperfusion	Arch replacement
Free Ascending rupture	Asc aortic replacement



Acute Type A Dissection: Design of an Operation (What is Missing?)

Cause of death

Acute CHF due to AI

Coronary malperfusio

Cerebral malperfusion

Free Ascending ruptur

resuspension

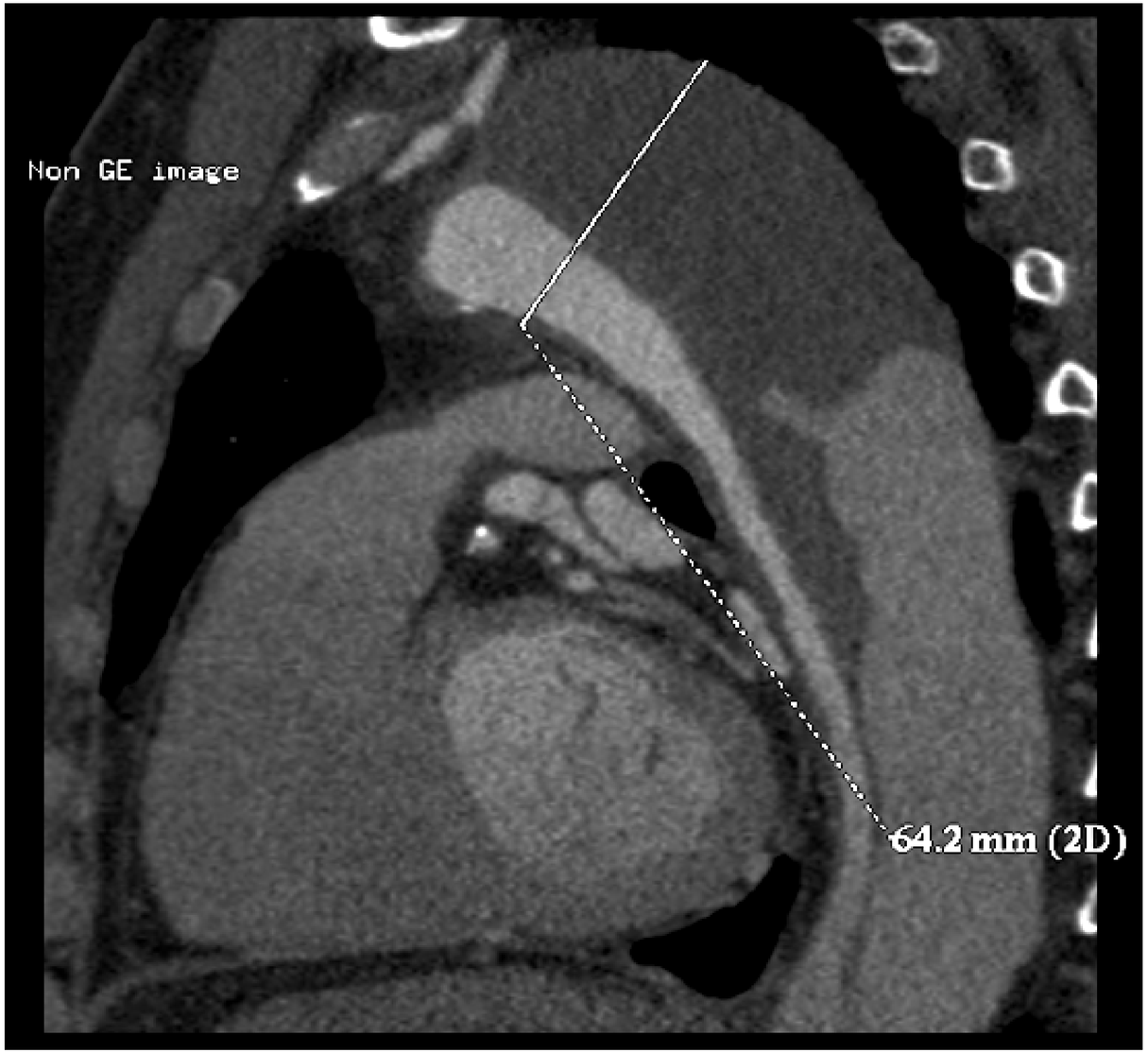
epair

ent

c replacement

Fate of Distal Descending Aorta!

Index Operation Failure: 40 y.o male 1 year post Type A repair (6.4 cm)

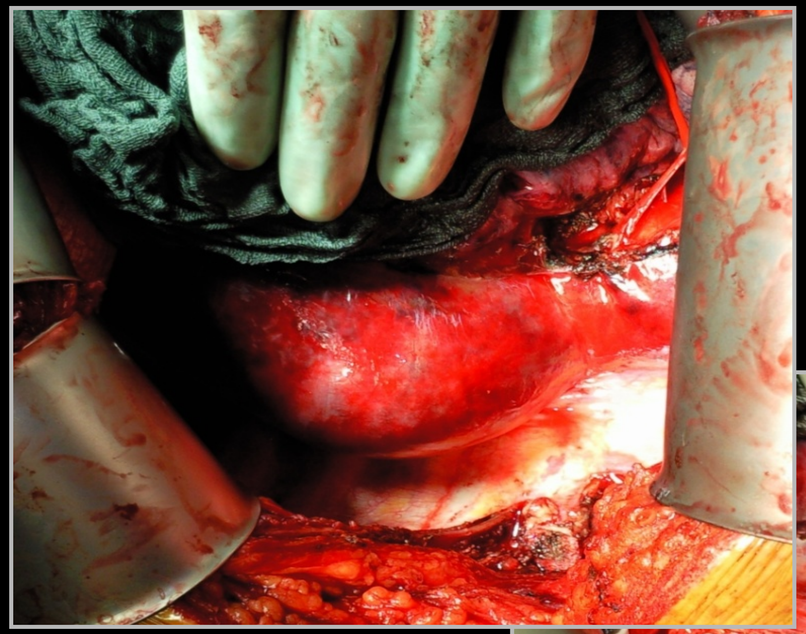


I have hundreds of these scans!!! ……

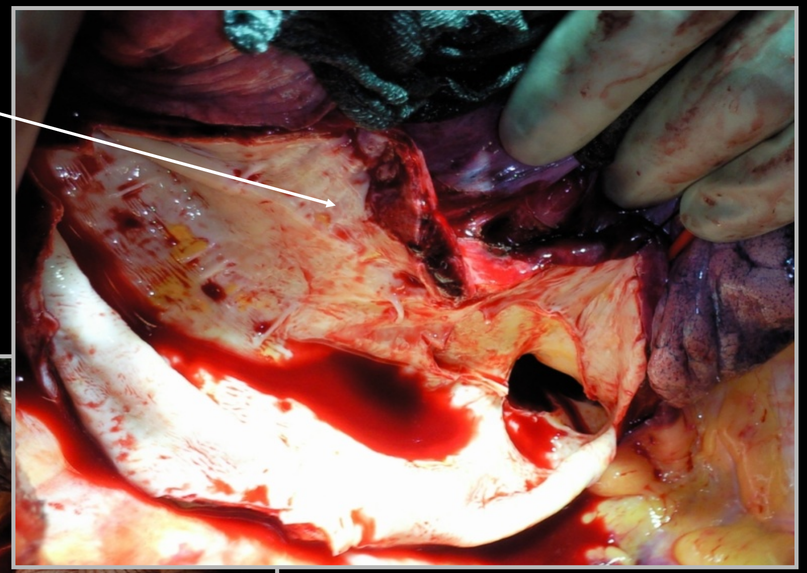
Do We Have a Problem with the Downstream Aorta?

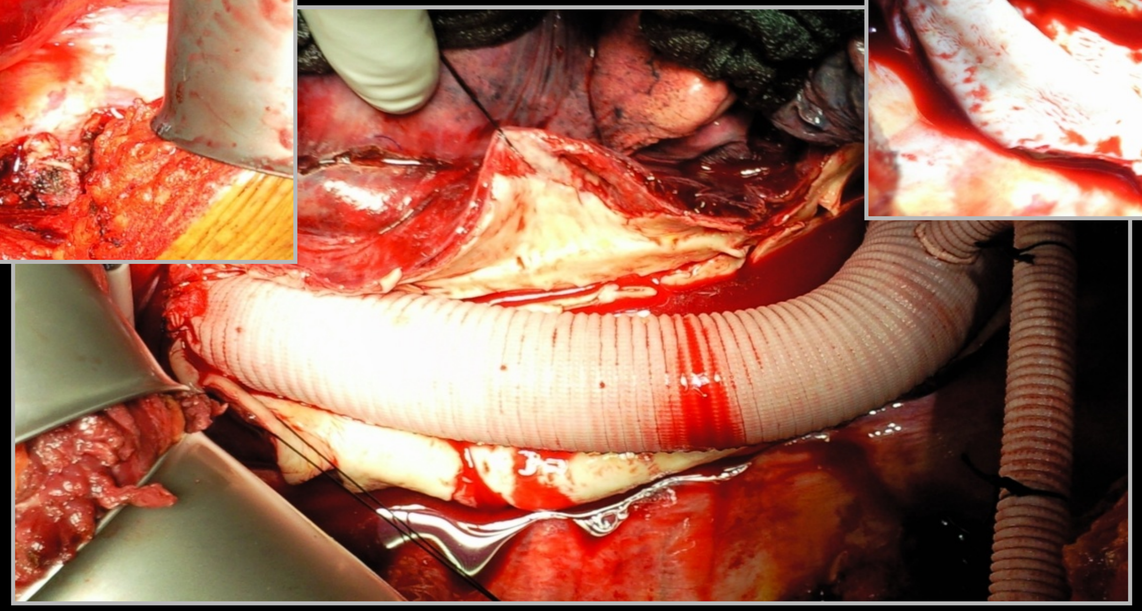
Yes, We Have!

- Contained rupture 5 years after operation of an acute dissection type A (TAAA aortic diameter 6,5 cm)



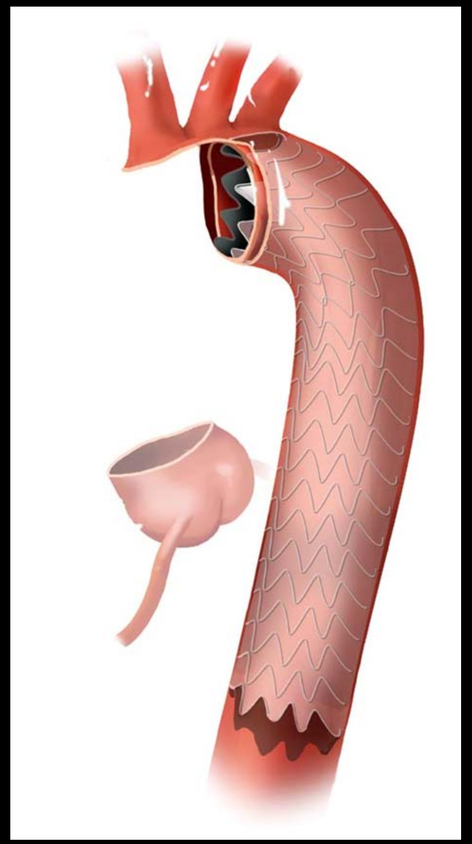
perforation site





Solution (?): Procedural/Device Innovation

Can We Build a Case for the use of an Antegrade delivered TEVAR in Modifying the Descending Aorta in Type A Dissection?

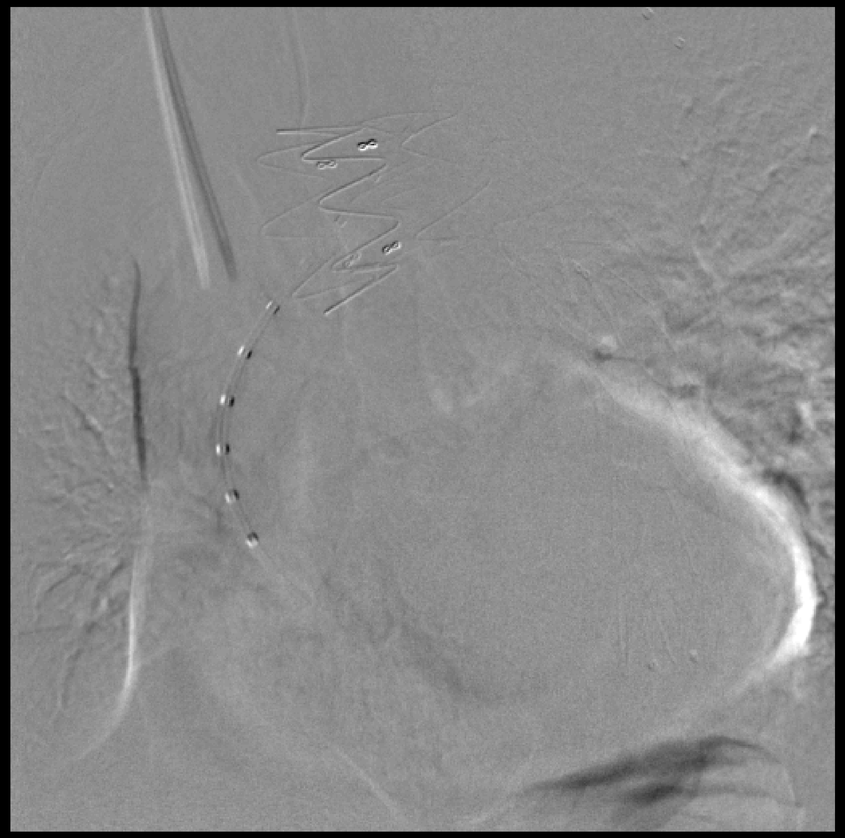


Lessons and Translation from a Related Area

A lot of Innovation is applying good ideas from other areas

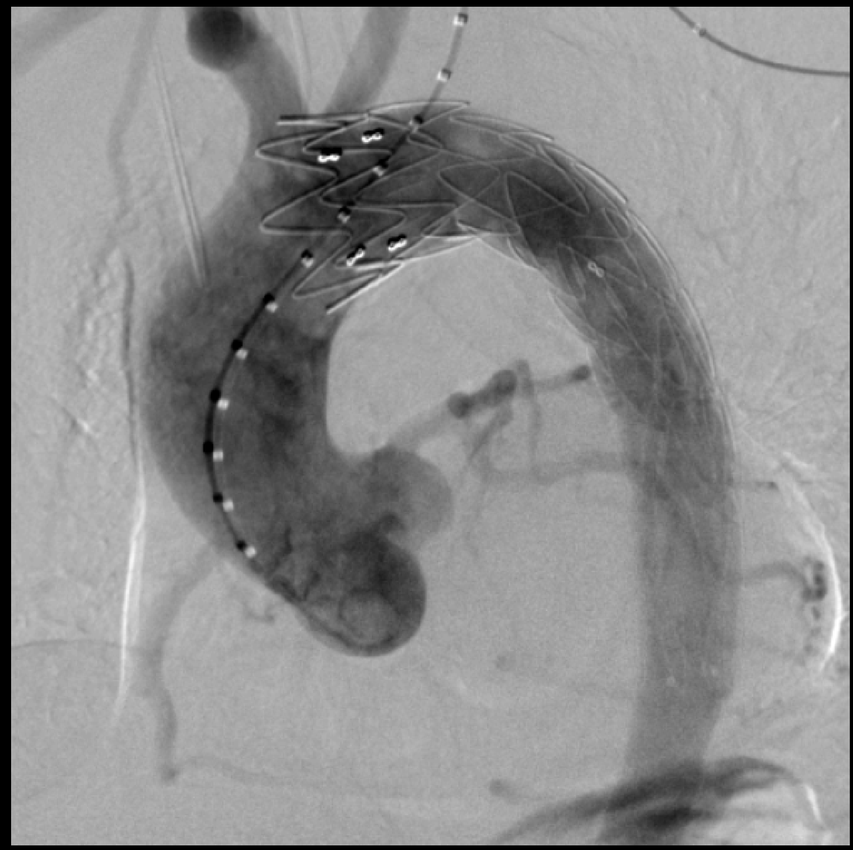
Acute Type B High Risk Uncomplicated Dissection: TEVAR and Distal Aortic Remodeling (Very Compelling!!)

Excellent obliteration of false Lumen



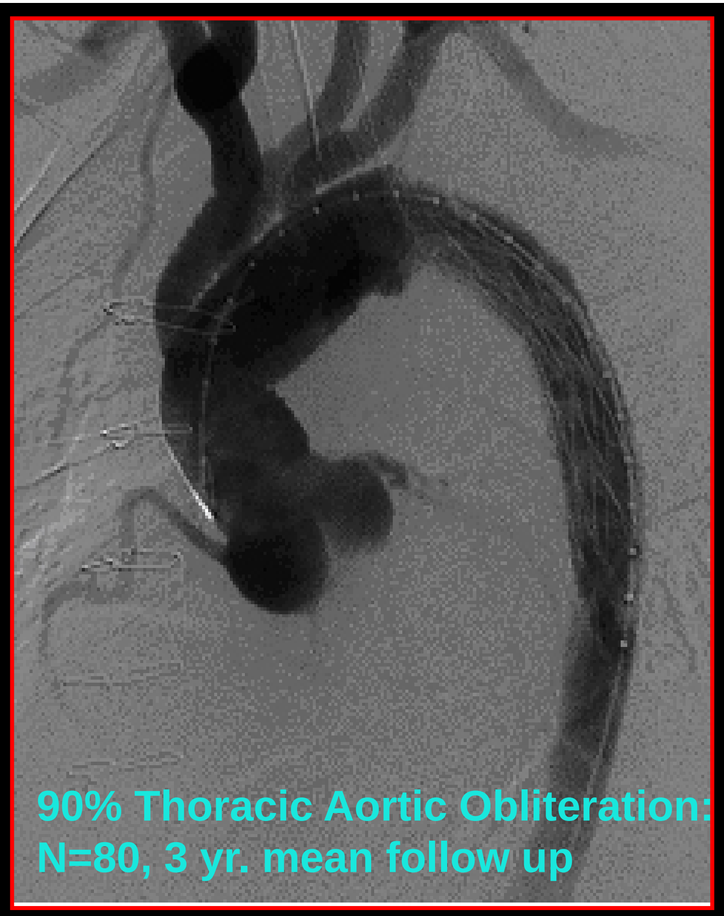
Patient with persistent Severe HTN (BP = 180-200 on > 4 meds)

Acute Type B "High Risk Un-Complicated" with Distal Aortic Remodeling



Type A (Debakey Type I) Dissection: Pre and Post Proximal Repair with E-Vita (type) Distal Graft

Sun et al;Beijing, China



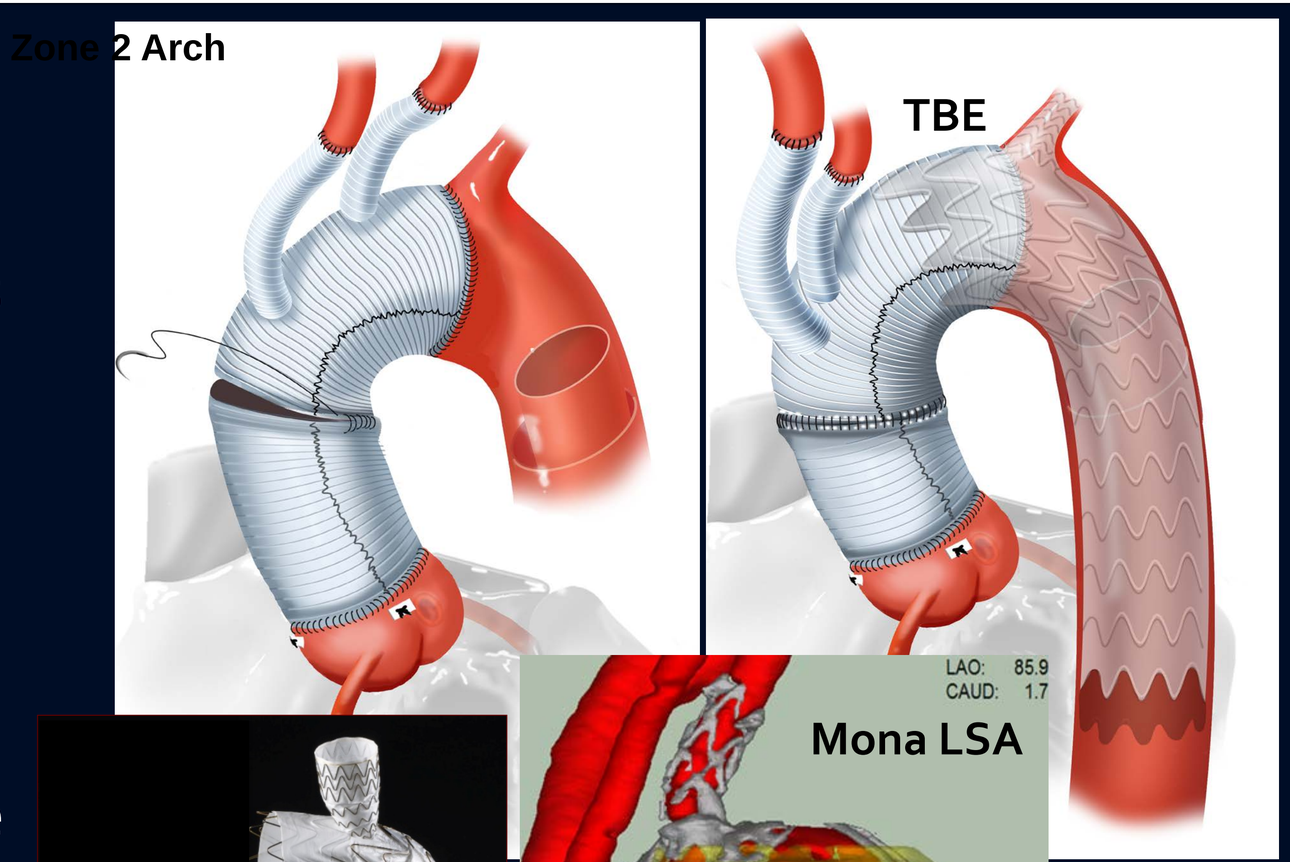
90% Thoracic Aortic Obliteration:
N=80, 3 yr. mean follow up

Thoroflex

H. Jakob, et al; EACTS, 2012, Initial Presented at STS 2007
And update NY Aortic Surgery 2012; (Essen, Germany)

So how should we handle the ARCH?
Or … *ZONE 2 Arch with Sequential Branched TEVAR completion*

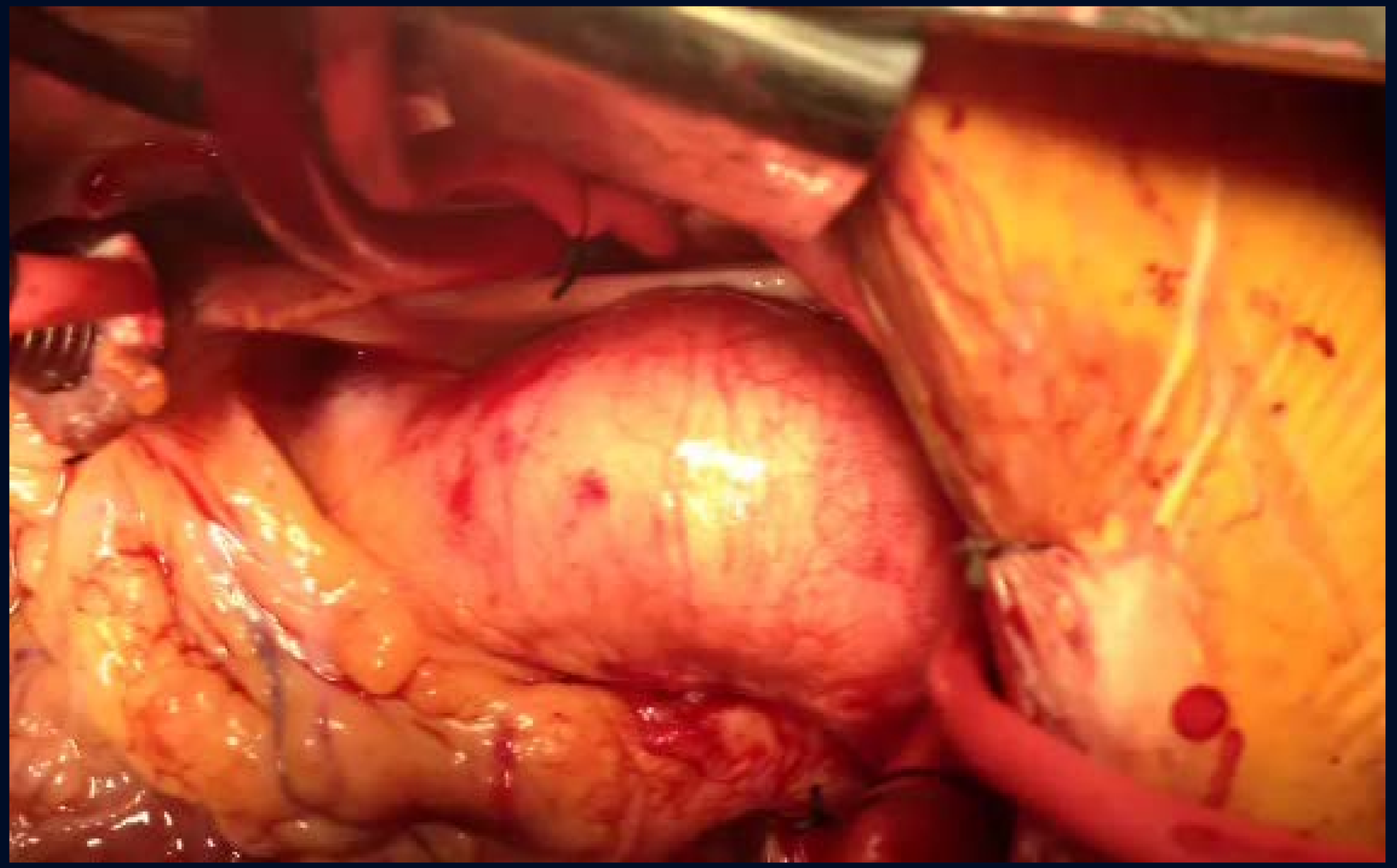
- Advantages
  - Simpler Distal Anastomosis
  - Can address most complex arch tears and eliminate flap in proximal head vessels
  - Shorter ACP times
  - Definitive TEVAR options
  - Avoids TEVAR when not needed
  - Less risk of Recurrent larnygeal nerve injury



Desai, Bavaria (First presented) STS 2015; AATS JTCVS 2016 (in press); Full Series STS TEVAR 2016

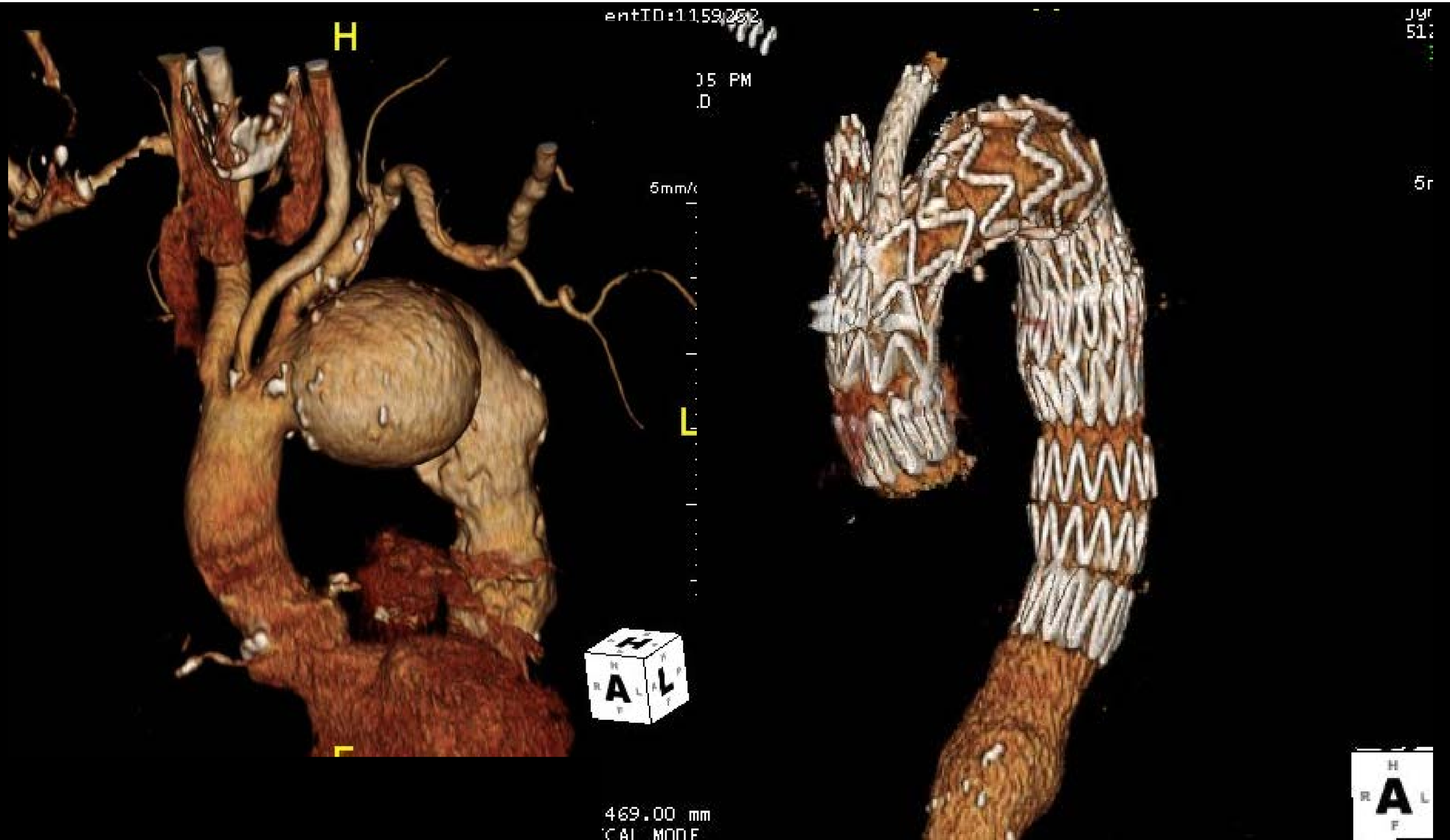
Innovation, Imagination, and History ……

Water Hammer Pulse AI Aneurysm: Crazy!!!! Ascending application?



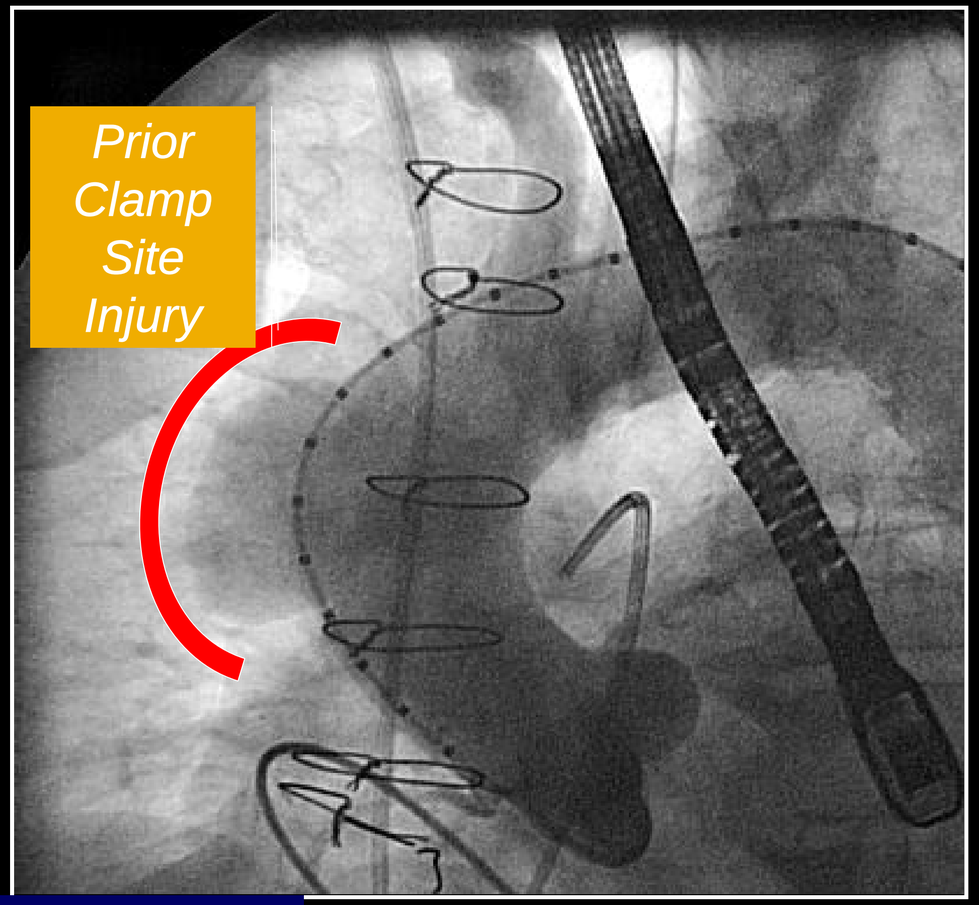
Total EndoVascular Arch Procedure

Courtesy of Cherrie Abraham, MD, Montreal, Canada

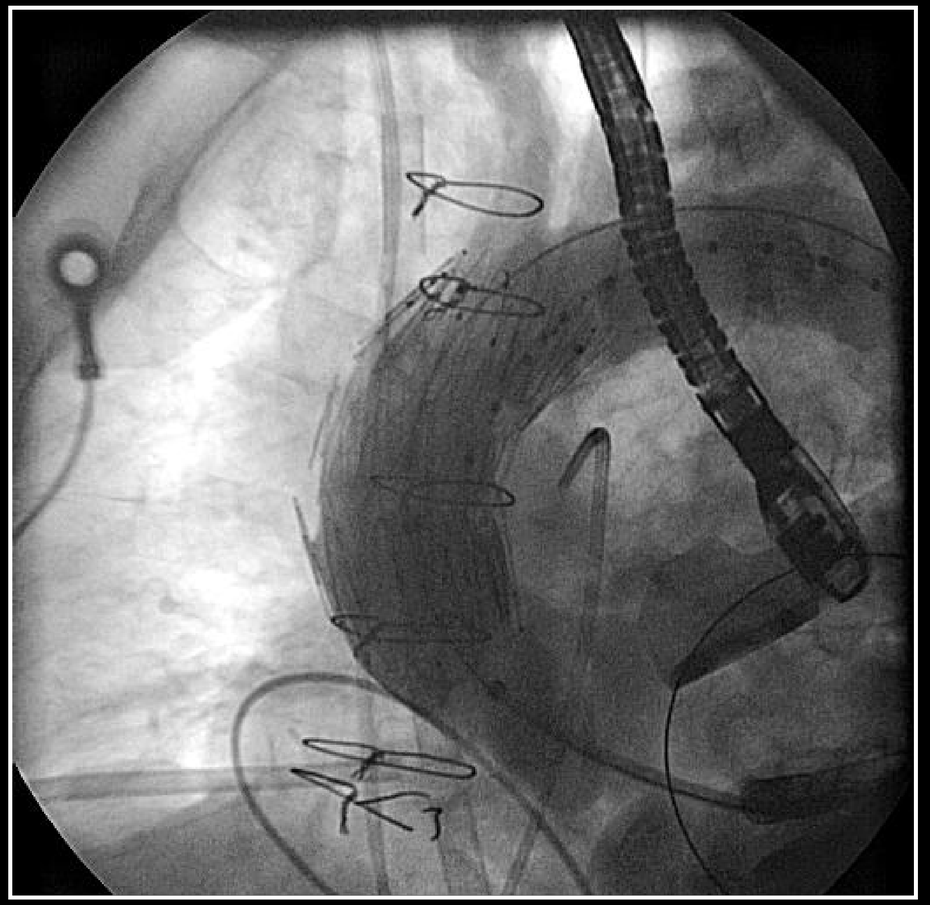


The Future of Ascending TEVAR?: Repair of Ascending Aortic Aneurysm **Trans-Apically** with Stent Graft

(Szeto , Bavaria et al, ATS 2010)



Pre



Post

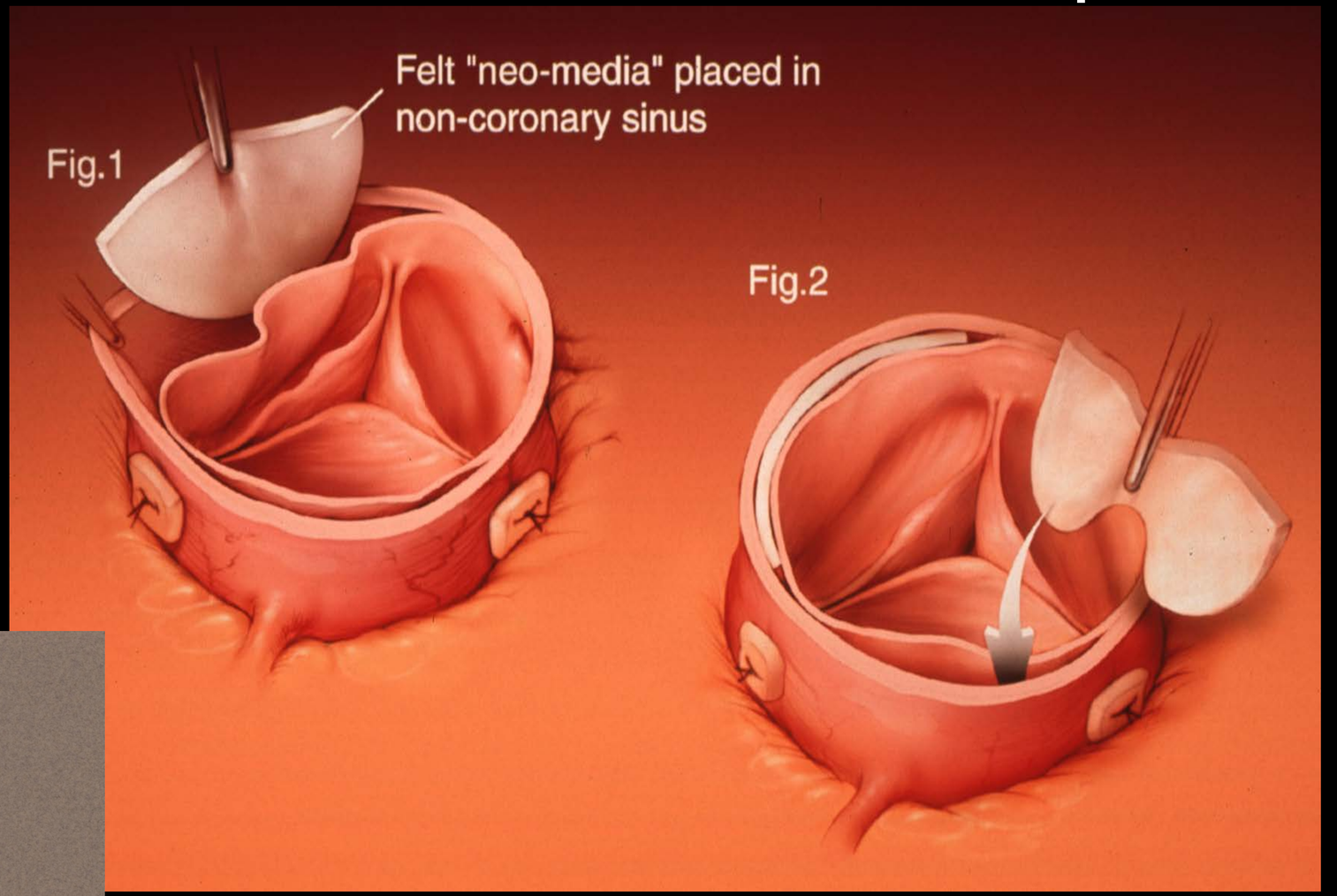
Penn Medicine

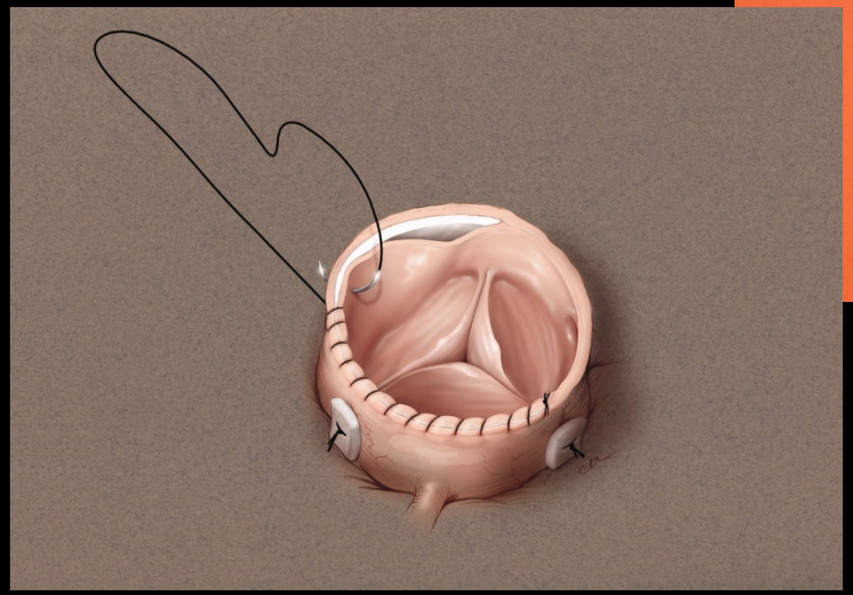
Thoracic Aortic Surgery:
Emerging and Innovative Therapy and Future Landscape

1. Increased Valve Sparing Root Surgery (ALWAYS for AI) David V (and BAV repair techniques) .. **(Conceptual)**
2. Distal Aortic TEVAR Adjunct in Type A Dissection **(Conceptual and Device)**
3. Hybrid Arch +/- Endo-Arch (Mixture) …… The march towards "More Proximal" Reconstruction **(Conceptual and Device)**
4. Chronic Type B Dissecting Aneurysms **(Mostly Conceptual also Device)**

When do You Spare the Aortic Valve?

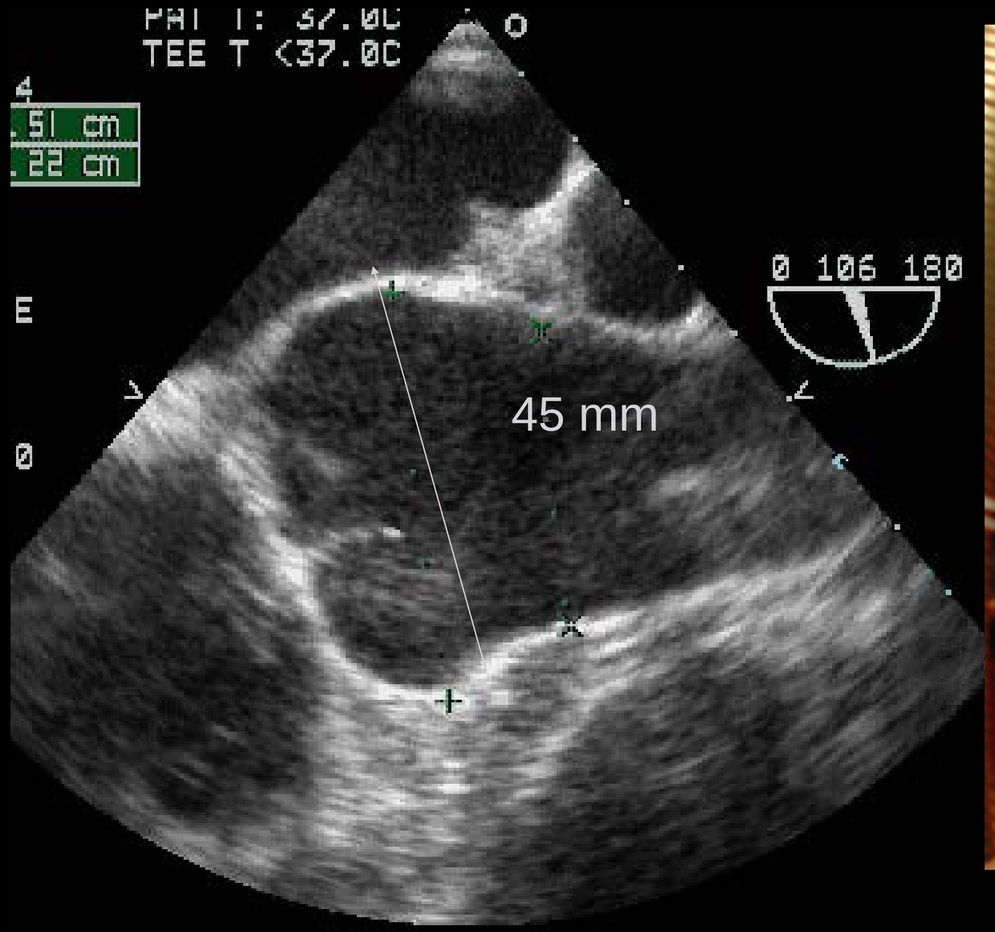
Aortic Root Reconstruction/Sinus of ValSalva Repair

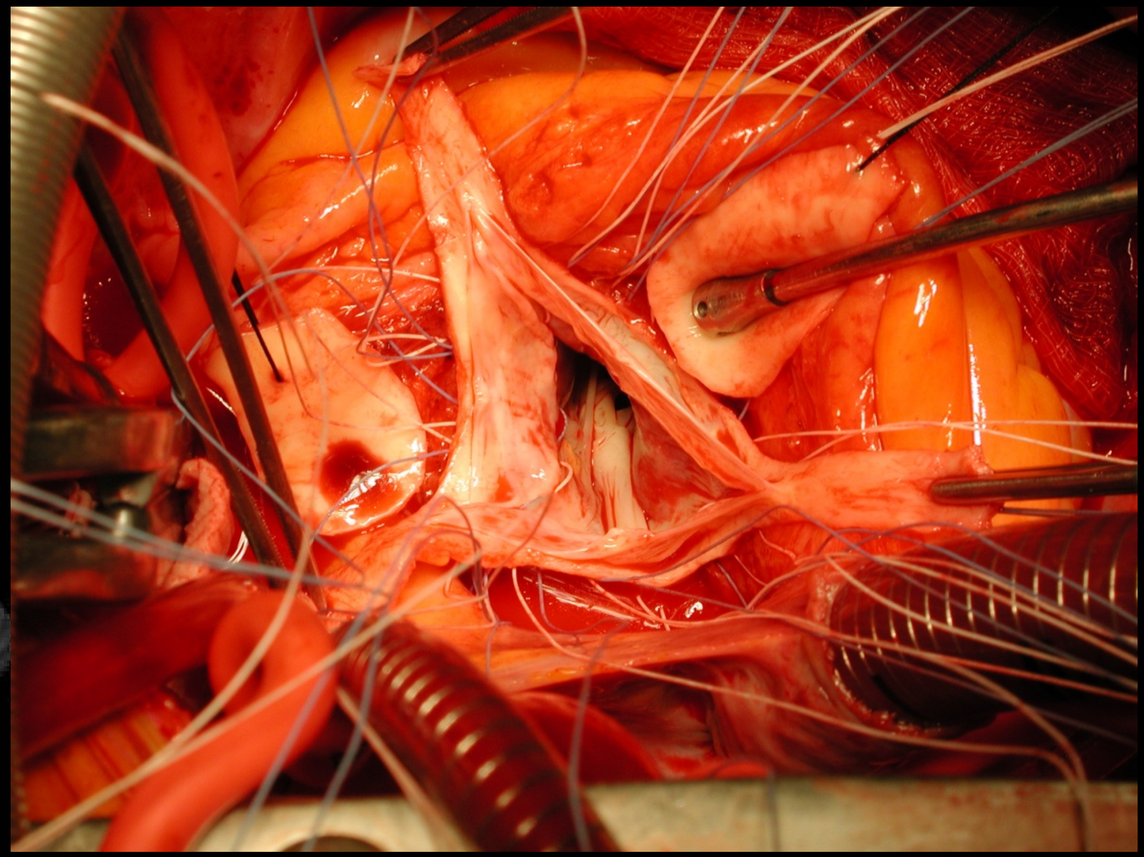




Bavaria, Pochettino, Gleason et al; Annals of Thoracic Surgery, 2003

Marfan Root (41 yr. old Man) with 9 1st Order Relatives with either Dissection, Death from Rupture, or Replaced Roots !

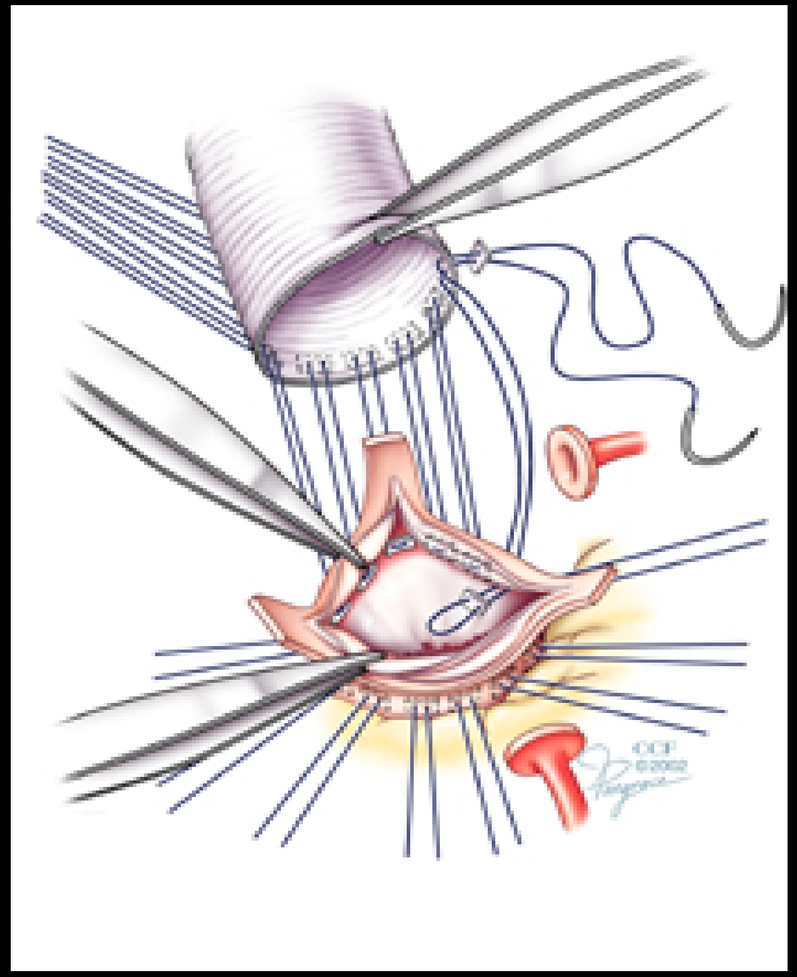




Near Prophylactic Replacement

Reimplantation (David I)

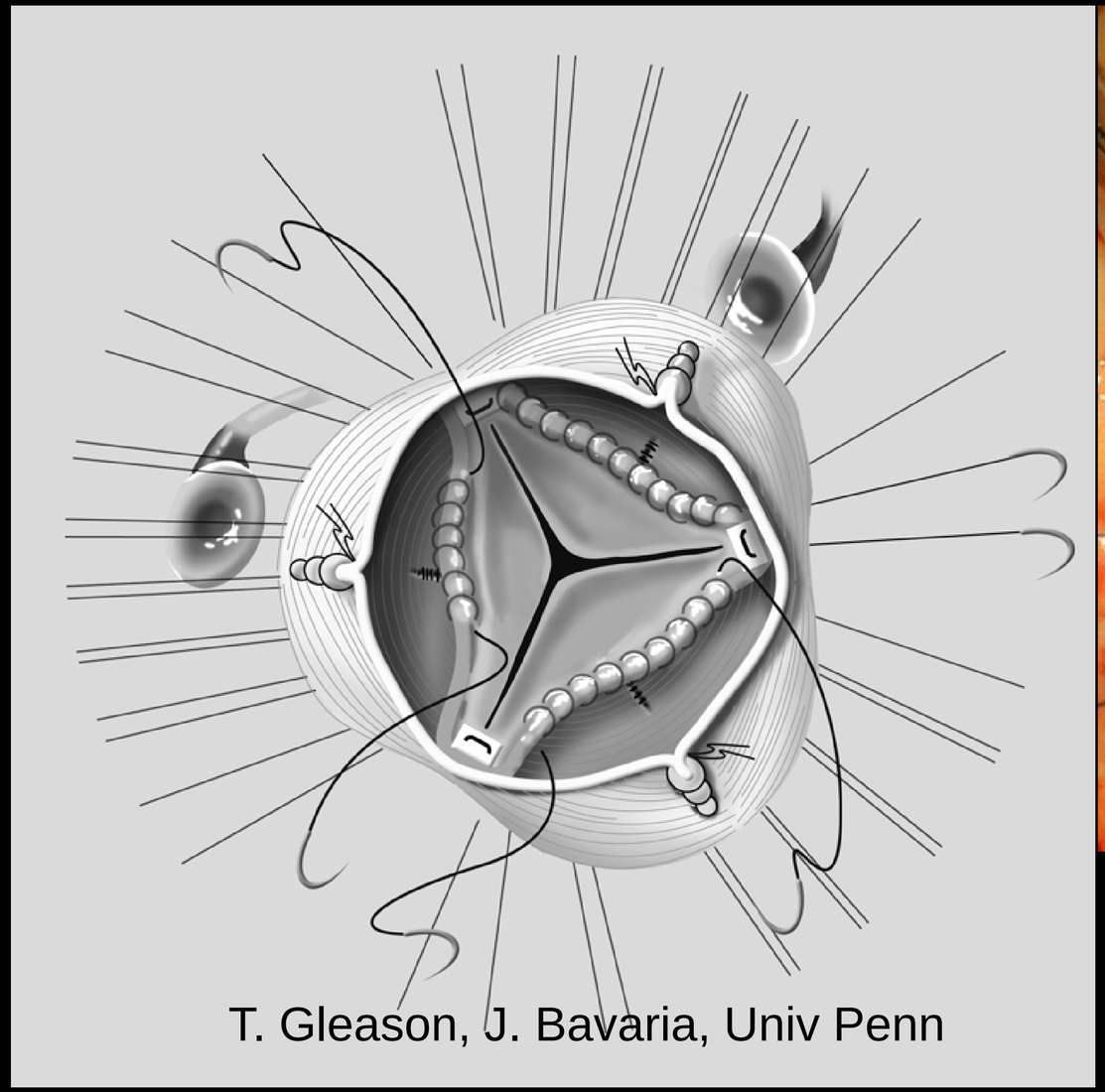
With Hemi-Arch



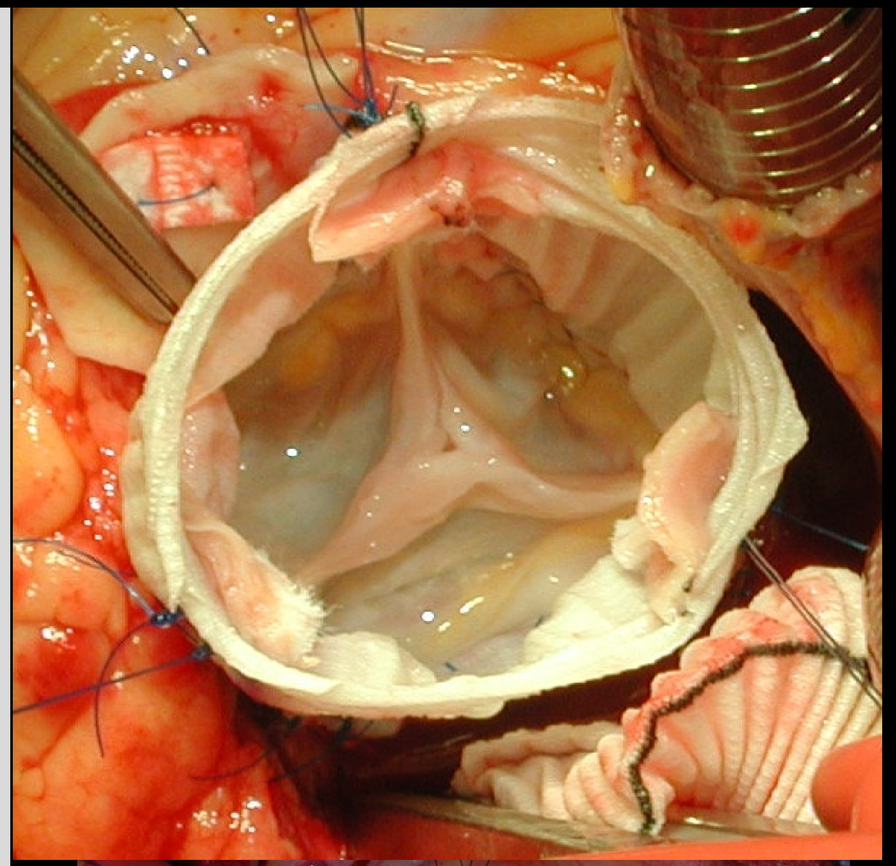
- The Innovation Challenge

The Challenge for Thoracic Aortic Surgeons is to Spare RELATIVELY normal aortic valves, even if they are regurgitant, when the fundamental disease process is primarily an Aortic issue

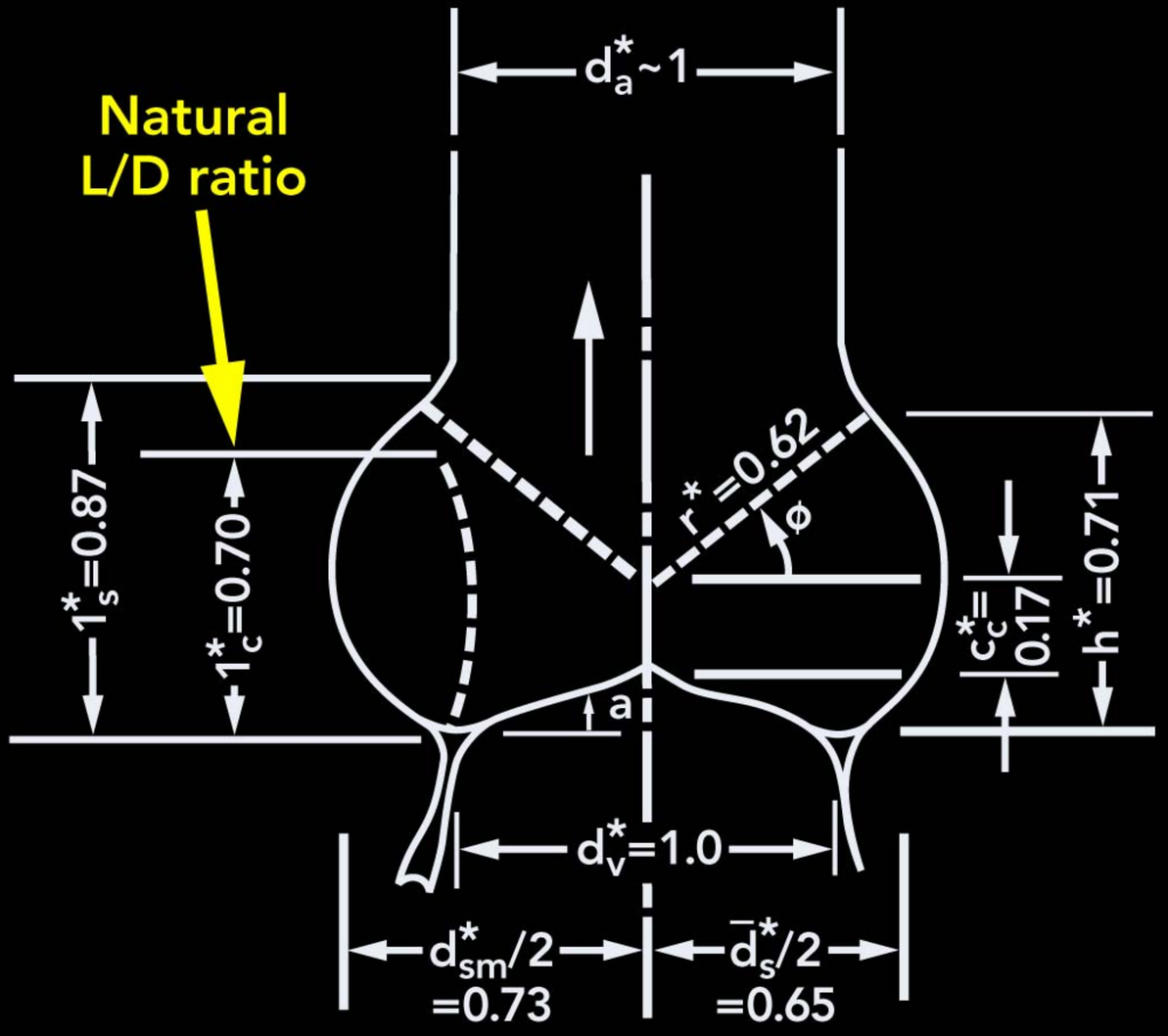
Goal: Restore (even fix) Geometry and Reduce Stress for long lasting repair

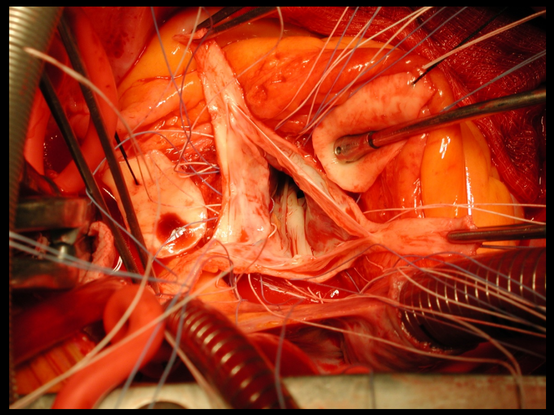


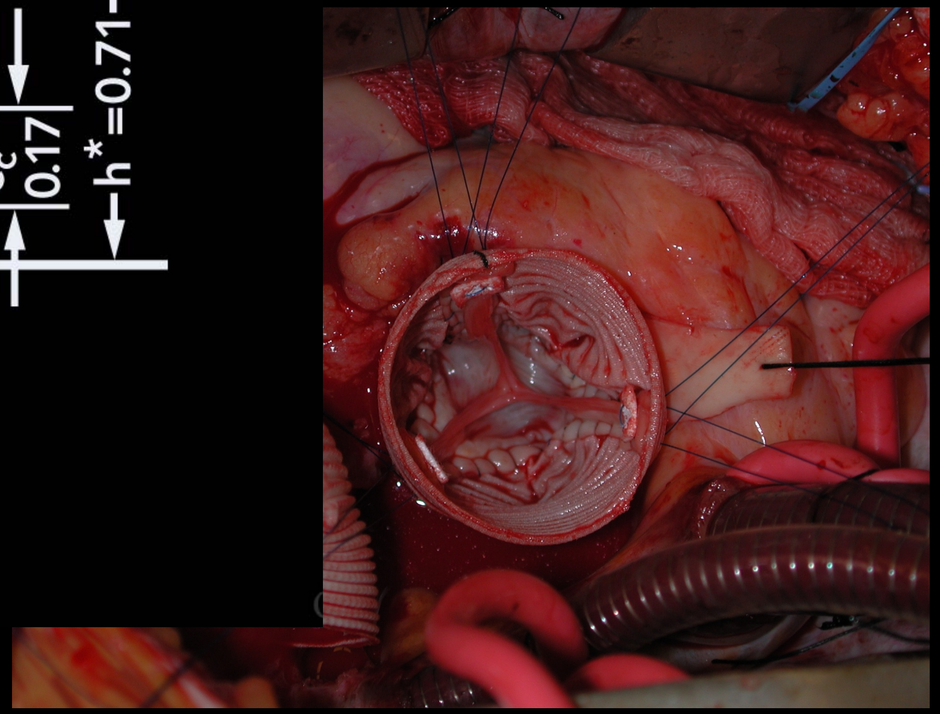
T. Gleason, J. Bavaria, Univ Penn



The Innovation is Conceptual and Improved Knowledge base







Swanson & Clark. *Circ Res* 1974;35:871-82.

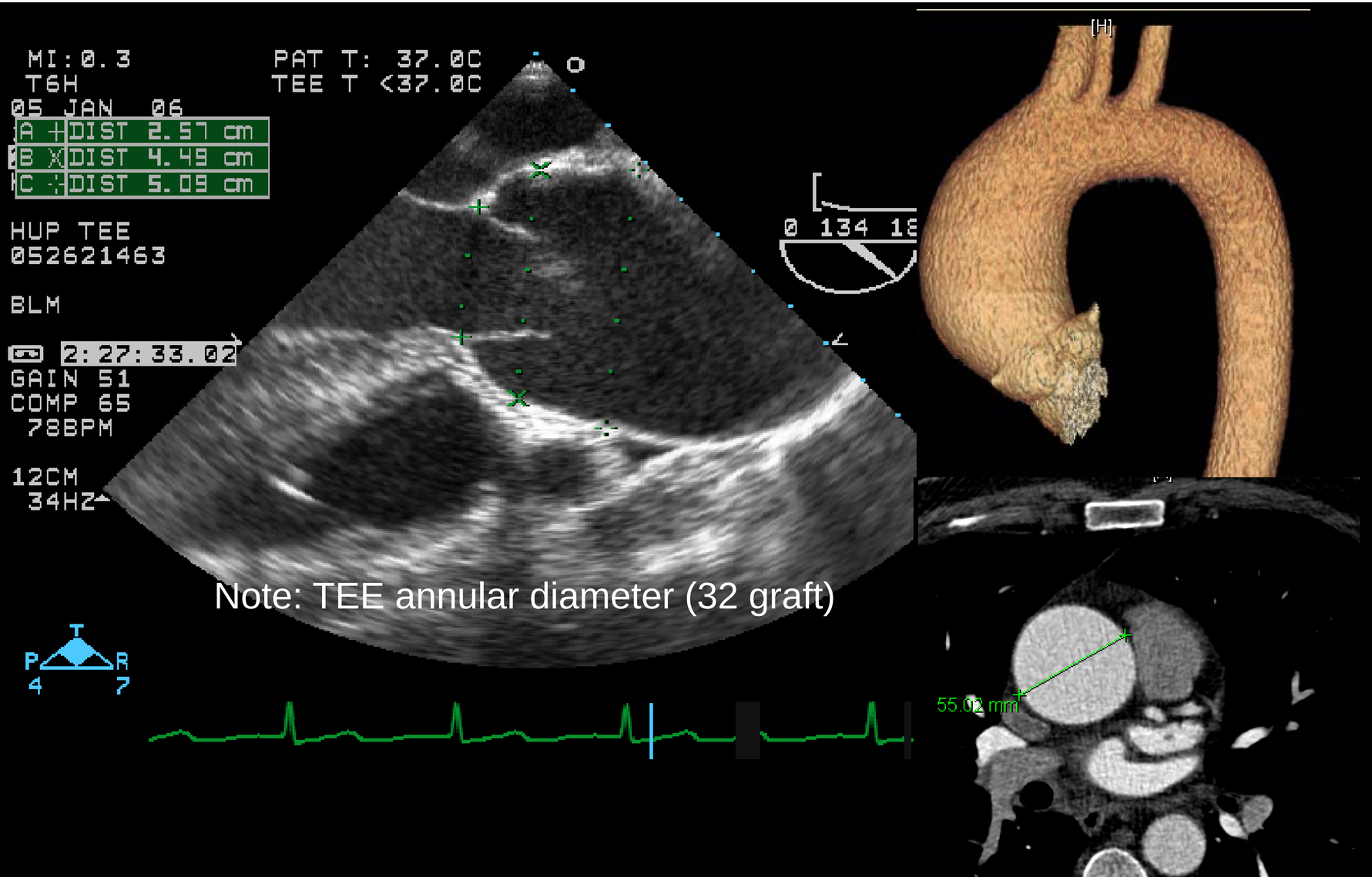
More Conceptual Innovation

Can We Spare more Complicated Clinical Aortic Valve Presentations?

And Why is this so Important!

Bicuspid Valve and the Aorta: Effect of New guidelines?

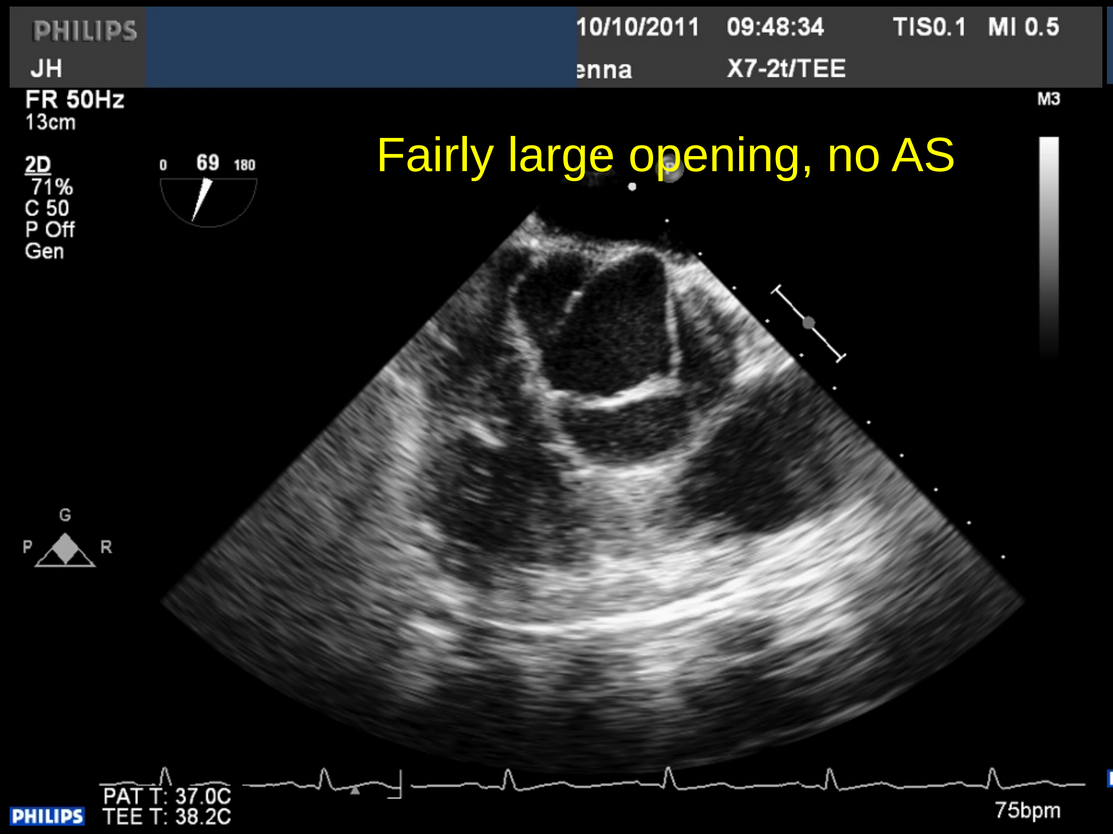
1-2 Million people in USA !!!

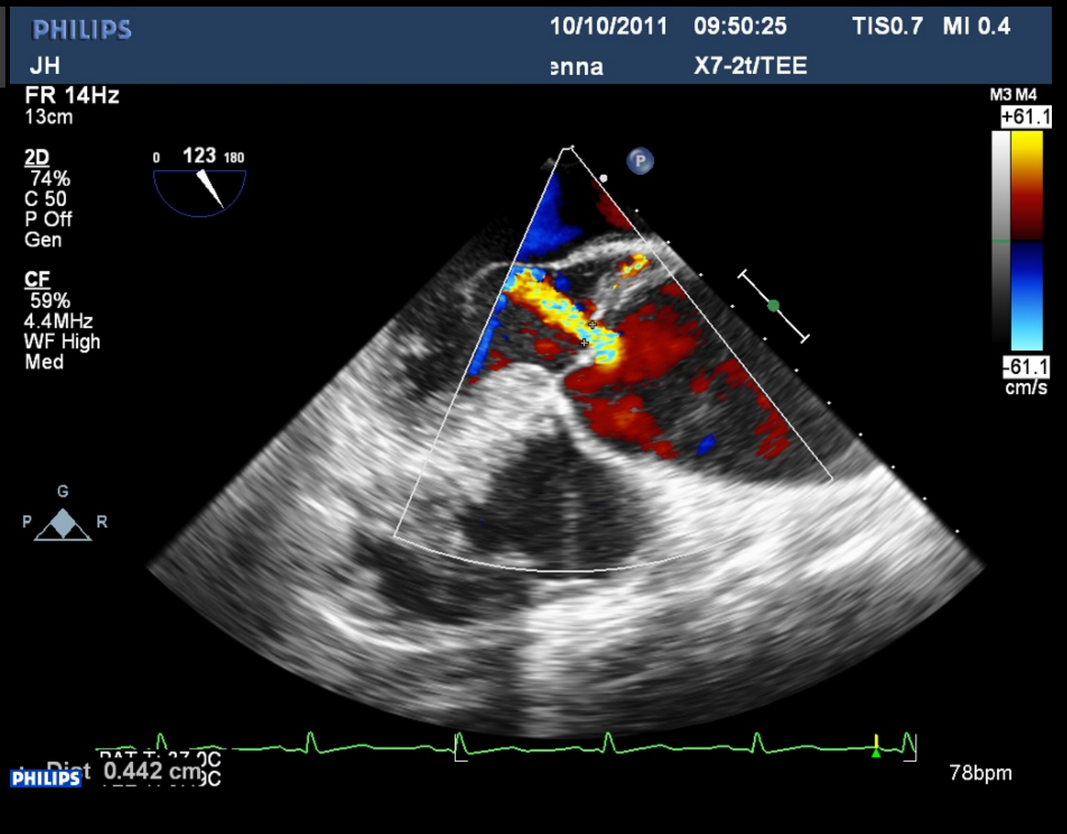


Note: TEE annular diameter (32 graft)

The Pure AI BAV Patient with Dilated/Aneurysmal Proximal aorta

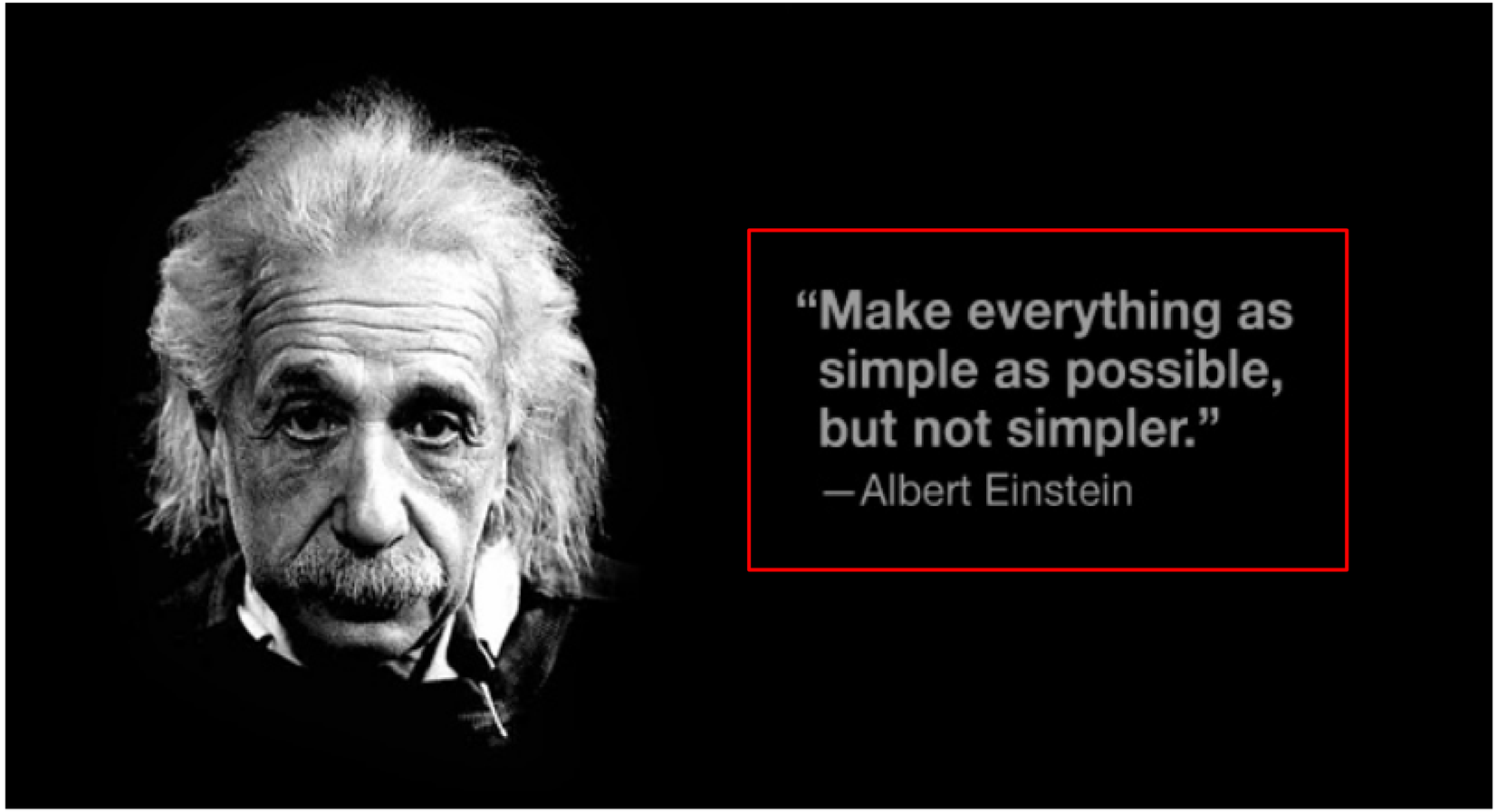
NOTE; Pure AI, No Calcified Leaflets





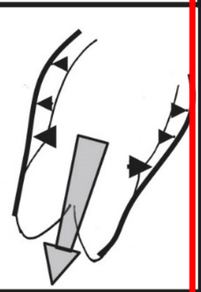
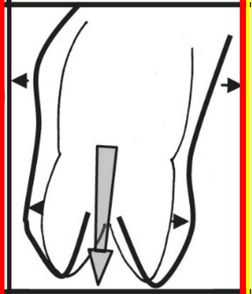
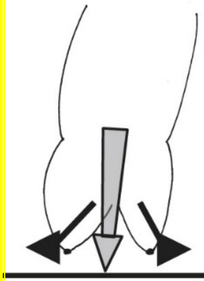
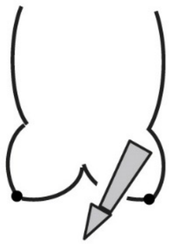
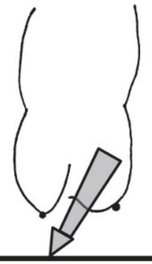
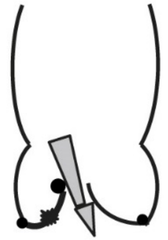
Still frames to depict anatomy

- Regarding Innovation:



Surgical Repair BAV AI Classification:
Fundamentally we are discussing Ib and c with II

Most Common combination

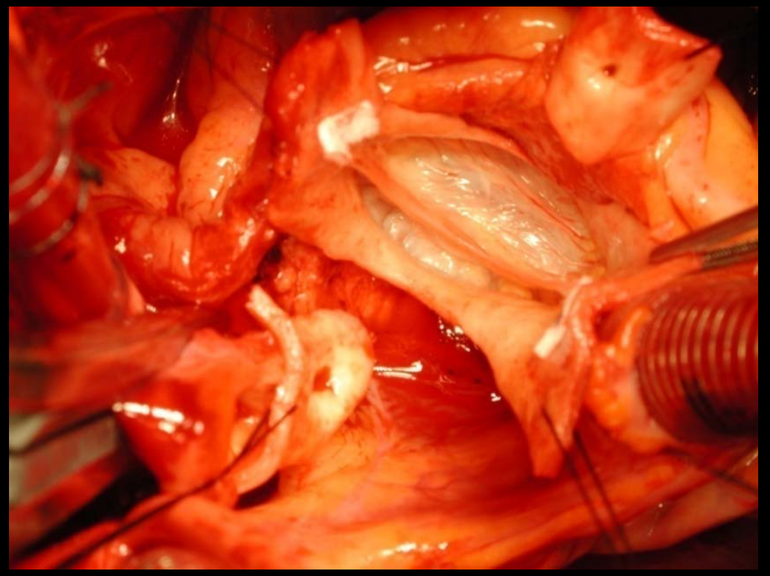
AI Class	Type I: Normal cusp motion with FAA dilatation or cusp perforation				Type II: Cusp Prolapse	Type III: Cusp Restriction
	Ia	Ib	Ic	Id		
Mechanism						
Repair Techniques (Primary)	STJ remodeling *Ascending aortic graft*	Aortic Valve sparing: *Reimplantation or Remodeling with SCA*	SCA	Patch Repair *Autologous or bovine pericardium*	Prolapse Repair *Plication* *Triangular resection* *Free margin Resuspension* *Patch*	Leaflet Repair *Shaving* *Decalcificatio* *Patch*
(Secondary)	SCA		STJ Annuloplasty	SCA	SCA	SCA

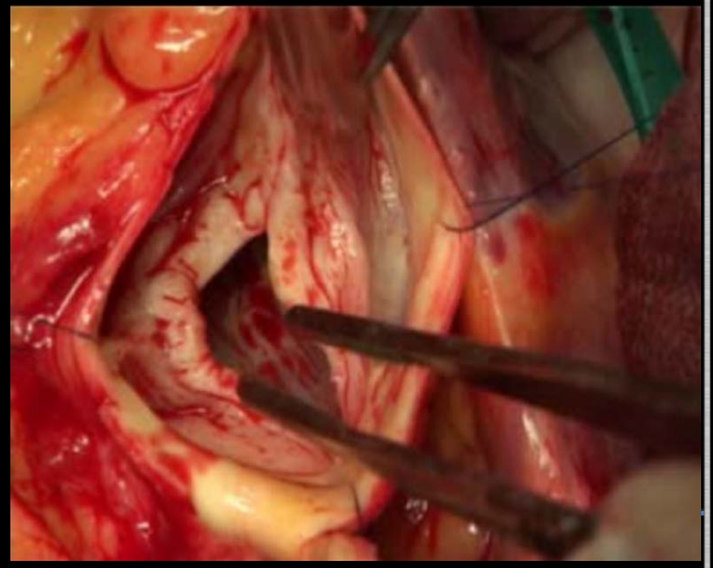
BAV Ib + II usually associated with 15-25% larger annulus than standard for BSA

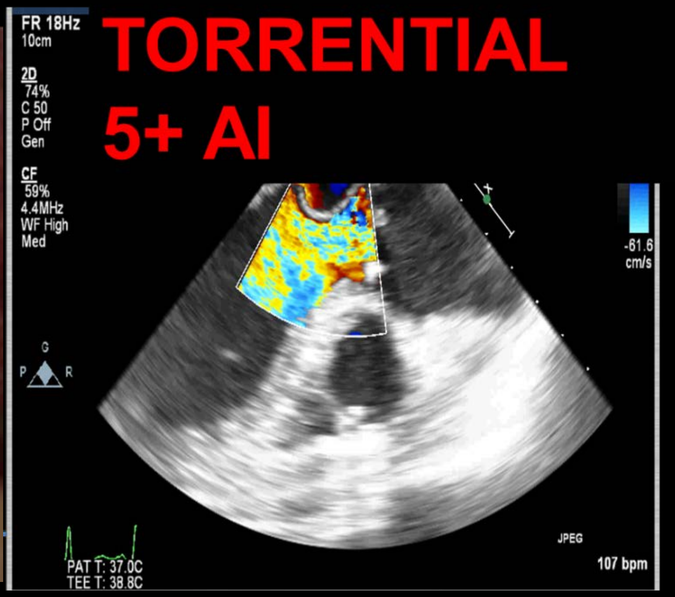
[1]Boodhwani et al. J Thorac Cardiovasc Surg. 2009;137:286-294

So ....

What kind of BAV Repair Operation are we Talking about?

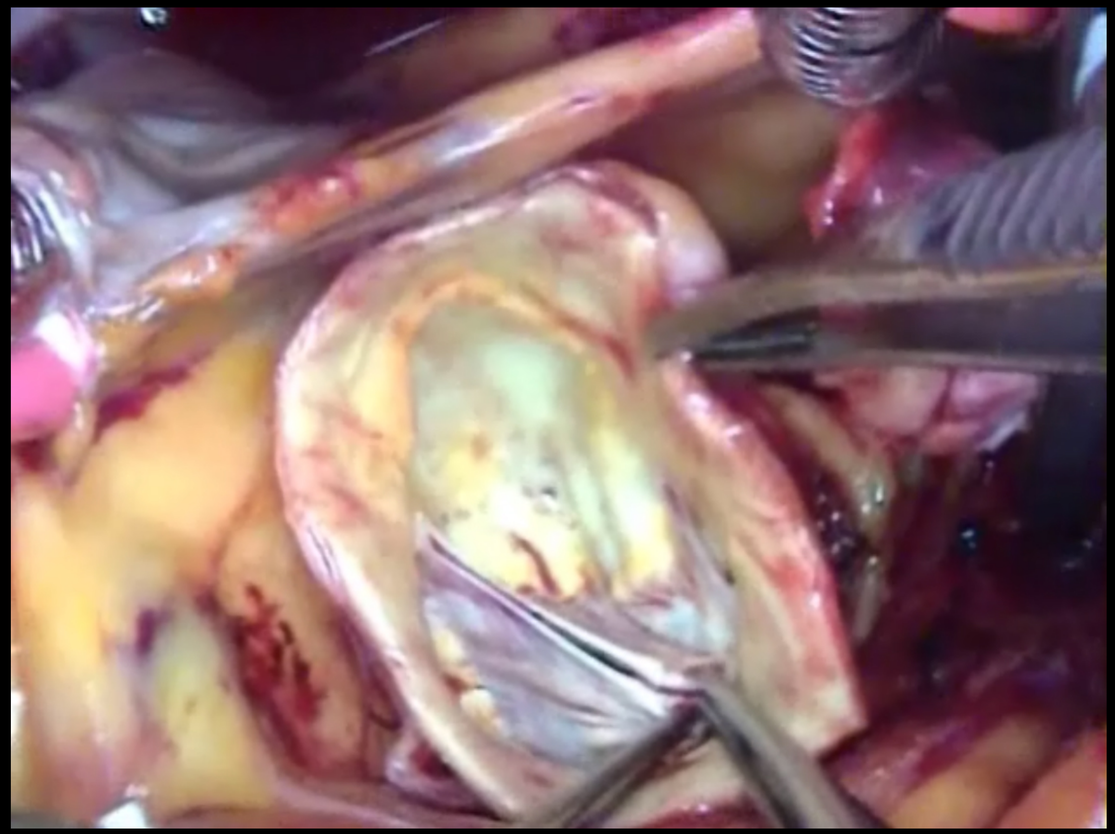




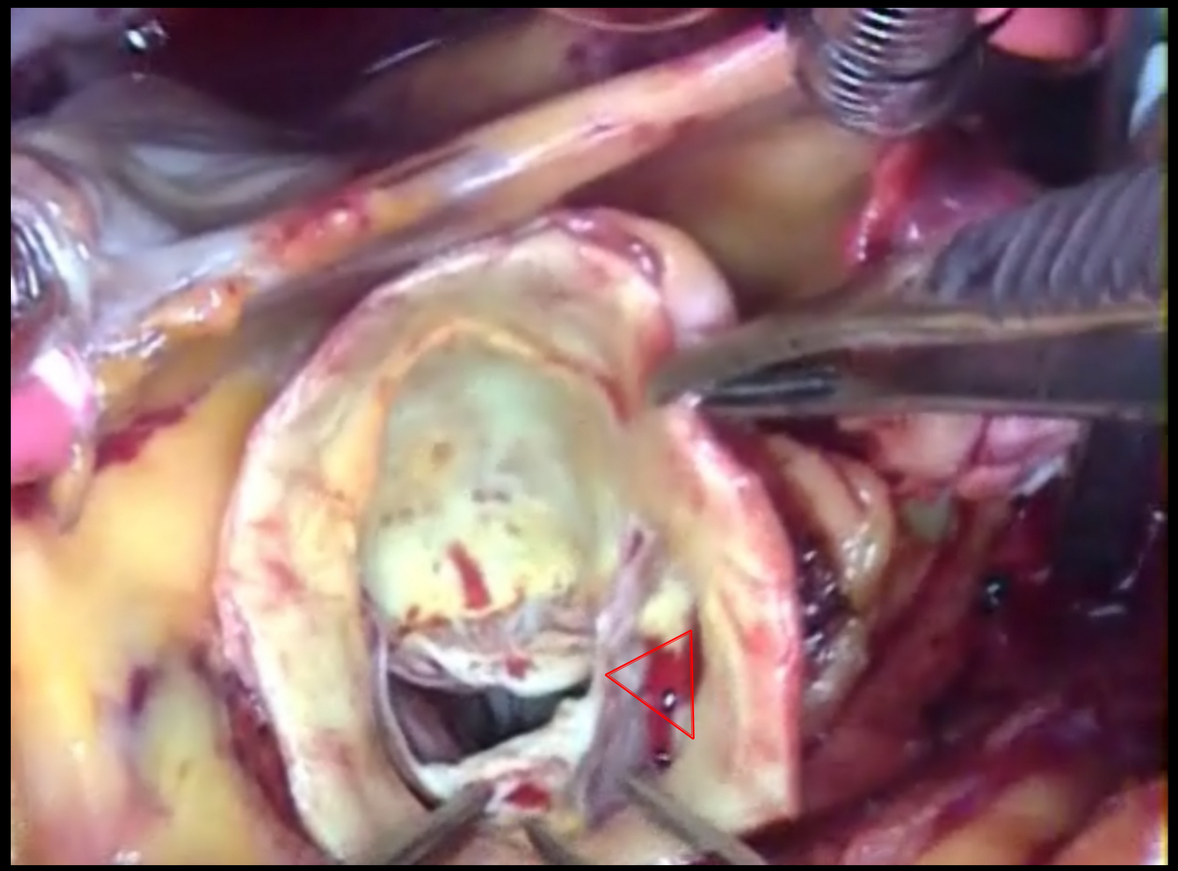


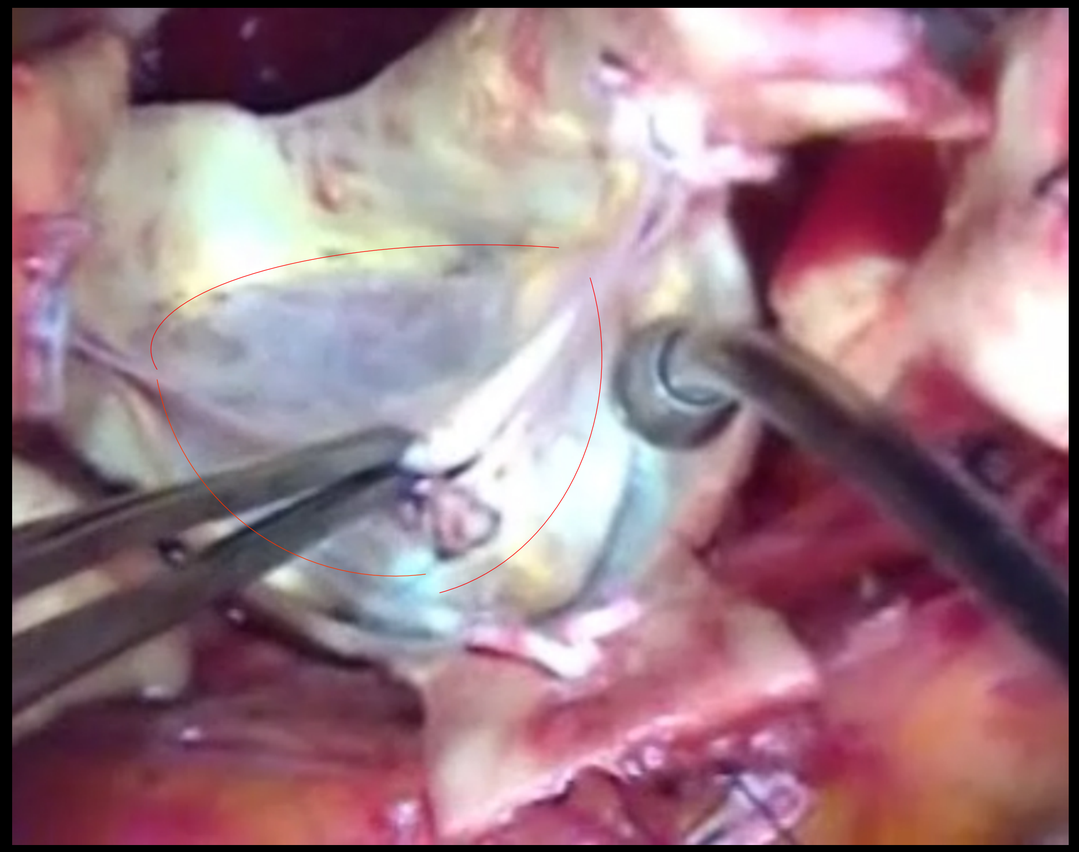
Measuring the Amount of excess leaflet to resect for Leaflet Free Margin Equality

Treating the Prolapse



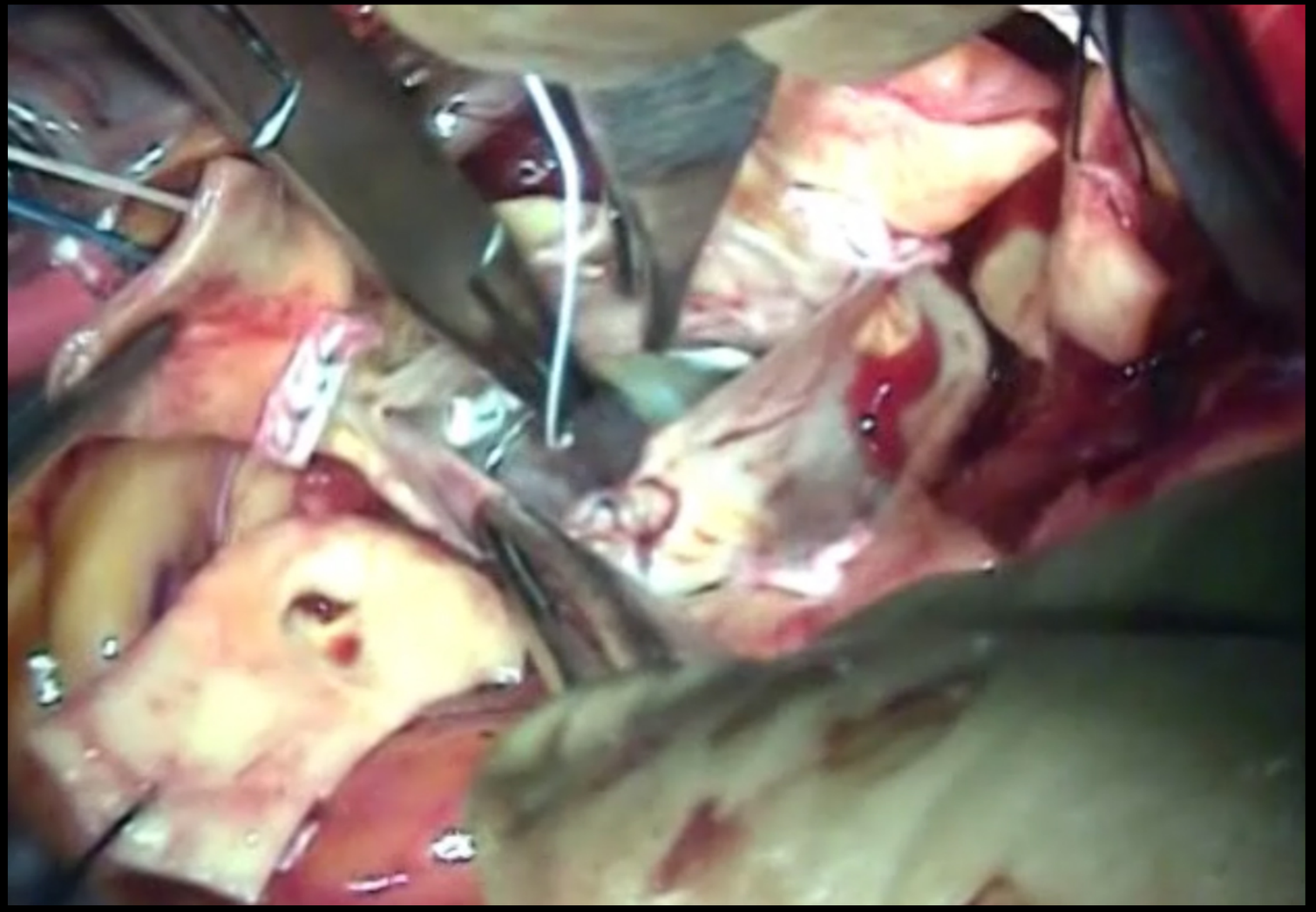
Raphe Release, Equalization of Free Margin, and Plication/Resection of Redundant leaflet





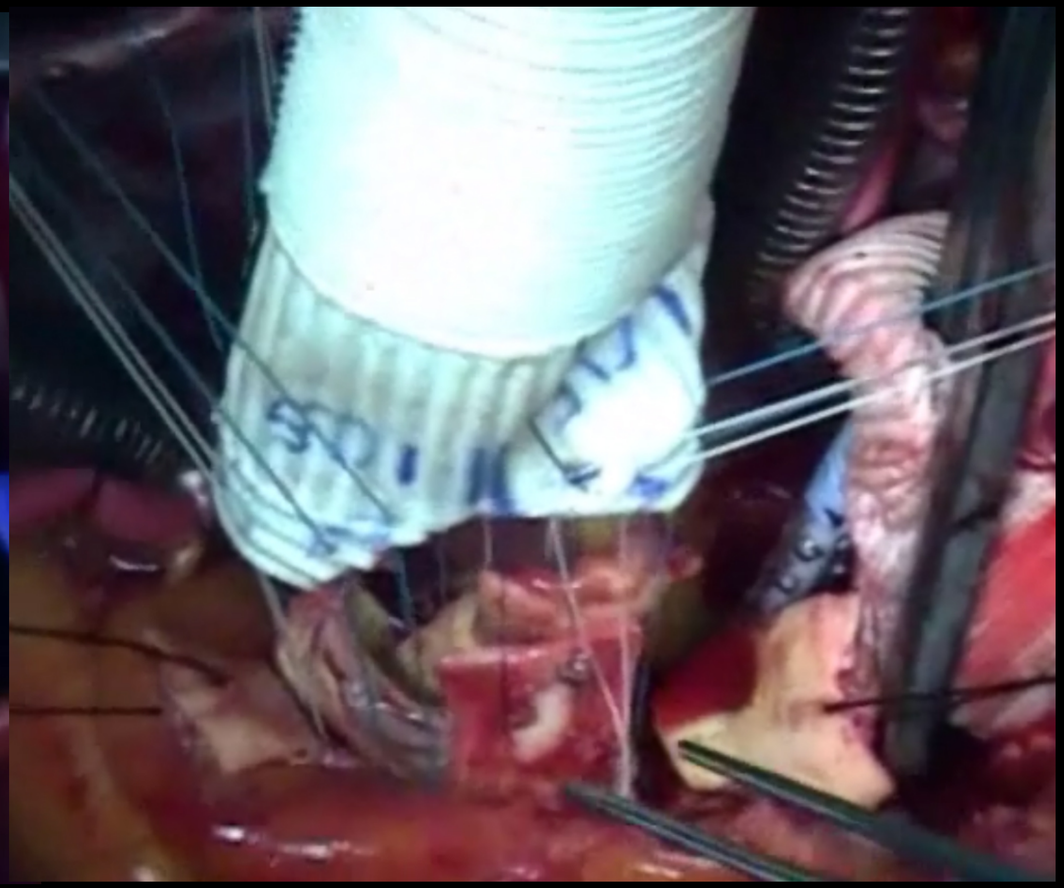
Coronary Buttons are cut.
210/150 perimeter and Leaflet surface area ratios.

Placement of Sub-Annular “Fixation” Sutures for Annular Reduction and Stabilization



8-9 Geometrically placed Subannular Stabilization sutures (annular reduction 15-20%)

Construction of Stable (smaller) Annulus and Reimplantation of the "New Root" in 3 dimensions



Bavaria, J; et al: EJCTS 2013 (presented at EACTS, Barcelona 2012)

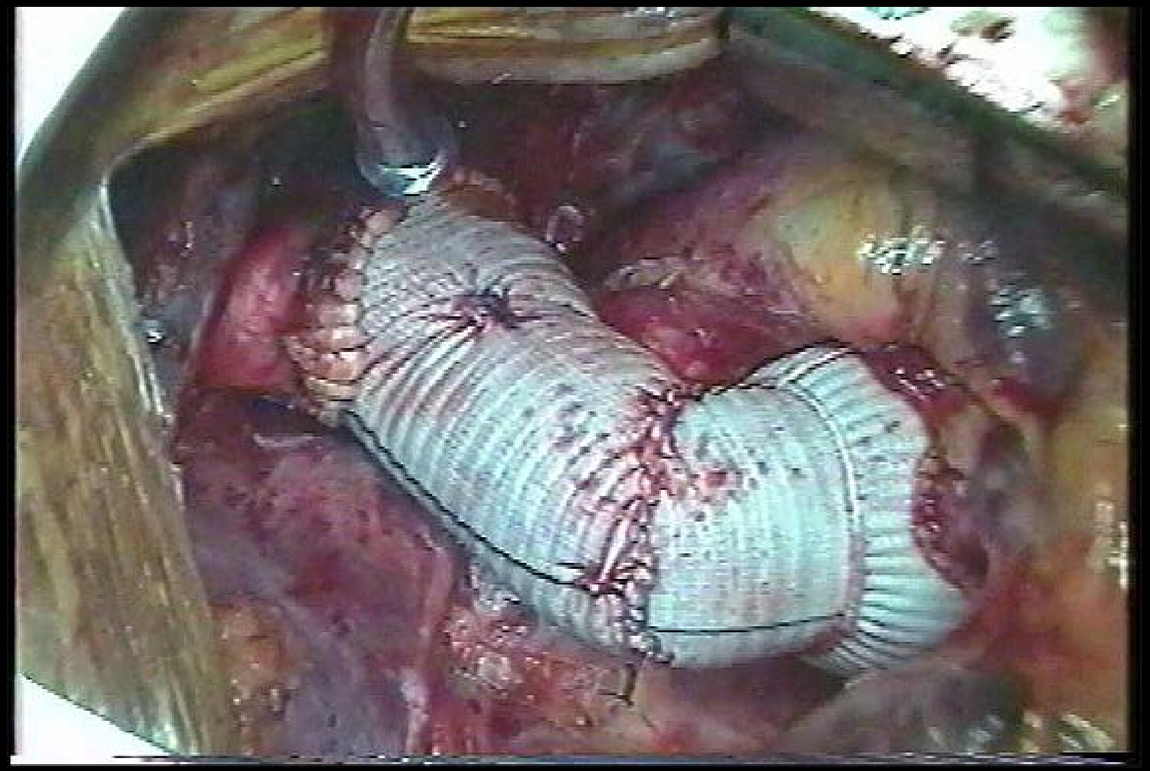
210/150 Neo ValSalva Root
(Raphed BAV)

So What's the data on Bicuspid Reimplantation Valve Sparing with Aneurysm and repaired AI?

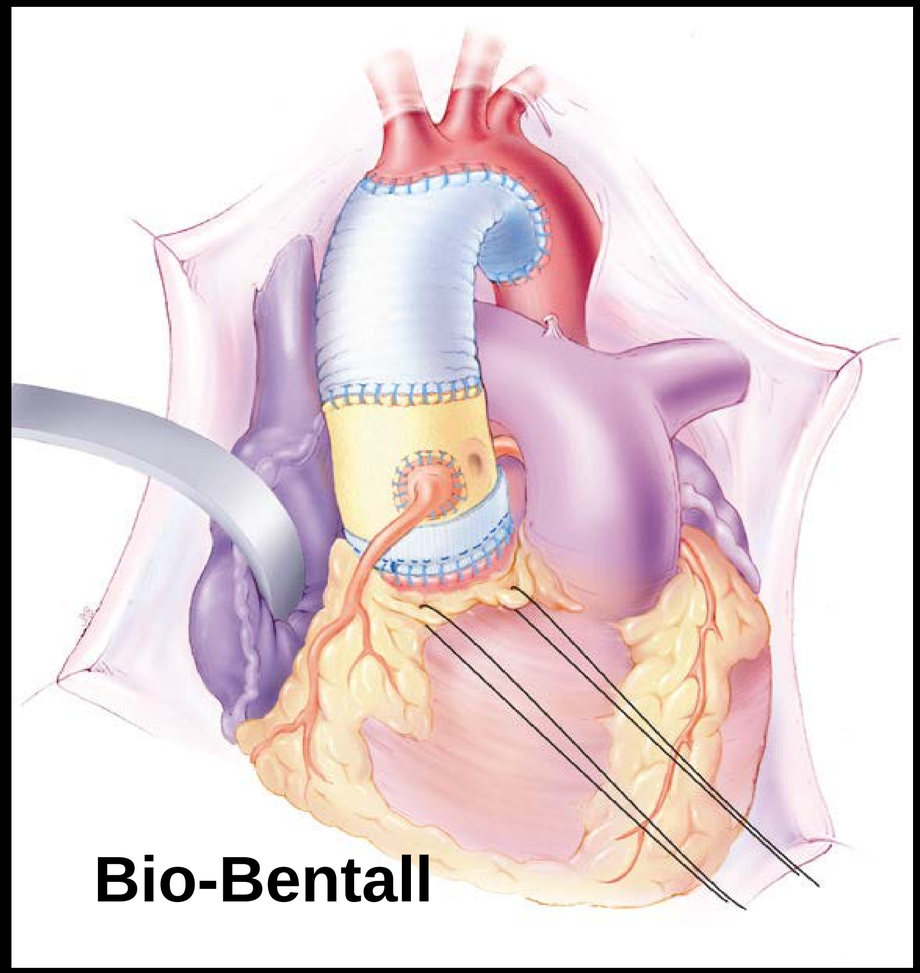
What's the Data on this Innovation?

What "Gold Standard" Operation are we Talking about?

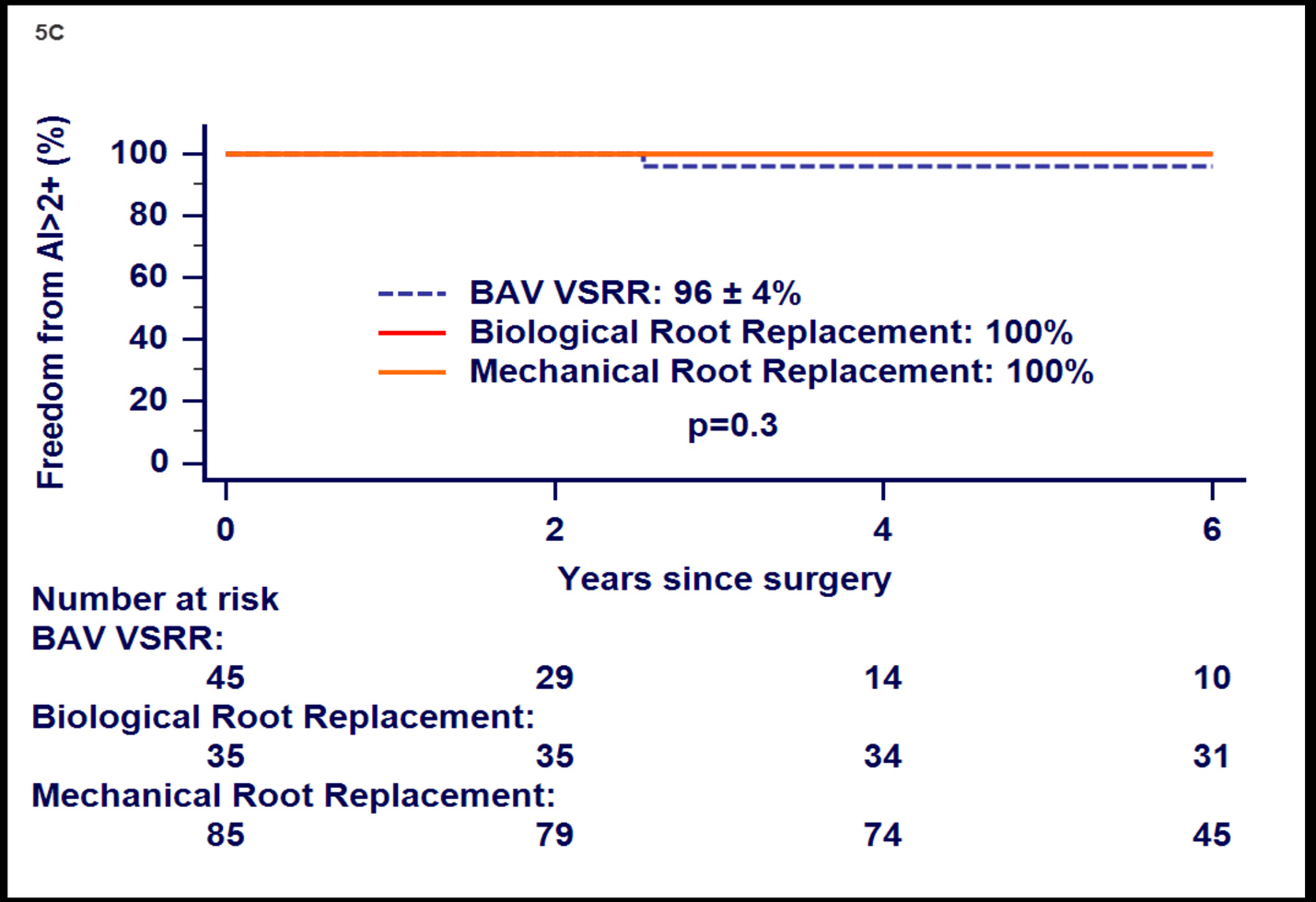
Comparing The Re-implantation BAV root to Bentall



Classic Bentall (Mechanical Composite graft)



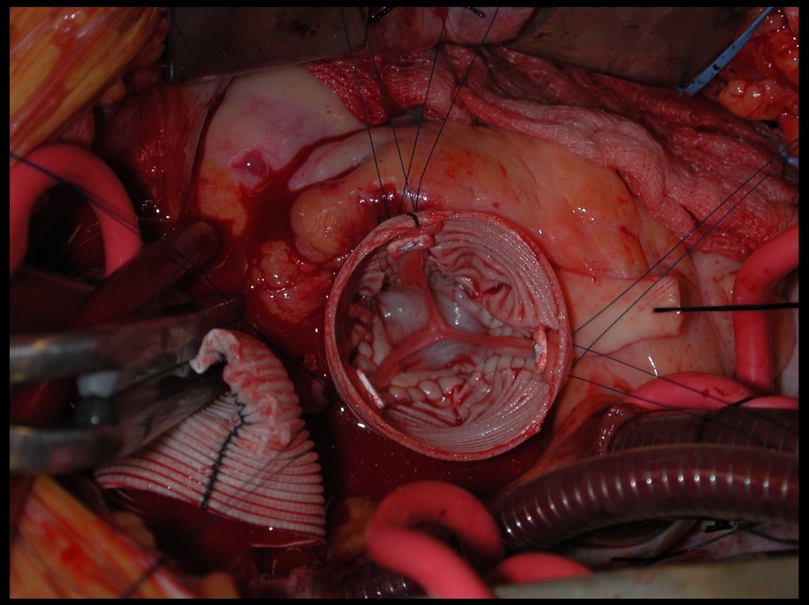
BAV Root Operations with AI: Comparison of Bentall Root Procedures vs VSRR and BAV Repair (100%)

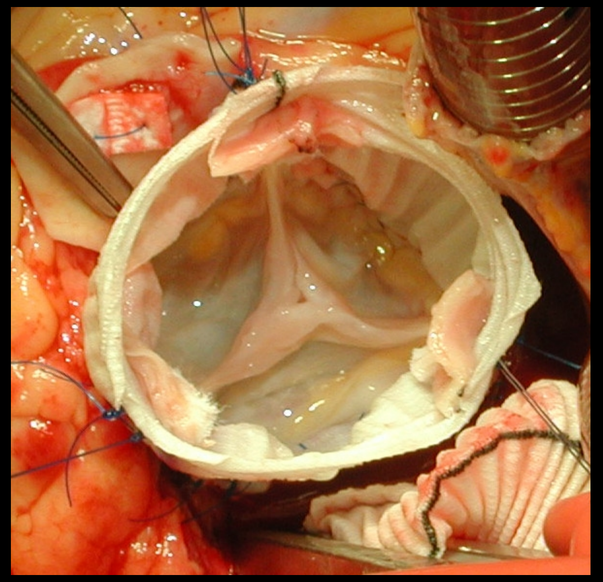


P. Vallabhajosyula, J. Bavaria, et al: Ann Thor Surg 2016;

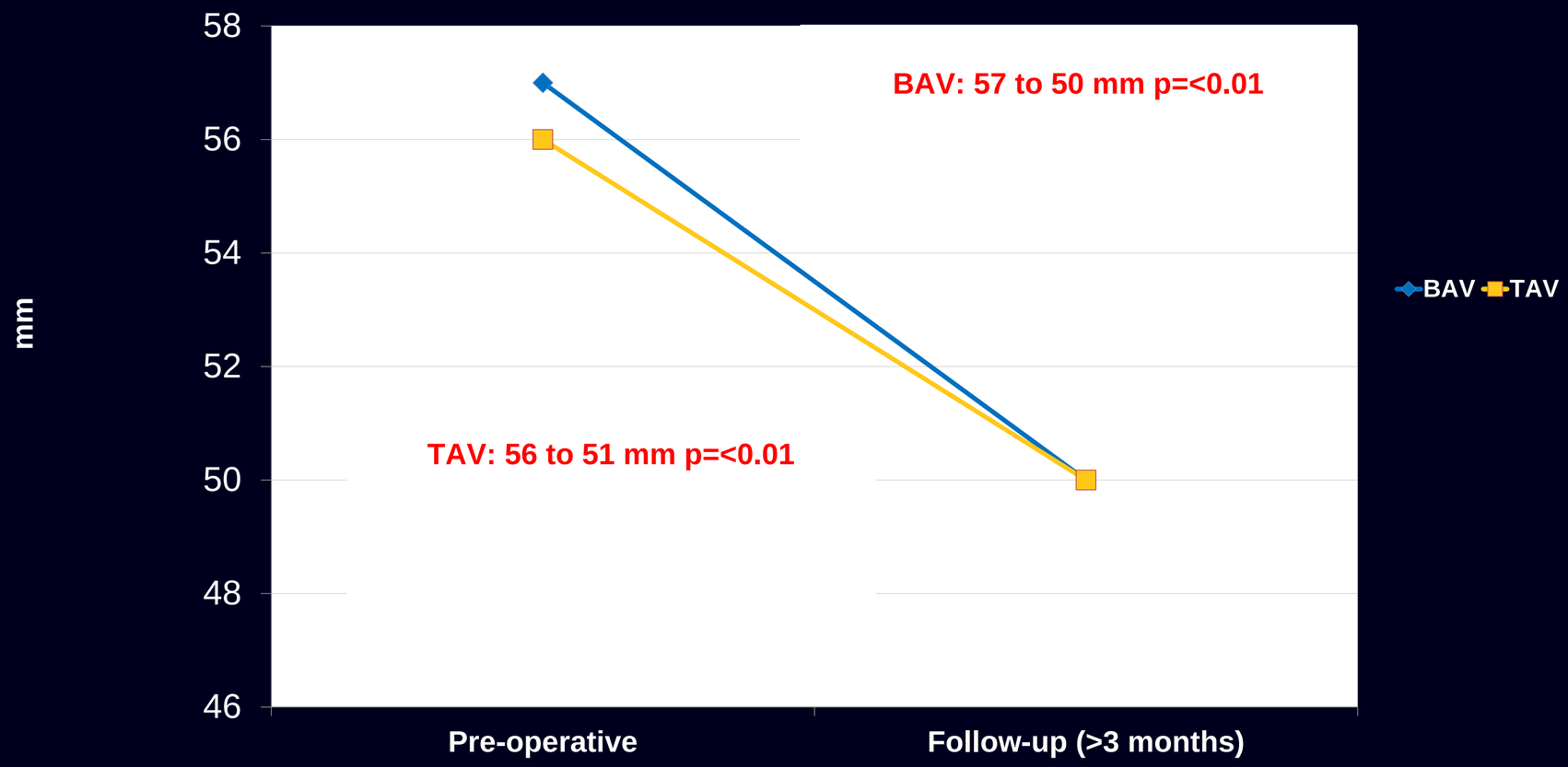
Outcomes with BAV Repair + Root Reimplantation:

How do they compare to our institutional tricuspid aortic valve root reimplantation?





LV Diastolic dimension change



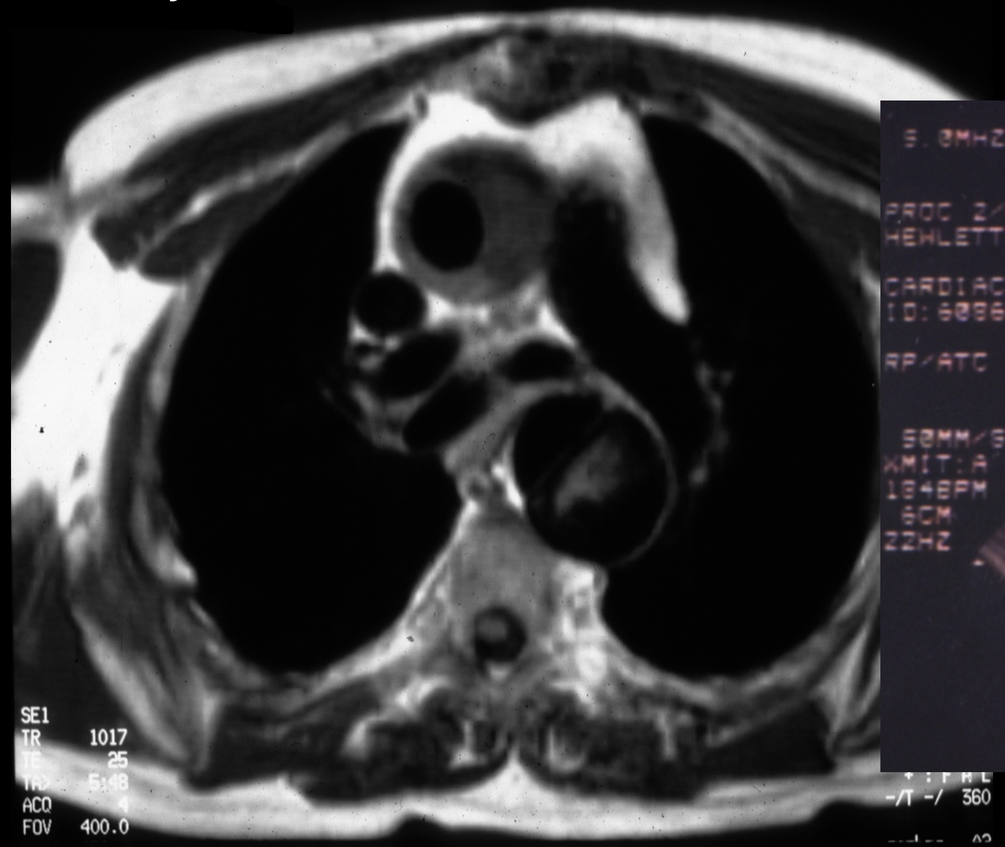
VSRR achieved excellent left ventricular remodeling in both BAV and TAV patients over follow-up. (STS 2014)

Thoracic Aortic Surgery: Emerging and Innovative Therapy and Future Landscape

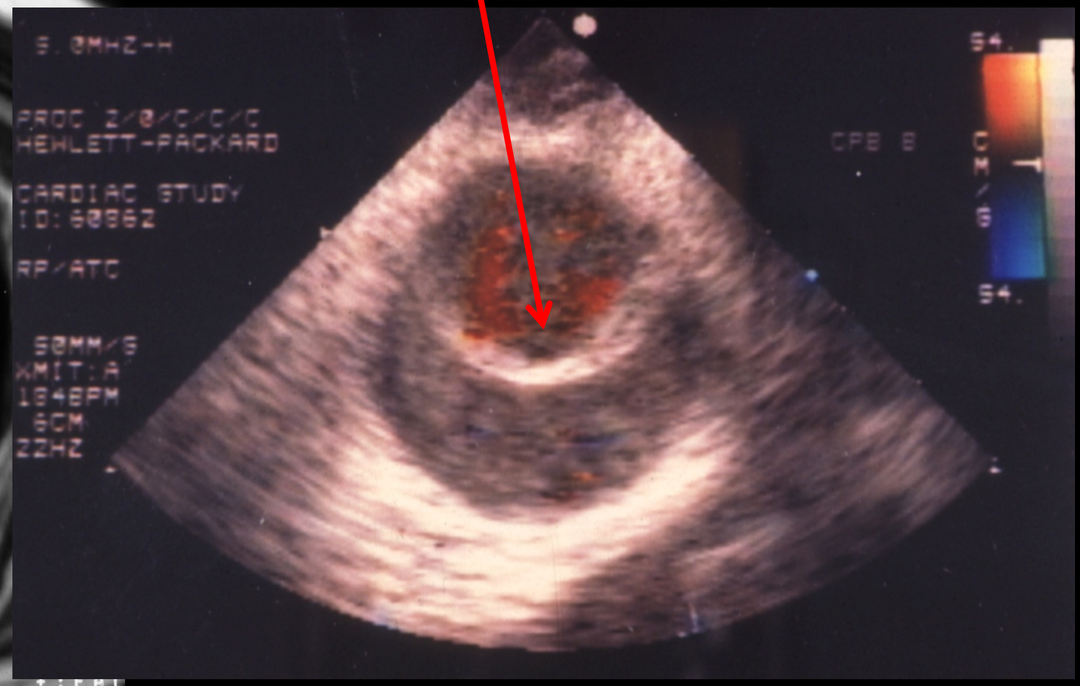
1. Increased Valve Sparing Root Surgery (ALWAYS for AI) David V (and BAV repair techniques) .. **(Conceptual)**
2. Ascending Aortic TEVAR for High Risk Type A Dissection +/- Endo-Bentall **(Device)**
    1. Distal Aortic TEVAR Adjunct in Type A Dissection **(Conceptual and Device)**
3. Hybrid Arch +/- Endo-Arch (Mixture) …… The march towards "More Proximal" Reconstruction **(Conceptual and Device)**
4. Chronic Type B Dissecting Aneurysms **(Mostly Conceptual also Device)**

Chronic Dissection: Either Residual Type B after Type A Repair or simple Chronic Type B

10 yrs out

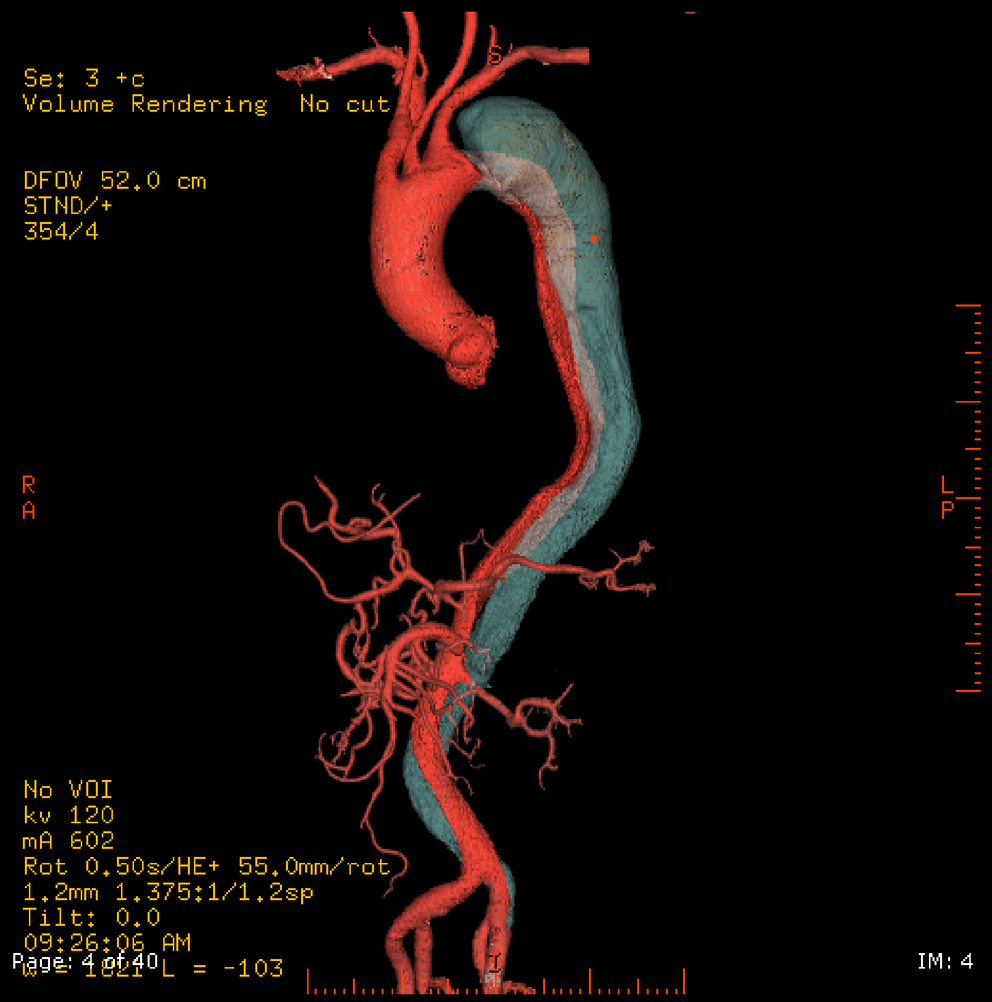


Thick chronic Membrane/Flap

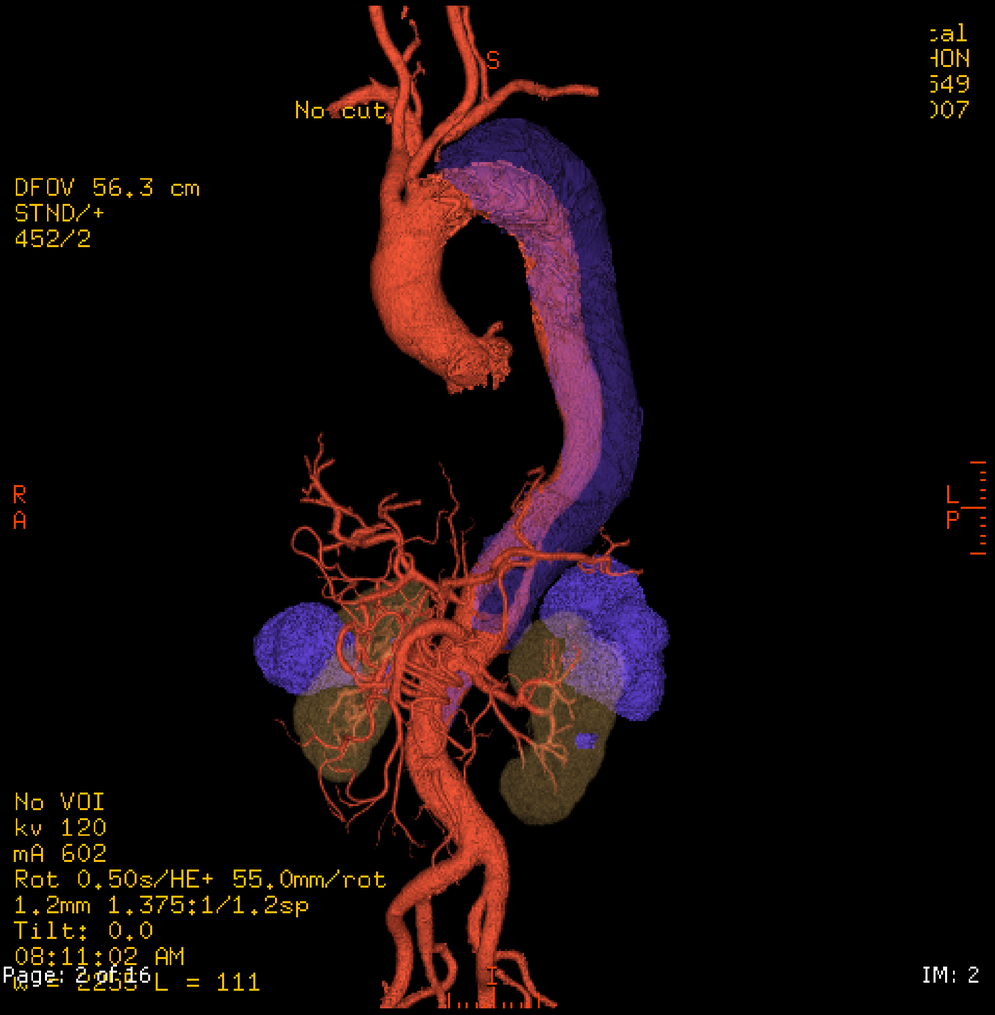


Chronic Distal Aortic Dissection after previous Type A: TEVAR

Chronic Type B aortic dissection: Again all 4 vessels off true lumen

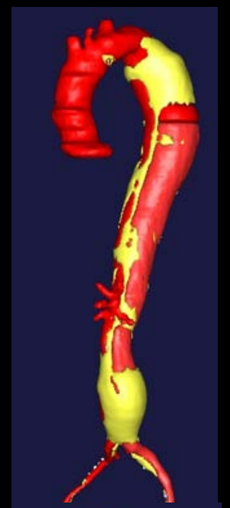


Pre-stenting



Post-stenting

Patient / Anatomy Selection



TEVAR

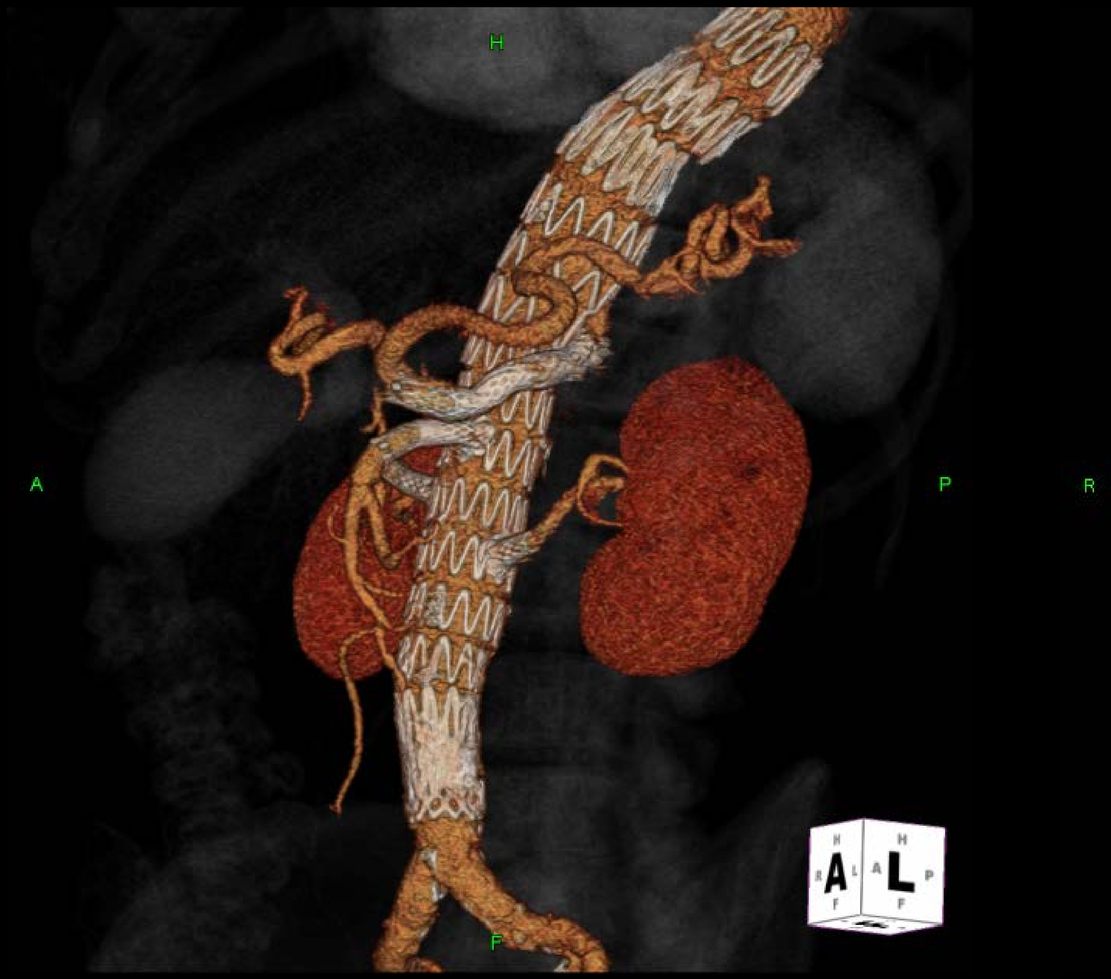
TEVAR

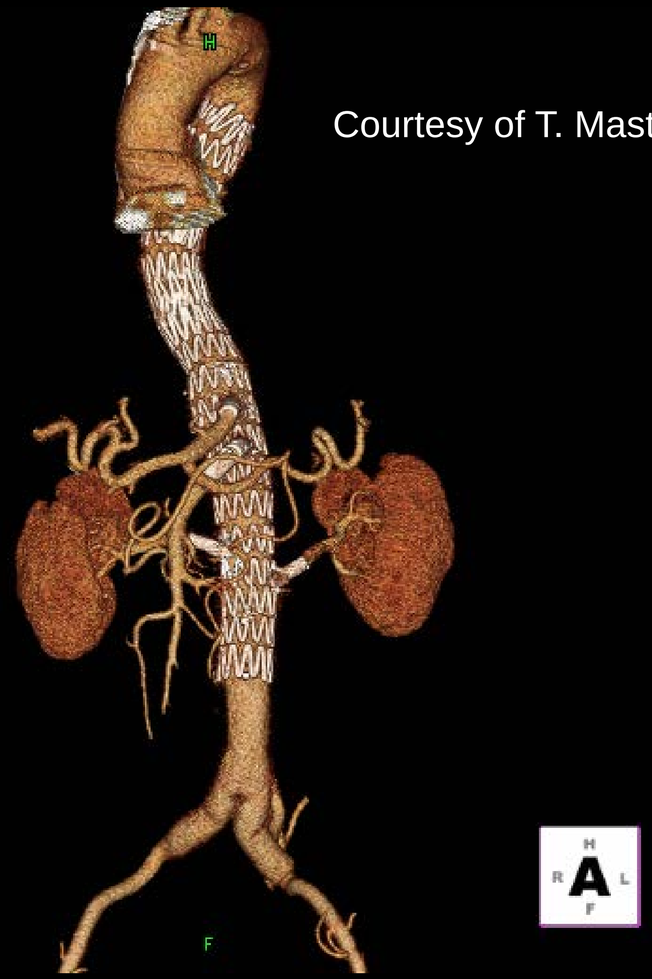
Most cases

Open

Medical ??

EndoVascular TAAA: Especially for Atherosclerotic Aneurysm





Courtesy of T. Mastrucci, CCF

Device Innovation: Chronic Dissecting TAAA further in the future

Thoracic Aortic Surgery:
Emerging and Innovative Therapy and Future Landscape

1. Innovation occurs at a number of Levels:
    1. Conceptual
        1. New operations based on new and improved Knowledge
    2. Device Related
        1. New operations based on availability of New Theraputic Devices
    3. Conceptual and Device Related

2. All need a CULTURE of Innovation and Early Adoption **(with Audit)**

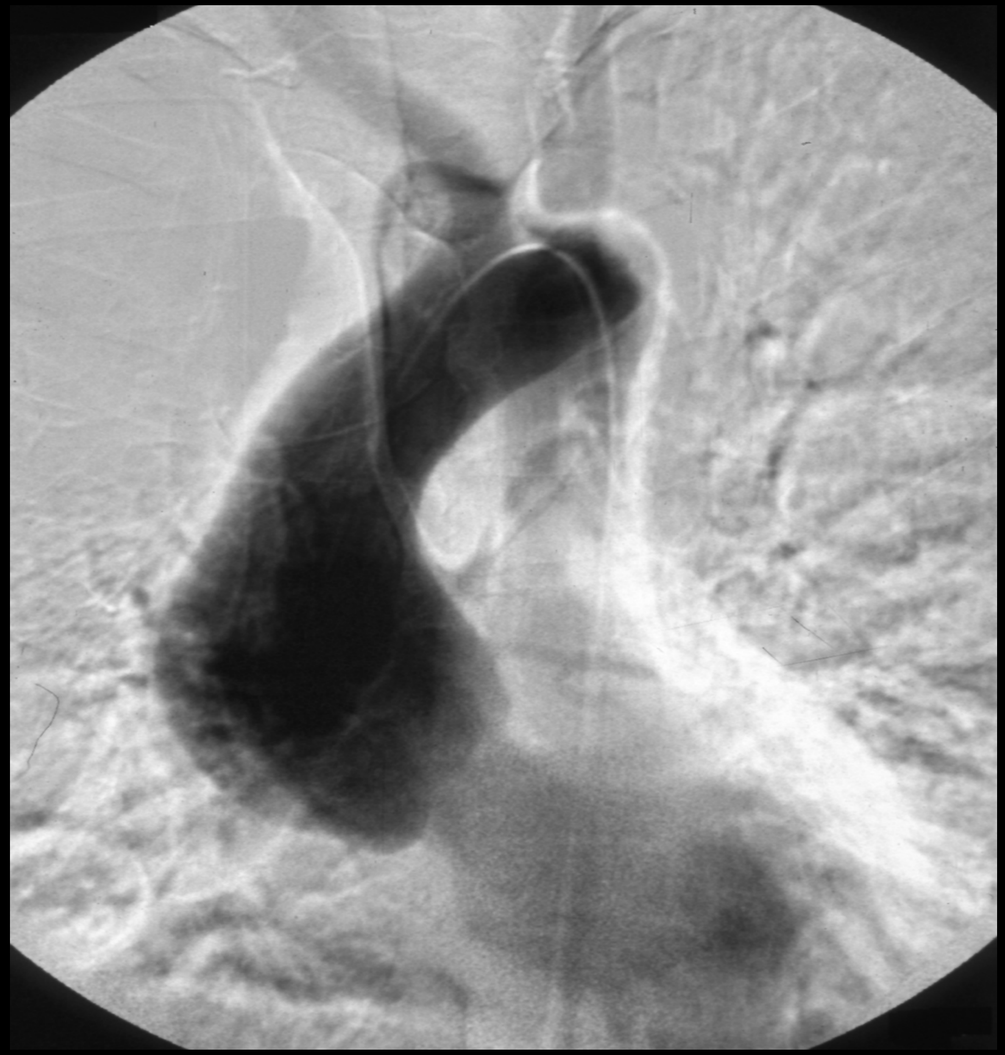
Why Audit?

Why Audit?

Because we’re human and can make mistakes

Mike „Choogs“ Machuga
Professional bowler
10 years on tour
4 PBA titles

Marfan’s Sinus of ValSalva Aneurysm (7.0 cm.) with Severe (+4) AI …. Audit … **NO STUPID STUFF**



STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

Quality

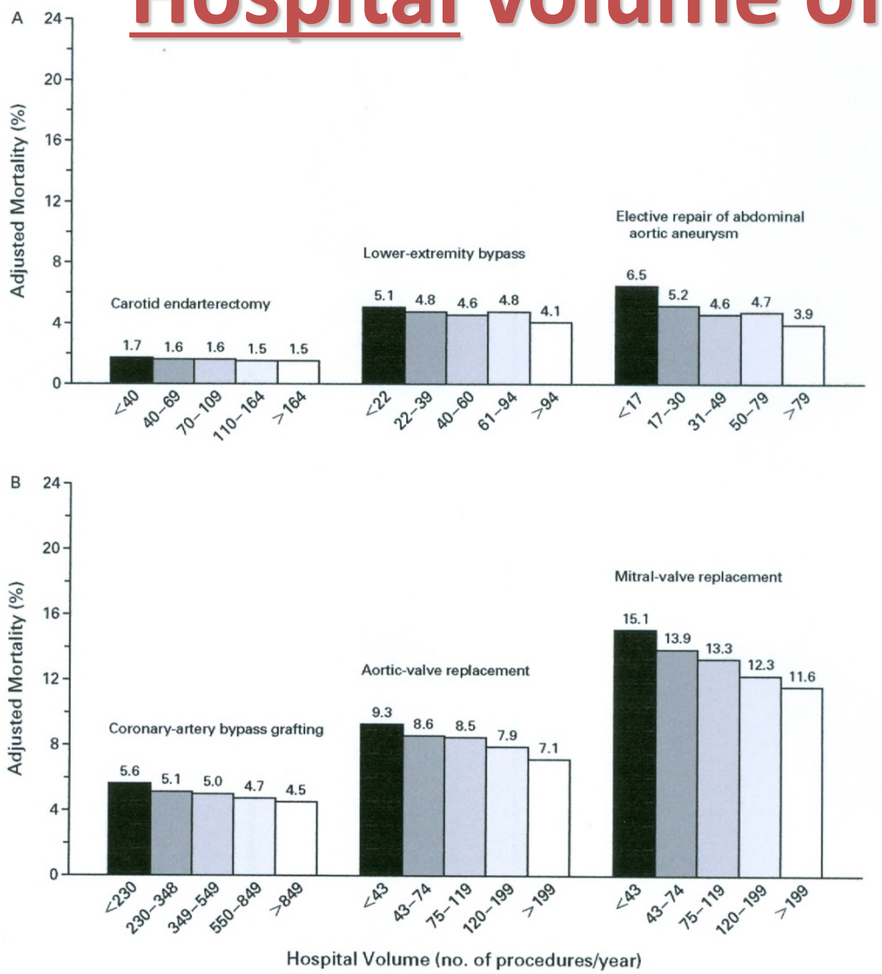
The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

Some Facts and Observations regarding the CV Specialty: Everyone Wants High Quality

The Volume-Outcome Relationship

Hospital volume of 12 procedures



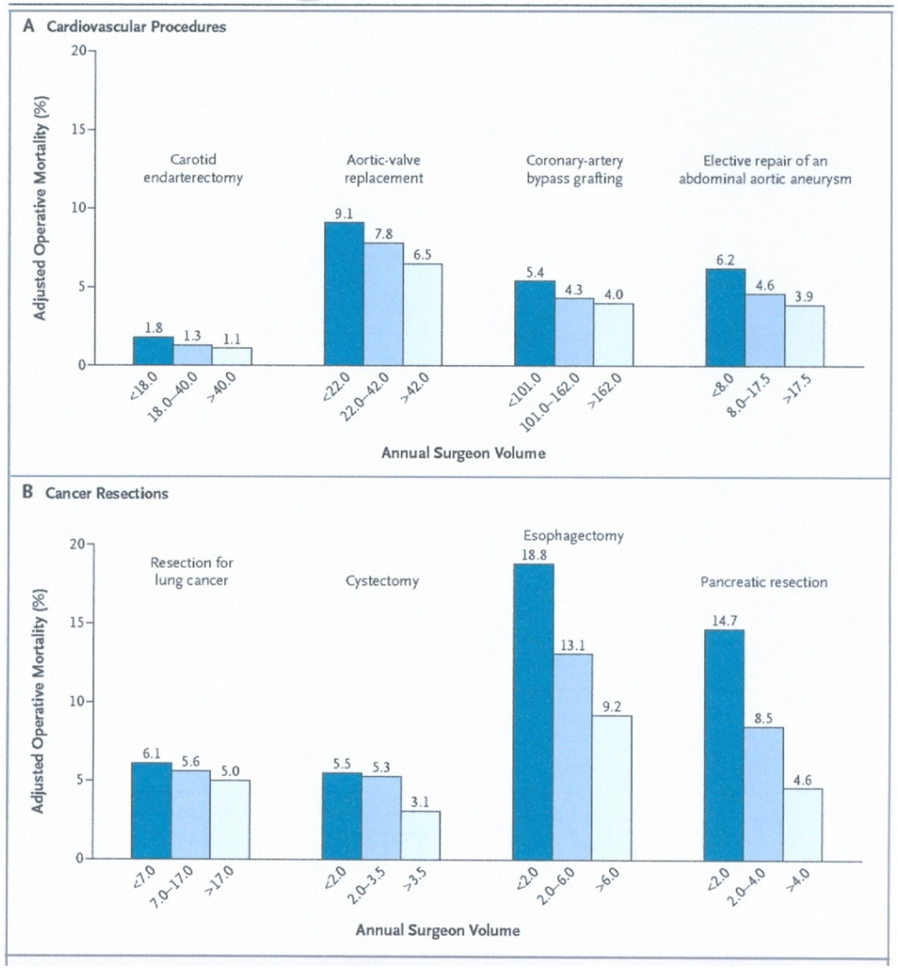
Medicare population:

- 1994-99
- > 65 yrs
- 2.5 mill pats
- 30 d mortality
- 11/12 inversely related
- Max diff. 16 vs 4 %
  pancreatic resection
- Min diff. 1.7 vs 1.5 %
  carotid CEA

Birkmeyer JD et al:
Hospital volume and surgical mortality in the United States
N Engl J Med 2002;346:346:1128-37

The Volume-Outcome Relationship

Surgeon volume of 8 procedures



Medicare population:

- 1998-99
- > 65 yrs
- 474 000 pats
- 30 d mortality

Conclusion:

”Surgeon volume was inversely related to operative mortality for all eight procedures”

Birkmeyer JD et al:
Surgeon volume and operative mortality in the United States
N Engl J Med 2003;349:346:2117-27

An Outcomes Disaster:
The Bristol (UK) scandal (1988-95)

doi:10.1510/icvts.2004.102137

INTERACTIVE CARDIOVASCULAR AND THORACIC SURGERY

Interactive CardioVascular and Thoracic Surgery 4 (2005) 197-199

www.icvts.org

Brief communication - Congenital

Effects of 'Bristol' on surgical practice in the United Kingdom

Colin J. Hilton*, J.R. Leslie Hamilton, Nicola Vitale[1], Rune Haaverstad[2]

Department of Cardiothoracic Surgery, Cardiothoracic Centre, Freeman Hospital, Newcastle-upon-Tyne, NE7 7DN, UK

Received 5 November 2004; received in revised form 27 January 2005; accepted 16 February 2005

Abstract

In 1995 a child died following an arterial switch operation for complex transposition of the great arteries. There had been general concern regarding the outcomes for the arterial switch procedure in the unit in Bristol. A review, prompted by parents whose children had died, showed that 29 children had died and four others suffered from cerebral damage postoperatively. The General Medical Council (GMC) considered the conduct of three doctors from the unit. This hearing culminated in the suspension and subsequent removal from the Medical Register of the senior Cardiac Surgeon and the Chief Executive of the hospital. The second Cardiac Surgeon was banned from practising in the field of paediatric cardiac surgery for three years (his results in adult cardiac surgical practice were not called into question). Following this the Government set up a public Inquiry to investigate the causes behind the deaths. This Inquiry, which took three years, made recommendations that have affected the way all doctors in the UK practice.

© 2005 Published by European Association for Cardio-Thoracic Surgery. All rights reserved.

-GMC inquiry: 15 millGBP and 600 page report

-198 recommendations: Only 31 related to children; only 7 pediatric

-Aim: Fewer pediatric cardiac units, volume >300 and >3 surgeons

-Effects on ALL cardiac surgical practice:

- -Communication
- -Competence
- -Performance monitoring
- -Release of mortality data (hospital and surgeon)

Interactive Cardiovasc and Thoracic Surgery 2005;4:197-199

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

Measurement

The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

The Hawthorne Electrical Works
Chicago

Adapted from Nashef: The Naked Surgeon

Nashef

Hawthorne experiments (circa 1920)

do the workers perform better with more light?

- light increased
- performance measured

performance improved

Hawthorne experiments (circa 1920)

do the workers perform worse with less light?

- light decreased
- performance measured

performance improved

various other manipulations

- temperature up
- temperature down
- position of desks
- order of tasks
- other meaningless changes

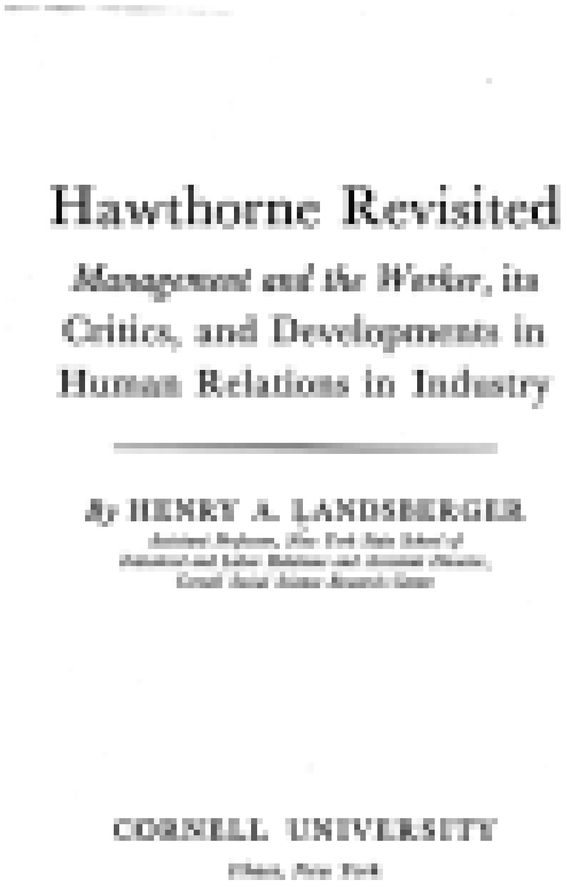
all followed by performance measures:

performance improved

The Hawthorne Effect

Henry Landsberger (1958):

performance tends to improve when it is measured


Hawthorne Revisited

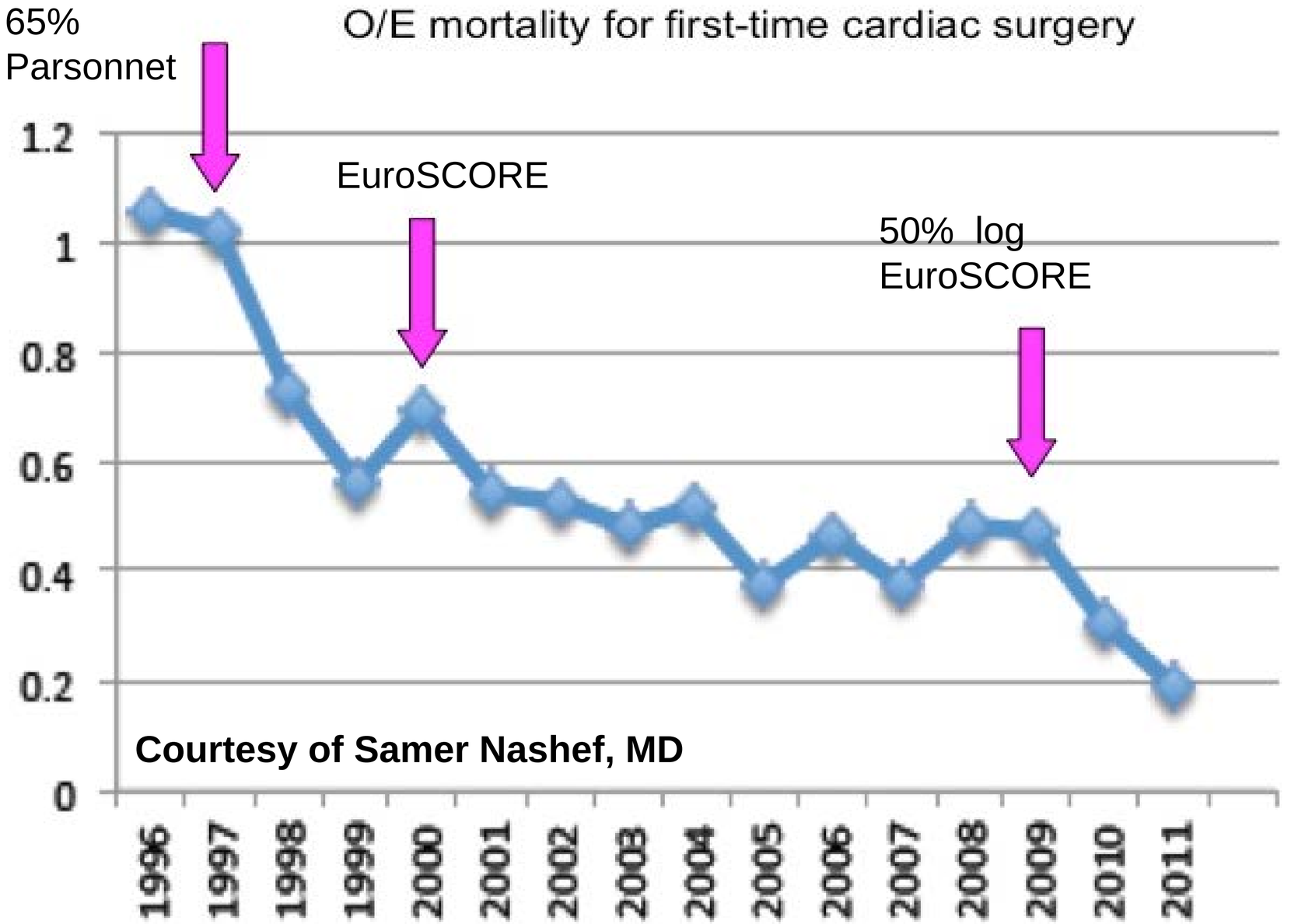
Management and the Worker, its Critics, and Developments in Human Relations in Industry

By HENRY A. LANDSBERGER

CORNELL UNIVERSITY

– awareness of measurement
– awareness of interest being shown in performance
– comparative information

The Hawthorne effect at Papworth? three targets



measuring clinical outcomes is now a science

- it helps guide decision making
  - by the patient
  - by the doctor

- it helps measure the quality of services
  - for patient choice
  - for identifying and correcting problems

- the mere act of measurement improves outcomes through the Hawthorne effect

The Society of Thoracic Surgeons

Google™ Custom Search Search

Login

Surgeons Residents & Students Allied Health Patients Media

- Home
- About STS
- Membership
- Education & Meetings
- **STS National Database**
  - Database Participants
  - Data Managers
  - AC Anesthesia Module
  - STS/ACC TVT Registry
- Quality, Research & Patient Safety
- Advocacy
- Publications & Resources

STS National Database

The STS National Database was established in 1989 as an initiative for quality improvement and patient safety among cardiothoracic surgeons. There are three components to the STS National Database, each focusing on a different area of cardiothoracic surgery—Adult Cardiac, General Thoracic, and Congenital Heart Surgery, with the availability of Anesthesiology participation within the Congenital Heart Surgery Database. The Database has grown exponentially over the years, both in terms of participation and stature. Learn more in the STS National Database Brochure.

- Gold standard clinical database
- Adult Cardiac, General Thoracic, Congenital
- >95% data accuracy, externally audited
- Predictive risk models for common procedures

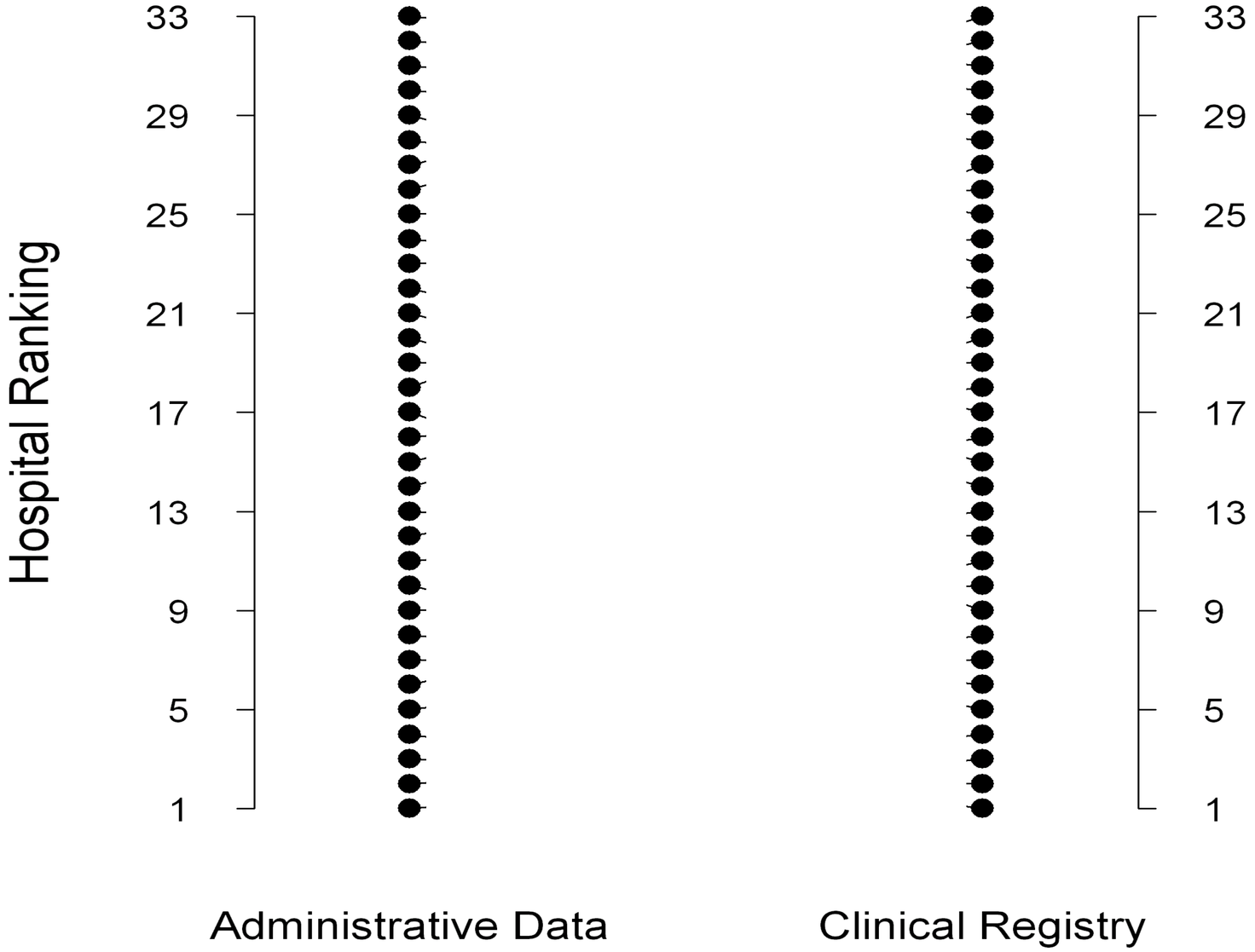
Comparing Administrative vs Clinical Data: Apples & Oranges

- The University HealthSystem Consortium (UHC)
  - –Includes all patients in the cardiovascular service line
  - –Decile rankings (no statistical reporting)

- The Society of Thoracic Surgeons (STS)
  - –Includes patients operated on by cardiac surgeons
  - –Risk-adjustment for common procedures
  - –Tercile rankings (1-3 stars)

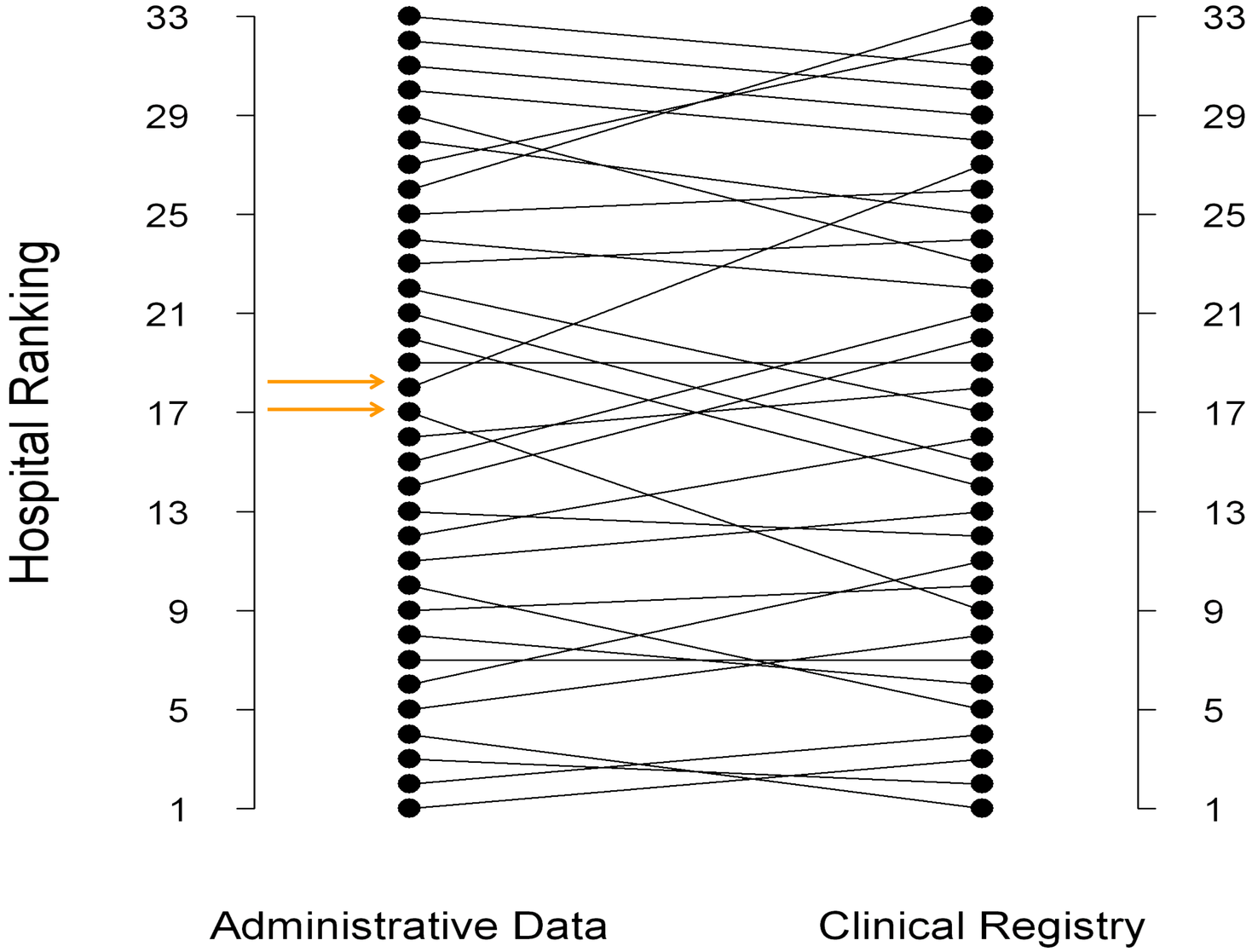
Kozower BD et al. JACS. 2009

Impact of Case Ascertainment Methodology on Hospital Rankings



Pasquali SK et Ann Thorac Surg. 2013

Impact of Case Ascertainment Methodology on Hospital Rankings



Pasquali SK et Ann Thorac Surg. 2013

Data Source: Administrative vs. Clinical

ORIGINAL SCIENTIFIC ARTICLES

Predicted Risk of Mortality Models: Surgeons Need to Understand Limitations of the University HealthSystem Consortium Models

Benjamin D Kozower, MD, MPH, FACS, Gorav Ailawadi, MD, FACS, David R Jones, MD, FACS, Robert D Pates, PhD, Christine L Lau, MD, FACS, Irving L Kron, MD, FACS, George J Stukenborg, PhD

BACKGROUND: The University HealthSystem Consortium (UHC) mortality risk adjustment models are increasingly being used as benchmarks for quality assessment. But these administrative database models may include postoperative complications in their adjustments for preoperative risk. The purpose of this study was to compare the performance of the UHC with the Society of Thoracic Surgeons (STS) risk-adjusted mortality models for adult cardiac surgery and evaluate the contribution of postoperative complications on model performance.

STUDY DESIGN: We identified adult cardiac surgery patients with mortality risk estimates in both the UHC and Society of Thoracic Surgeons databases. We compared the predictive performance and calibration of estimates from both models. We then reestimated both models using only patients without any postoperative complications to determine the relative contribution of adjustments for postoperative events on model performance.

RESULTS: In the study population of 2,171 patients, the UHC model explained more variability (27% versus 13%, $p < 0.001$) and achieved better discrimination (C statistic = 0.88 versus 0.81, $p < 0.001$). But when applied in the population of patients without complications, the UHC model performance declined severely. The C statistic decreased from 0.88 to 0.49, a level of discrimination equivalent to random chance. The discrimination of the Society of Thoracic Surgeons model was unchanged (C statistic of 0.79 versus 0.81).

CONCLUSIONS: Although the UHC model demonstrated better performance in the total study population, this difference in performance reflects adjustments for conditions that are postoperative complications. The current UHC models should not be used for quality benchmarks. (J Am Coll Surg 2009;209:551–556. © 2009 by the American College of Surgeons)

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

Public Reporting

The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

The Society of Thoracic Surgeons

The Concept of Risk-Aversion

Editorial

Journal of the Royal Society of Medicine; 2015, Vol. 108(2) 44–46
DOI: 10.1177/0141076815571515

High-risk surgery: the courage to fail

John R Pepper[1] and Aman S Coonar[2]
[1]NIHR Cardiovascular BRU, Royal Brompton Hospital, London SW3 6NP, UK
[2]Thoracic Surgery, Papworth Hospital, Cambridge CB23 3RE, UK
Corresponding author: Aman S Coonar. Email: aman.coonar@nhs.net

The Concept of Risk-Aversion

Letter

The Royal Society of Medicine

Journal of the Royal Society of Medicine; 108(7) 254
DOI: 10.1177/0141076815589210

High-risk training: the courage to teach

We read with interest John Pepper and Aman

This Tension between Outcomes and the Public “Right to Know” is INCREASING in all <u>Countries Globally</u>

Problems with Current Methods for Ranking Surgeons and Hospitals …..

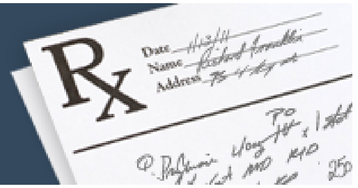
" I have just heard that 50% of United Kingdom cardiac surgeons are below average, ... this has got to stop!"

The Rt Hon Frank Dobson
Former Labor Secretary for Health

Public Reporting of Surgical Outcomes

Second Opinion

Inside the health rankings.



Methodology Change Will Credit Hospitals for Transparency, Reduce Reputation

This year's heart rankings will include points for public reporting via STS and ACC registries.

By Ben Harder and Avery Comarow | March 4, 2016, at 1:45 p.m. + More

Data transparency has become a buzzword in the world of healthcare improvement, for good reason. Healthcare organizations of all stripes cling to troves of data that could yield lifesaving and cost-saving insights – if those facing key decisions could use the data.

Why is data opacity the default? Some data owners fear losing a commercial edge. Others worry that objective data might not live up to their self-image or reputation. Others may underestimate consumers' desire for more information. Patients and families who've used our rankings tell us they want more from hospitals. What they want is meaningful transparency.

U.S. News will implement two closely related methodology changes this spring that could drive broader transparency. Both will affect only our rankings of Best Hospitals in Cardiology & Heart Surgery. In that specialty, we will award credit to hospitals that publicly release their own performance data via one or both of two clinical registries, the Society of Thoracic Surgeons' (STS) Adult Cardiac Surgery Database and the American College of Cardiology's (ACC) National Cardiovascular Data Registry. In the case of the ACC data, two constituent registries will be considered: CathPCI and ICD. ACC and its participating cardiologists began voluntary public reporting from CathPCI and ICD in November.

US News and World Report

Public Reporting WILL affect Hospital and Physician Ranking

Thoracic Surgery Outcomes: Measuring Hospital Performance

RISK ADJUSTMENT

J. MAXWELL CHAMBERLAIN MEMORIAL PAPER FOR GENERAL THORACIC SURGERY

STS Database Risk Models: Predictors of Mortality and Major Morbidity for Lung Cancer Resection

Benjamin D. Kozower, MD, MPH, Shubin Sheng, PhD, Sean M. O'Brien, PhD, Michael J. Liptay, MD, Christine L. Lau, MD, David R. Jones, MD, David M. Shahian, MD, and Cameron D. Wright, MD

Departments of Surgery & Public Health Sciences, University of Virginia Health System, Charlottesville, Virginia; Duke Clinical Research Institute, Duke University, Durham, North Carolina; Department of Cardiovascular and Thoracic Surgery, Rush University, Chicago, Illinois; and Division of Thoracic Surgery and Center for Quality and Safety, Massachusetts General Hospital, Boston, Massachusetts

Kozower. Ann Thorac Surg. 2010;90

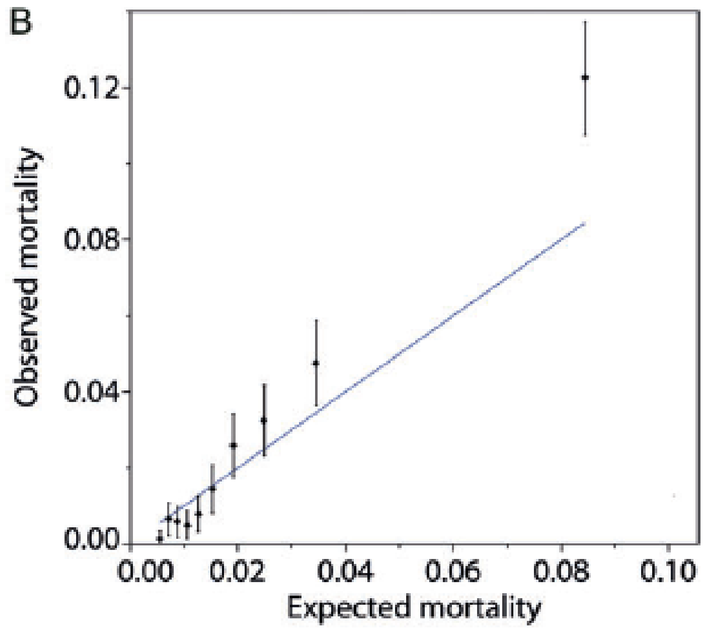
euroSCORE for doctors
euroSCORE for patients
calculator
references

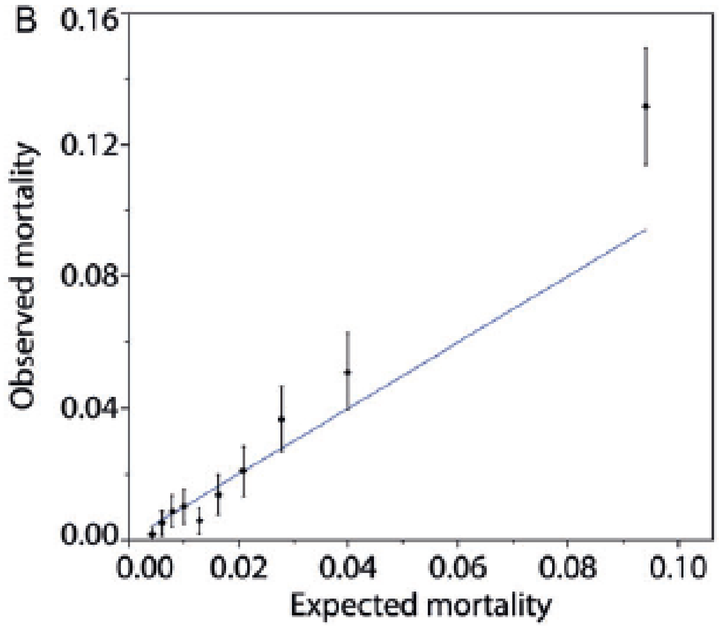
Comparison of the EuroSCORE II and Society of Thoracic Surgeons 2008 risk tools†

Bilal H. Kirmani, Khurum Mazhar, Brian M. Fabri and D. Mark Pullan*

The Society of Thoracic Surgeons

STS applicable cases





EuroSCORE II

STS Score

European Journal of Cardio-Thoracic Surgery 44 (2013) 999–1005

STS predicts Mortality at low Risk (<4%) but Underestimates at High Risk

www.sts.org

Public Reporting of Surgical Outcomes: Improving Quality

NY State Public Reporting for CABG

Year	**1989**	**1992**
In-hospital mortality	3.5% →	2.7%
Expected mortality (risk-adjusted)	2.9% →	3.2%

Hannan EL et al. J Am Coll Cardiol. 2012;59

Public Reporting of Surgical Outcomes: Improving Quality

Society of Thoracic Surgeons Database : “A Decade of Change – Risk Profiles and Outcomes for CABG”

Year	**1990**	**1999**
Operative mortality	3.9% →	3.0%
Expected mortality (risk-adjusted)	2.6% →	3.4%

Ferguson BT et al. Ann Thorac Surg. 2002;73

The Society of Thoracic Surgeons

INNOVATION and QUALITY

EACTS
European Association For Cardio-Thoracic Surgery

The Society of Thoracic Surgeons

INNOVATION and QUALITY

Will there be a Collision of these very important Surgical Imperatives??

EACTS
European Association For Cardio-Thoracic Surgery

The Society of Thoracic Surgeons

American Journal of Transplantation 2009; 9: 1279–1286
Wiley Periodicals Inc.

© 2009 The Authors
Journal compilation © 2009 The American Society of Transplantation and the American Society of Transplant Surgeons

doi: 10.1111/j.1600-6143.2009.02606.x

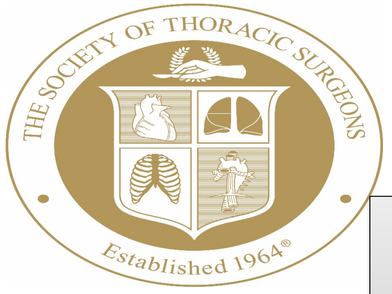
Special Article

American Society of Transplant Surgeons Transplant Center Outcomes Requirements—A Threat to Innovation

M. M. Abecassis[a,*], R. Burke[b], G. B. Klintmalm[c], A. J. Matas[d], R. M. Merion[e], D. Millman[b], K. Olthoff[f] and J. P. Roberts[g] on behalf of the American Society of Transplant Surgeons

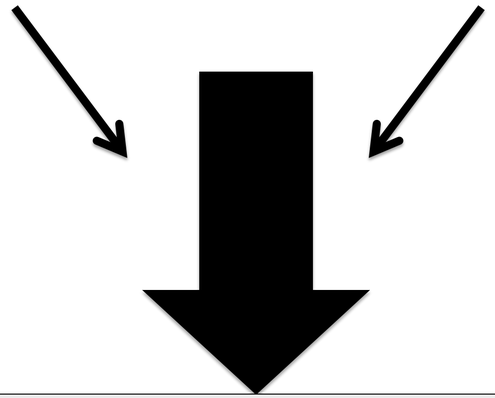
gan Procurement and Transplantation Network; PRA, Panel Reactive Antibodies; SRTR, Scientific Registry for Transplant Recipients; UNOS, United Network for Organ Sharing.

Solution: The Concept of "Exclusions" from Public Reporting



Quality

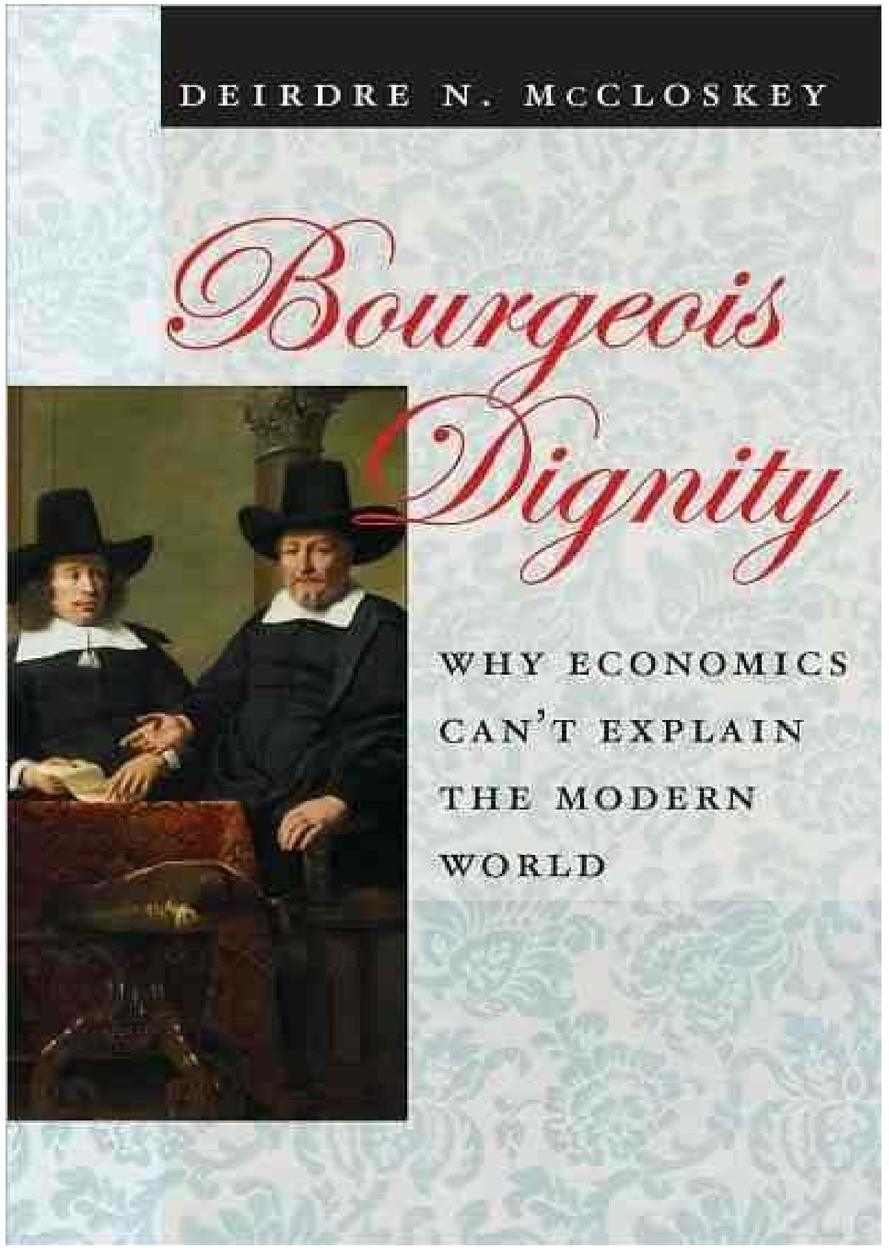
Innovation



Patient-Centered Outcomes

Innovation and Quality, if they are not going to Collide, does need some Enlightened Vision

The Great Enrichment



The Genius of the Liberated Commoner …..
…….. The Genius of the Liberated Surgeon/Physician

The Society of Thoracic Surgeons

Back to Philadelphia
Balance between Autocratic Decisions and Democratic Decisions

Democracy is like having two wolves and a lamb decide what is for dinner.

~ Benjamin Franklin

We are a Republic: Protection of Minority Opinion wherever it resides

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org

www.CardiovascularSurgeryConference.org

The Cardiovascular Surgery Community must be Global: For the Benefit of Patients Worldwide

The Society of Thoracic Surgeons

EACTS

European Association For Cardio-Thoracic Surgery

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017 | Cartagena, Colombia

info@cardiovascularsurgeryconference.org
www.CardiovascularSurgeryConference.org

Thank You

The Society of Thoracic Surgeons

EACTS
European Association For Cardio-Thoracic Surgery

Thoracic Aortic Surgery Fellows

“I learn more from them, than they from me”