

X CONGRESO COLEGIO COLOMBIANO
DE HEMODINAMIA E INTERVENCIONISMO CARDIOVASCULAR
XXIV JORNADAS SOLACI - 8VAS. REGIÓN ANDINA



COLEGIO COLOMBIANO
DE HEMODINAMIA
E INTERVENCIONISMO
CARDIOVASCULAR



TARIO
de

Cómo realizar un caso exitoso de TAVI. Tips and Tricks



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CONFLICTO DE INTERESES

- Proctor de Corevalve
- Miembro advisory board Medtronic

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HOSPITAL
UNIVERSITARIO
CENTRAL de
ASTURIAS



Hospital Universitario Central de Asturias
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**Cómo realizar un
caso exitoso de
TAVI.
Tips and Tricks**

=

Successful deployment

+

Absence of Complications

Complications in TAVI

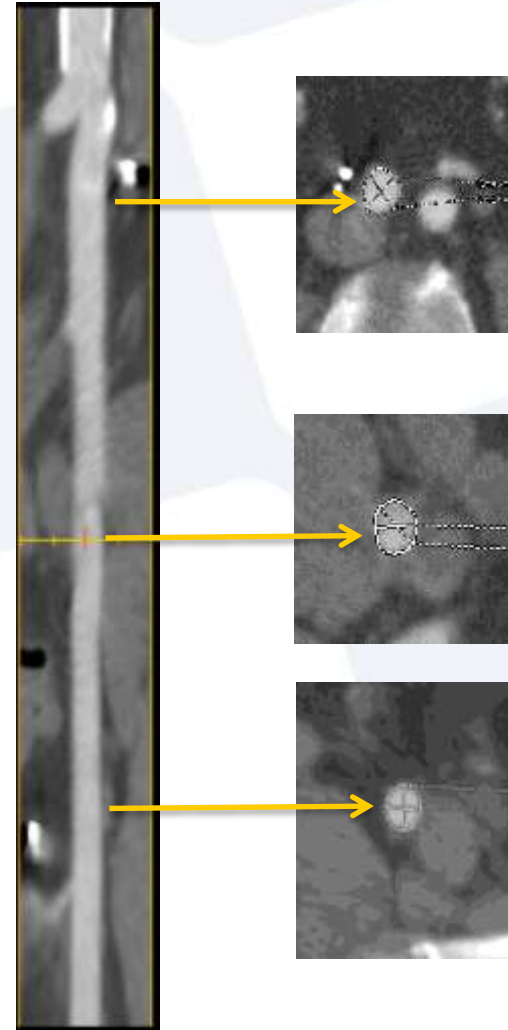
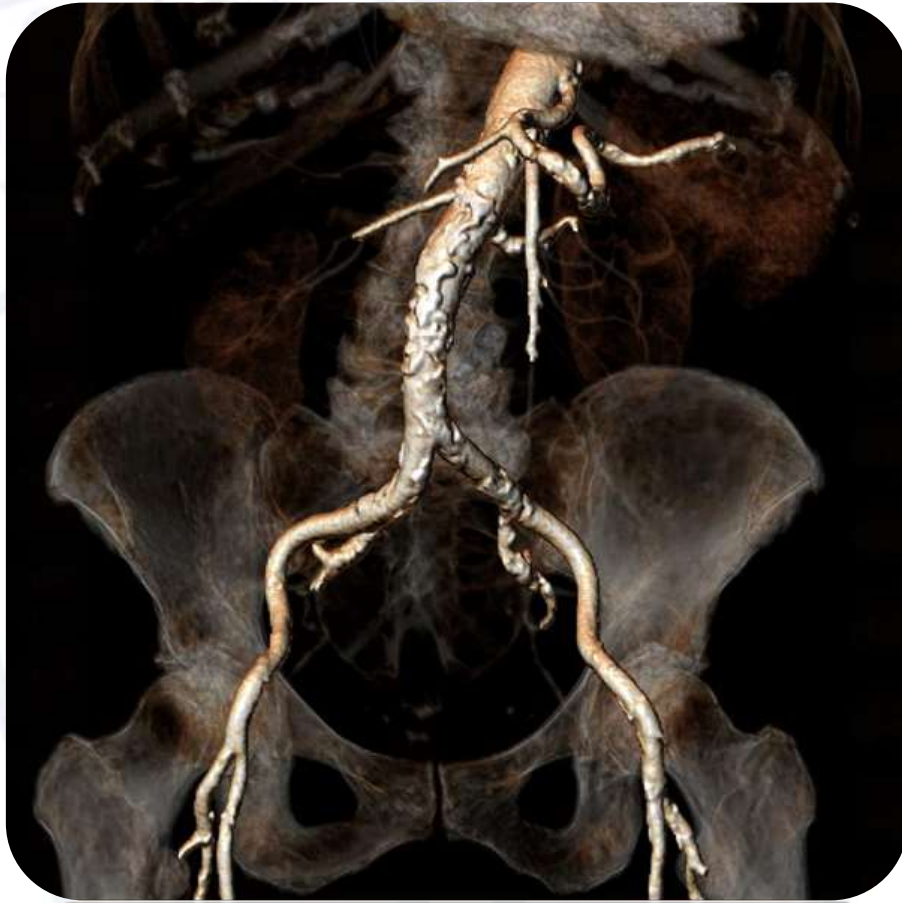
- A successful group it is not the one that has no complications, but the one that knows how to manage them.
- TAVI procedure does not finish when the valve is successfully deployed but when femoral sheath is removed and there is no complications.

CÓMO REALIZAR UN CASO EXITOSO DE TAVI

- PREPARATION
- PROCEDURE
- POST PROCEDURE

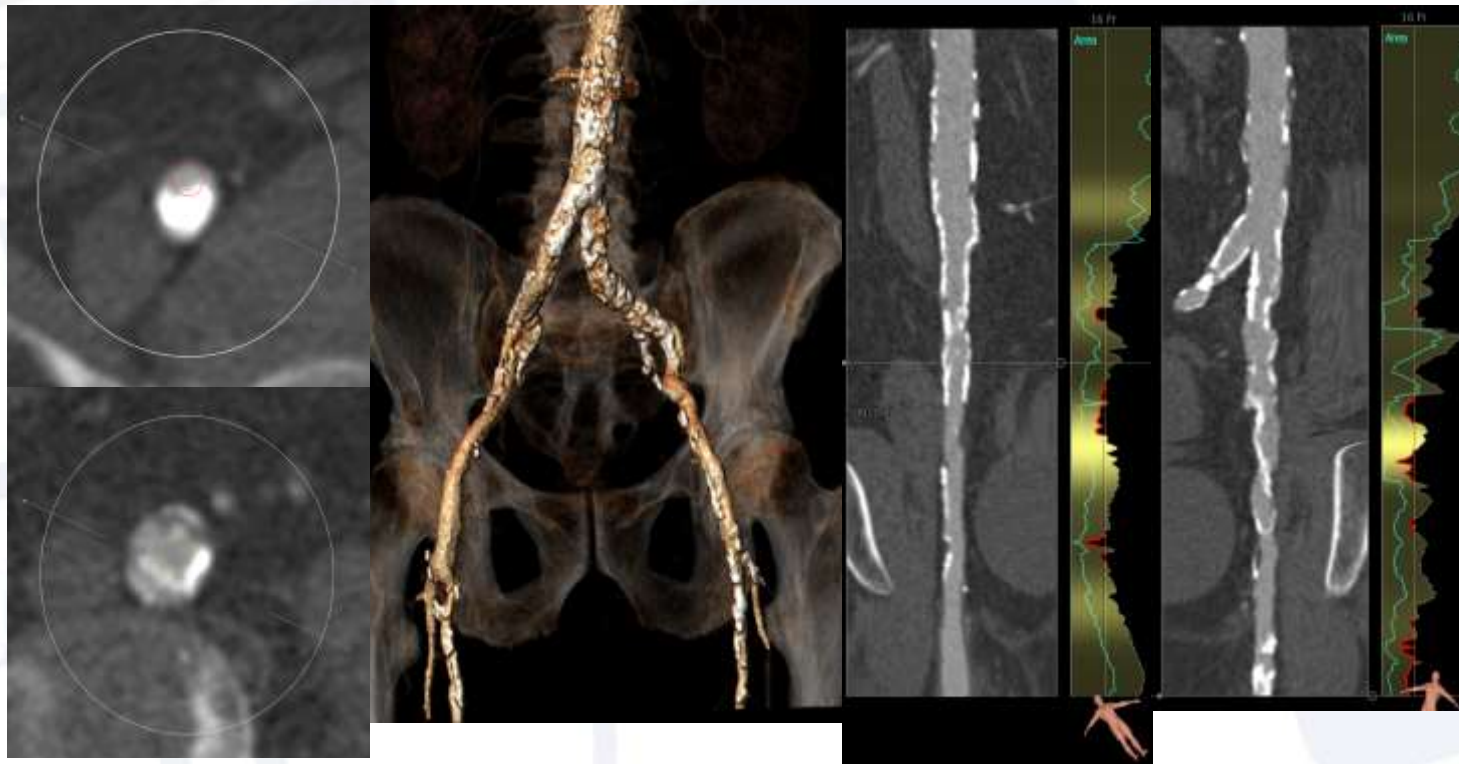
VASCULAR ACCESS SITE SCREENING

ASSESSMENT OF TORTUOSITY, VASCULAR DIMENSION, CALCIFICATION

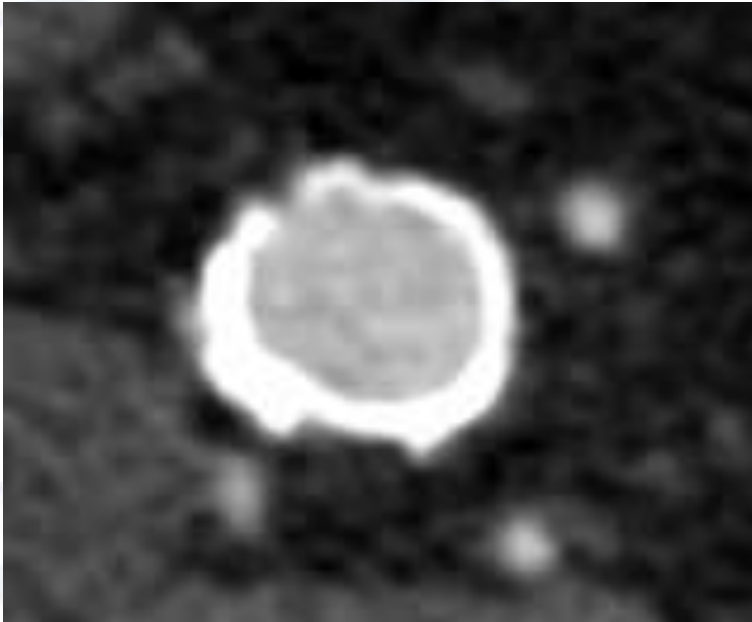


CÓMO REALIZAR UN CASO EXITOSO DE TAVI

SEVERE CALCIFICATION AND PERIPHERAL OCCLUSIVE DISEASE

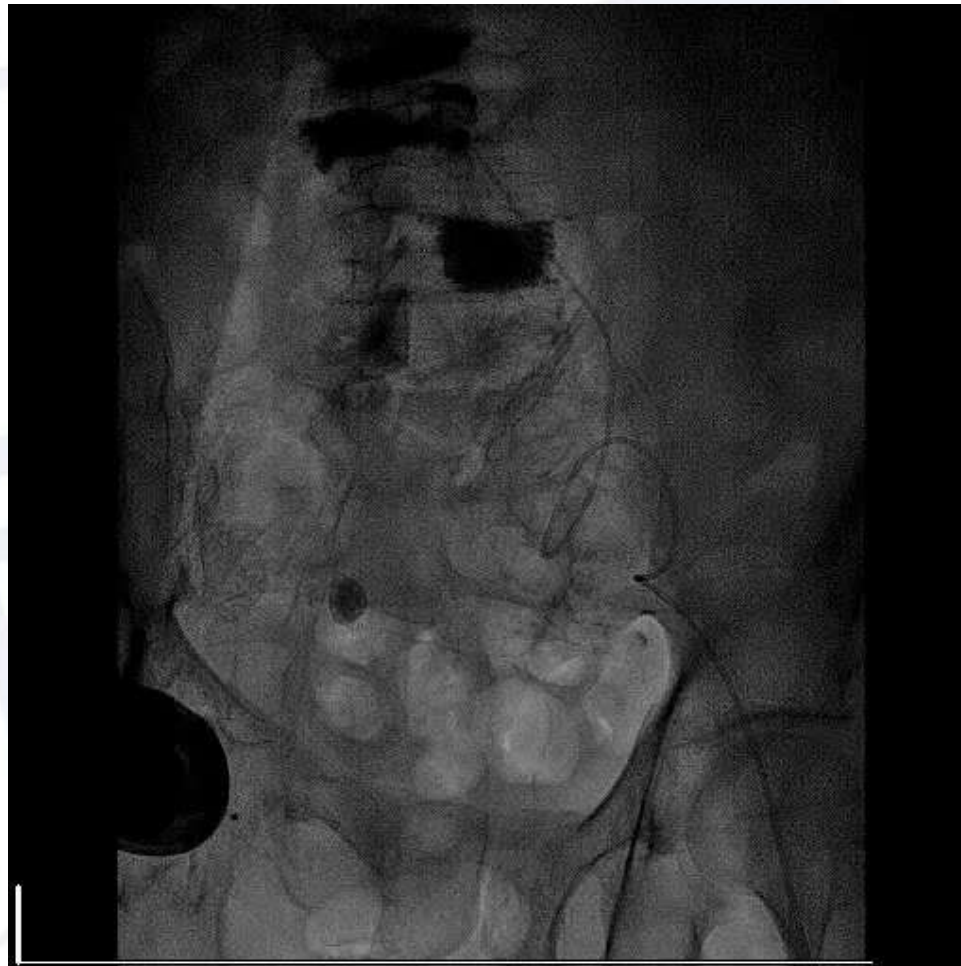


CIRCUMFERENTIAL OR HORSESHOE CALCIFICATION



This won't dilate!

Tortuosity



CÓMO REALIZAR UN CASO EXITOSO DE TAVI



Tortuosity is usually ok, if not calcified

CÓMO REALIZAR UN CASO EXITOSO DE TAVI

SEVERE TORTUOSITY AND DILATIVE VASCULOPATHY



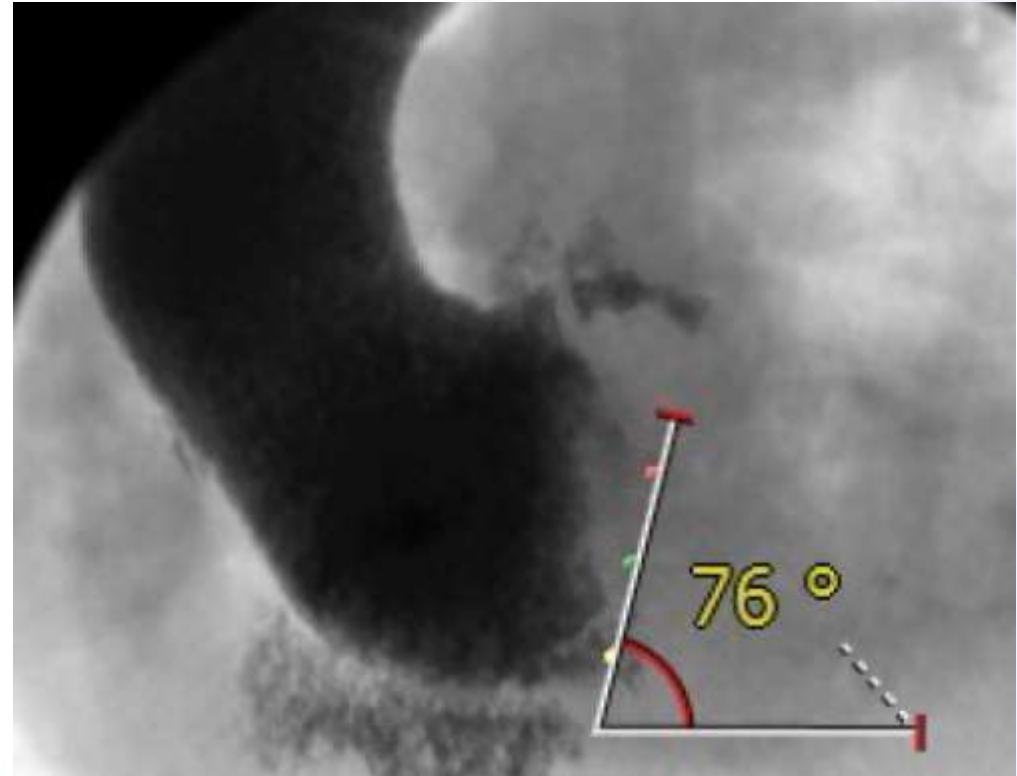
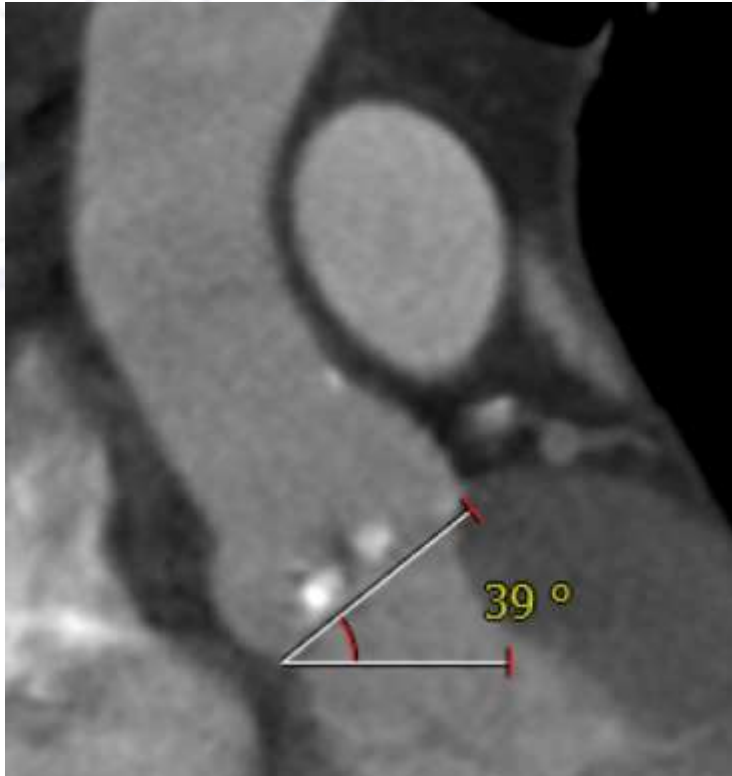
Aneurysm are usually OK if careful

VASCULAR COMPLICATIONS

PREDICTORS

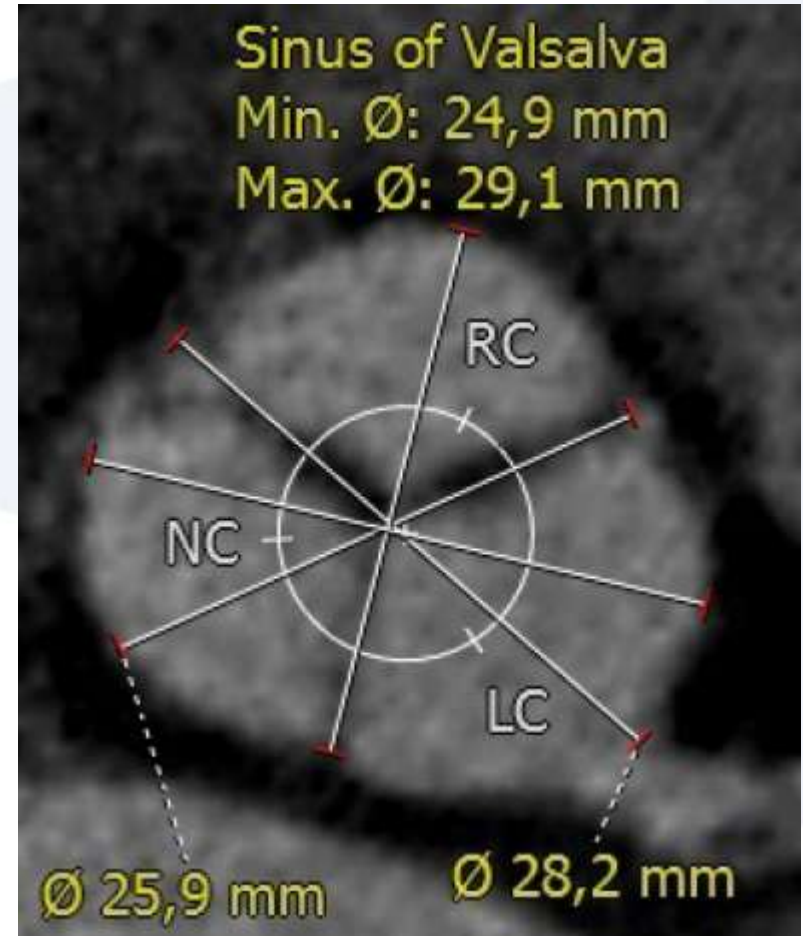
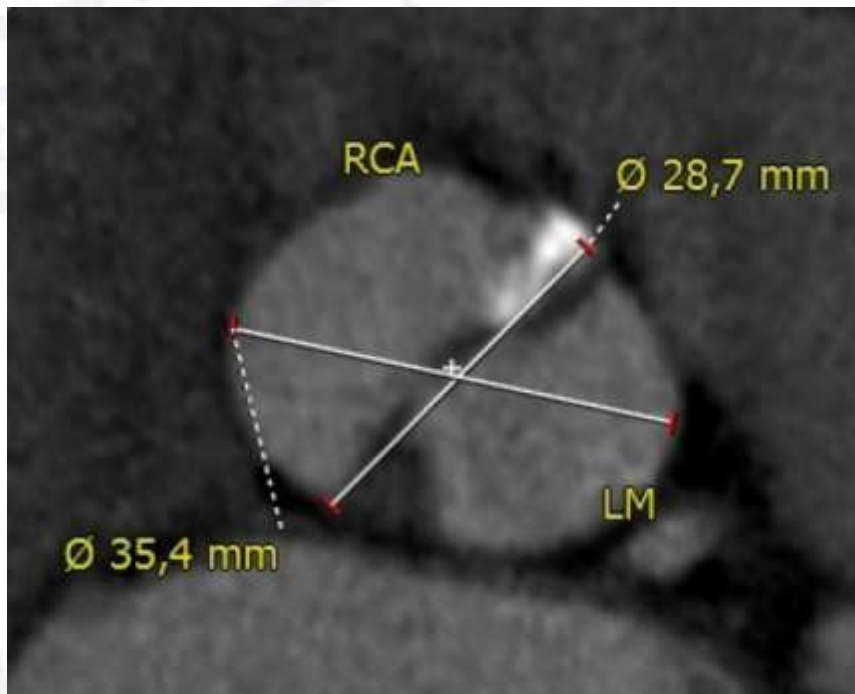
- Sheath to artery ratio
- Tortuosity
- Experience
- No difference between percutaneous and surgical access

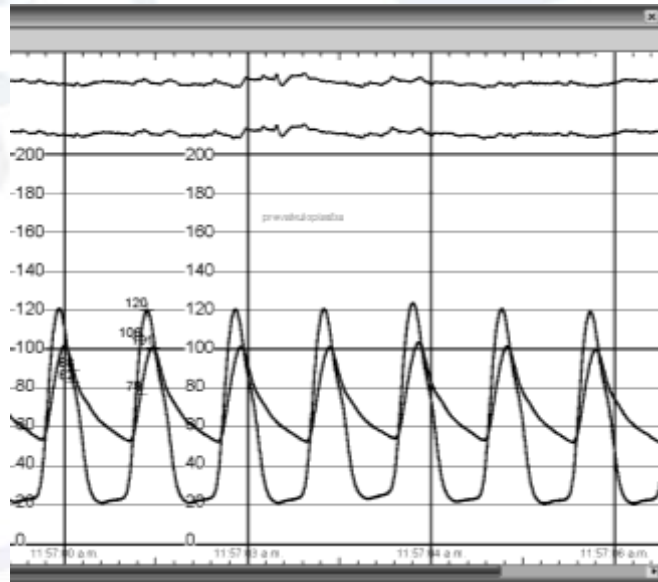
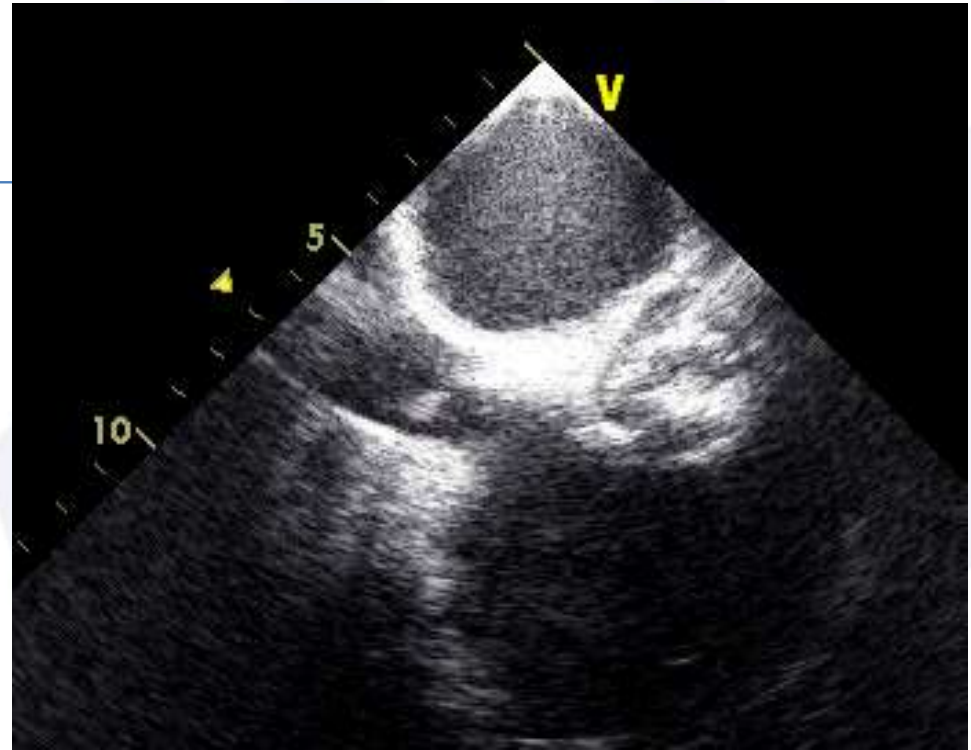
ANATOMICAL FEATURES

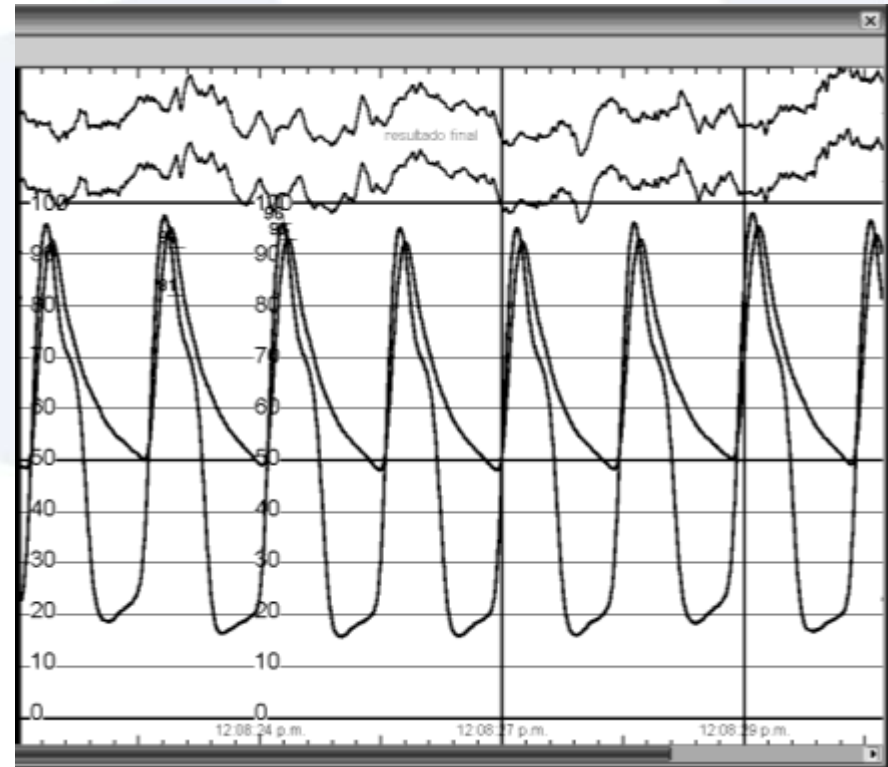
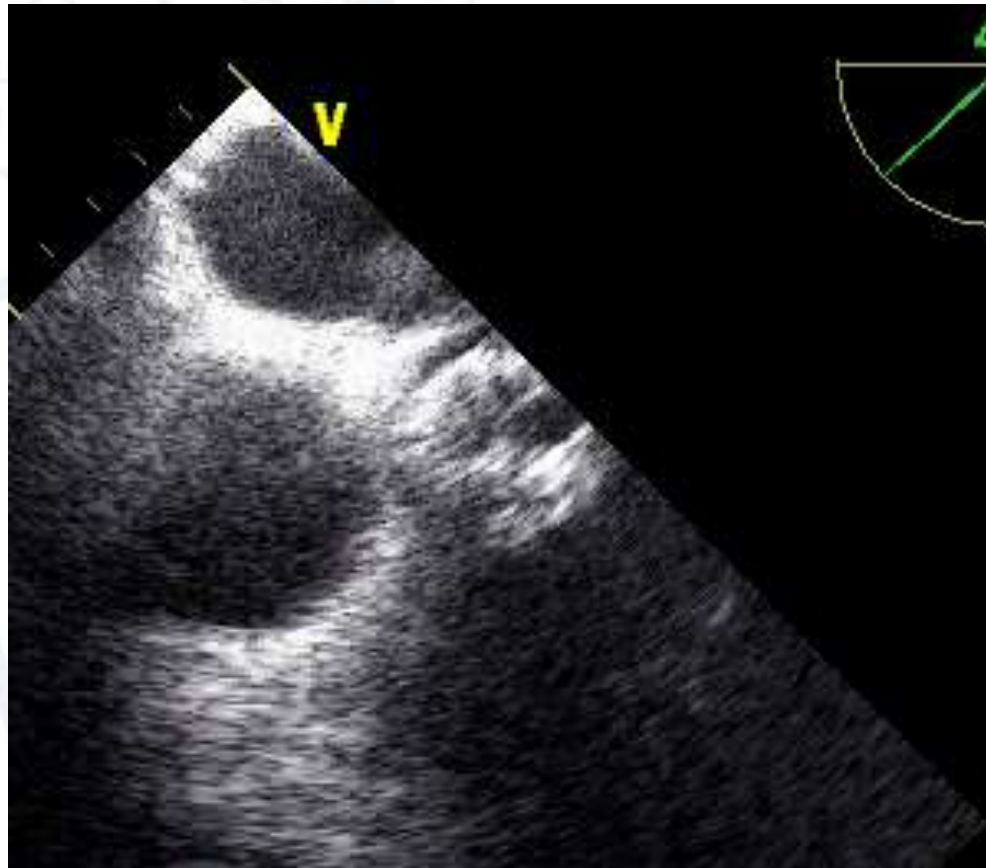


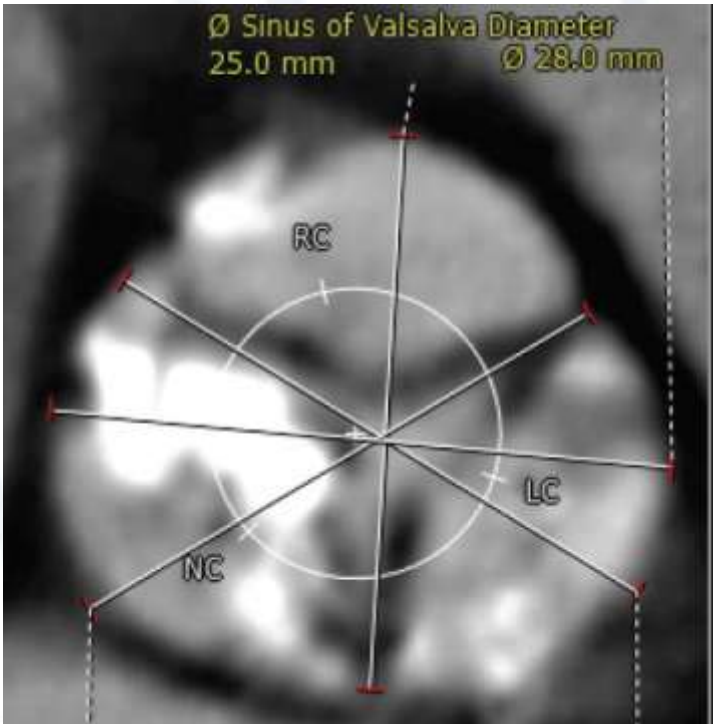
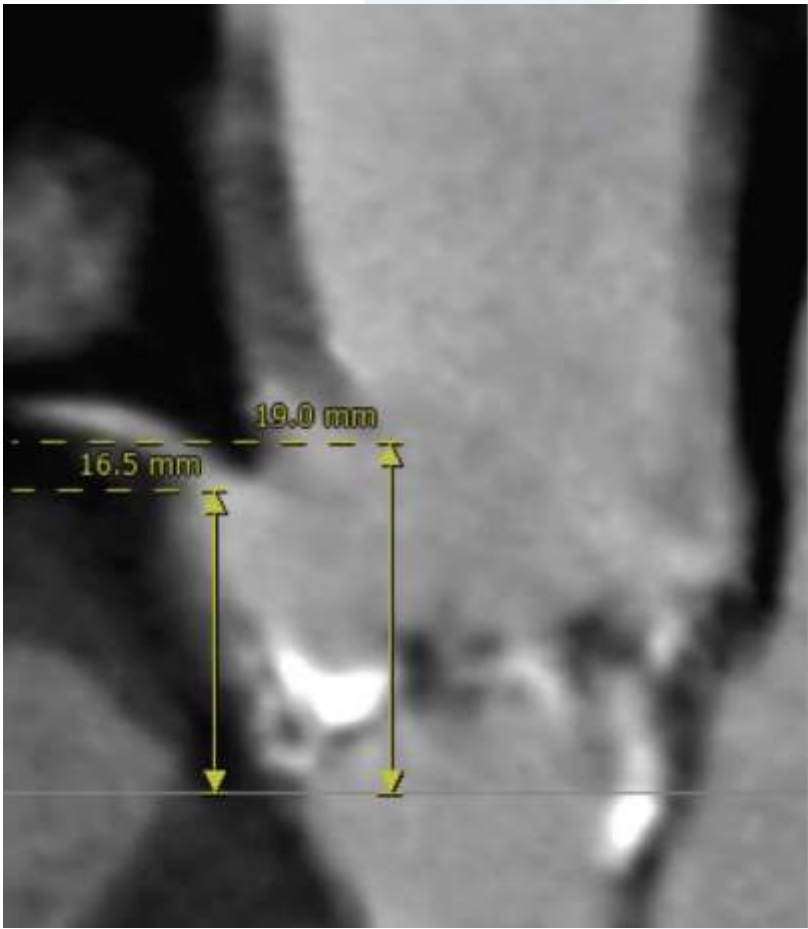
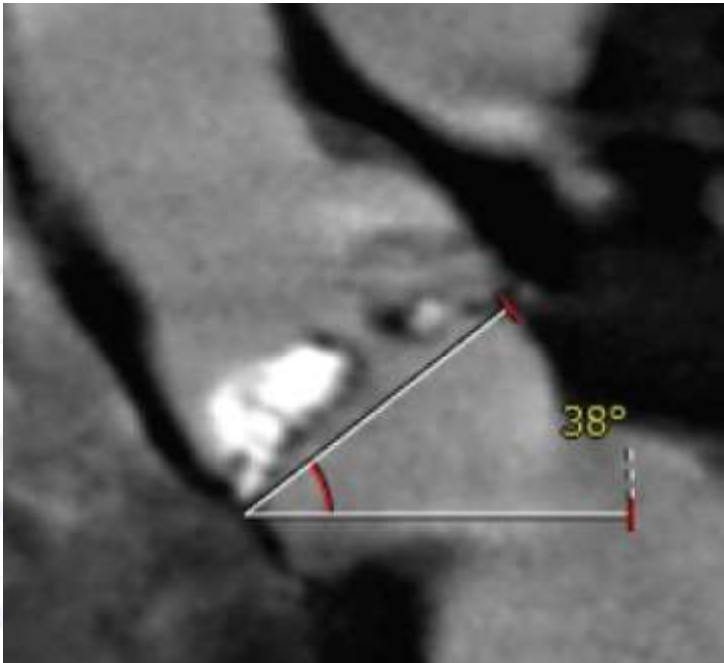
ANATOMICAL FEATURES

True bicuspid valve





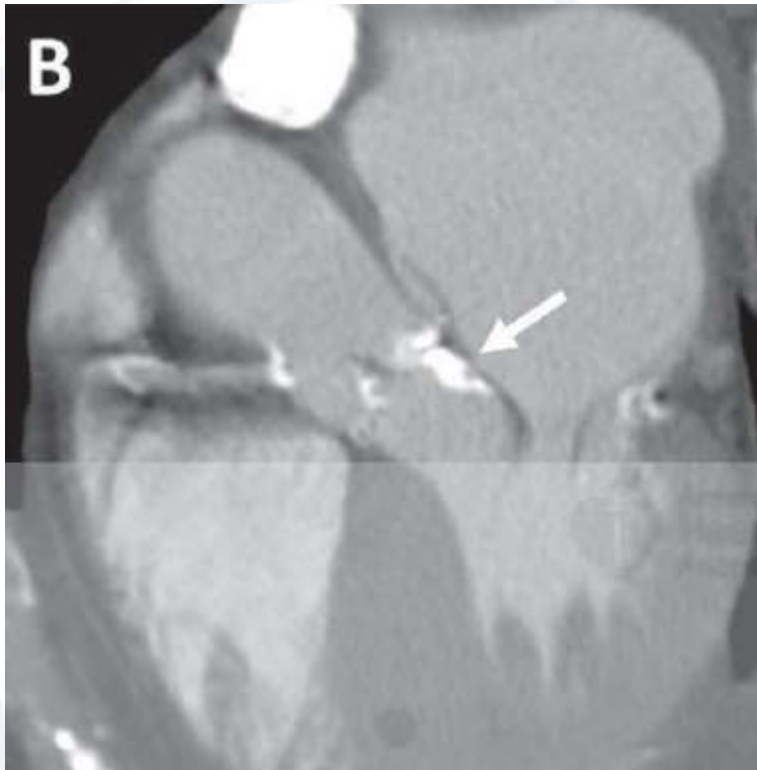




Aortic root rupture

Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION

Anatomical and Procedural Features Associated with Aortic Root Rupture During Balloon-Expandable Transcatheter Aortic Valve Replacement



PATIENTS

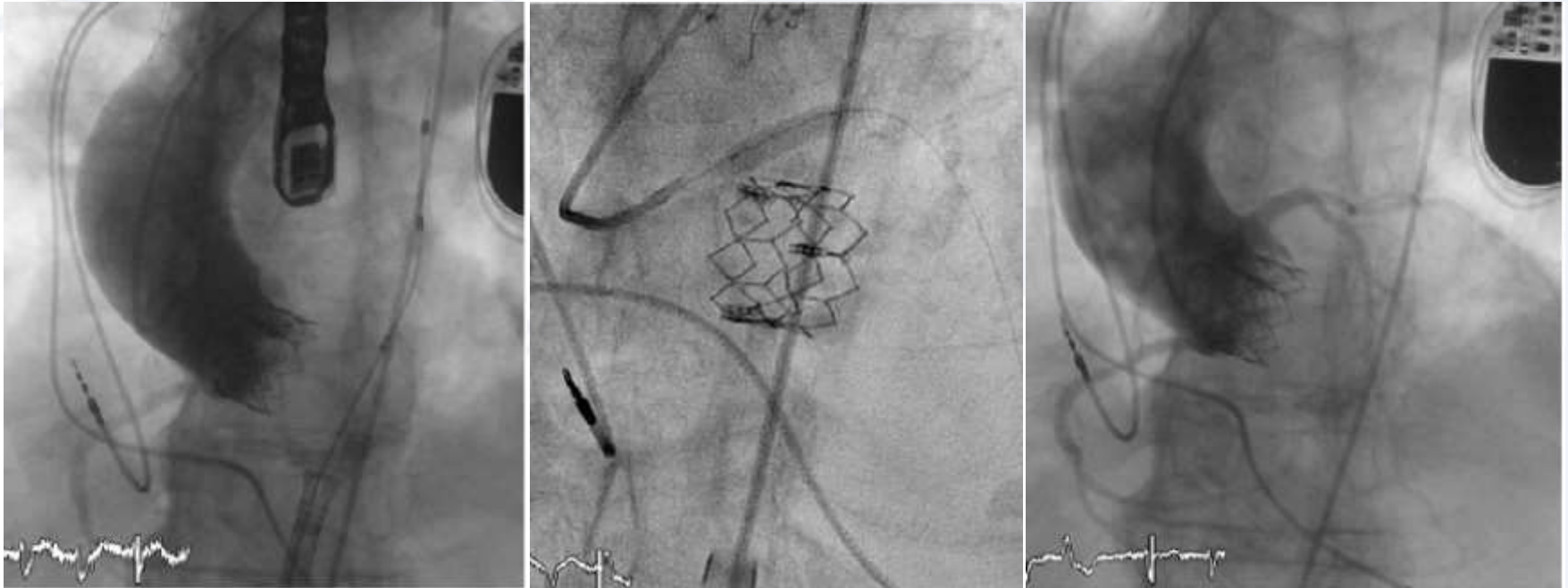
- 31 patients
 - Aortic root rupture 20
 - Periaortic hematoma 11

PREDICTORS

- Moderate/severe subannular calcification
 - OR: 10,92 CI: 3,2 – 36,9 p<0,001
- Protesis oversizing > 20%
 - OR: 8,2 CI: 2,6-26,3 p<0,001

Coronary obstruction

Acute Left Main Coronary Artery Occlusion After Percutaneous Aortic Valve Replacement



Coronary obstruction

Coronary Obstruction After Transcatheter Aortic Valve Implantation

A Systematic Review

A total of 18 publications describing 24 patients were identified.

- ❖ 83% patients were women.
- ❖ 88% had received a balloon-expandable valve.
- ❖ Coronary obstruction occurred more frequently in the LCA (88%).
- ❖ Percutaneous coronary intervention was attempted in 23 cases (95.8%)
- ❖ Was successful in all but 2 patients (91.3%).
- ❖ At 30-day follow-up, the mortality rate was 8.3%.

Coronary Screening

- Coronary angiogram
- Aortogram
- CT
- Aortogram during valvuloplasty



Risk factors

Coronary –annulus distance

- <10-12mm
- Depends on leaflet length & annulus diameter

Leaflet length

Leaflet bulk

Sinus depth

The Ascending Aortogram



- ~LAO 10
- Magnified
- Don't pan
- Confirm calcified leaflets with restricted movement
- Look for porcelain aorta
- Left main height

Take home messages

- Old patients with comorbidities have few reserves; they are unlikely to survive severe complications
- Identify potential problems before they can cause complications.
- Be suspicious and diagnose complications aggressively.
- Be prepared to handle any problem without delay; have all equipment available.



Muchas gracias por su atención