QUALE RUOLO DELLA VALVULOPLASTICA IN EPOCA TAVI

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MINI CORSO

INTERVENTISTICA/CARDIOCHIRURGIA

Responsabili esecutivi: Corrado Lettieri (Mantova) e Giuseppe Tarelli (Rozzano)

Lunedì, 27 marzo 2017

Stenosi aortica: chirurgia e TAVI

Moderatori: *Battistina Castiglioni (Varese), Diego Ornaghi (Rozzano)*

11.40 TAVI: la tecnologia progredisce, l'esperienza degli operatori aumenta, le complicanze si riducono: quindi...
Francesco Bedogni (San Donato Milanese)

12.00 TAVI: tutto vero...ma non allarghiamo le indicazioni! *Carlo de Vincentiis (San Donato Milanese)*

12.20 Quale è il ruolo della valvuloplastica in epoca TAVI? *Paola Colombo (Milano)*

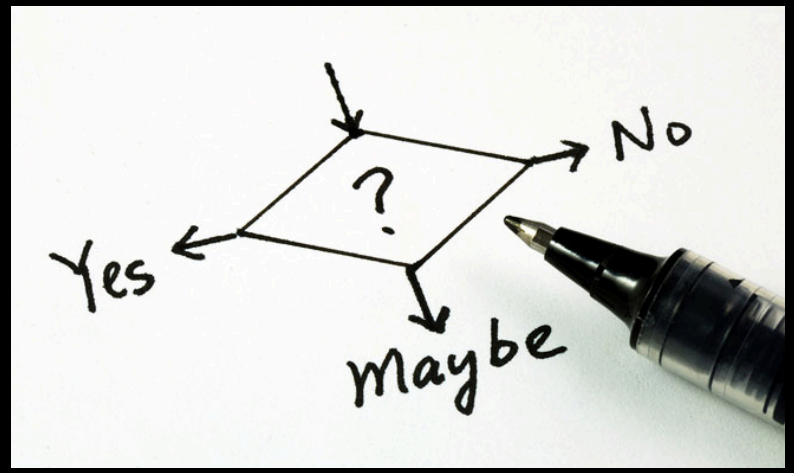
12.40 La valutazione dell'insufficienza mitralica associata a SAo nello screening pre TAVI: quale impatto decisionale
Maurizio Tusa (San Donato Milanese)

13.00 Discussione

UOMO 81 ANNI

- Ipertensione, dislipidemia
- Morbo di Parkinson in trattamento
- IRC e quadro di MGUS IgM Lamda stabile
- Vasculopatia carotidea
- Coronaropatia: pregresso BPAC (AMI-IVA, AO-IVP-PL) e pregresse PTCA con DES (TC-CX-MO e IVA nativa)
- Dal 2011 SAO con FE conservata IM moderata
- Dal marzo 2016 peggioramento clinico (edemi declivi, dispnea, sincope di dubbia origine). Limitazione attività quotidiana
- Inviato in PS da curante: SAO severa FE 42% IM moderata

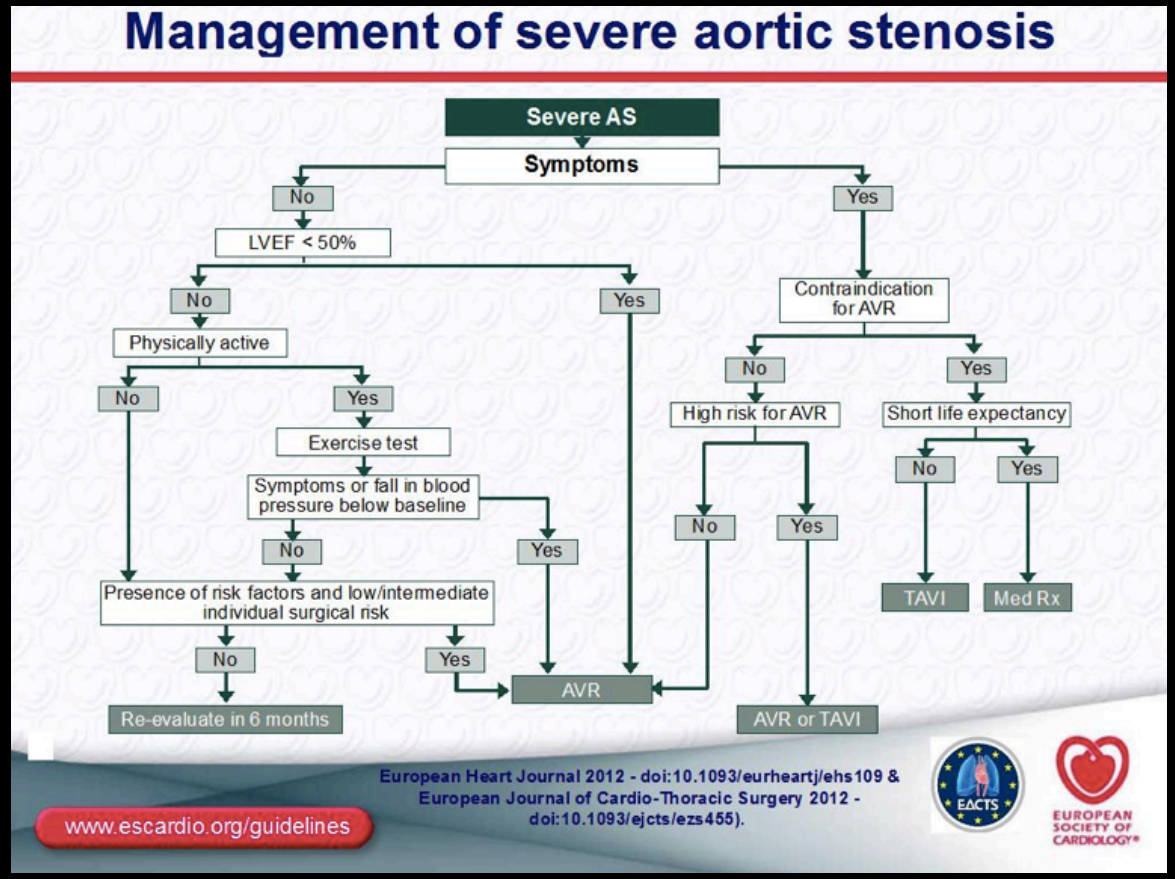
- Episodi confusionali durante il ricovero
- EEG tendenza addormentamento spontaneo
- Esegue valutazione con CT, ecocardiogramma e coronarografia (stenosi di MO trattata con DES)
- Episodi di macroematuria da strattonamento di catetere



HEART TEAM

BAV PALLIATIVA

ESC GL 2012
INDICATIONS FOR BALLOON VALVULOPLASTY



May be considered

- As bridge to AVR or TAVI in haemodynamically unstable patients
- In symptomatic severa AS who require urgent non cardiac surgery (IIbC)
- As palliative treatment if surgery is contraindicated and TAVI is not an option

AHA GL 2014

Table 8. Summary of Recommendations for AS: Choice of Surgical or Transcatheter Intervention

Recommendations	COR	LOE	References
Surgical AVR is recommended in patients who meet an indication for AVR (Section 3.4) with low or intermediate surgical risk (Section 2.5 in the full-text guideline)	I	A	69,70
For patients in whom TAVR or high-risk surgical AVR is being considered, members of a Heart Valve Team should collaborate to provide optimal patient care	I	C	N/A
TAVR is recommended in patients who meet an indication for AVR for AS who have a prohibitive surgical risk and a predicted post-TAVR survival >12 mo	I	B	71,72
TAVR is a reasonable alternative to surgical AVR in patients who meet an indication for AVR (Section 3.4) and who have high surgical risk (Section 2.5 in the full-text guideline)	IIa	B	73,74
Percutaneous aortic balloon dilation may be considered as a bridge to surgical or transcatheter AVR in severely symptomatic patients with severe AS	IIb	C	N/A
TAVR is not recommended in patients in whom existing comorbidities would preclude the expected benefit from correction of AS	III: No Benefit	B	71

AS indicates aortic stenosis; AVR, aortic valve replacement; COR, Class of Recommendation; LOE, Level of Evidence; N/A, not applicable; and TAVR, transcatheter aortic valve replacement.

2012 ACCF/AATS/SCAI/STS Expert Consensus Document on Transcatheter Aortic Valve Replacement

Developed in collaboration with the American Heart Association, American Society of Echocardiography, European Association for Cardio-Thoracic Surgery, Heart Failure Society of America, Mended Hearts, Society of Cardiovascular Anesthesiologists, Society of Cardiovascular Computed Tomography, and Society for Cardiovascular Magnetic Resonance

- High recurrence rate
- Poor prognosis (survival 1 y 50% - 3 y 20%)
- 15-25% serious complications

  - **Should not be used as a substitute even as a palliative treatment**
  - **No difference in long term follow up with OMT**
  - **Bridge to TAVI or AVR (IIbC)**
  - **To Assess clinical improvement**

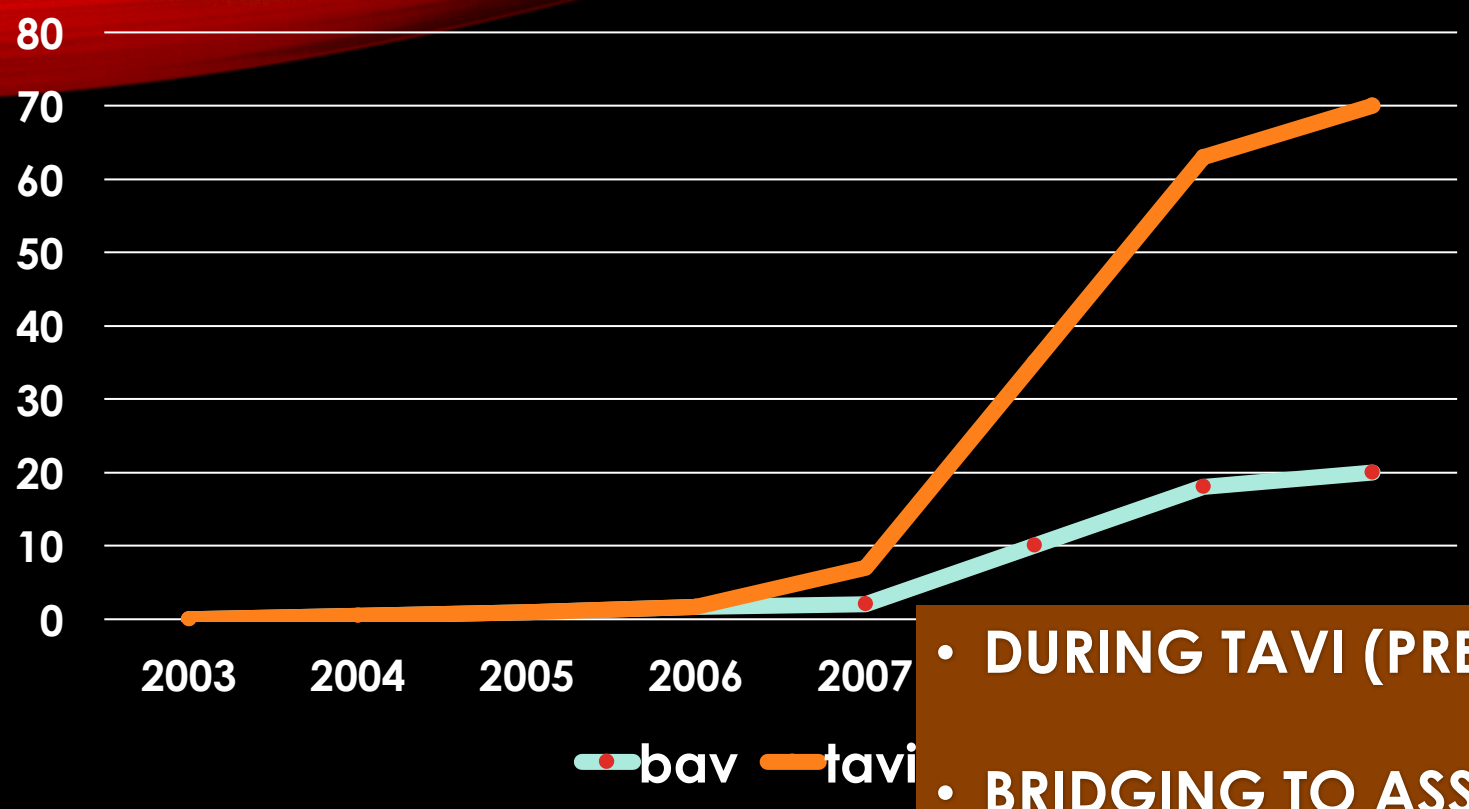
Table 2 Summary of ESC[12] and AHA/ACC[13] guidelines for the role of BAV in managing severe aortic stenosis

Indication for BAV in severe symptomatic aortic stenosis	ESC (2012)	AHA/ACC (2014)
As bridge therapy for *all* patients undergoing TAVI or AVR	×	✓
As bridge therapy for *haemodynamically unstable* patients undergoing TAVI or AVR	✓	✓
For patients requiring urgent non-cardiac surgery	✓	×
As a palliative procedure for symptomatic benefit	✓	×

AVR, aortic valve replacement; BAV, balloon aortic valvuloplasty; ESC, European Society of Cardiology; TAVI, transcatheter aortic valve implantation.

SOME HISTORY AND REULTS

- Introduction in 1985 by A. Cribier
- Stretching of the valve's cusp and annulus, micro-rupture of calcifications and partial separation of the commisures
- Goal: increase aortic area by 40% or > 1 cm2, reduce mean gradient by 40% or < 40 mmHg
- Immediate and 30 days outcome is satisfactory, perioperative mortality 3% - 30 days mortality 14%
- **Long term follow up is disappointment, as natural course**



- DURING TAVI (PRE E POST IMPLANTATION)
- BRIDGING TO ASSESS THERAPEUTIC RESPONSE
- SYMPTOM PALLIATION AND CARDIOGENIC SHOCK
- AGING

PROCEDURAL RISKS

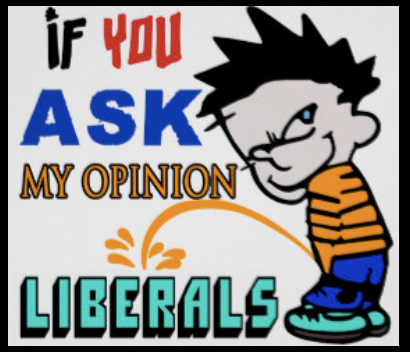
- Vascular damage
- Stroke
- AMI
- Perforation
- Tamponade
- Severe AR or MR
- Annulus ruture
- Aortic dissection
- Pump failure
- Dysrhythmia
- Emergent cardiac surgery
- mortality

CRITERIA FOR BAV EXCLUSION

- Prosthetic aortic valve
- Active endocarditis
- Severe AR
- Significant frailty and comorbidities, so that BAV don't change quality of life
- Annular area too small or too large
- LV or LAA thrombus
- Active bleeding

MY PERSONAL OPINION: WHEN TO DO BAV

- Emergency BAV in severe AS in cardiogenic shock
- Hemodynamic instability, as bridging therapy to TAVI or AVR
- To perform an urgent non cardiac surgery
- Concomitant neoplasm requiring further diagnostics
- **Unclear AS symptoms with concomitant severe comorbidity** (eg lung disease)
- **Doubts concerning AS severity**
- Unavailability of TAVI due to logistic or economic issues
- Performance of TAVI and AVR is impossible



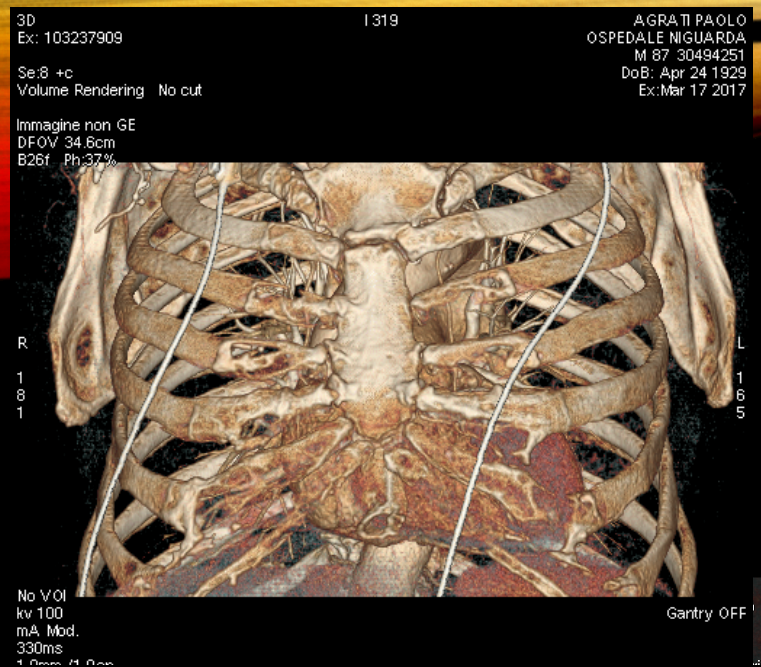
WHICH PTS NON SUITABLE FOR TAVI AND AVR

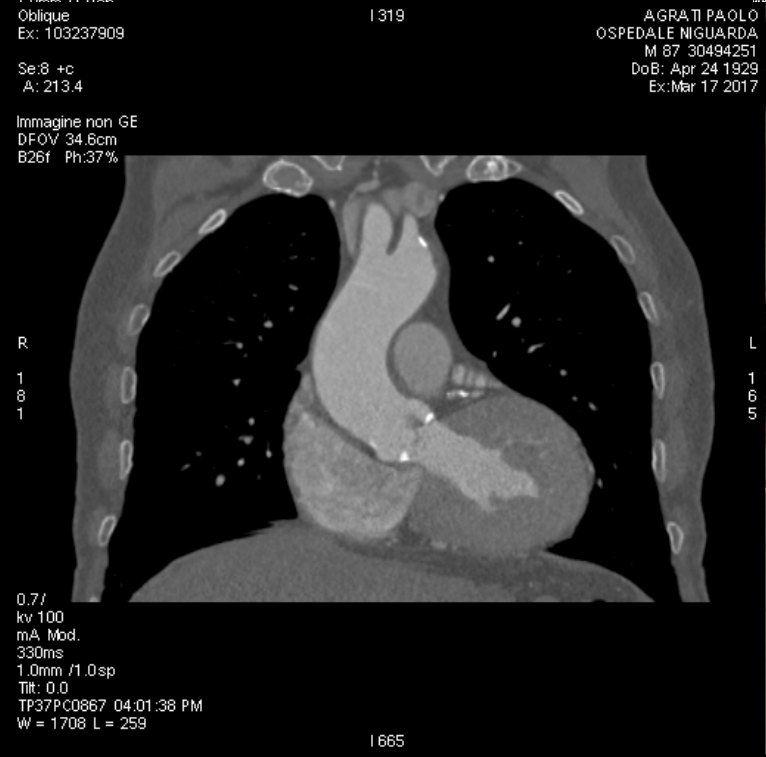
- Porcelain aorta
- Chest malformation
- High operative risk (STS >10)
- No anatomic criteria for TAVI (eg annulus or access)
- Life expectancy < 1 y or severe cachessia
- Very low LV EF
- LV Surgical remodelling

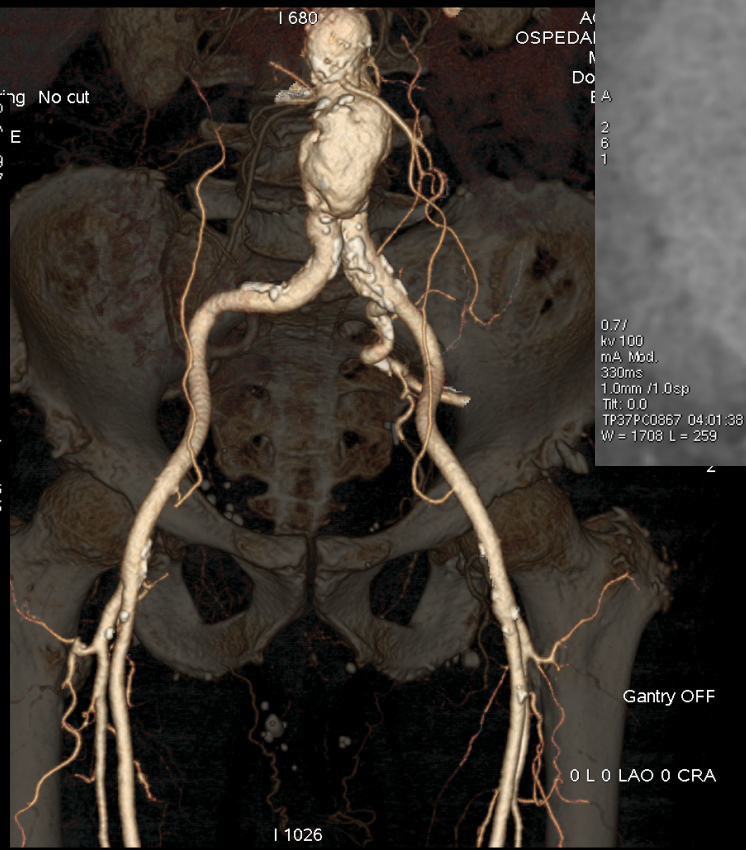
HOW TO REDUCE COMPLICATIONS

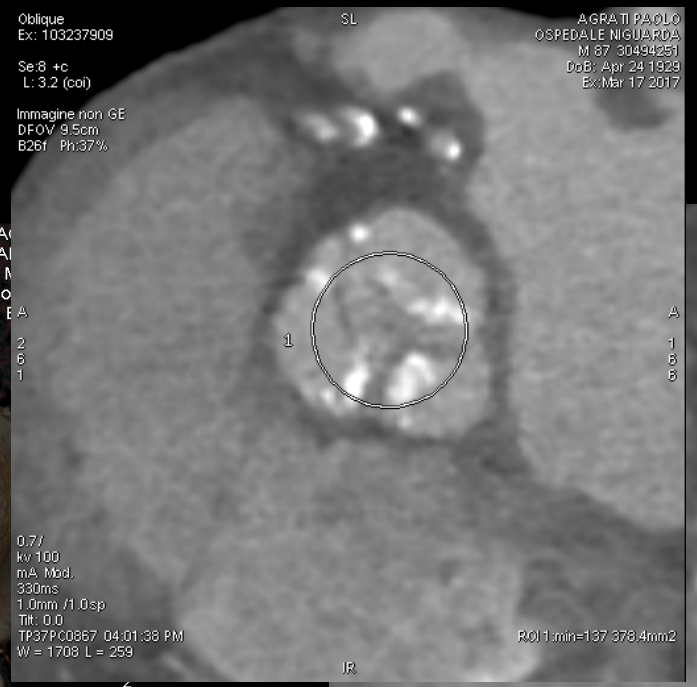
- CT Access evaluation and fluoroscopic guided puncture
- Proglide predeployed
- CT annulus evaluation
- Pre-shaped wires
- Use permanent PM
- Internal giugular vein for pacing
- Balloon dimension
- Sufficient operator expertise
- Tertiary centres

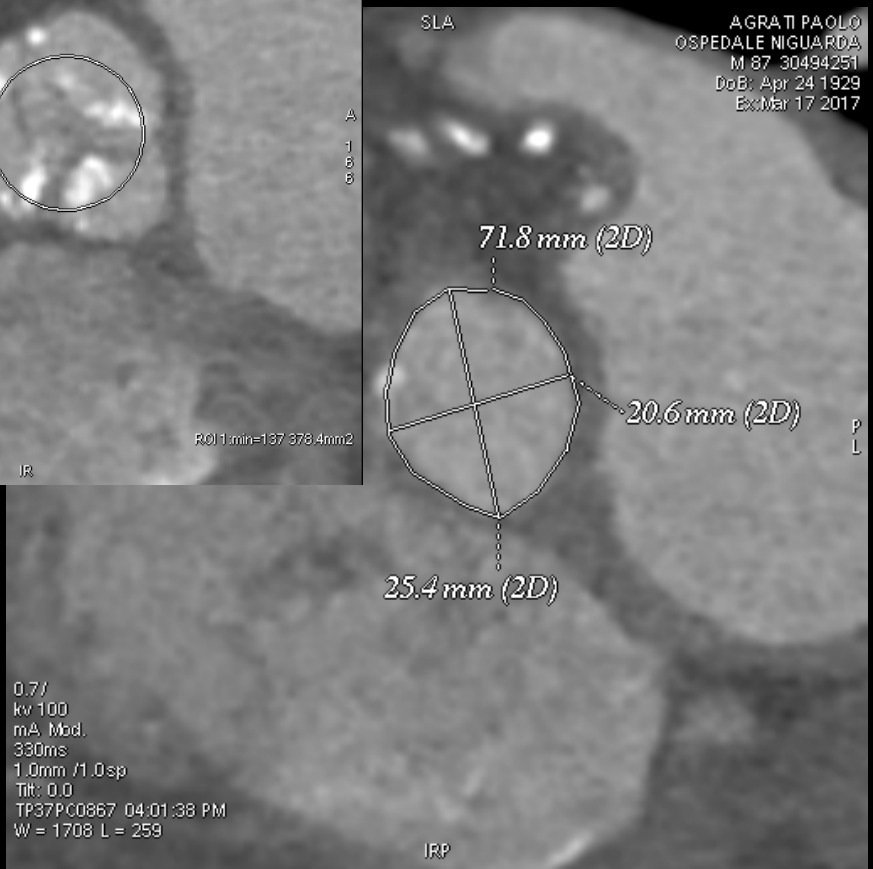
HOW TO REDUCE COMPLICATIONS











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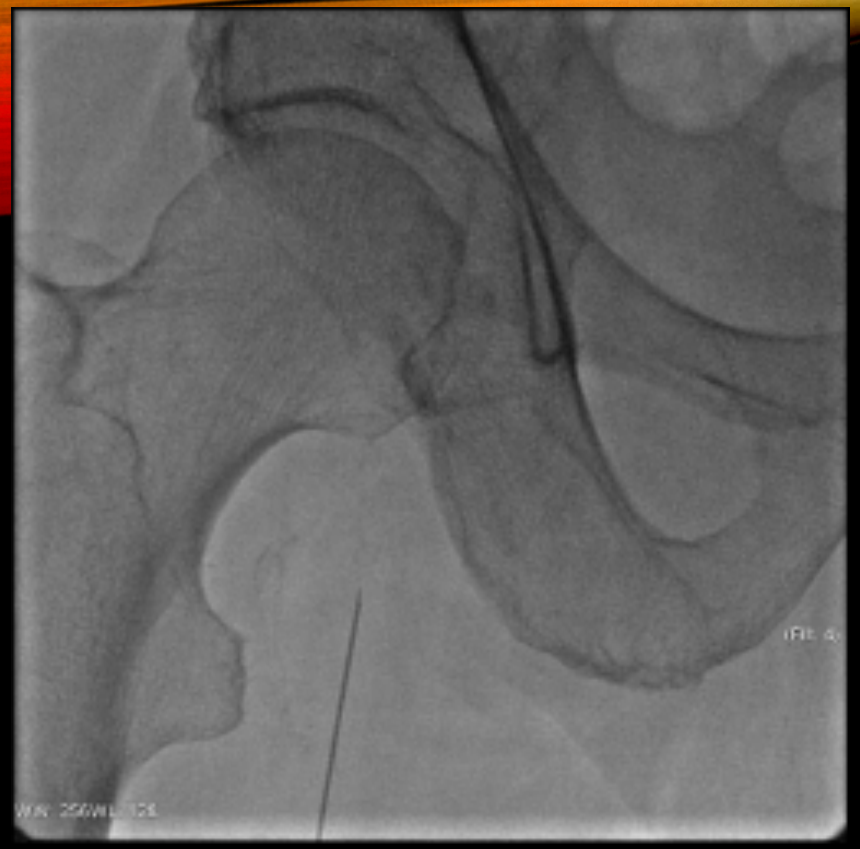
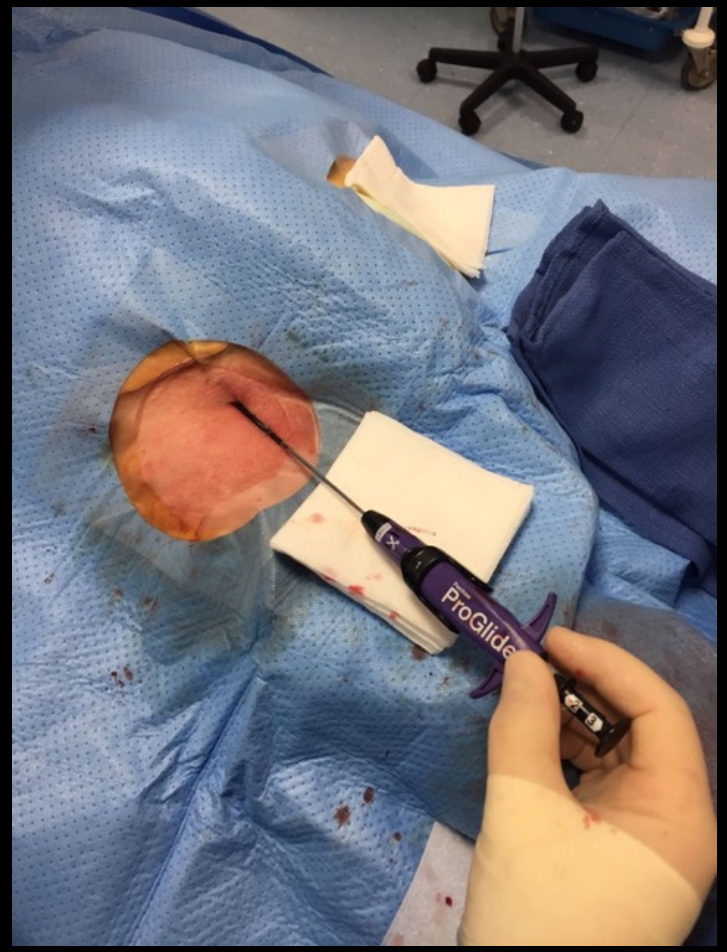
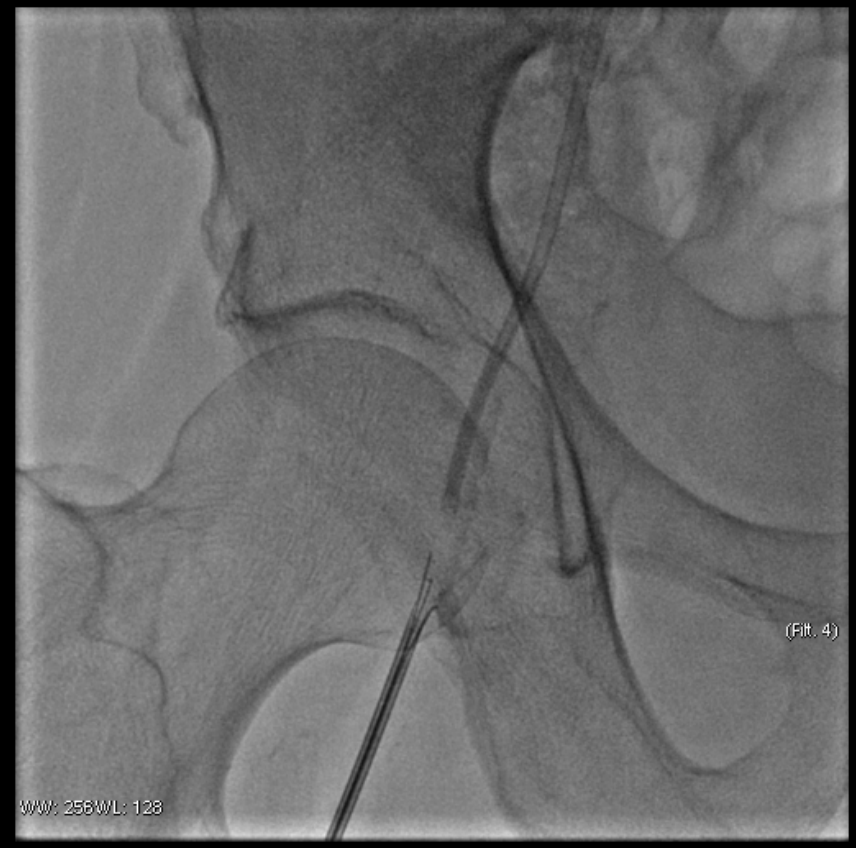
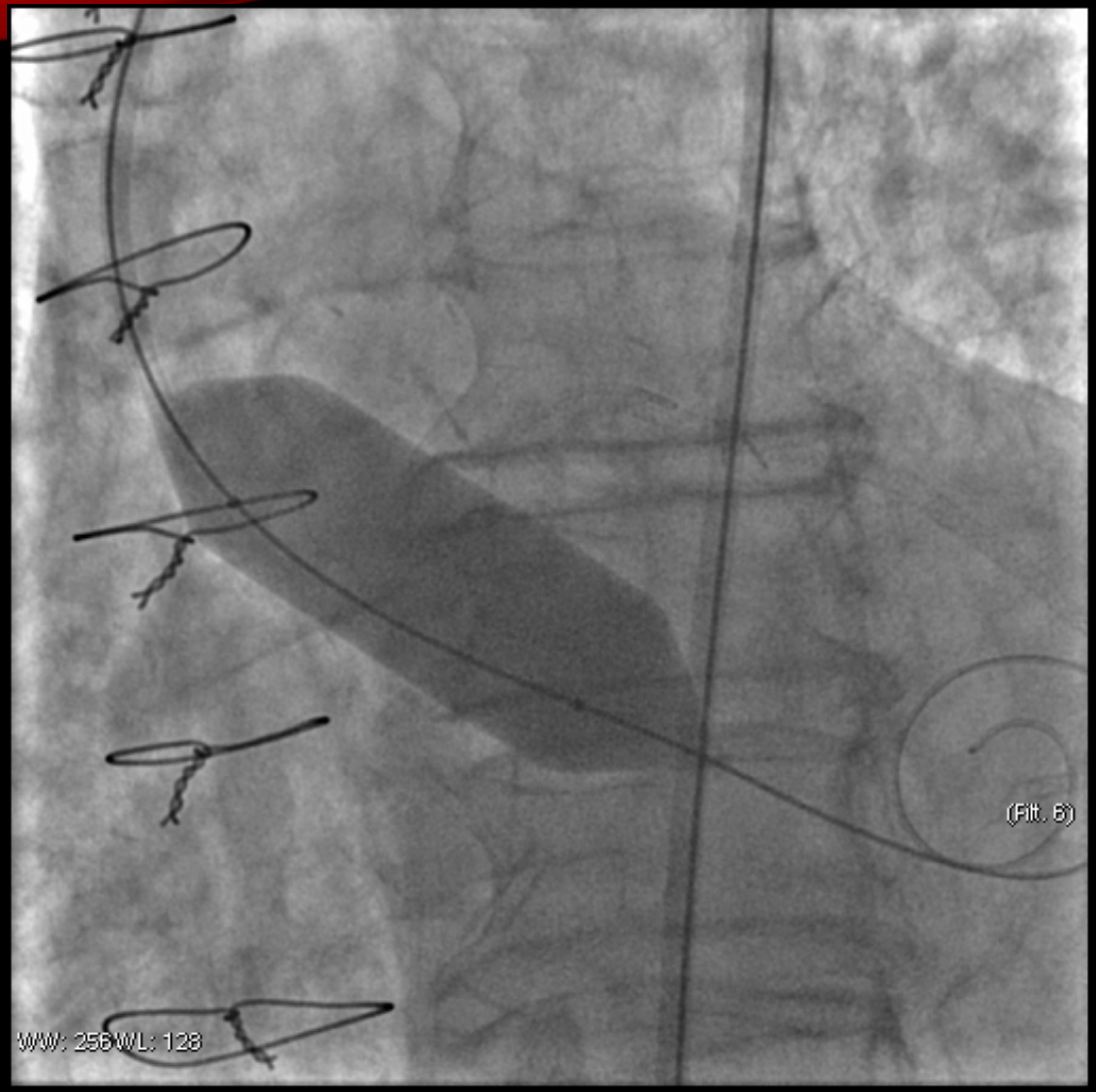
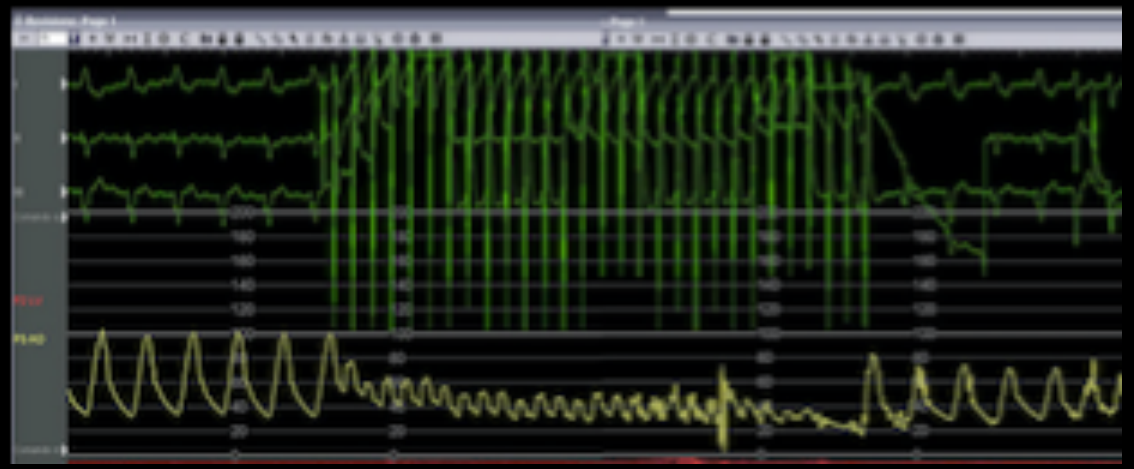






SOME TIPS AND TRICKS





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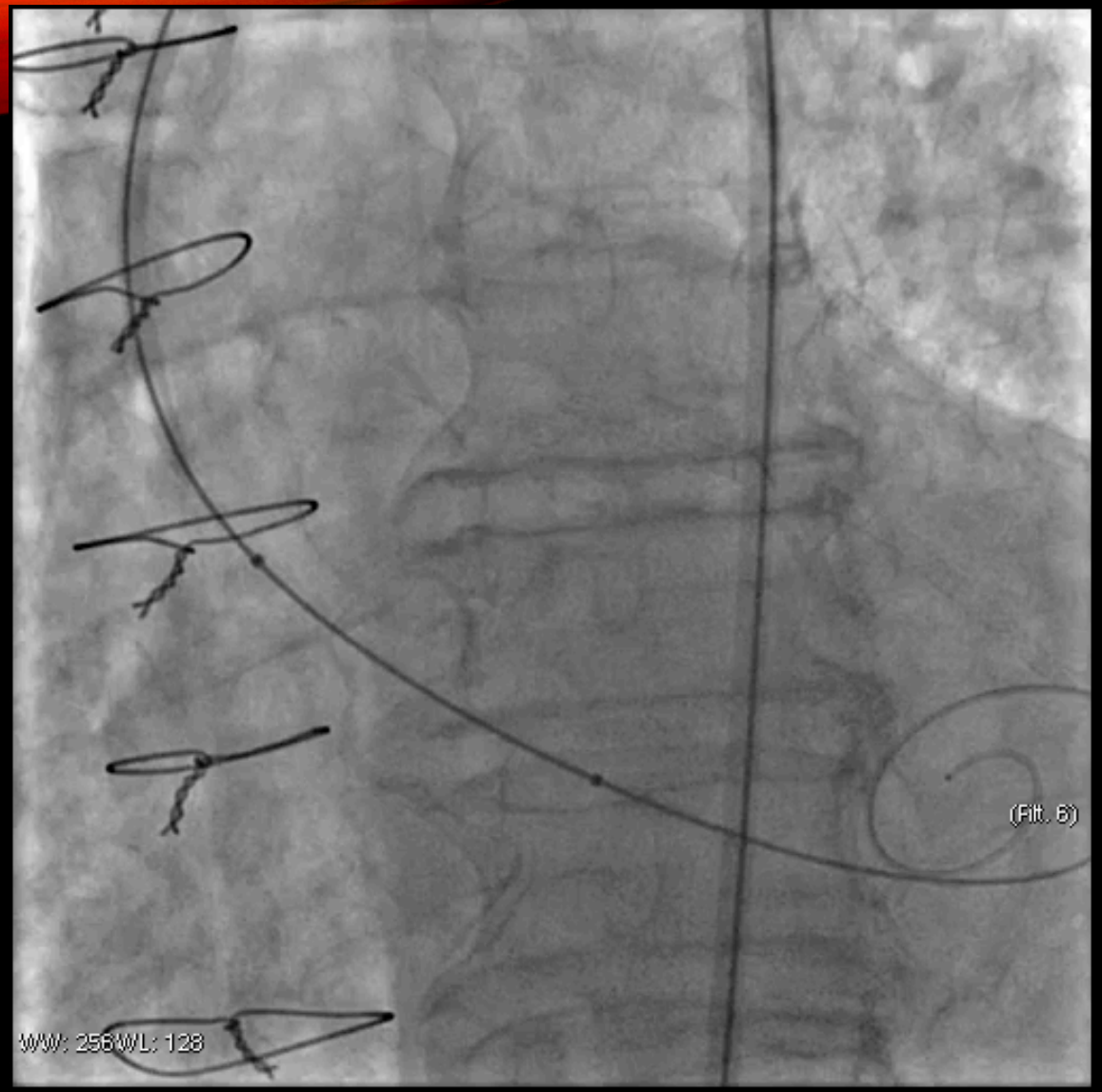

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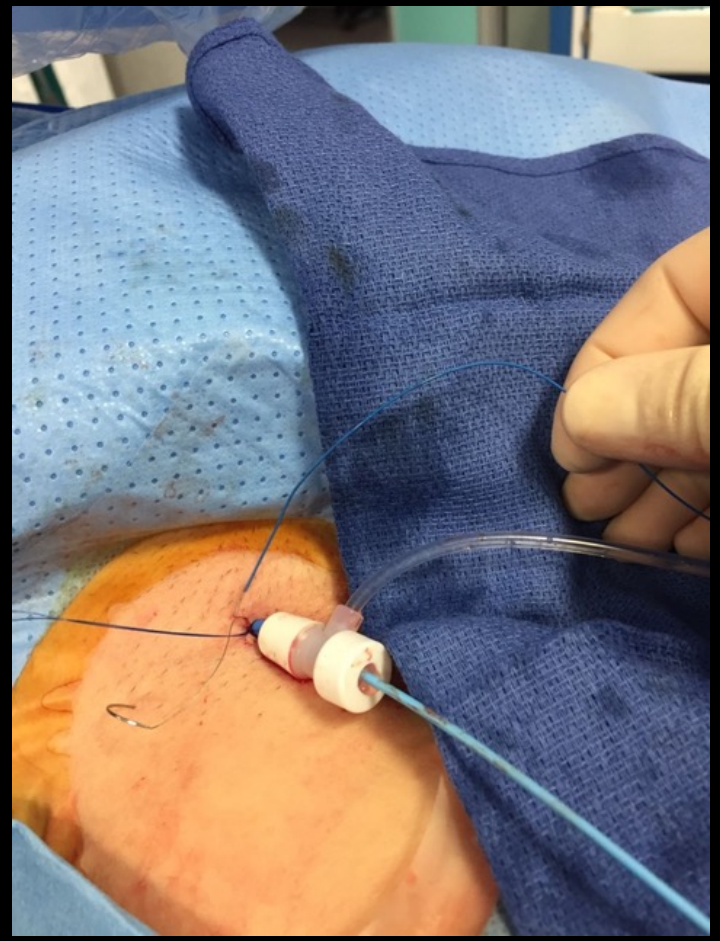

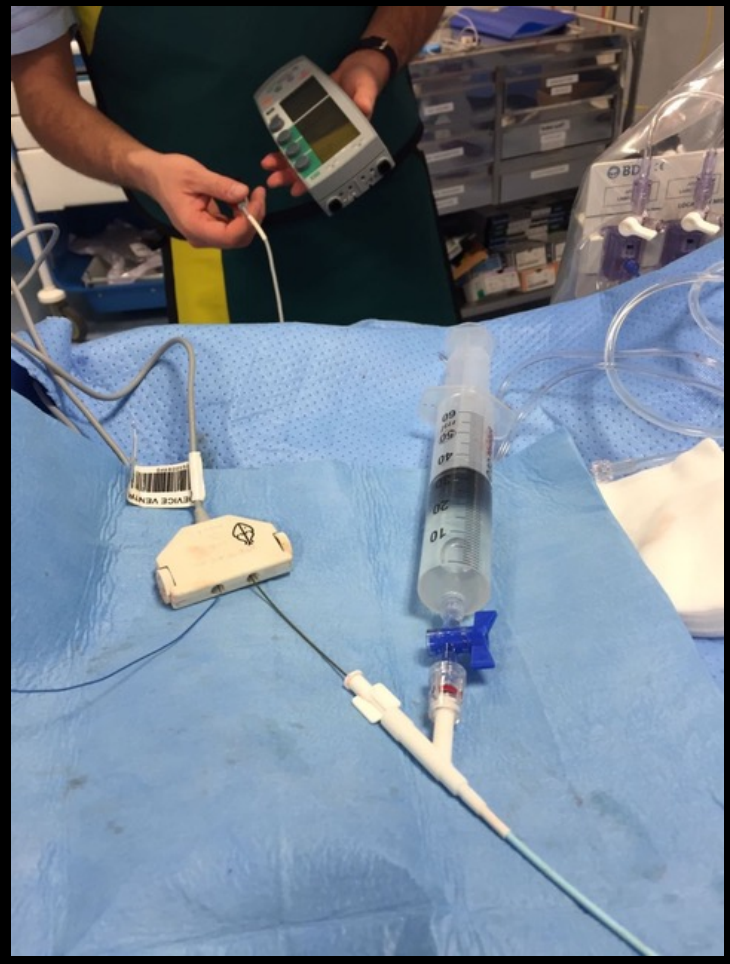

SOME TIPS AND TRICKS

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THANKS FOR YOUR ATTENTION