

The forgotten Valve, What is the future?

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The forgotten Valve

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Google the forgotten valve

the forgotten valve

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The Forgotten Valve | Circulation
circ.ahajournals.org/content/132/7/e123 -
 by M A Hqj - 2015 - Cited by 2 - Related articles
 Aug 18, 2015 - Foramen ovale, patent - [tricuspid valve](#) stenosis. A 67-year-old white man with a history of coronary artery disease status, post-5-vessel coronary artery bypass grafting (13 years earlier) and ischemic heart disease, presented with fatigue and dyspnea on exertion for 6 months. He had undergone chronic ...
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Tricuspid valve: a valve not to be forgotten.
<https://www.escardio.org/Journal/E.../Tricuspid-valve-a-valve-not-to-be-forgotten> -
 Apr 23, 2013 - For many years, the tricuspid was mostly ignored. In part due to the assumption that regurgitation, then assumed as "functional", would simply improve after correction of the mitral or aortic valve disease. However, in recent years, the so called "forgotten valve" has been claiming a progressive and deserved ...

EuroIntervention The forgotten valve no more - PCRONline.com
<https://www.pcronline.com/eurointervention/.../the-forgotten-valve-no-more.html> -
 by M Garvin - Cited by 1 - Related articles
 Feb 3, 2017 - Recent developments in the emerging field of transcatheter therapies for tricuspid regurgitation (TR) have stimulated renewed interest in the "forgotten" tricuspid valve. In this edition of EuroIntervention, the impact of residual TR following transcatheter mitral intervention. MitraClip® (Abbott Vascular, Santa ...

Valve-in-Ring and the Forgotten Valve | JACC: Cardiovascular ...
interventions.onsjacc.org/content/10/1/84
 Jan 2, 2017 - Although the tricuspid is frequently considered the forgotten valve because so little is published about its treatment and the guidelines provide little clarity, this report suffers (as do many) because there is no data about right ventricular (RV) function. This seems to be the forgotten ventricle: Mitral valve-in-ring ...

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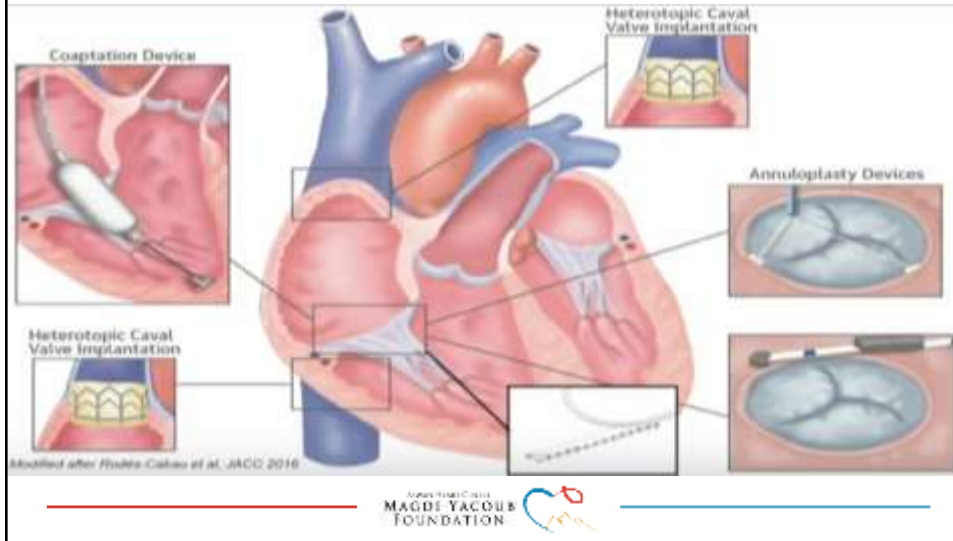
FTR: Old vs New Thinking

TR not important...	NO
Look for TR in OR...	NO
Not much TR around...	NO
Repair Mitral, TR goes away ...	NO
Adds operative mortality to do a TVr...	NO
Don't know how to...	NO
RV will fail...	NO
Will get TS...	NO
Won't make long-term difference...	NO
Guidelines are vague...	NO

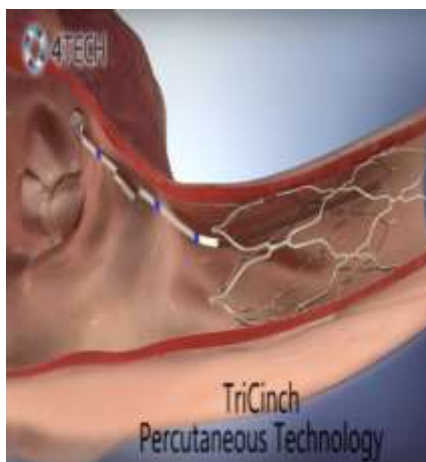
FTR : Don't ignore it...

Steven Boring offered Tricuspid regurgitation truths and myths, TVT 2016

Current Percutaneous Technologies



TriCinch Device



Device Name and typology:

Catheter-based device to perform tricuspid annular cinching (Annuloplasty system)

Description:

Corcscrew anchor, self-expanding stent and a Dacron band connecting both. Once anchored, the stent is released in the inferior vena cava and tension is applied through the Dacron Band

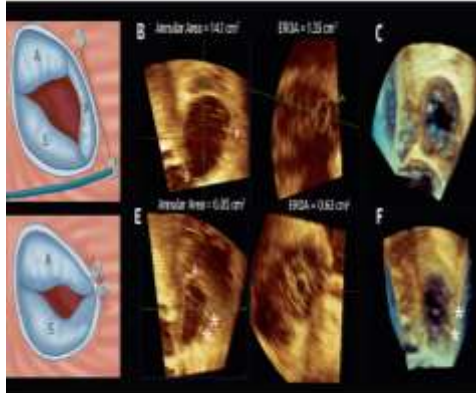
Downside:

Leaflet or coronary damage
Single anchor with risk of detachment
Incomplete plasty with risk of TR recurrence

Experience:

24 pts PREVENT trial

Trialign Percutaneous Tricuspid



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Device Name and typology:

Annuloplasty system designed to mimic the Kay surgical procedure

Description:

Delivery of polyester pledget via right ventricle through the tricuspid annulus. Pledgets are plicated and locked directly on the annulus. The system is advanced through transjugular route.

Downside:

-Incomplete plasty which can be mitigated by implanting 2 pairs of pledgets

Experience:

15 ptn (SCOUT trial)

The Millipede System



Device Name and typology:

Repositionable and retrievable tricuspid ring annuloplasty

Description:

Collapsible nitinol ring with individually controlled collars. Corkscrew-shaped anchors attach the ring to the annulus. The implant is then contracted reducing the dilated annulus to the physiological size

Downside:

-Atrioventricular block.

Experience:

2ptn

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FORMA edwards life sciences



Device Name and typology:

Spacer Anchored at the right ventricular apex

Description:

A foam-filled polymer balloon and rail that is anchored at the RV apex. It is advanced via left axillary vein and completely retrievable

Downside:

- Large device not addressing the anatomical changes in FTR
- Affects RV pacing lead.

Experience:

18 pt

MitraClip



Device Name and typology:

A V-shaped clip which can grasp contiguous leaflets together

Description:

A 4-mm wide cobalt chromium polyester covered implant with 2 arms that grasp 2 leaflets. The delivery system can be advanced through transjugular or transfemoral

Downside:

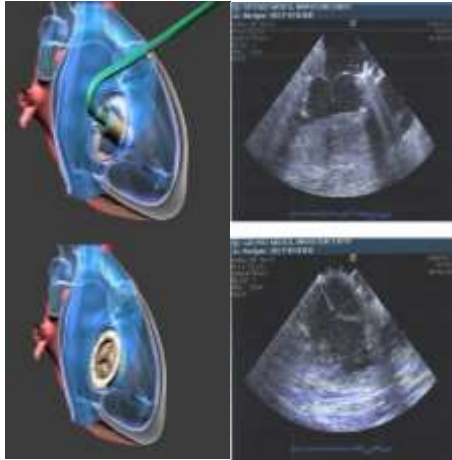
- Risk of leaflet detachment and injury
- Chordal entanglement.
- Doesn't target annular dilation.

Experience:

Most familiar

64 ptn

NaviGate Tricuspid



Device Name and typology:

Nitinol tapered stent with a truncated cone configuration and annular winglets for secure anchoring of the the annulus and tricuspid leaflets.

Description:

The winglets engage the annulus from both atrial and ventricular sides. The truncated cone enables low height profile

Downside:

-One Patient.

Experience:

Minimal however virtually the valve replacement can minimize the regurgitation

It can reach a wider patients
It can shorter procedure time

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Is it easy as it looks??? Challenges

- Annular and valvular anatomy
 - Need of intervention on anterolateral part of the TA which is technically challenging because of the close proximity of the right coronary artery
 - Septal annulus is precluded because of the close proximity of the conduction system.
 - Necessity to perform a complete annuloplasty with ring.
 - The abundance of primary, secondary and tertiary chordae make per se the approach to the TV difficult to be performed

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Challenges (Transcaval Approach)

- Inferior vein cava forms an angle of 45° with the tricuspid plane, which makes this approach challenging.
- RA have inconstant presence of prominent Eustachian valve or Chiari network which can obstacle the advance of the delivery system.
- Impossibility to pass through the RV.



Imaging and procedure guidance

- The midesophageal 4-chamber and the midesophageal RV inflow-outflow views.
- The transgastric RV inflow, modified midesophageal bicaval and the transgastric TV short axis views.
- Dynamic view acquisition between the previous is a must to perform a complete examination of the TV However *it is not always easy*

What will we be waiting for

- PREVENT (NCT02098200)
- SCOUT I (NCT02574650)
- SCOUT II (not registered)
- TRI-REPAIR (NCT02981953)
- SPACER (NCT02787408)
- TRICAVAL (NCT02387697)
- STTAR (not registered)
- HOVER (NCT02339974)

