

Update: perkutane Mitralrekonstruktion

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Mitralcliping

Annulus - devices

Artificial cords

Leaflet repair

Ventricular remodeling

Mitral valve replacement

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Annulus Devices

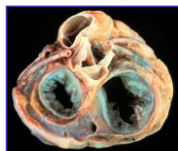
- Coronary Sinus devices
- Direct annuloplasty

=> for Functional Mitral regurgitation

Coronary Sinus Devices – first patient 2007

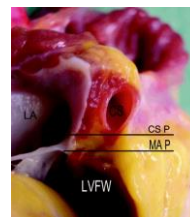
Devices:

- PTMA Device (Viacor)
- **Carillon (Cardiac Dimensions)**
- Monarc (Edwards)
- NH-Cerclage Technology
- St-Jude Device

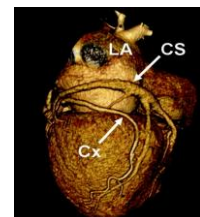


Principle: Create force via the coronary sinus to shorten the anterior – posterior diameter of the mitral valve in order to enlarge the coaptation area of the leaflets

Anatomical limitations Coronary Sinus Devices

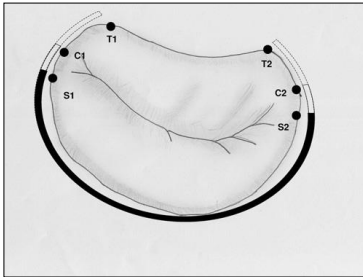


Tops et al, Circulation 2007



Maselli et al, Circulation 2006

Anatomical limitations Coronary Sinus Devices



T1 / T2 left and right fibrous trigones
C1 / C2 ant. / post. commissures
S1 origin of great cardiac vein
S2 coronary sinus ostium

Lansac JTCVS 2008

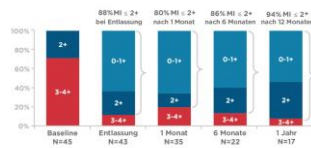
Mitralign



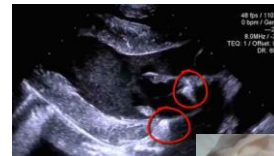
Cardioband



94 % Patienten mit MI $\leq$ 2+ nach 12 Monaten, Core Lab



Valcare Ring



Annulus - devices

Artificial chords

Leaflet repair

Ventricular remodeling

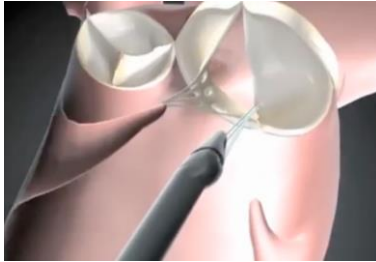
Mitral valve replacement

Artificial chords

- Valtech V-chordal adjustable system
- Neochord Mitraflex

=> for degenerative Mitral regurgitation

Neochord Mitraflex



Annulus - devices

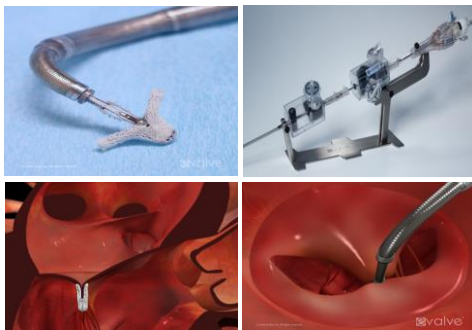
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Mitral valve replacement

MitraClip

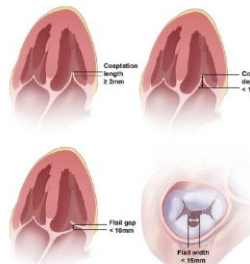


EVEREST II



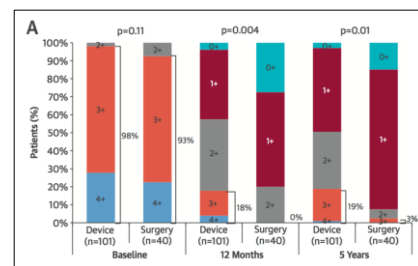
EVEREST Trial Anatomic Eligibility

- Sufficient leaflet tissue for mechanical coaptation
- Non-rheumatic/endocarditic valve morphology
- Protocol anatomic exclusions
 - Flail gap >10mm
 - Flail width >15mm
 - LVIDs > 55mm
 - Coaptation depth >11mm
 - Coaptation length < 2mm



Feldman T et al., J Am Coll Cardiol 2009;54:686-94

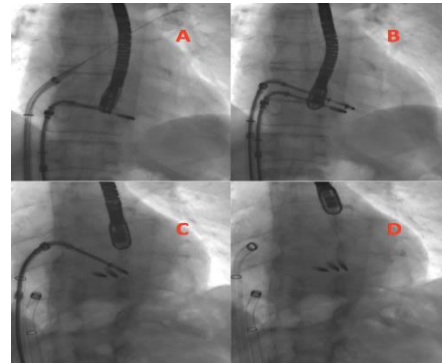
EVEREST II – 5 years



First Mitraclip Patient in Europe : Sept 08th 2008

85 years, male
NYHA III,

Severe MR, mixed etiology
CABG 7 years ago , patient grafts
Renal insufficiency
Paroxysmal atrial fibrillation

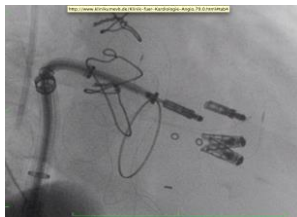


3.2.3

J Thorac Cardiovasc Surg. 2011 Jul;142(1):227-30. Epub 2011 Jan 17.

Percutaneous mitral valve repair as a bail-out strategy for patients with severe mitral regurgitation after cardiac surgery.

Franzen O, Seifried M, Beldus S, Corradi L, Schirmer J, Kulik M, Meinertz T, Reichenspurner H, Troidt H.



Titelbeschreibung (Sidehoved/foot)

Navn (Sidehoved/foot)

Annulus - devices

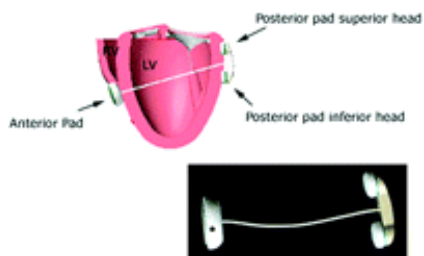
Artificial cords

Leaflet repair

Chamber remodeling

Mitral valve replacement

Coapsys device



Status : after human use, development holded

Annulus - devices

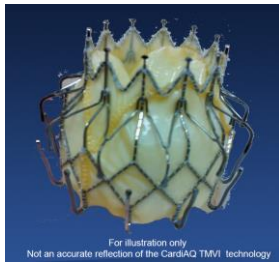
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CardiaQ TMVI technology



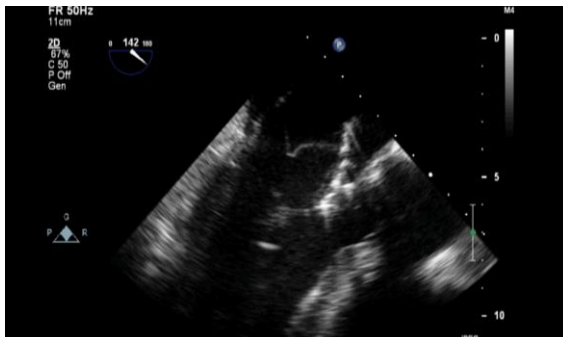
For illustration only
Not an accurate reflection of the CardiaQ TMVI technology
Image courtesy of CardiaQ

- Percutaneous, transeptal
- Porcine pericardium
- Nitinol self-expanding frame – atrial & vent anchors

Copenhagen, June 12th 2012



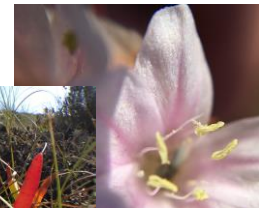
Deployed valve



Treating mitral will
be a challenge !



Chief Pearson



Mitralclipping