IRAD Investigator Meeting
American College of Cardiology 2012
I. Database Update
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Database Update
Total Patients

- Type A: 2521
- Type B: 1348
- Total: 3867
Total Follow-up

Follow-up defined as a patient having at least one completed follow-up form.

- Total: 3867
- Survived: 3086 (79.8%)
- Followed Up: 1592 (51.6%)
Follow-up by Type

Type A Dissection
- Survived: 1881
- Followed Up: 908 (48.3%)

Type B Dissection
- Survived: 1205
- Followed Up: 684 (56.8%)
Follow-up by Hospital
Type B Follow-up
% Type B Follow-up

Sites with >100 Cases
% Type A Follow-up

% Type A Follow-up
Sites with >100 Cases

RBK
Tromso
Calgary
Minneapolis Heart
Eppendorf-Rostock
San Donato
Vall d'Hebron
St. Michaels
S. Orsola
Michigan
Brigham & Women's
Wash. U.
Tokyo
Mayo
U. Penn.
Notes on Variables
Acute Form Variables

☞ Only diagnostic imaging studies should be included in the imaging studies section
☞ No data from intra-operative or intra-procedure studies should be listed.
Participating Sites
Active IRAD Sites

- St. Michael’s Hospital
- Minneapolis Heart Institute
- University of Calgary
- University of Minnesota
- Mayo Clinic
- University of Chicago
- University of Michigan
- University of Colorado
- Washington University
- University of Pittsburgh
- University of Pennsylvania
- University of Virginia
- Duke University
- Dartmouth-Hitchcock
- University of Massachusetts
- Massachusetts General Hospital
- Brigham & Women’s Hospital
- Tromsø University Hospital
- University Hospital Eppendorf Rostock
- Hopital Bichat
- Robert-Bosch Krankenhaus
- University of Vienna
- Medical University of Graz
- University of Tokyo
- IRCCS Policlinico San Donato
- University Hospital S. Orsola
- San Giovanni e Ruggi
- Hadassah University Hospital
- Hospital General Universitari Vall d’Hebron
- Hospital Universitario “12 de Octubre”
IRAD Expansion
Interested Sites

33 Sites

Have inquired about joining the IRAD registry.
New IRAD Sites
Centers in the Process of Enrolling

ุม University of Osaka, Osaka, Japan
�� Royal Prince Alfred Hospital, Sydney, Australia
�� Henry Ford Hospital, Detroit, Michigan
�� University of Sao Paulo, Sao Paulo, Brazil
�� Cedars-Sinai Medical Center, Los Angeles, California
�� Advocate Christ Medical Center, Chicago, Illinois
�� University of Maryland, Baltimore, Maryland
�� Methodist Hospitals of Memphis, Memphis, Tennessee
New IRAD Sites
Centers in the Process of Enrolling

- Henry Ford Hospital
- Advocate Christ Medical Center
- University of Maryland
- Cedars-Sinai Medical Center
- Methodist Hospitals of Memphis
- University of Osaka
- University of Sao Paulo
- Royal Prince Alfred Hospital
Adding New Sites - Requirements

- Interested sites that are recommended by a current IRAD member may join, if they agree to do the following:
  - Establish a dedicated study coordinator at their site
  - Commit to pay ~$5,000 annually, to cover expenses incurred from managing a larger database
Publications Update
Recently Published Manuscripts

I. Ascending Thoracic Aorta Dimension and Outcomes in Acute Type B Dissection (from the International Registry of Acute Aortic Dissection [IRAD]).

☞ American Journal of Cardiology. 2011.

II. The Role of Preoperative Coronary Angiography in the Setting of Type A Acute Aortic Dissection: Insights from the International Registry of Acute Aortic Dissection.

Recently Published Manuscripts

III. Sensitivity of the Aortic Dissection Detection (ADD) Risk Score, A Novel Guideline-Based Tool for Identification of Acute Aortic Dissection at Initial Presentation.

☞ Circulation. 2011.

IV. Descending Aortic Diameter of 5.5 cm or Greater is Not an Accurate Predictor of Acute Type B Aortic Dissection.

Recently Published Manuscripts

V. Type-Selective Benefits of Medications in Treatment of Acute Aortic Dissection (from the International Registry of Acute Aortic Dissection[IRAD]).

© American Journal of Cardiology. 2011.

VI. Correlates of Delayed Recognition and Treatment of Acute Type A Aortic Dissection: The International Registry of Acute Aortic Dissection (IRAD).

© Circulation. 2011.
Recently Published Manuscripts

VII. Acute Type B Aortic Dissection in the Absence of Aortic Dilatation.


VIII. Clinical Presentation, Management and Short-Term Outcome of Patients with Type A Acute Dissection Complicated by Mesenteric Malperfusion. Observations from the International Registry of Acute Aortic Dissection.

Manuscripts in Preparation
1. Medical vs. Endovascular Tx in TB AoD
2. Age and Complications in TB AoD
3. Aortic Dimensions and Body Size
4. Marfan Syndrome in AoD
5. 24 Hour Mortality
6. Trends in AoD: 3000 Patients
7. Medical Management of TA AoD
8. BAV in AoD
9. Stroke in AoD
10. New Time Classification
11. Left Renal Artery Involvement in Type A
12. Normal Diameters
13. Non-Operative TA Patients
14. False Lumen Thrombosis in TA AoD
15. Spinal Cord Ischemia
16. Mortality Models for TA AoD
17. Young Women with AoD
18. Renal Insufficiency
19. Intramural Hematoma
20. Predictors of Aortic Growth
21. Medications in Marfan Patients
22. Pre-Procedure Neurological Deficits
23. Size and Dissection Risk in Marfan and BAV
24. Differences in Cannulation Strategy
25. Imaging Over 15 Years of IRAD
26. Racial Differences
27. Aortic Regurgitation on Follow-Up
28. Type A Dissection with Myocardial Infarction
29. Iatrogenic Aortic Dissection
30. Redissection on Follow-Up
31. CXR Sensitivity
32. Patient Education Surveys
33. Long-Term Follow-Up in Marfan Syndrome
34. Pregnancy in Aortic Dissection
35. Surgery in Elderly Type A Patients
IRAD-IVC

Invasive Treatment Cohort
Cases Enrolled to Date

668 cases enrolled
Cannulation Abstract

- First IRAD submission using IVC data
- Submitted to the AATS Aortic Symposium conference
- Compared axillary vs. femoral cannulation in Type A dissection repair
- Findings:
  - Cannulation strategy did not affect survival or malperfusion-related morbidity
Future Project Ideas

- Pre-op stratification of Type A patients
- Pre-op stratification of Type B patients
- Variation in outcomes among IRAD site following TAAoD repair
- Fate of aortic valve following TAAoD
- Is EEG monitoring mandatory during circulatory arrest in TAAoD?
- Outcomes following aortic valve sparing operation in patients presenting with aortic valve incompetence in TAAoD
- Open repair vs. closed repair
Future Project Ideas

- Comparing antegrade cerebral perfusion, retrograde cerebral perfusion and deep hypothermic circulatory arrest without brain perfusion
- Limited resection versus aggressive resection of descending dissection
- Use of glue as a risk factor?
- Elephant trunk repair vs. standard ascending aortic replacement in TAAoD
- Long-term outcome of un-operated root in patients < 60 years of age?
- Long-term outcome of un-operated arch in patients < 60 years of age?
Patient Education

Survey Results
Patient Education Surveys

- 26 responses
- 50% use some sort of guidelines to determine appropriate patient activity
- Majority recommended avoiding weight lifting
Dynamic Imaging

Survey Results
Imaging Survey

- Distributed to AHA attendees and emailed to IRAD investigators
- Most expressed a desire to work with imaging specialists at their site
  - Ultimate goal: develop standardized imaging protocols
- Echocardiography and CT imaging capabilities varied
ACC 2012 IRAD Presentations
ACC 2012 IRAD Presentations

Poster Presentations:

- Temporal Trends in Imaging in Acute Aortic Dissection
- Aortic Dissection During Pregnancy
- Acute Type A Dissection Causing Acute Myocardial Infarction
- Long-Term Follow-Up in Marfan Patients after Successful Surgery for Acute Type A Aortic Dissection
Poster Presentations (continued):

- Mortality and Outcomes of Patients Presenting with and without Iatrogenic Aortic Dissections
- Acute Renal Failure and its Early and Late Implications in Acute Aortic Dissection
- Is Size a Good Predictor of Dissection Risk in Patients with Marfan Syndrome of Bicuspid Aortic Valves?
Upcoming Meetings
Charing Cross Aorta 2012:
April 12-13, London, England

Attendees Confirmed: 33

Chair:
☞ Kim A. Eagle, MD

Co-Chairs:
☞ Santi Trimarchi, MD
☞ Eduardo Bossone, MD
☞ Patrick O’Gara, MD
☞ Joseph Bavaria, MD
Charing Cross Attendees

☞ Joseph Bavaria  ☞ Lisa Hackbarth  ☞ Linda Pitler
☞ Eduardo Bossone  ☞ Eric Isselbacher  ☞ Brett Reece
☞ Lori Conklin  ☞ Frederik Jonker  ☞ Hasan Siddiqi
☞ Nimesh Desai  ☞ Eva Kline-Rogers  ☞ Sonja Sierpath
☞ Marco Di Eusanio  ☞ Amit Korach  ☞ Peter Taylor
☞ Kim Eagle  ☞ Sheila McGreal  ☞ Santi Trimarchi
☞ Arturo Evangelista  ☞ Emil Missov  ☞ Elise Woznicki
☞ Mark Fillinger  ☞ Franz Moll  ☞ Syed Yusuf
☞ Alberto Forteza  ☞ Dan Montgomery  ☞
☞ James Froehlich  ☞ Truls Myrmel
☞ Dan Gilon  ☞ Patrick O’Gara
☞ Martin Grabenwoger  ☞ Himanshu Patel
☞ Mark Peterson
AATS Aortic Symposium 2012: April 26-27, New York City

- IRAD IVC Meeting:
  - Wednesday, April 25th, 4:00-6:00 p.m.
  - The Hilton New York
  - Investigator dinner to follow (sponsored by GORE)

- Attendees Confirmed: 8
Oral Presentation:

Patients with Type A Acute Aortic Dissection Presenting with Major Brain Injury: Should we Operate on Them?

Presentation on Demand:

Outcomes Following Repair for Acute Type A Dissection are Independent of Cannulation Strategy: Femoral vs. Right Axillary Artery
ESC 2012: 
August 25-29, Munich

Two abstracts submitted:

☞ The Use of Chest X-Ray as a Diagnostic Tool in Acute Aortic Dissection
☞ Racial Differences in Acute Aortic Dissection
Funding
Current IRAD Funding Sources

- W.L. Gore & Associates, Inc.
- Varbedian Aortic Research Fund
- Hewlett Foundation
- Mardigian Foundation
- UM Faculty Group Practice
- Terumo
2011 in Review
16 abstracts accepted for presentation
8 manuscripts published in peer-reviewed journals
3 investigator meetings, with one dedicated solely to the Interventional Cohort
16 topics suggested for the AHA 2012 submission
32 projects in preparation
IRAD by the Numbers

In 2011 (compared to 2010):
- 135.2% increase in IVC data
- 26.1% increase in overall patient enrollment
- 10.9% increase in follow-up forms completed
- 50.0% increase in yearly manuscript publication
- 16.7% increase in annual abstract acceptance

So far in 2012, there has been a 28.6% increase in accepted abstracts when compared to 2011
IRAD by the Numbers

3 international investigators visited the coordinating center:
- Toru Suzuki – Medications in Aortic Dissection; Medications in Marfan Syndrome Patients
- Truls Myrmel and Magnus Larsen – False Lumen Thrombosis and Left Renal Artery Involvement

4 investigators plan to visit MCORRP:
- Linda Pape – Trends in IRAD
- Magnus Larsen – Left Renal Artery Involvement, Aortic Rupture on Follow-Up
- Jip Tolenaar – Aortic Arch Dissection
Future Directions
Registry Aims for 2012

- Standardize training for data abstraction
- Improve follow-up percentages
- Enroll 1000 patients into the IVC registry; publish subgroup-focused papers and incorporate new surgical data into other IRAD projects.
Registry Aims for 2012

- Expand IRAD to new sites using the pay-to-play model, focusing on geographical diversity and high-enrolling surgical and endovascular centers of excellence
- Begin work on IRAD imaging protocols
- Disseminate information gleaned from the patient education survey