

How to Start and Aortic Valve Repair Program

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9 STEPS

1. TECHNICAL COMPETENCE
2. LOOK BEYOND THE SCAREMONGERING
3. TRUST THE EVIDENCE, NOT THE RELIGION
4. COMMUNICATION
5. AORTIC ROOT EXPERIENCE/EXPERTISE
6. PATIENT SELECTION
7. EDUCATION
8. AVAILABILITY
9. CONSTANT AUTO-EVALUATION



2010-2017

Ross procedure: N=275 patients

AV Repair: N=38 patients

Valve-Sparing: N=68 patients



~400 patients



1. TECHNICAL ABILITY

- Anatomy
 1. Aortic root anatomy and physiology
 2. RVOT anatomy and physiology
- Surgical principles
- Observation
- Practice – Simulation training



la pratica dev' essere edificata sopra la buona teorica
(Practice must always be founded on sound theory)
Leonardo Da Vinci

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PROGRAM

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Reconstruction of the Aortic Valve and Root
A practical approach



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2. LOOK PAST THE SCAREMONGERING

“I remember a patient who went for valve-sparing/Ross, he ended up with an ECMO...”

“I’ve never lost a patient with a standard AVR”

- **Fellow surgeons**

- “I remember a patient who came back 3 years later with severe AI”

- **Cardiologist**



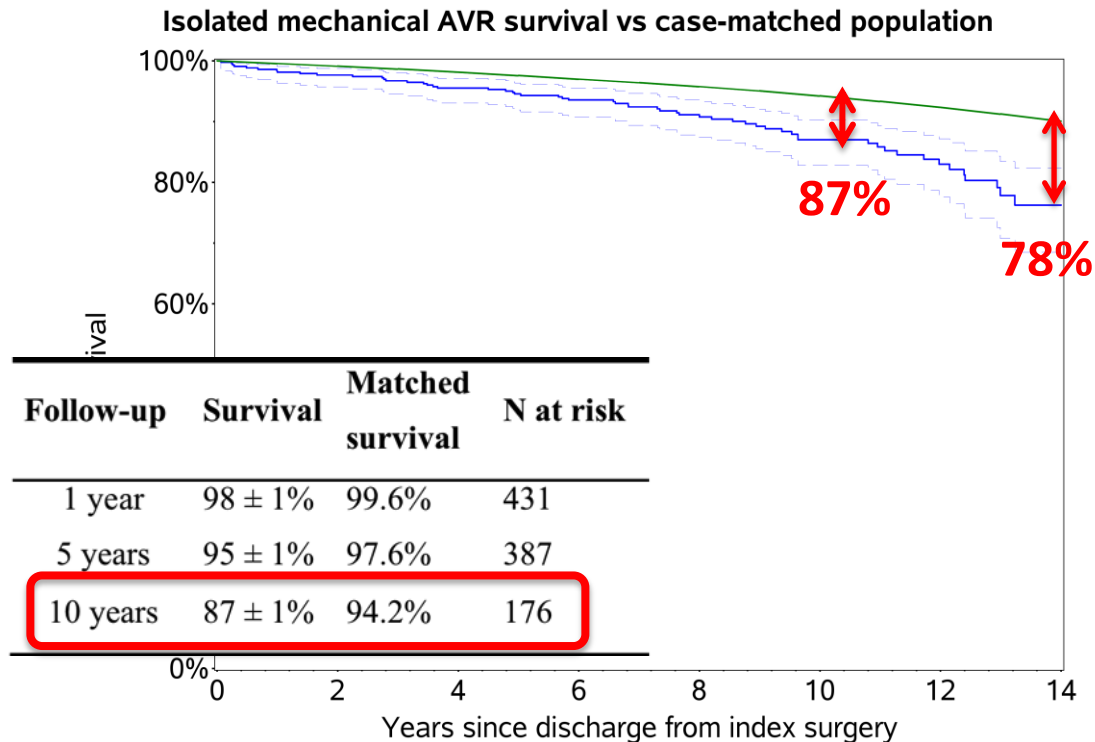
3. TRUST THE EVIDENCE

EVIDENCE-BASED MEDICINE vs. EMINENCE-BASED MEDICINE

1. Standard AVR in young adults
2. AVR repair
3. Ross procedure

Long-term outcomes after elective isolated mechanical aortic valve replacement in young adults

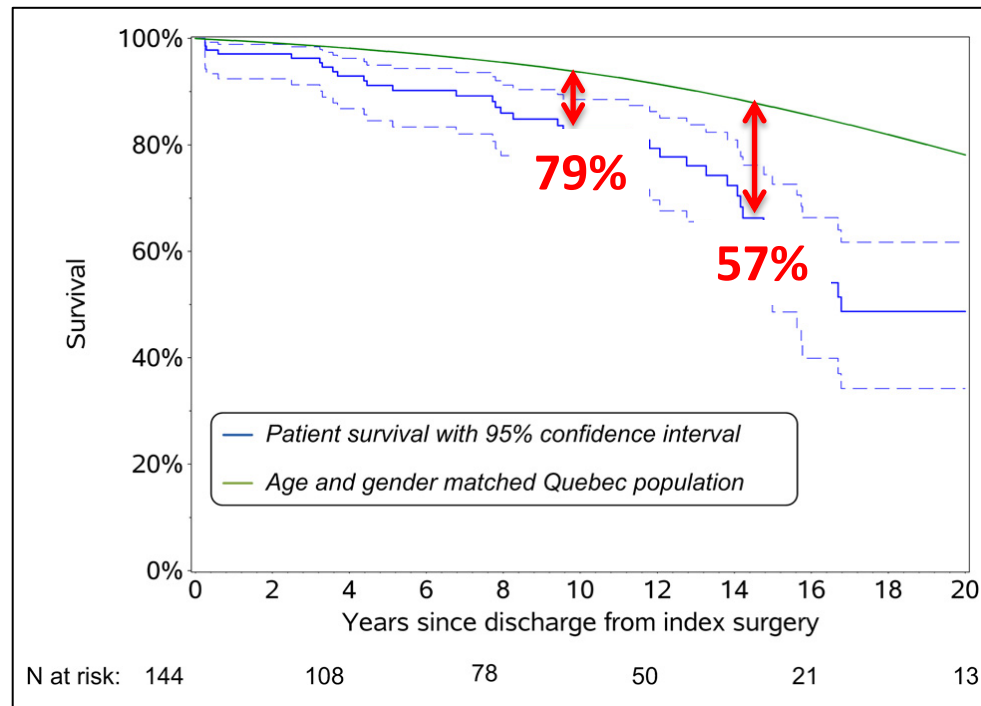
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The Perimount Valve in the Aortic Position: Twenty-Year Experience With Patients Under 60 Years Old

Jessica Forcillo, MD, MS, Ismail El Hamamsy, MD, PhD, Louis-Mathieu Stevens, MD, PhD, David Badrudin, Michel Pellerin, MD, Louis P. Perrault, MD, PhD, Raymond Cartier, MD, Denis Bouchard, MD, MS, Michel Carrier, MD, MBA, and Philippe Demers, MD, MS

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4. COMMUNICATION

Communication, communication, communication

- Surgeons
- **Cardiologists**
- Residents/Fellows
- Nurses

Survival

Quality of Life

Valve-Related Complications

Reoperation



5. AORTIC ROOT EXPERIENCE/EXPERTISE

- AVR → “Play with the valve”
- Aortic root replacement
 - Coronary mobilization
 - Commissural symmetry
 - Effective height/geometric height
- Valve-sparing operations / Ross operation

6. PATIENT SELECTION

Ideal candidate?

Bicuspid AI

Pliable cusps

Mildly dilated annulus

Be selective, *but not too selective* (maintain volumes)

7. EDUCATION

Educate and Engage colleagues

- Echocardiographers
- Intensivists (*BP management*)
- Anesthesists
- Surgeons

8. AVAILABILITY

- Patients
 - Cardiologists
 - Family physicians
1. Teaches you about the particularities of these patients
 2. Avoids feeding any initial negative biases



9. CONSTANT SELF-EVALUATION

- **Learn**
- **Improve**
- **Be self-critical**
- **Research**



KEEP LEARNING

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Leonardo Da Vinci*

TECHNIQUES EVOLVE

YOU EVOLVE AND SEE THINGS DIFFERENTLY

MEET FELLOW AORTIC SURGEONS

VISIT CENTERS OF EXPERTISE

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