The Heart Team and Management of AS

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Presenter Disclosure Information

• Consulting fees and honoraria
  • ACC Foundation (Significant level)
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  • Medtronic, Inc. (Moderate level)
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Natural History of Aortic Stenosis / AVR

Ross and Braunwald. Circulation 1968;38:V61-V7
TAVR Growth (European Union 2007-2011)

TAVR vs. SAVR (Germany 2007 – 2013)
32,581 TAVR and 55,992 SAVR

AS Management Complexity in 2017

• AS severity and characterization:
  • Discrepant gradients, valve area
  • Gradient (high/low), flow (normal/low), EF (normal/low)
  • AV and annular morphology (tricuspid vs. bicuspid AV)
  • Requirement for multi-modality imaging

• Symptoms referable to AS? Role of exercise testing.

• Patient characteristics: age, comorbidities, frailty...

• Therapeutic options (SAVR, TAVR [access], BAV).

• Procedural assessment: hostile chest, vascular access...
All-Cause Mortality at 30 Days
PARTNER I and PARTNER II Trials (Overall and Transfemoral)

SAPIEN Valve

- PARTNER I B (TF): 6.3%, 175 patients
- PARTNER I A (All): 5.2%, 344 patients
- PARTNER I A (TF): 3.7%, 240 patients
- PARTNER II B (TF): 4.5%, 271 patients
- PARTNER II B (TF): 3.5%, 282 patients
- PARTNER II HR (TF): 1.6%, 491 patients

SAPIEN XT

SAPIEN 3
All Strokes at 30 Days
PARTNER I and PARTNER II Trials (Overall and Transfemoral)

Neurologist Evaluations (Pre- and Post-)

- PARTNER I B (TF): 7.3% (175) SAPIEN Valve
- PARTNER I A (All): 4.4% (344)
- PARTNER II B (TF): 4.1% (271) SAPIEN XT
- PARTNER II B (TF): 4.3% (282)
- PARTNER II HR (TF): 1.4% (491) SAPIEN 3

STS/EACTS Latin America Cardiovascular Surgery Conference 2017
U.S. TVT Practice Trends 2012 to 2014
STS/ACC TVT Registry

Heart Team Reason for TAVR

TAVR Procedural Experience vs. Outcomes
STS/ACC TVT Registry

A. Mortality
B. Vascular

C. Bleeding
D. Stroke

Carroll JD, et al. J Am Coll Cardiol 2017;70:29-41
SAVR vs. TAVR (AHA/ACC 2017 Focused Update)

Severe Symptomatic AS (stage D)

- Class I
- Class IIa

Low Surgical Risk

- SAVR (Class I)

Intermediate Surgical Risk

- SAVR (Class I)
- TAVR (Class IIa)

Heart Valve Team (class I)

High Surgical Risk

- SAVR or TAVR (Class I)
- TAVR (Class I)

Prohibitive Surgical Risk

Heart Valve Team Composition and Purpose

HVT Composition

- Cardiologist
- Cardiac surgeon
- Structural interventionalist
- Imaging specialists
  - Echo, CT, MRI
- Anesthesiologists
- Nurses

HVT Purpose

- AS severity and characterization
  - AS severity
  - Gradients, flow, EF
  - Valve and annular morphology
- Symptoms referable to AS
- Patient risk assessment
- Therapeutic options
- Therapeutic plans
Heart Valve Team and Patient Management

PCP → Cardiologist

Cardiologist → Cardiac Surgeon

Cardiologist → Heart Valve Team

Heart Valve Team → Patient Assessment

Patient Assessment → SAVR (bio v mech) OR TAVR (TF, apical...)

No Intervention

- AS severity
- AS characteristics
- Patient characteristics
- Procedural characteristics
- Procedural risk
- Optimal management
Gracias!