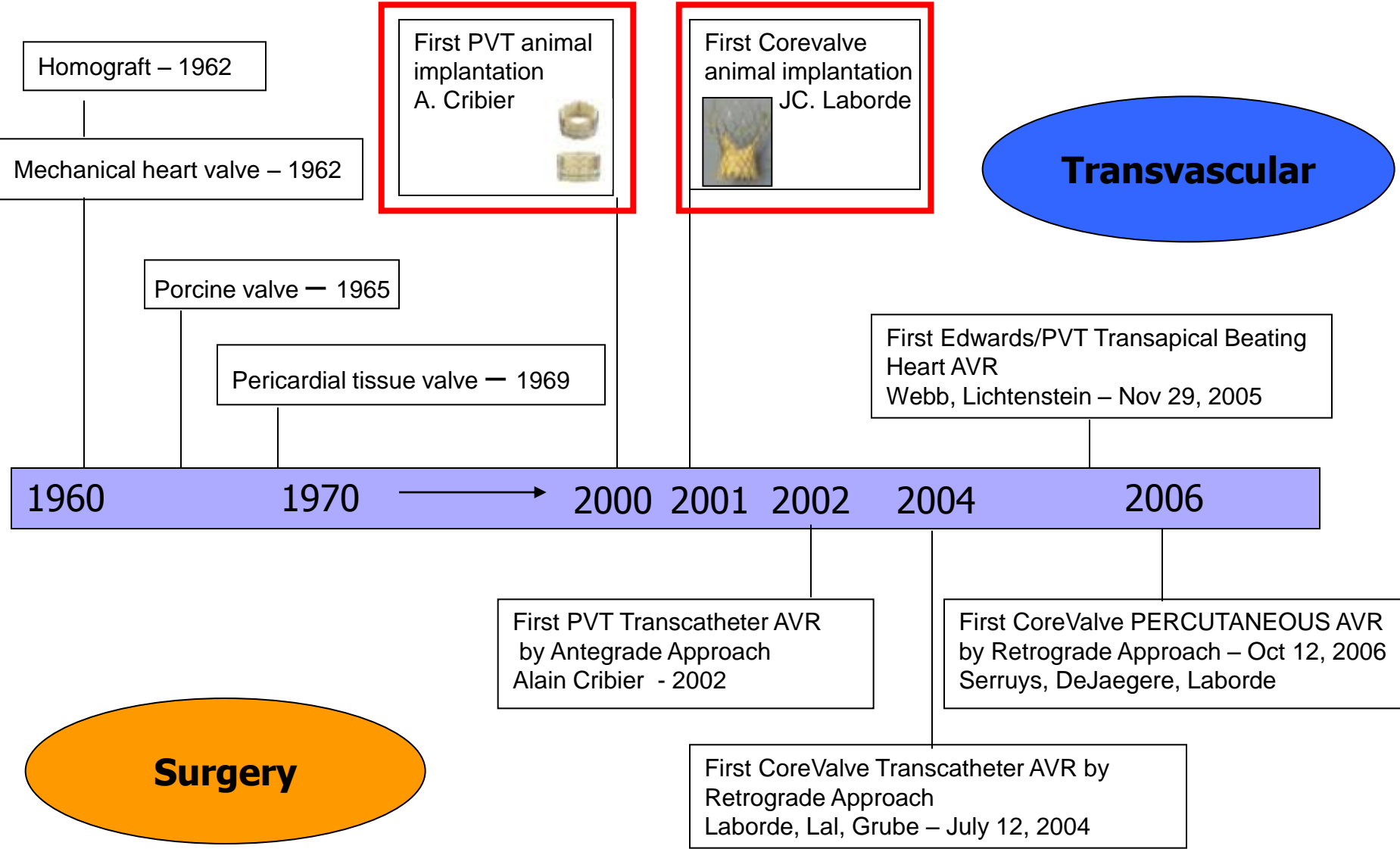


# Prótesis valvular aórtica percutánea

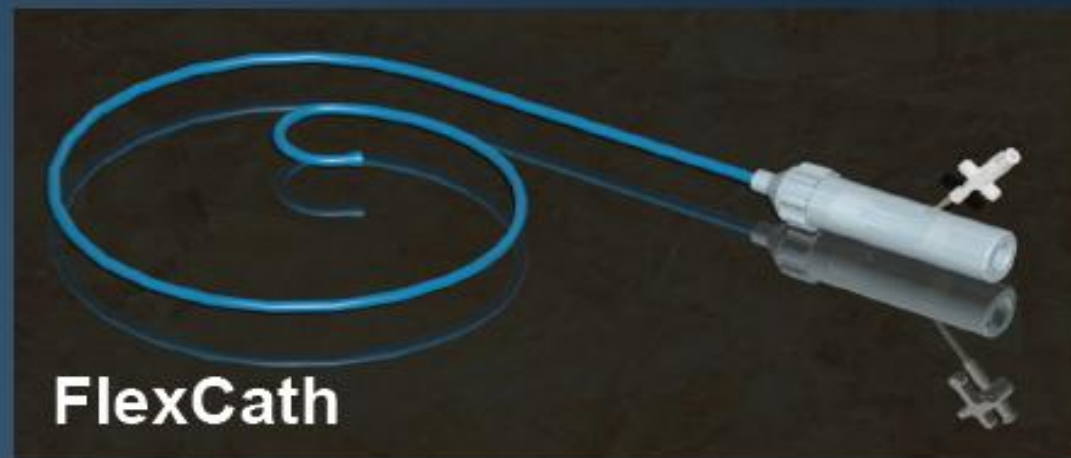
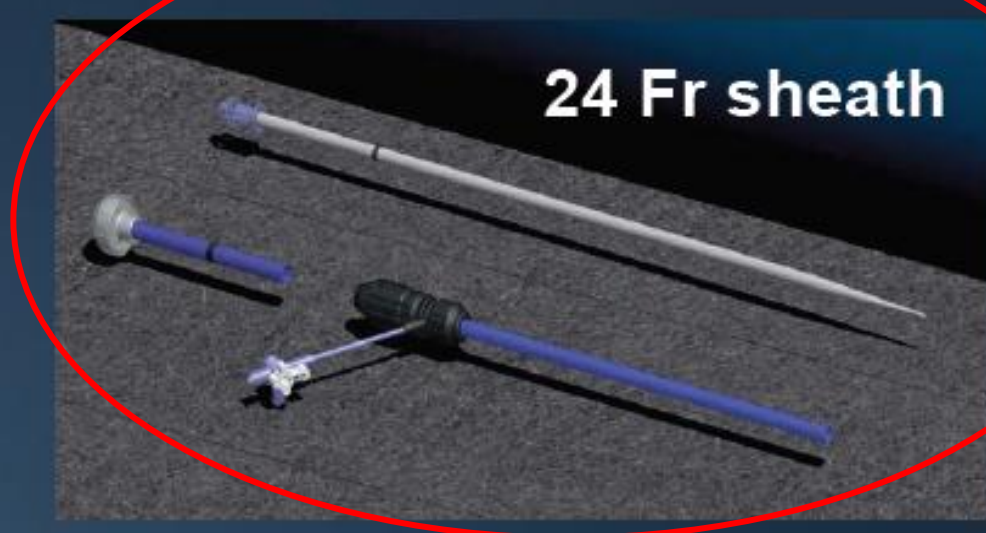
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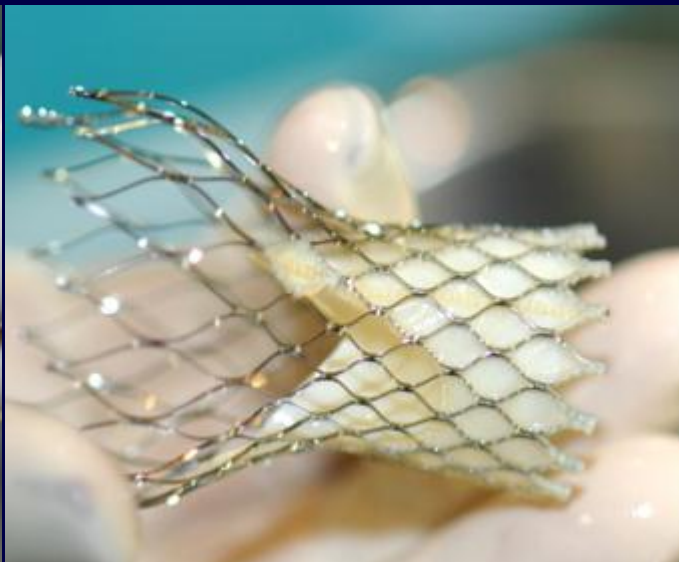
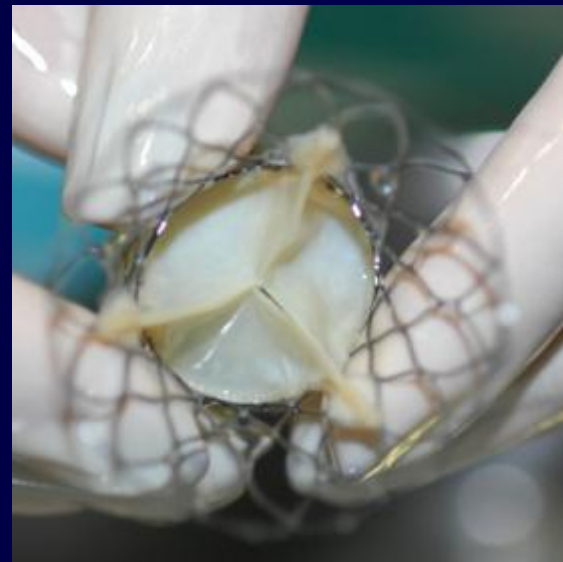
- **Situación actual**
- **Selección de pacientes**
- **Preparación**
- **Procedimiento**
- **Resultados globales**
- **Estudio de Factores**
- **Análisis en curso**
- **Perspectivas futuras**

# Aortic Valve Replacement



# Cribier-Edwards Percutaneous Heart Valve **SYSTEM**





# Registro Actividad Intervencionista Año 2010

---

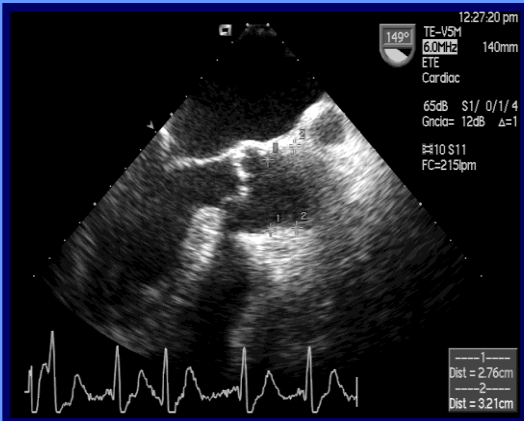
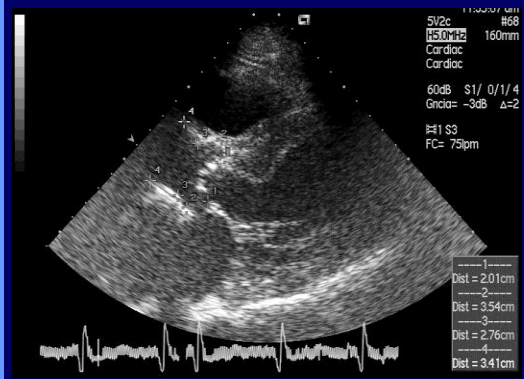
- **Implantes valvulares ..... 665**
- **Centros implantadores ..... 39**
  - **Autoexpandibles (23 centros) ..... 338**
    - *Éxito ..... 94.4%*
    - *Mortalidad hospitalaria ..... 5.6%*
  - **No autoexpandibles (21 centros) ..... 317**
    - *Éxito ..... 92.1%*
    - *Mortalidad hospitalaria ..... 7.9%*

# Válvula Aórtica Percutánea

- Estudio clínico previo
  - Estudio Eco TT y TE
  - Estudio TAC-64
  - Estudio hemodinámico y angiográfico
- Mediciones
  - Area valvular
  - Diámetros del anillo, seno-seno, unión sinu-tubular, aorta ascendente y descendente, iliacas y femorales
- Tratamiento previo de lesiones asociadas
  - Enfermedad coronaria
  - Vasculo-renal
  - Periférico



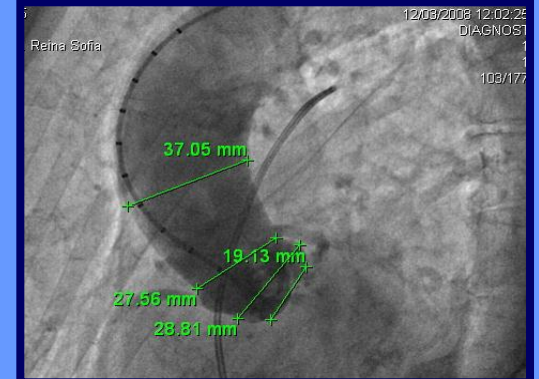
# MÉTODOS



Estudio  
ecocardiográfico  
TT y TE



Tomografía  
computarizada



Estudio  
angiográfico

# Válvula Aórtica Percutánea

Experiencia CorPal (n=146)

(Abril/08 – Octubre/11)

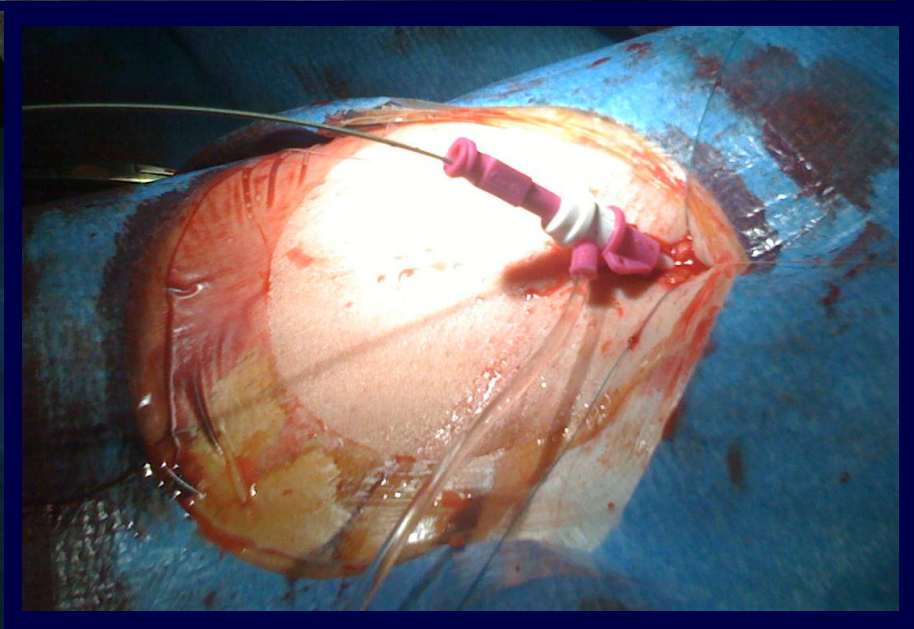
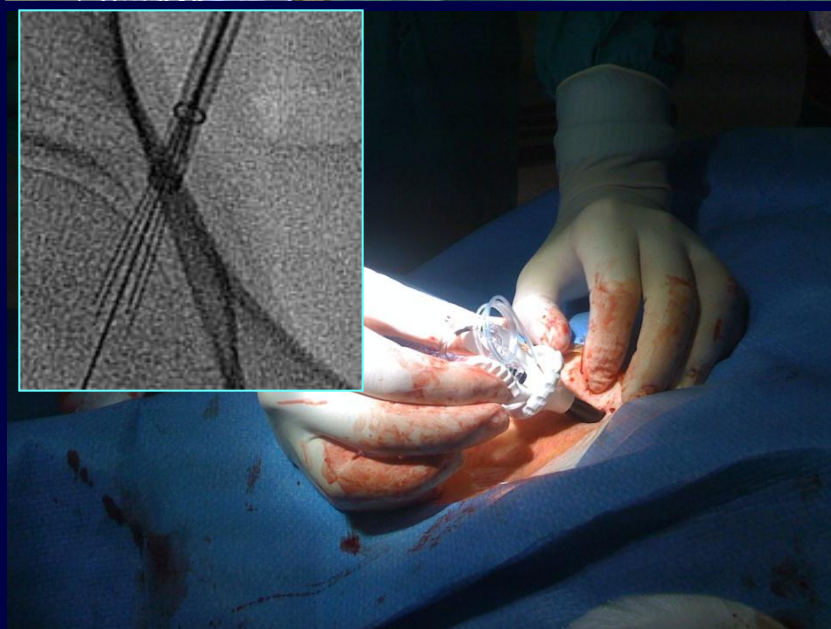
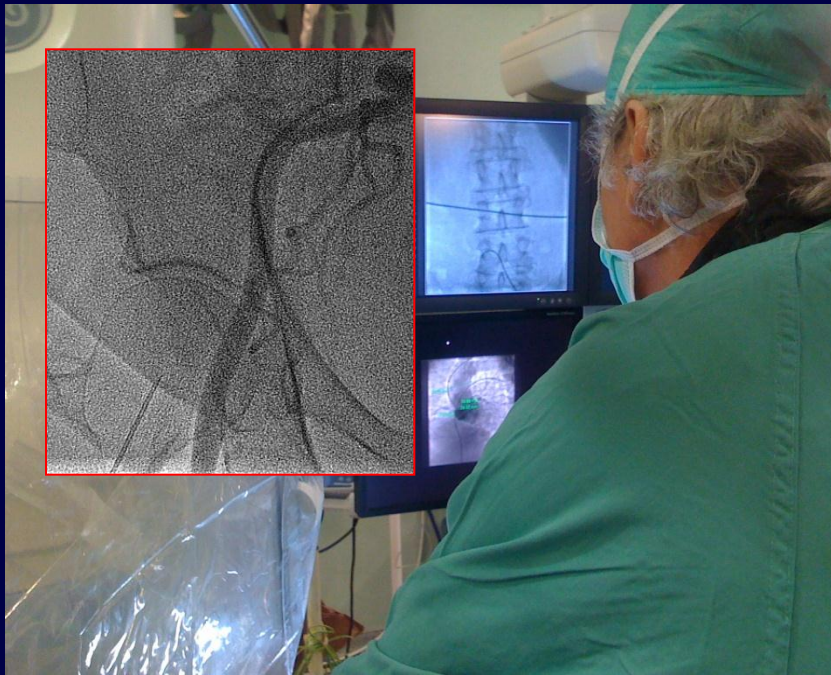
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- **Edad (años)** ..... **77 ± 5**
- **Mujeres** ..... **83 (57%)**
- **Euroscore Logístico (%)** ..... **17 ± 12**
- **STS (%)** ..... **10 ± 10**
- **Presentación clínica**
  - **Disnea** ..... **144 (99%)**
    - *GF I-II* ..... **58 (40%)**
    - *GF III-IV* ..... **86 (60%)**
    - *EAP* ..... **21 (15%)**
  - **Angor** ..... **79 (54%)**
    - *GF II* ..... **47 (59%)**
    - *GF III-IV* ..... **32 (41%)**
  - **Síncope** ..... **18 (12%)**
  - **Estado crítico pre-implante** ..... **5 (3.5%)**

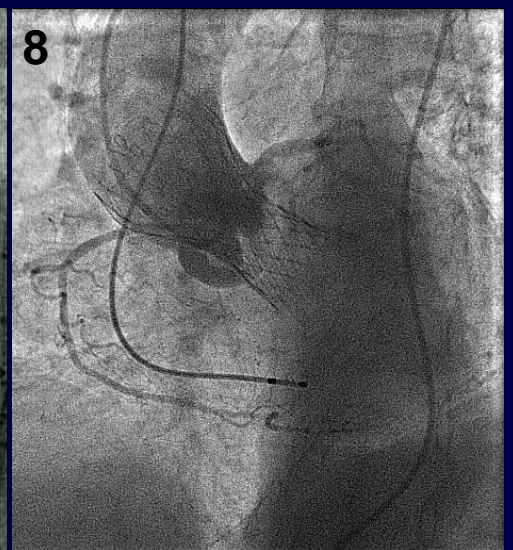
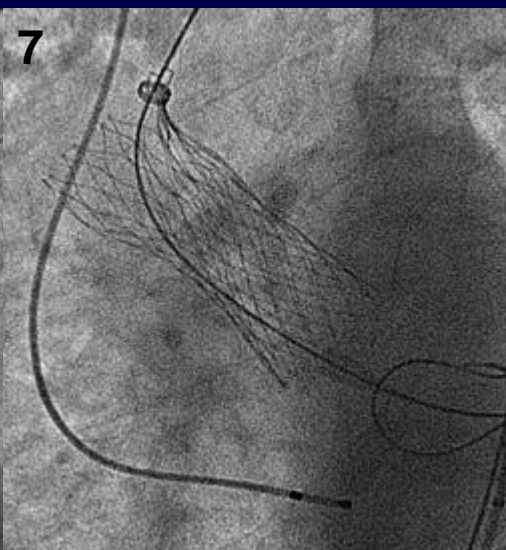
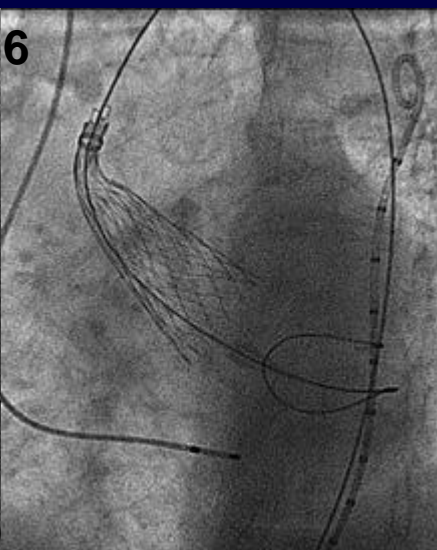
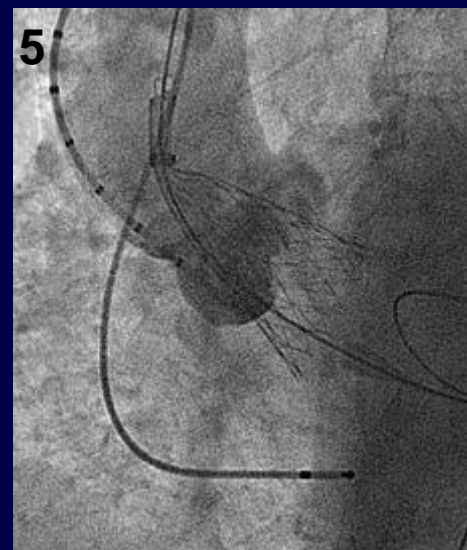
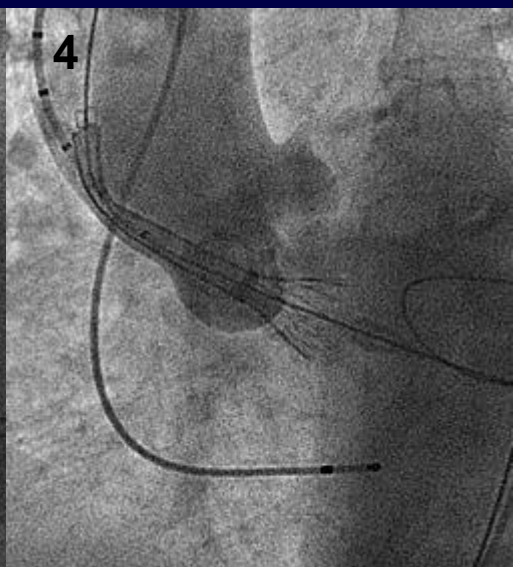
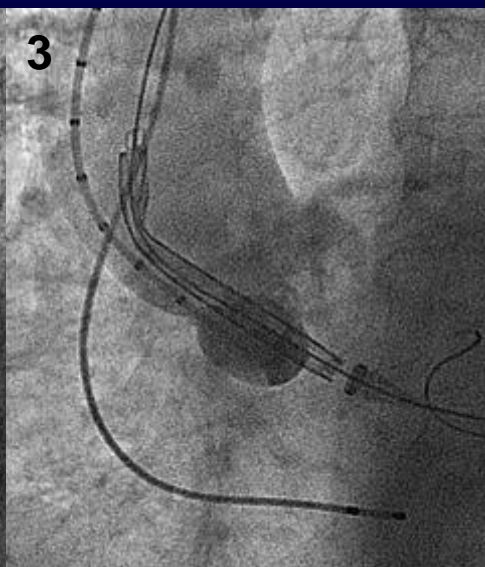
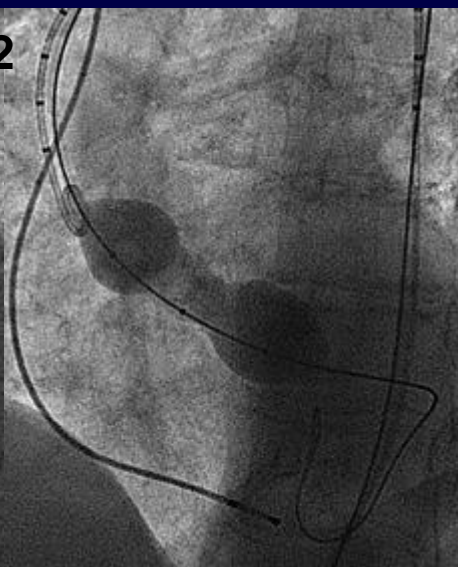
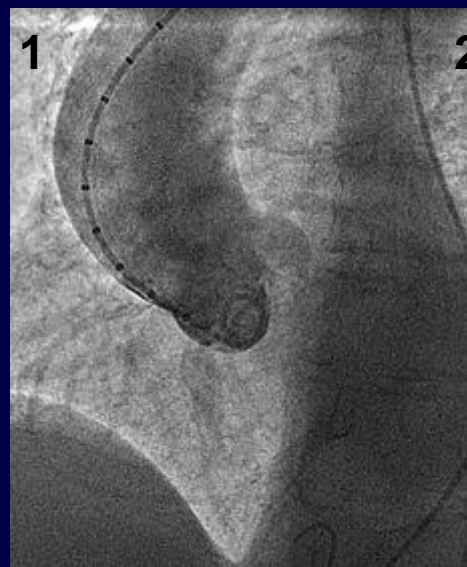


# Comorbilidades

- HTA ..... 102 (70%)
- Diabetes ..... 49 (34%)
- Enfermedad coronaria ..... 48 (33%)
  - *Tratada previamente* ..... 7 (5%)
  - *PCI previo a implante* ..... 41 (28%)
- Insuficiencia renal (Cr 2.27 mg/dL) ..... 15 (10%)
- ACVA previo ..... 6 (4%)
- Cirugía valvular previa ..... 6 (4%)
  - *Prótesis mitral* ..... 4 (3%)
  - *Prótesis biológica (degenerada)* ..... 2 (1%)
- EPOC ..... 16 (11%)
- Marcapasos previo ..... 5 (4%)
- Fibrilación auricular ..... 27 (19%)
  - *Paroxística* ..... 9 (6%)
  - *Permanente* ..... 18 (12%)
- Trasplante cardiaco con Iao severa .. 1 (0,7%)

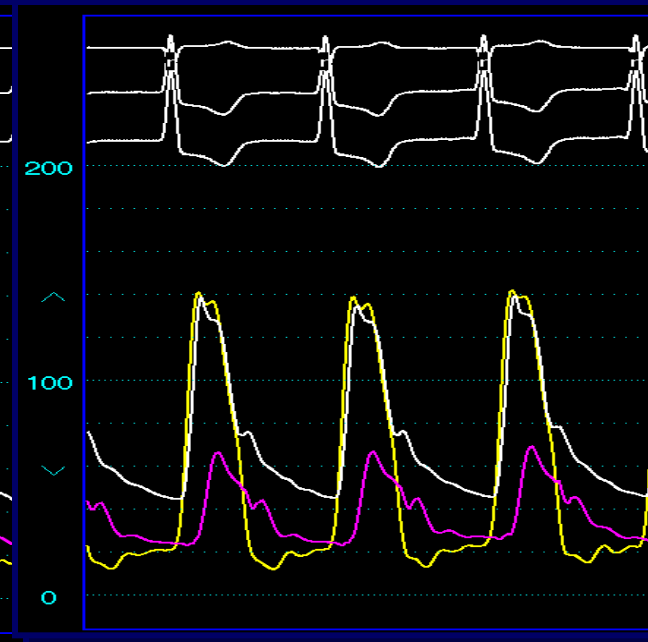
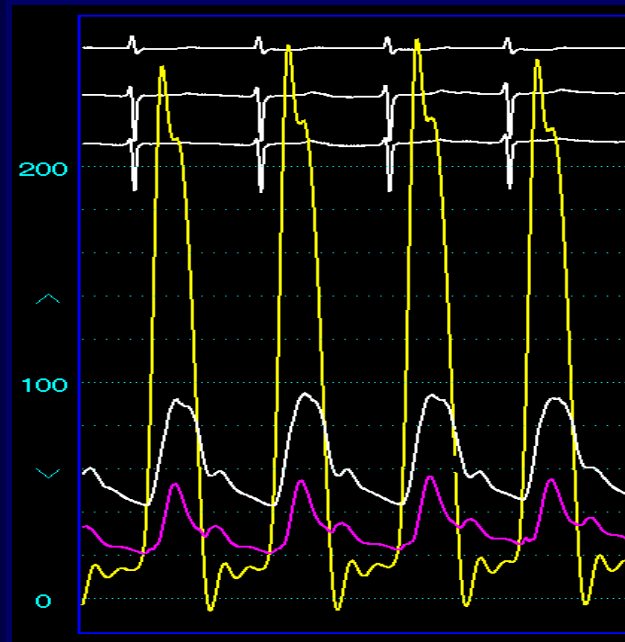
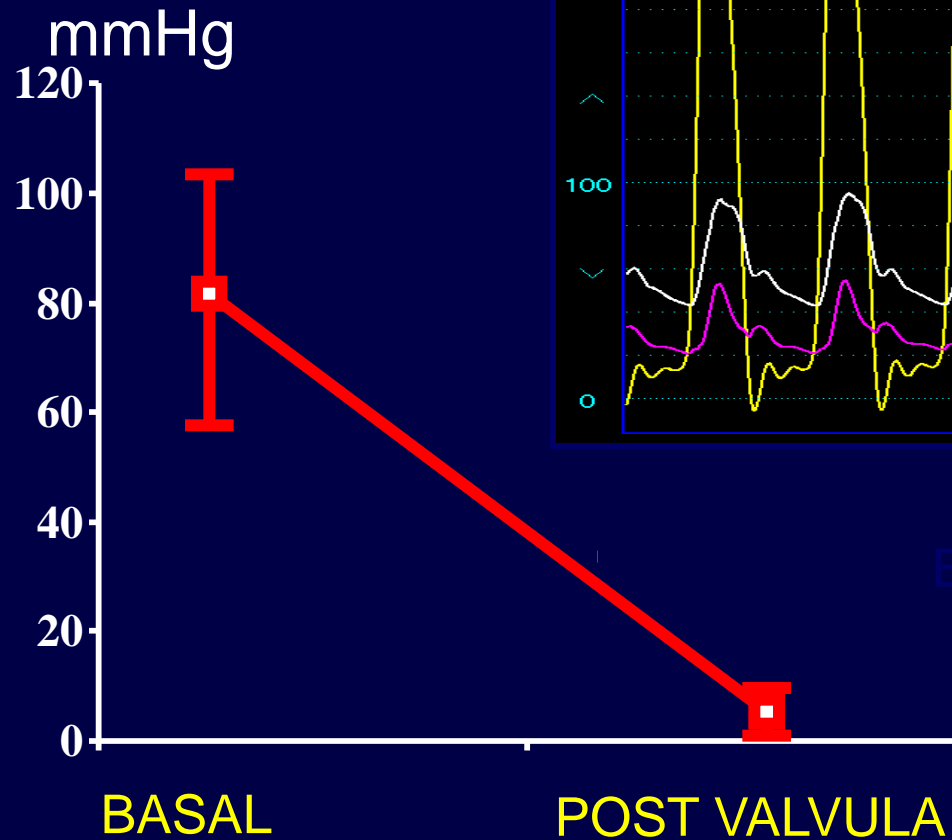






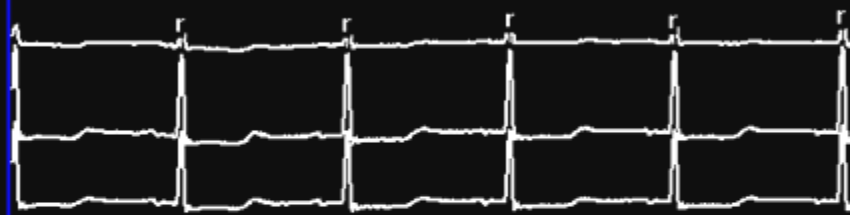
# RESULTADOS

Gradiente Transaórtico pico



## BASAL

LV 197/-16, 22 AO 64/46 (54)

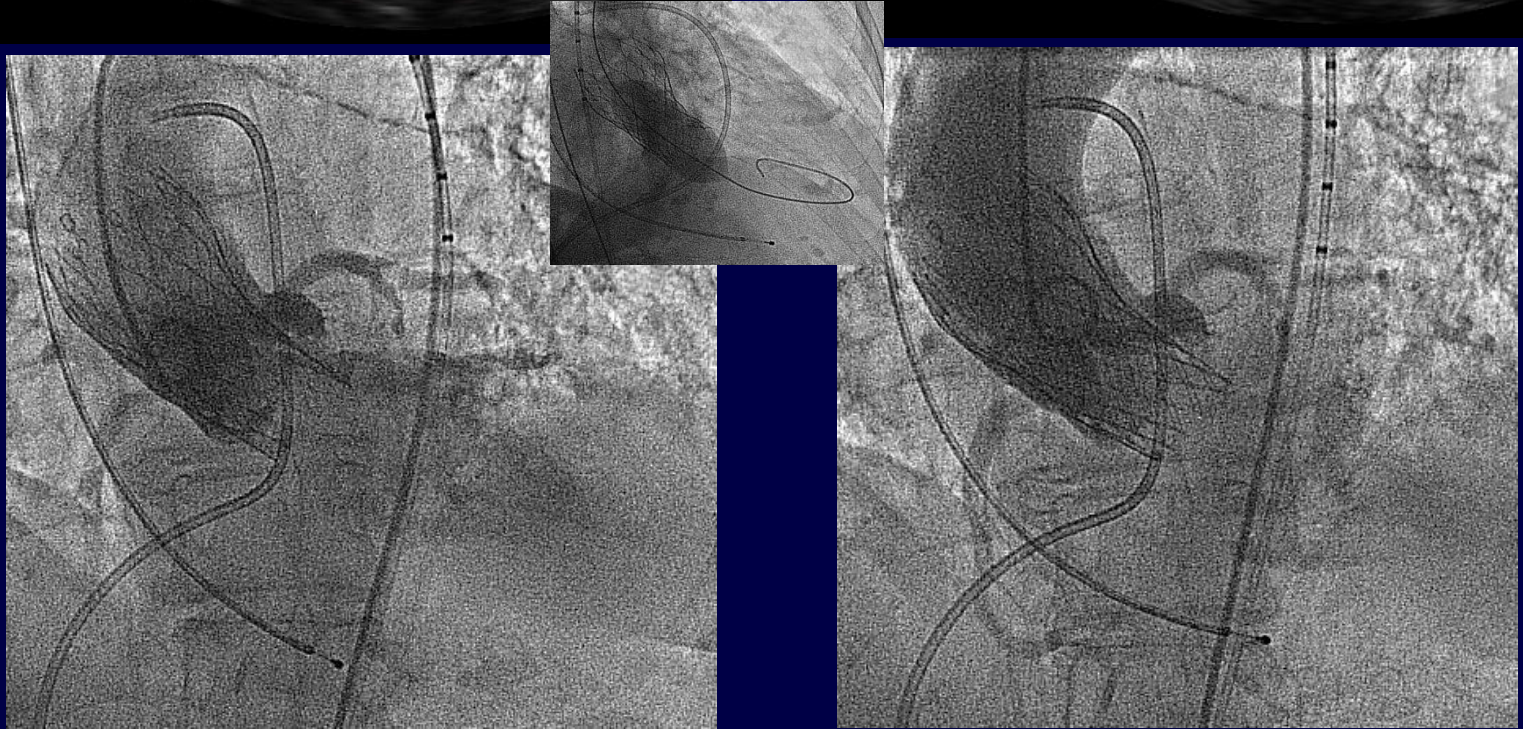
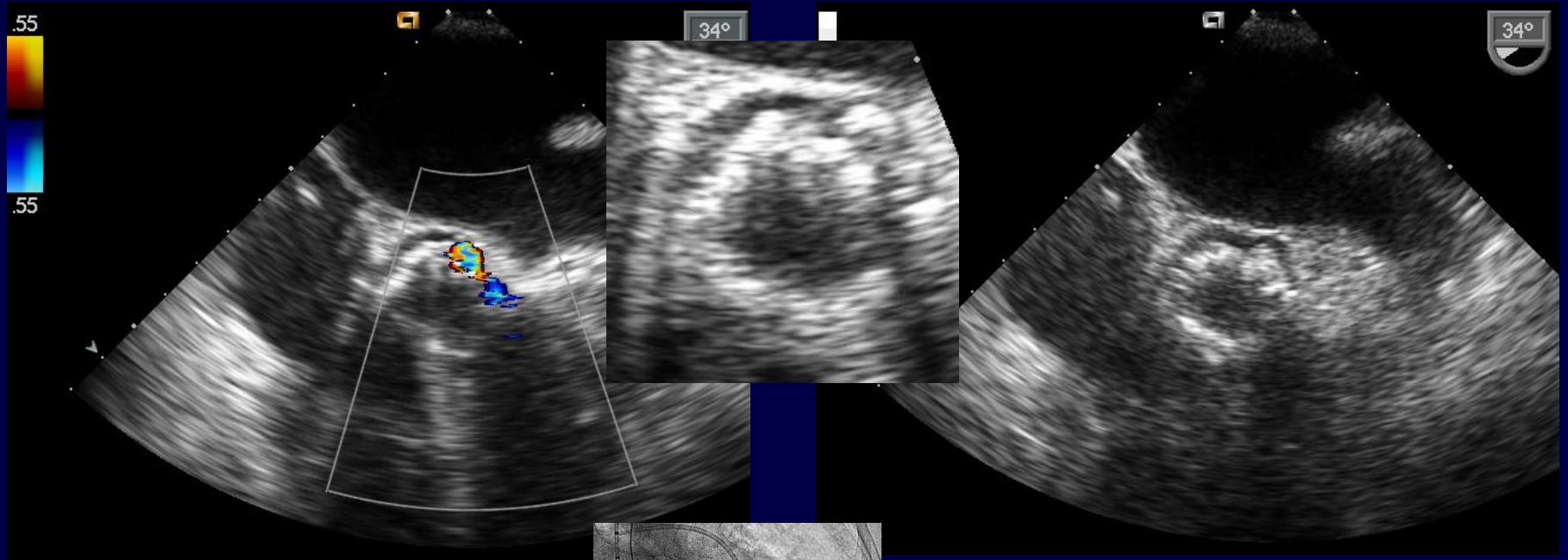


## POST IMPLANTE

LV 143/19, 31 AO 141/55 (87)



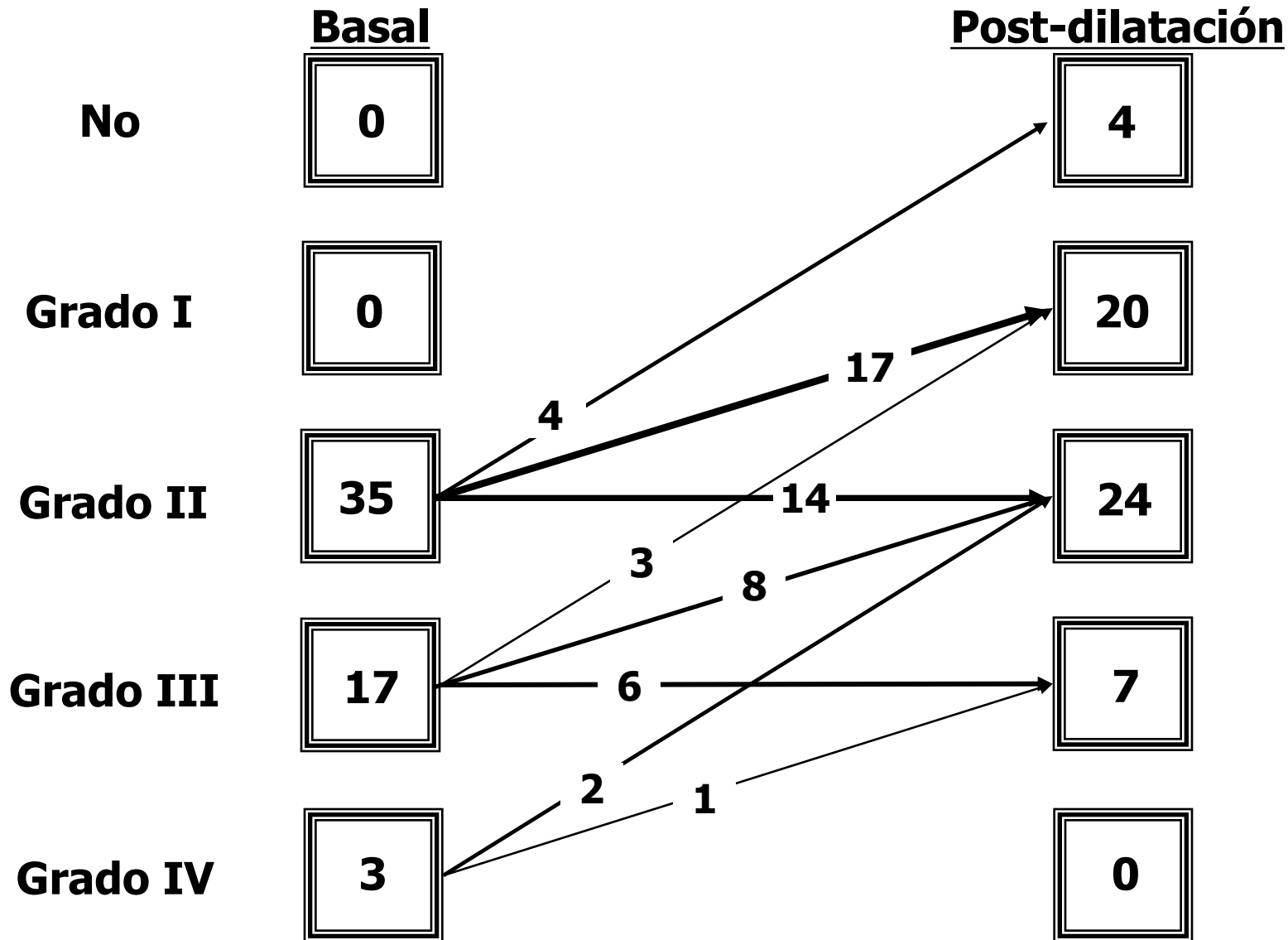


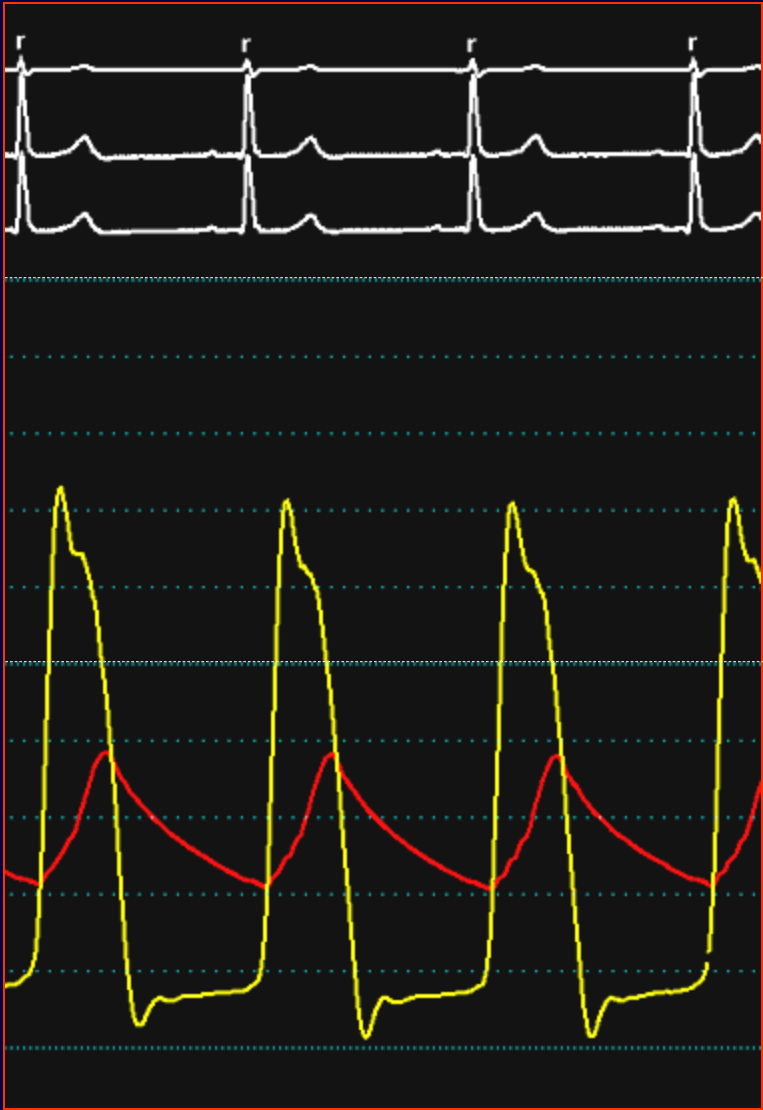




# Insuficiencia aórtica

- **Postdilatación con balón (n=55; 38%)**
- **Mejoría del grado de regurgitación (n=38; 69%)**

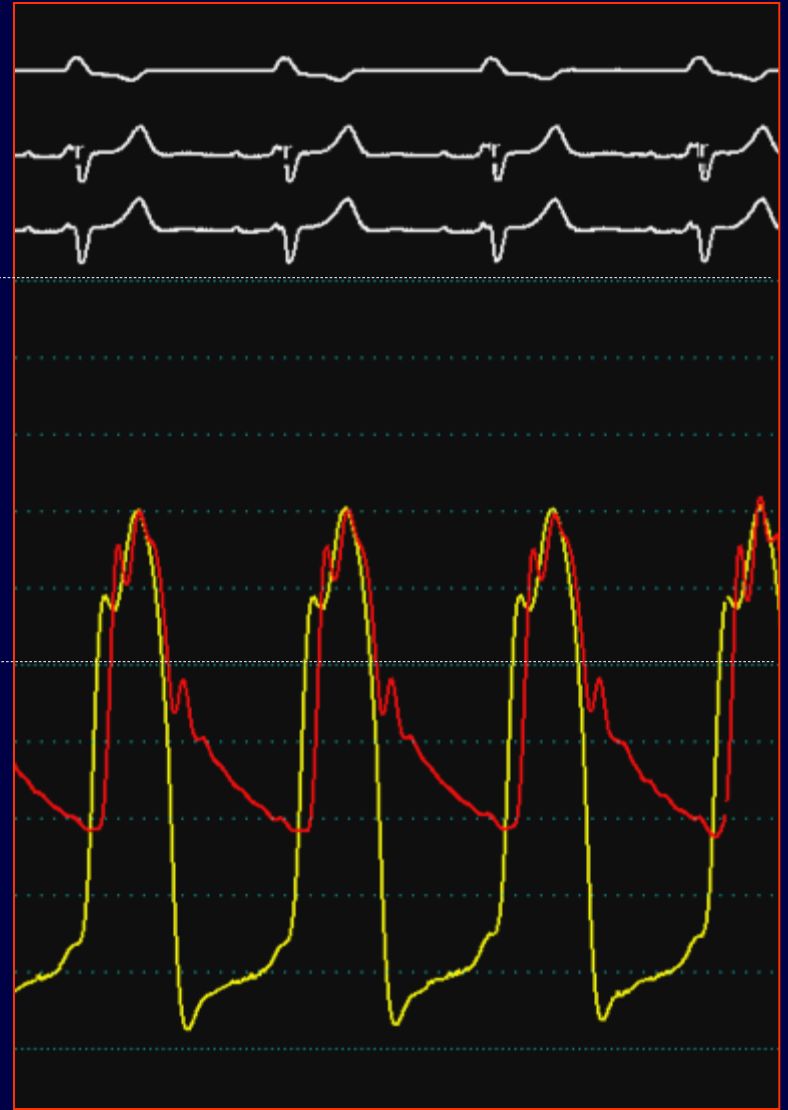




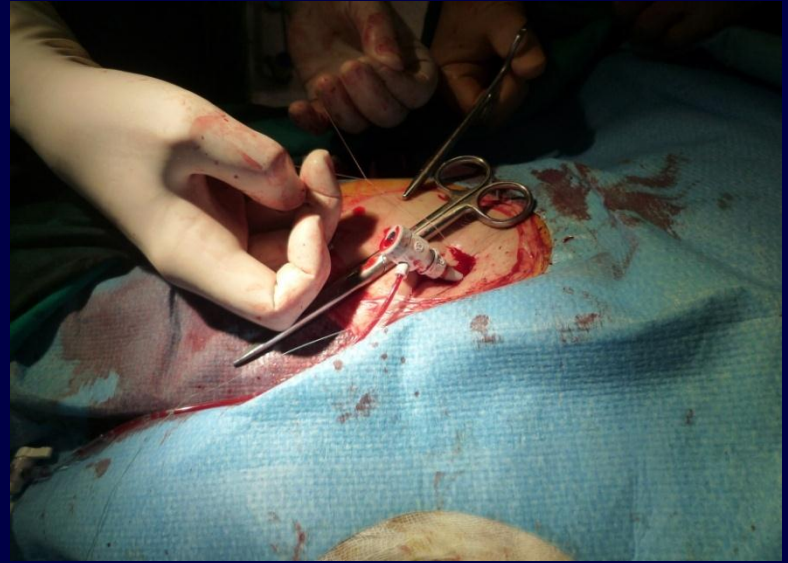
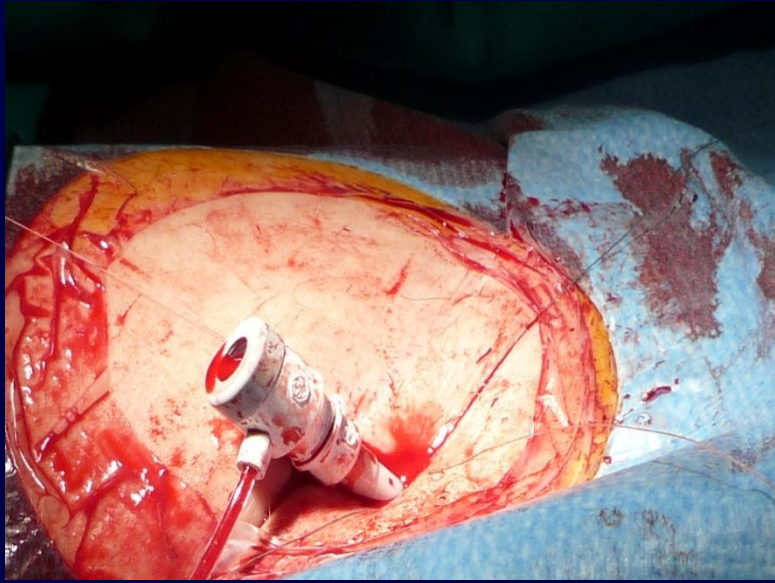
200  
mmHg

100  
mmHg

**BASAL**



**VALVULA AORTICA**







**IN**

**OUT**

# Válvula Aórtica Percutánea -CoreValve-

- Cuidados post-intervención
  - UCI
    - Estabilización hemodinámica
    - Respiración asistida en retirada
  - En Planta
    - Telemetría
    - Cuidados de vías de abordaje
    - Cuidados de IC y comorbilidades
    - Retirada progresiva de sondas y vías

Transcatheter Aortic-Valve Implantation for Aortic Stenosis in Patients Who Cannot Undergo Surgery

Martin B. Leon, M.D., Craig R. Smith, M.D., Michael Mack, M.D., D. Craig Miller, M.D., Jeffrey W. Moses, M.D., Lars G. Svensson, M.D., Ph.D., E. Murat Tuzcu, M.D., John G. Webb, M.D., Gregory P. Fontana, M.D., Raj R. Makkar, M.D., David L. Brown, M.D., Peter C. Block, M.D., Robert A. Guyton, M.D., Augusto D. Pichard, M.D., Joseph E. Bavaria, M.D., Howard C. Herrmann, M.D., Pamela S. Douglas, M.D., John L. Petersen, M.D., Jodi J. Akin, M.S., William N. Anderson, Ph.D., Duolao Wang, Ph.D., and Stuart Pocock, Ph.D., for the PARTNER Trial Investigators\*

1057 Pacientes con Eao severa



n = 699

Alto riesgo

Inoperable

n = 358

TAVI, n:348

Cirugía, n:351

TAVI n: 179

T. Médico n: 179

Mortalidad precoz 30d n:12 (3.4%)

ns

Mortalidad precoz 30 d n:22 (6.5)

Mortalidad precoz 30d n:9 (5%)

ns

Mortalidad precoz 30d n:5(2.8%)

Mortalidad tardía n:72 (21%)

ns

Mortalidad tardía n:67 (19%)

Mortalidad tardía n:55(30%)

Mortalidad tardía n:89 (49%)

P<0.01



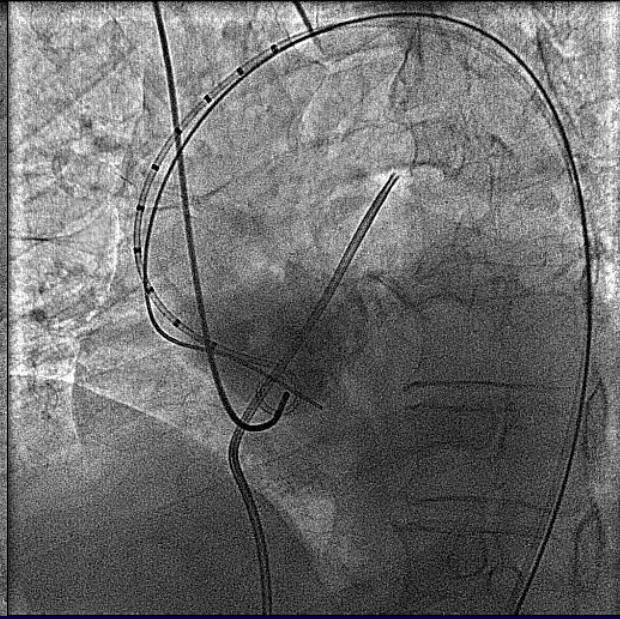
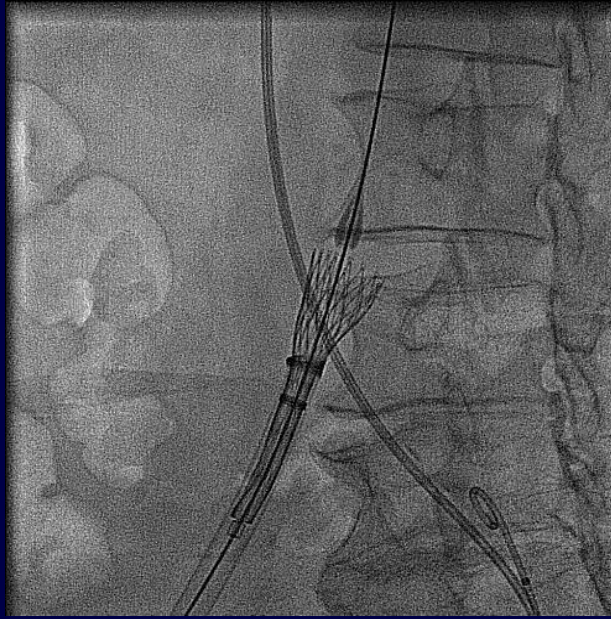
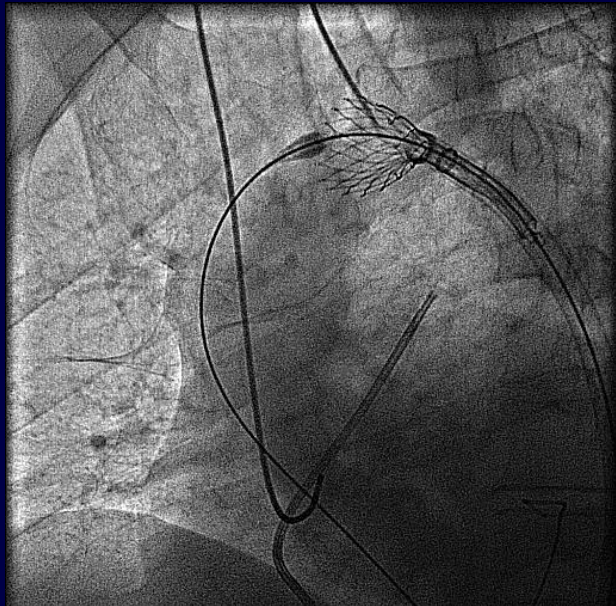
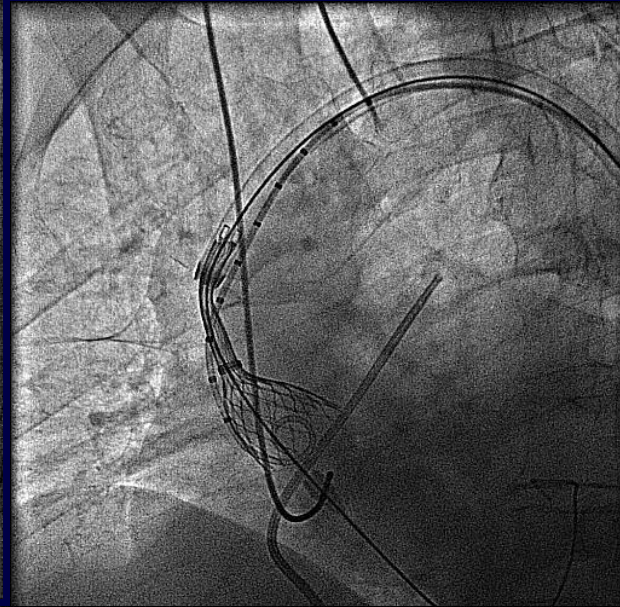
# RESULTADOS GLOBALES

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<b>Implante con éxito</b> .....	<b>138 (95%)</b>
<b>Mortalidad global</b> .....	<b>21 (14%)</b>
Hospitalaria .....	8 (5%)
Tardía (1 mes – 3 años) .....	13 (9%)
Cardiovascular .....	5
No cardiovascular .....	8
<b>Complicaciones agudas</b>	
Disección aórtica .....	1 (0,7%)
ACVA .....	2 (1%)
Taponamiento .....	5 (3%)
IAM .....	1 (0,7%)
Insuficiencia aórtica $\geq$ II .....	33 (23%)
Necesidad de una segunda válvula .....	2 (1%)
Bloqueo AV primeras horas .....	28 (19%)
Problemas con vía de abordaje .....	36 (25%)

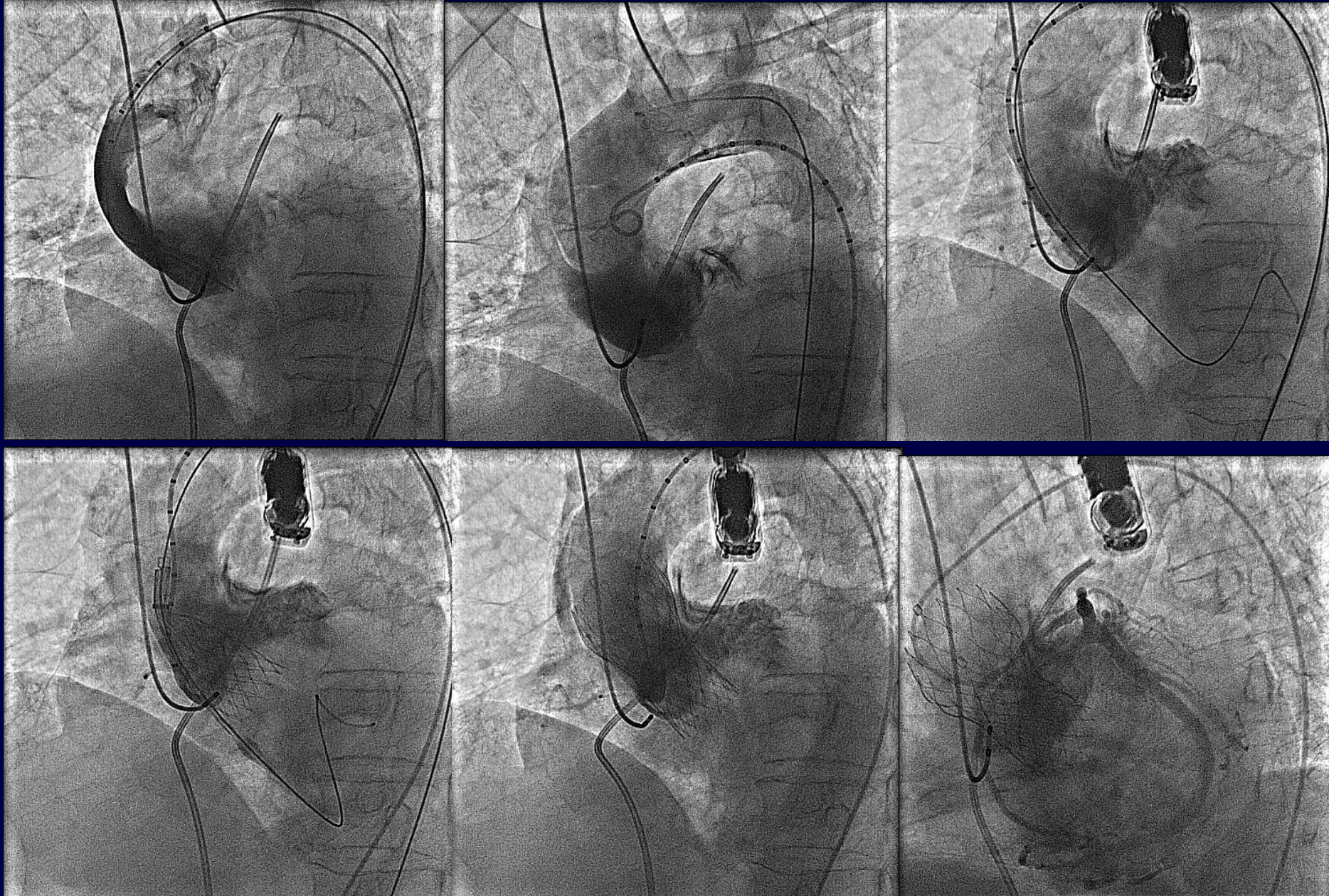


# RECUPERACION DEL SISTEMA

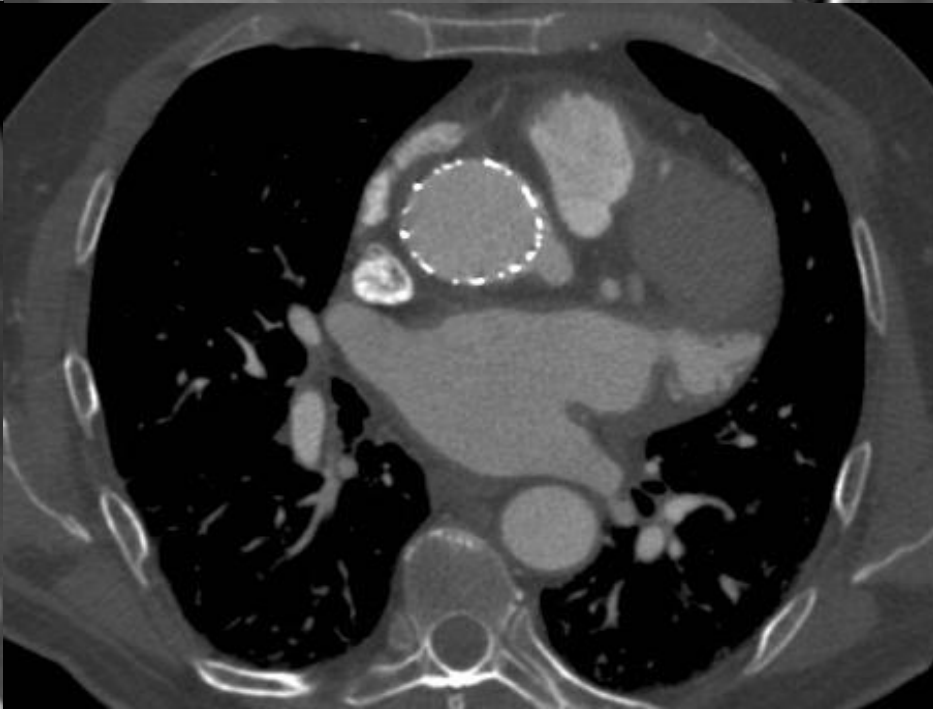
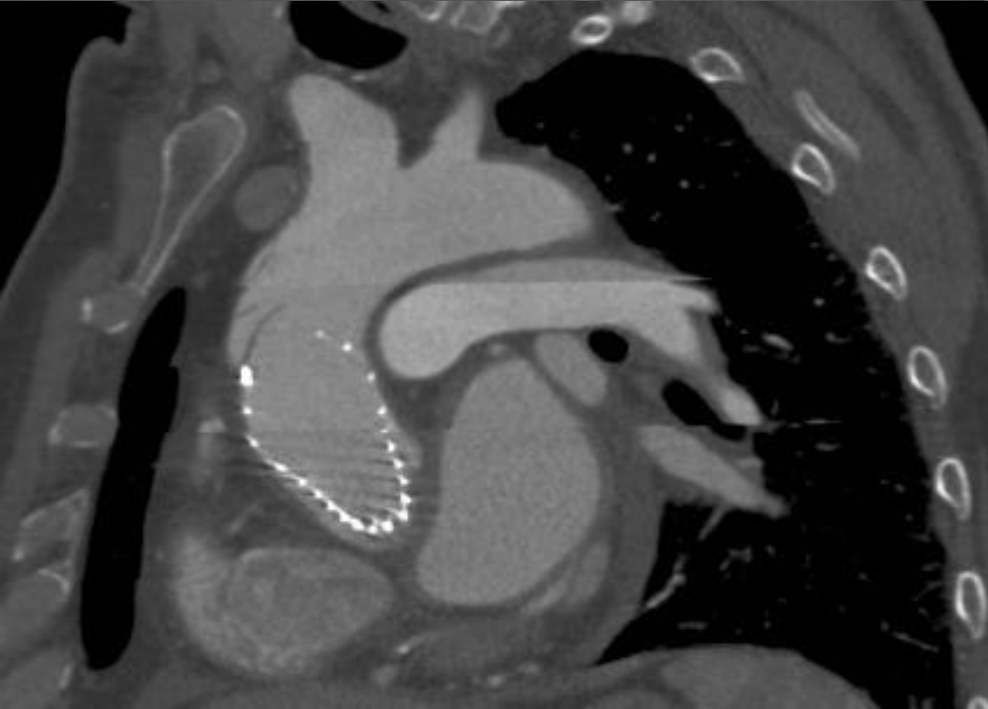
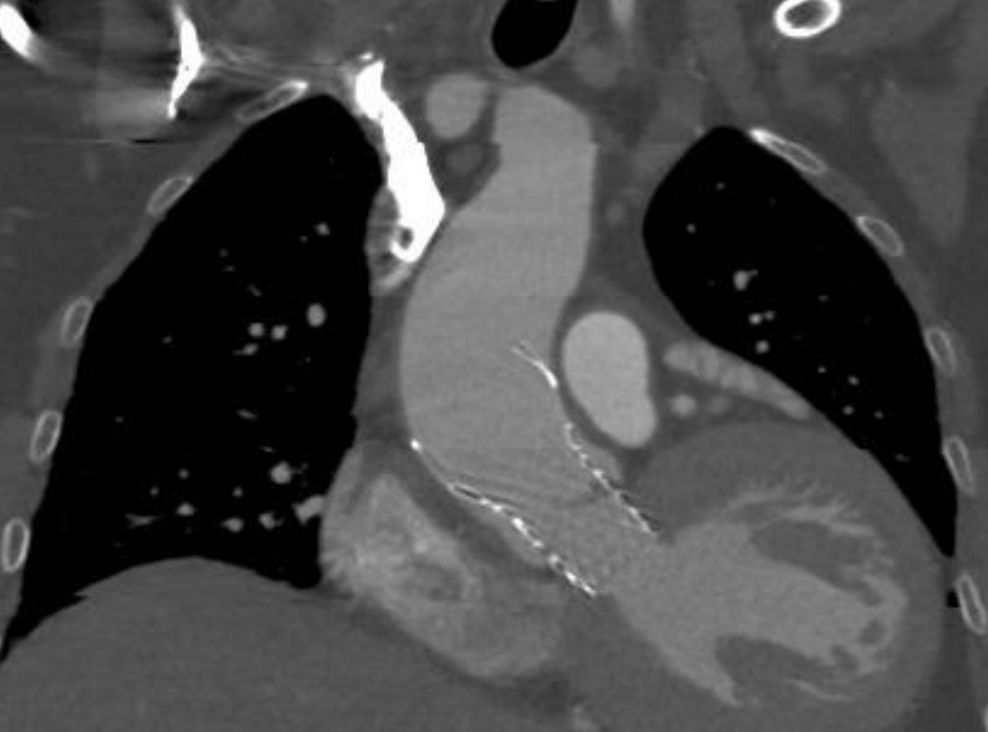


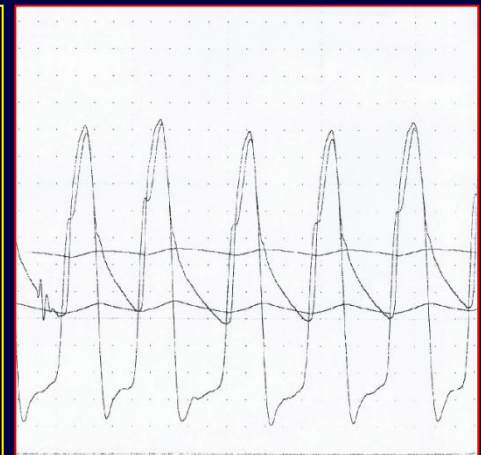
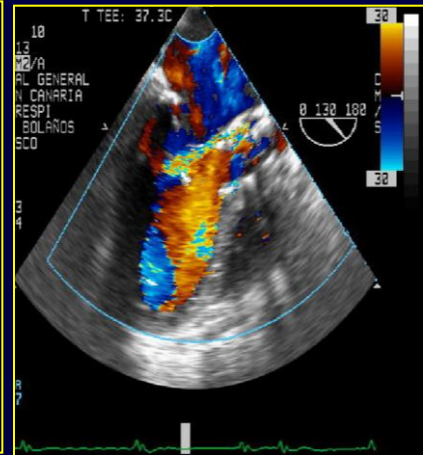
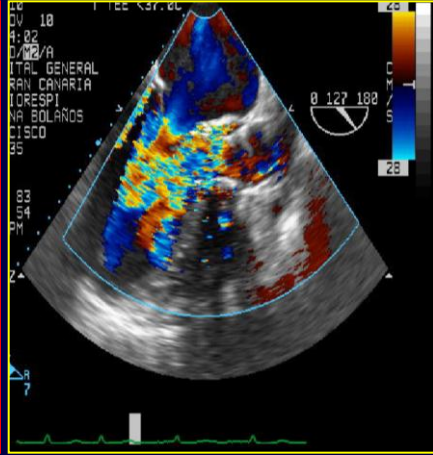
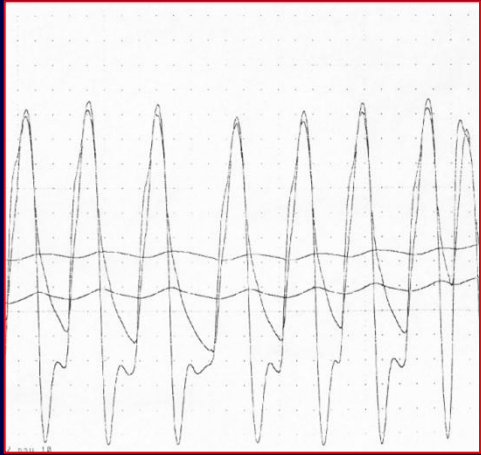
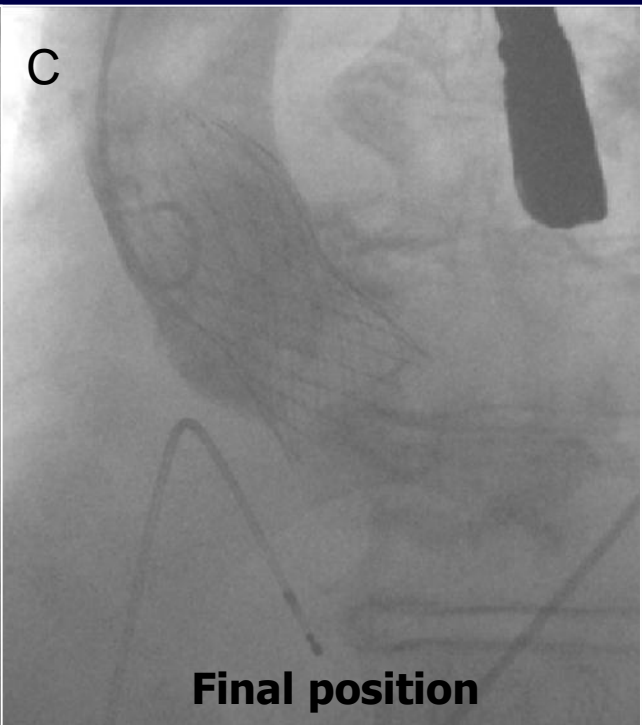
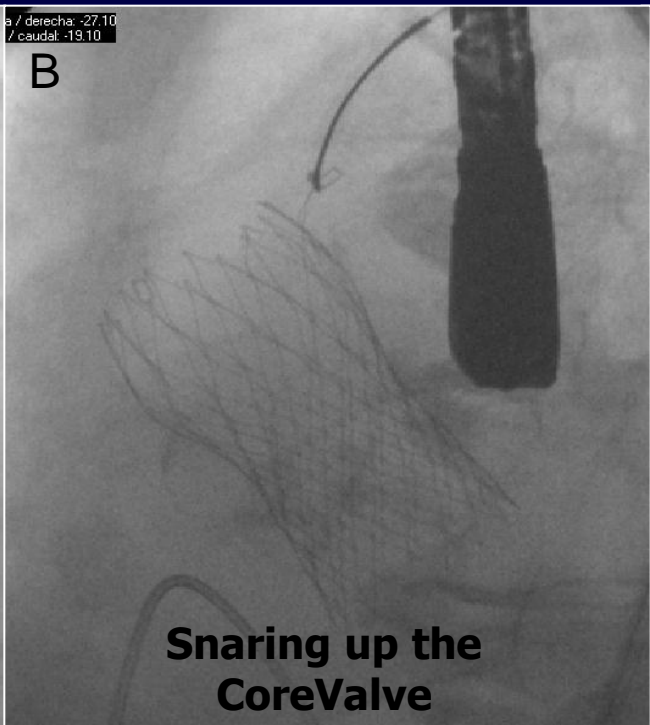
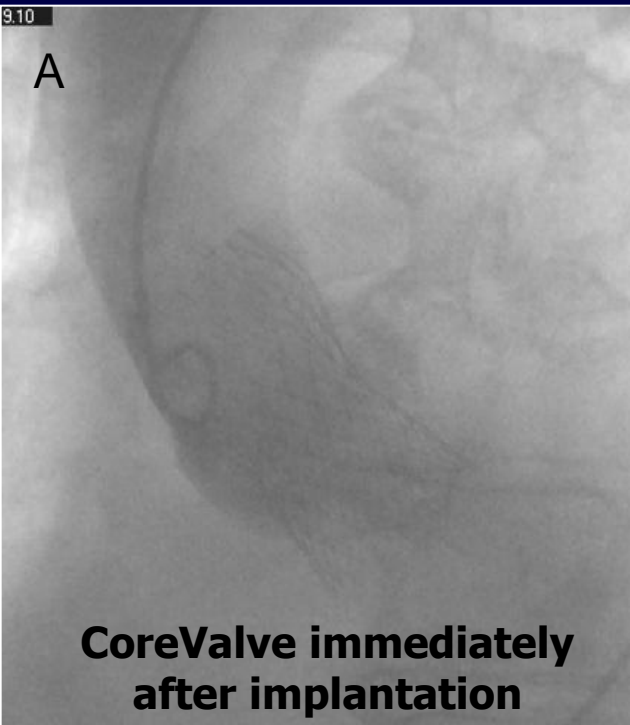


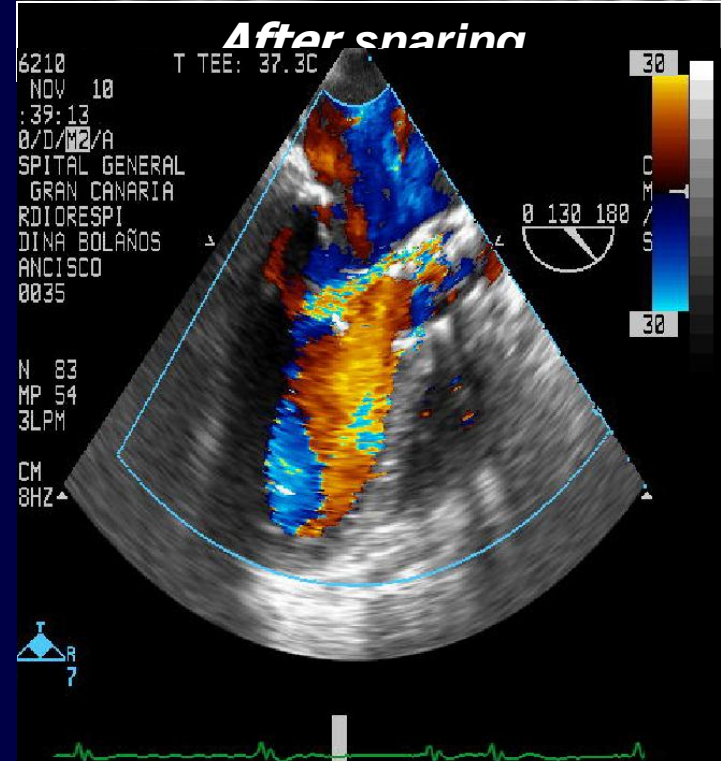
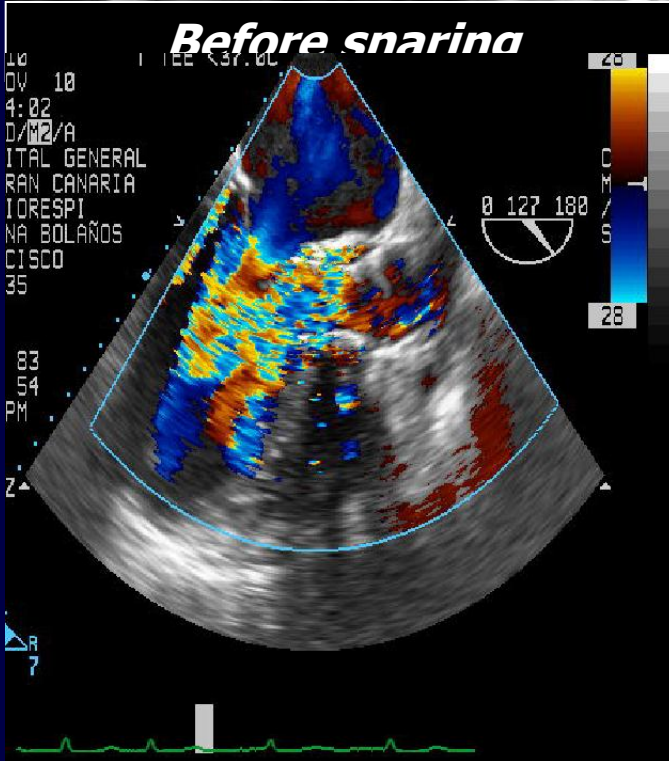
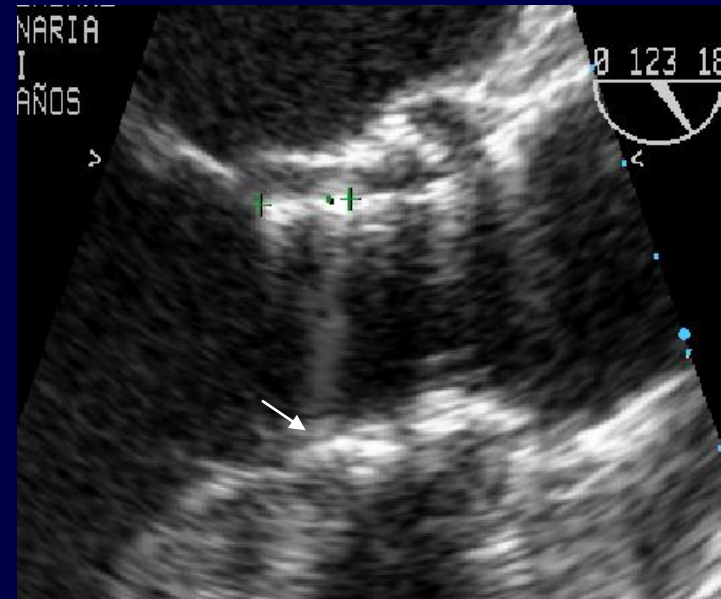
# DISECCION AORTICA RESUELTA









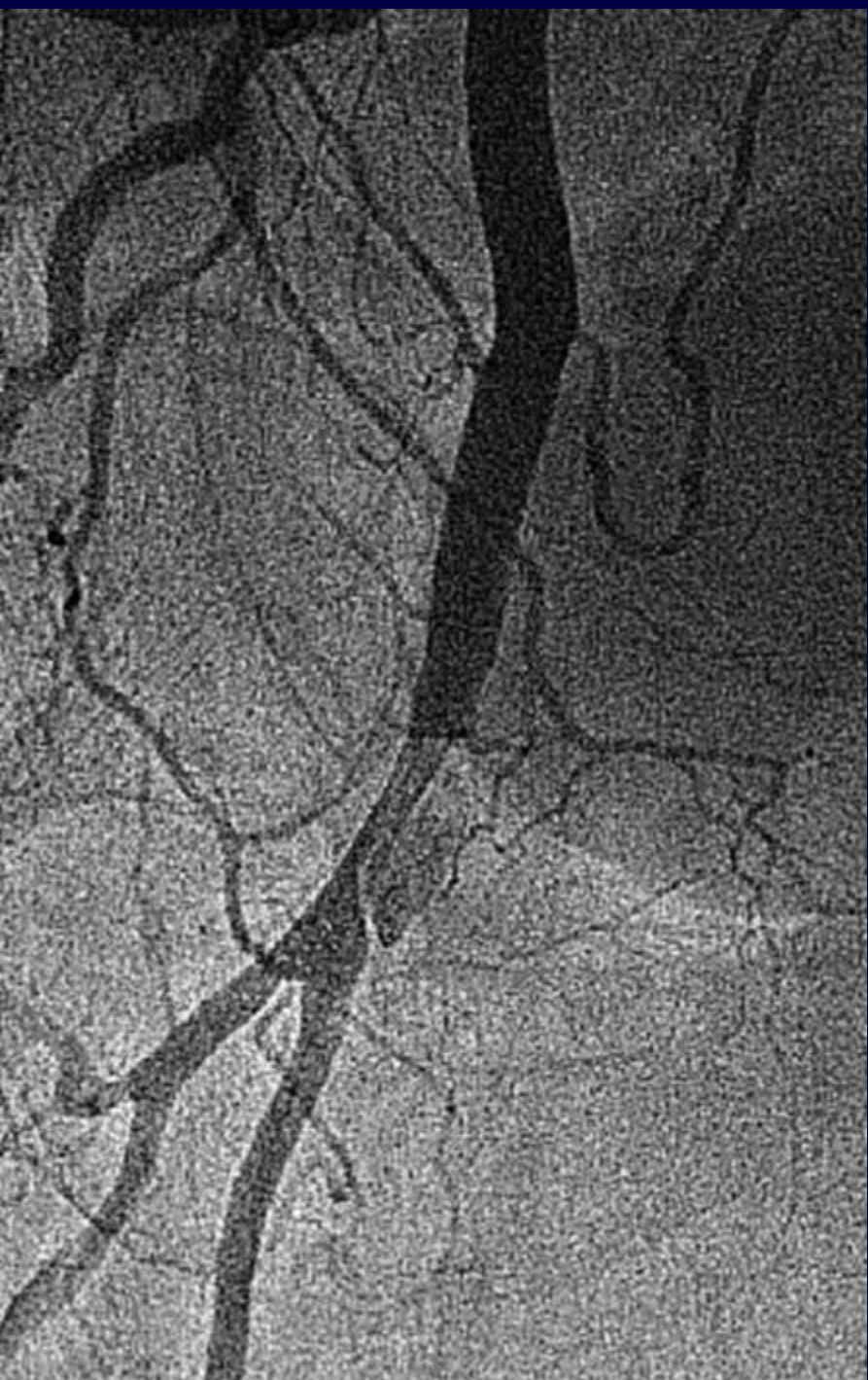




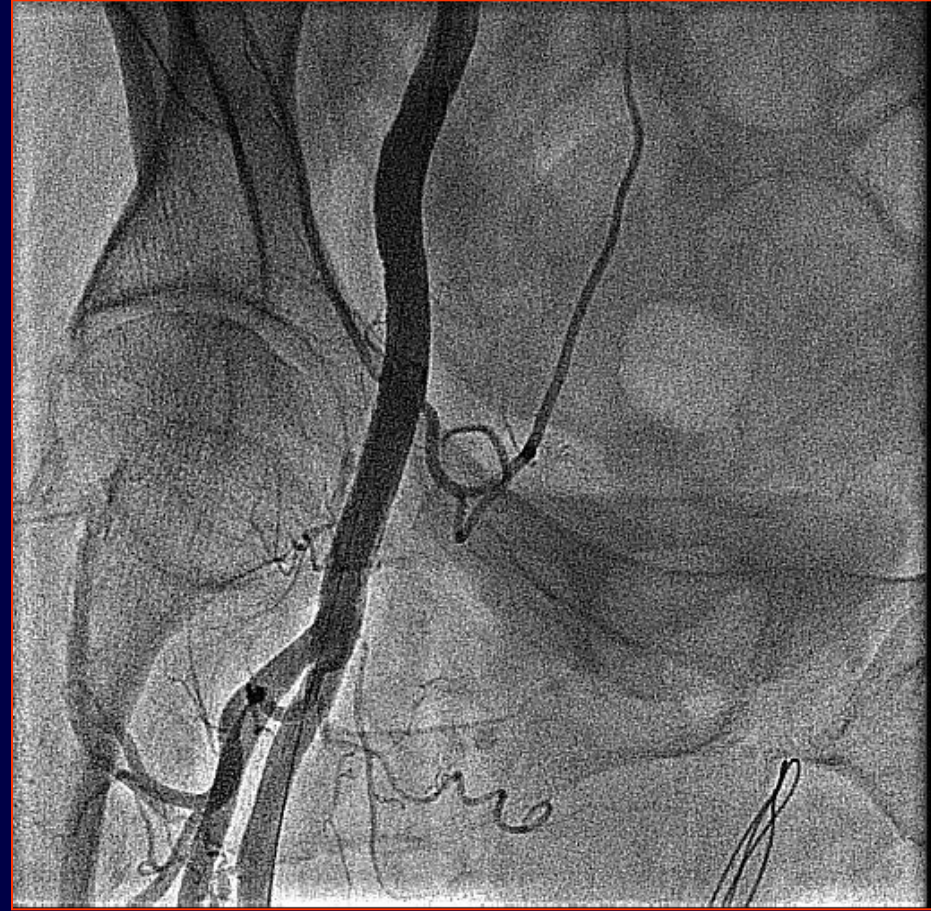
# Evolución del acceso vascular

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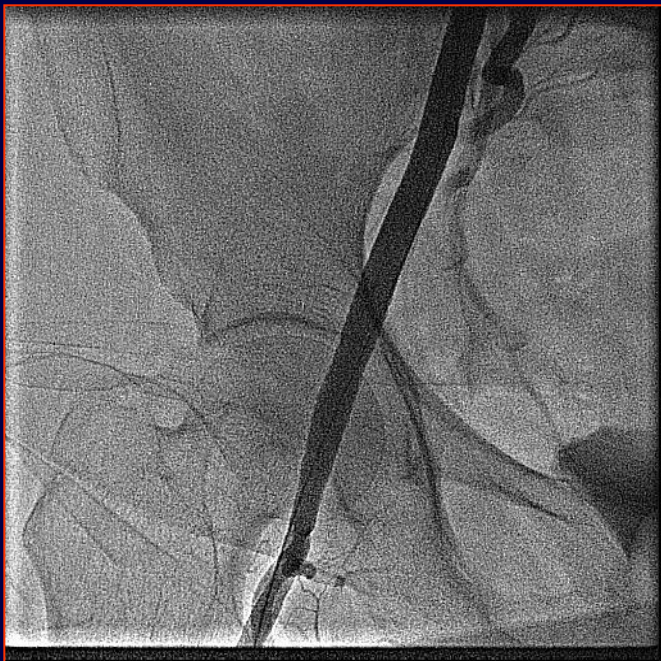
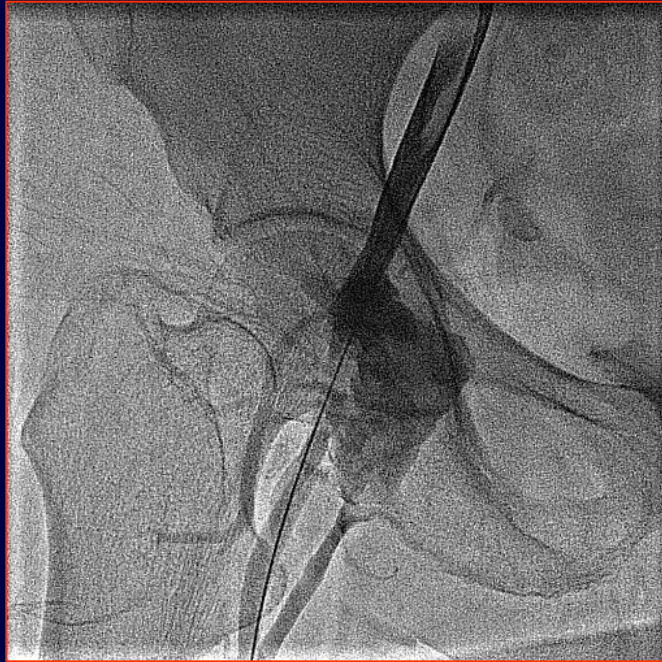
- **Éxito final de cierre percutáneo ..... 143 (100%)**
  - Cierre quirúrgico subclavia ..... 3
- **Necesidad de Tratamiento ..... 35 (25%)**
  - Angioplastia con balón ..... 2 (1%)
  - Stent desnudo ..... 3 (2%)
  - Stent cubierto ..... 30 (21%)
- **No secuelas isquémicas**
- **No hematomas retroperitoneales**
- **Complicaciones tardías**
  - Pseudoaneurisma ..... 2 (1%)
  - Endarteritis ..... 1 (1%)











# RESULTADOS GLOBALES

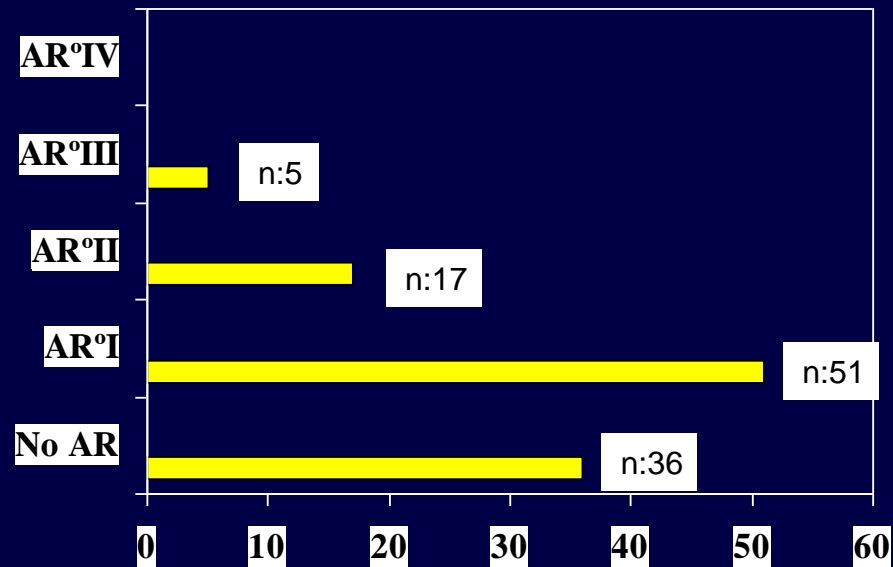
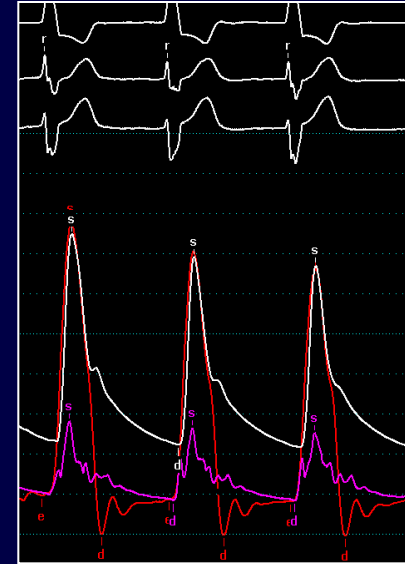
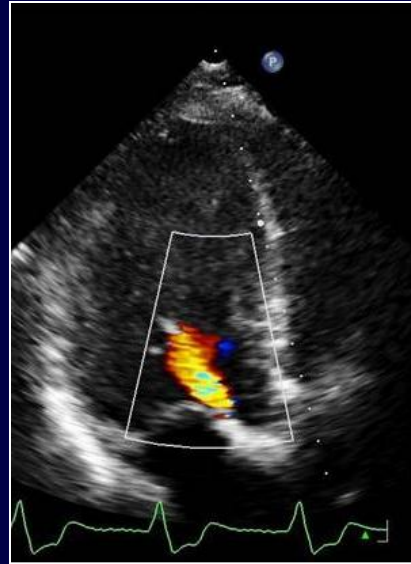
---

## Complicaciones tardías (1 mes – 3 años)

- Bloqueo AV en las 72 horas ..... 3 (2%)
- Bloqueo AV tardío (3M-15M) ..... 4 (3%)
- Necesidad global de Marcapasos ..... 35 (24%)
- Ingresos por insuficiencia cardiaca ..... 17 (12%)
- Endocarditis sobre prótesis mitral ..... 1 (1%)

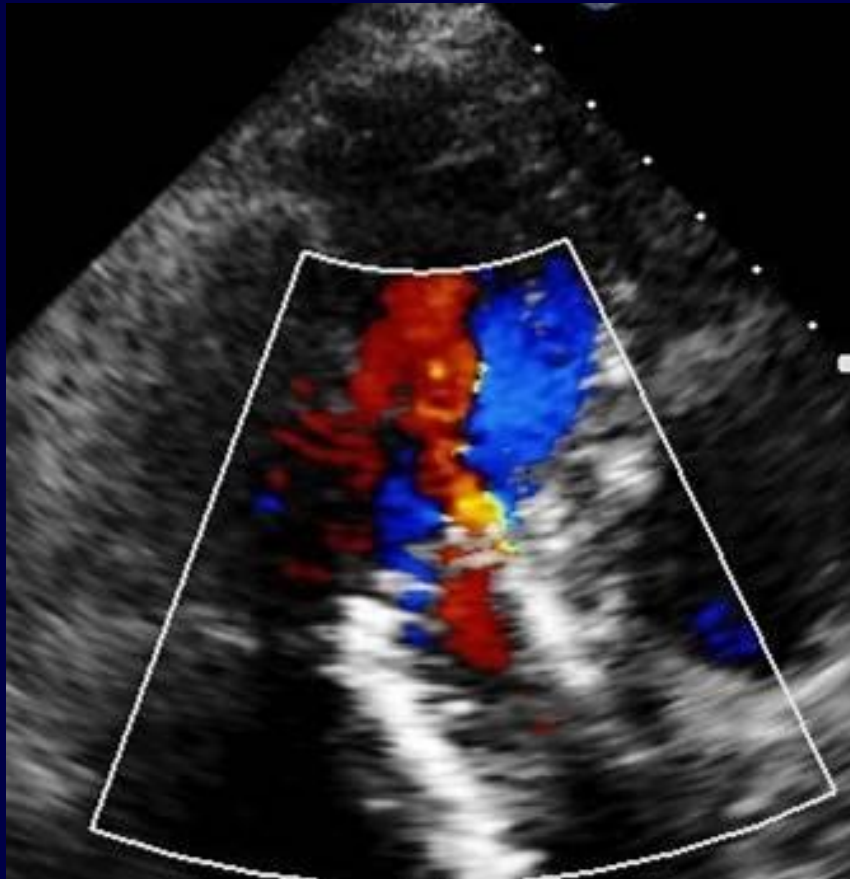


# Insuficiencia aórtica post implante





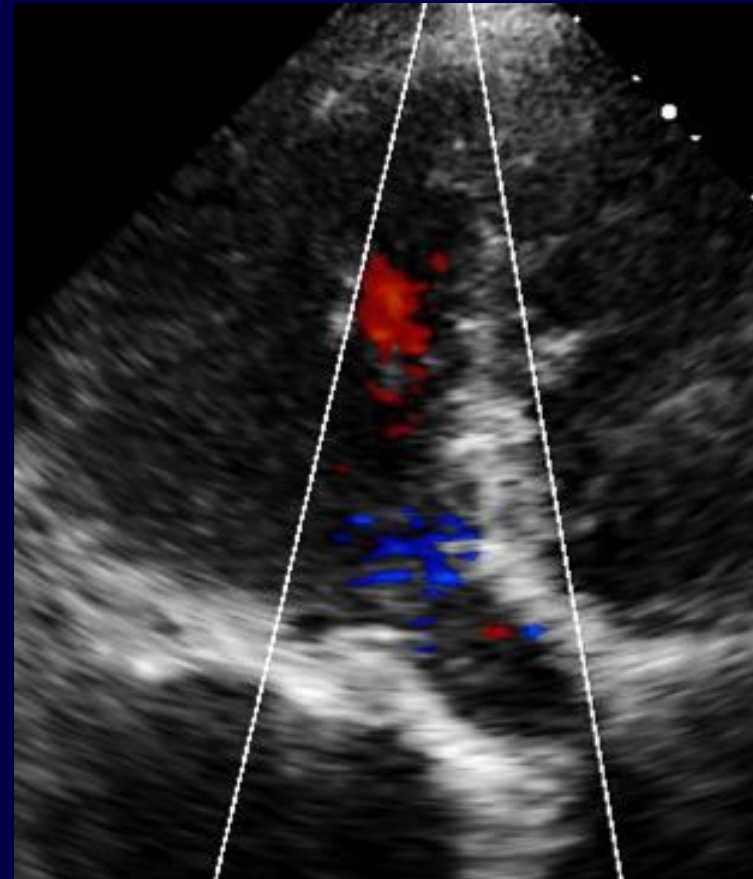
**ALTA**



**Fuga grado I**

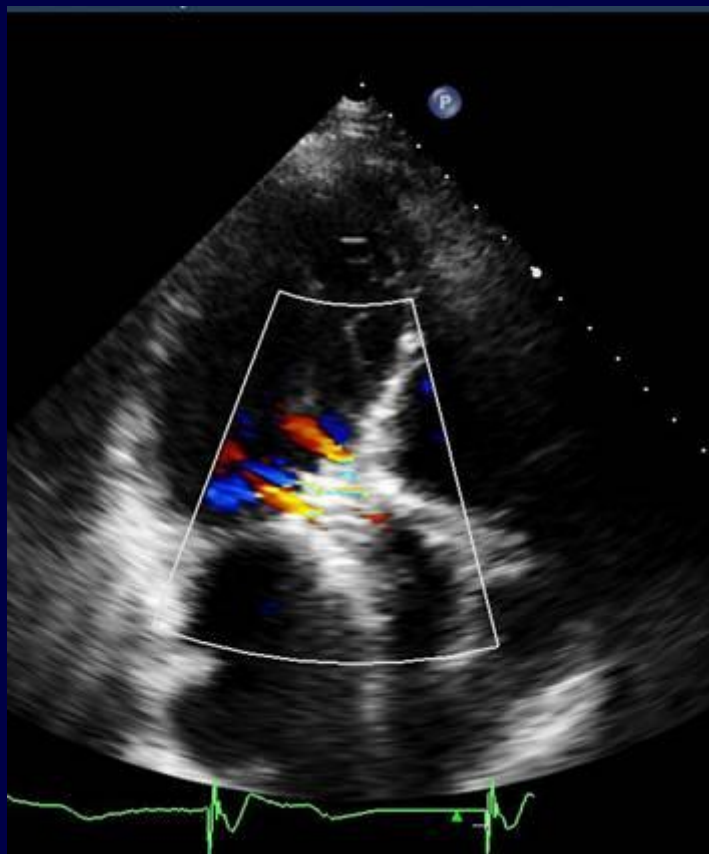


**1 MES**



**No fuga**

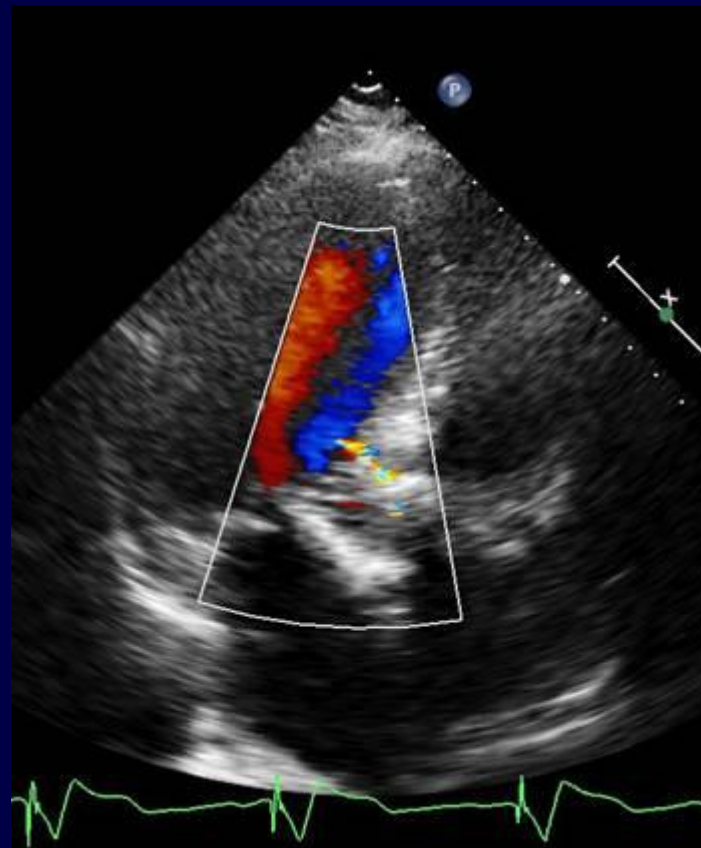
**ALTA**



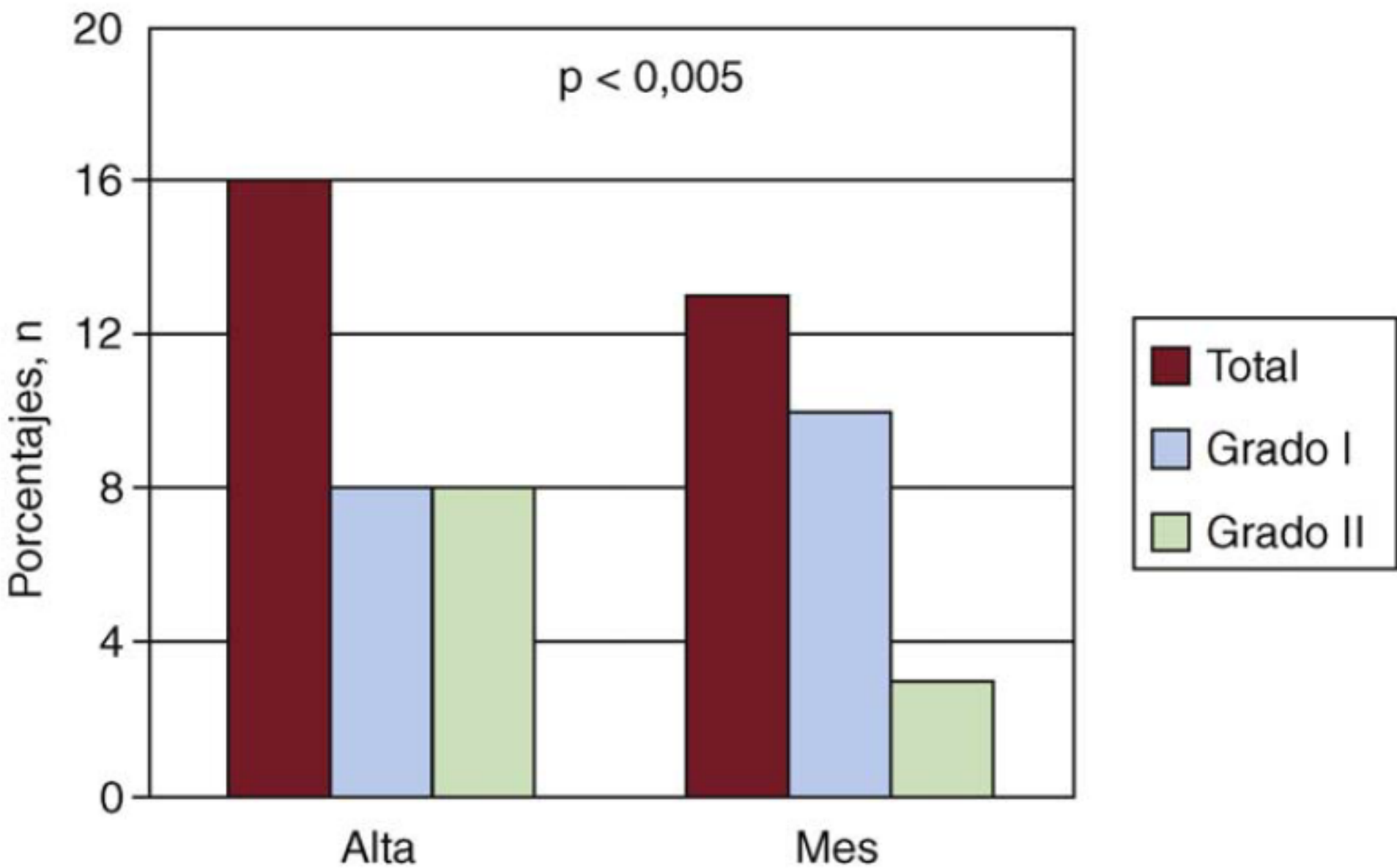
**Fuga grado II**



**1 MES**



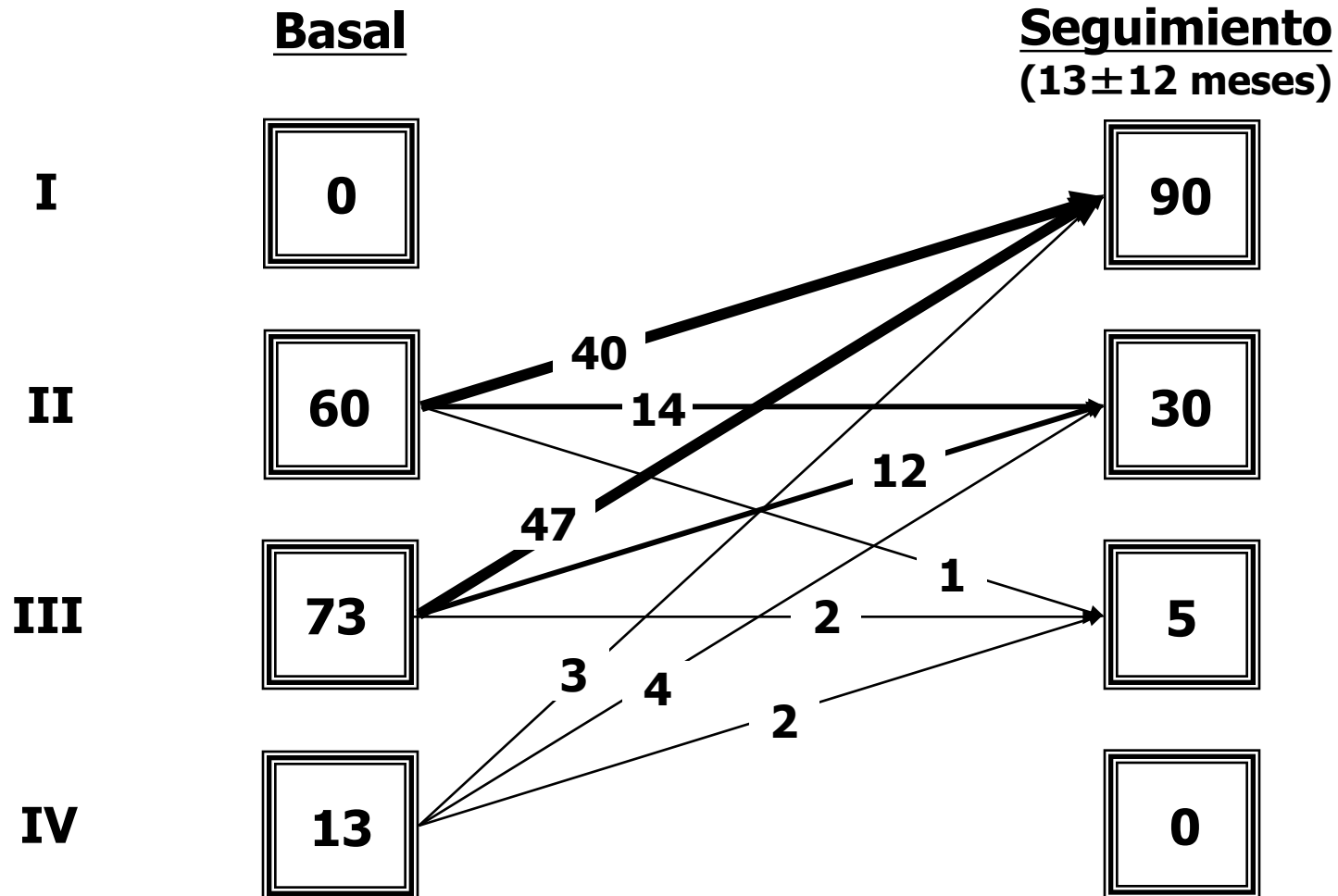
**Fuga grado I, con  
pérdida de un chorro**



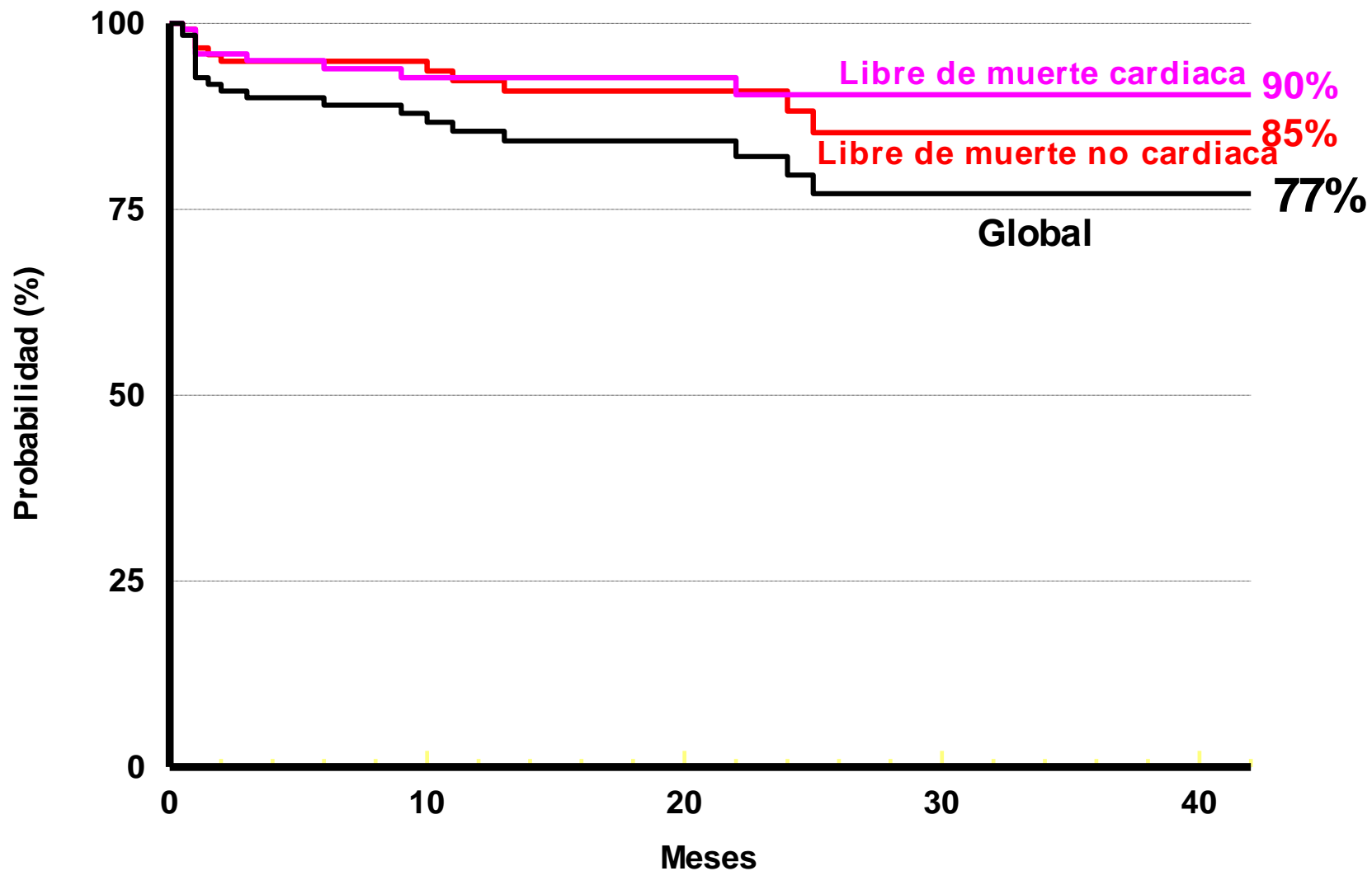
**Figura 1.** Evolución al alta hospitalaria y al mes de las fugas perivalvulares en pacientes con prótesis CoreValve.



# Grado funcional

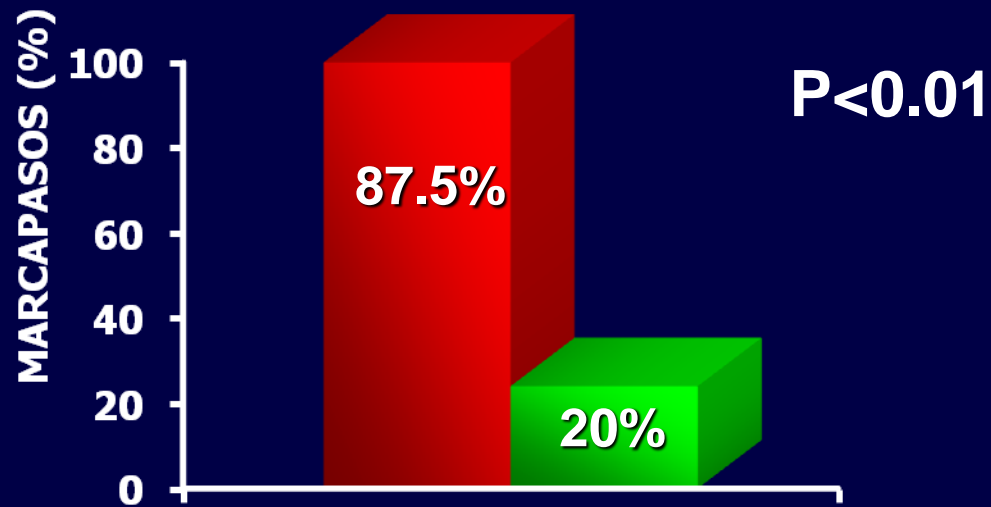


# SUPERVIVENCIA



# BCRDHH PREIMPLANTE

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 BCRDHH     NO BCRDHH



# METHODS

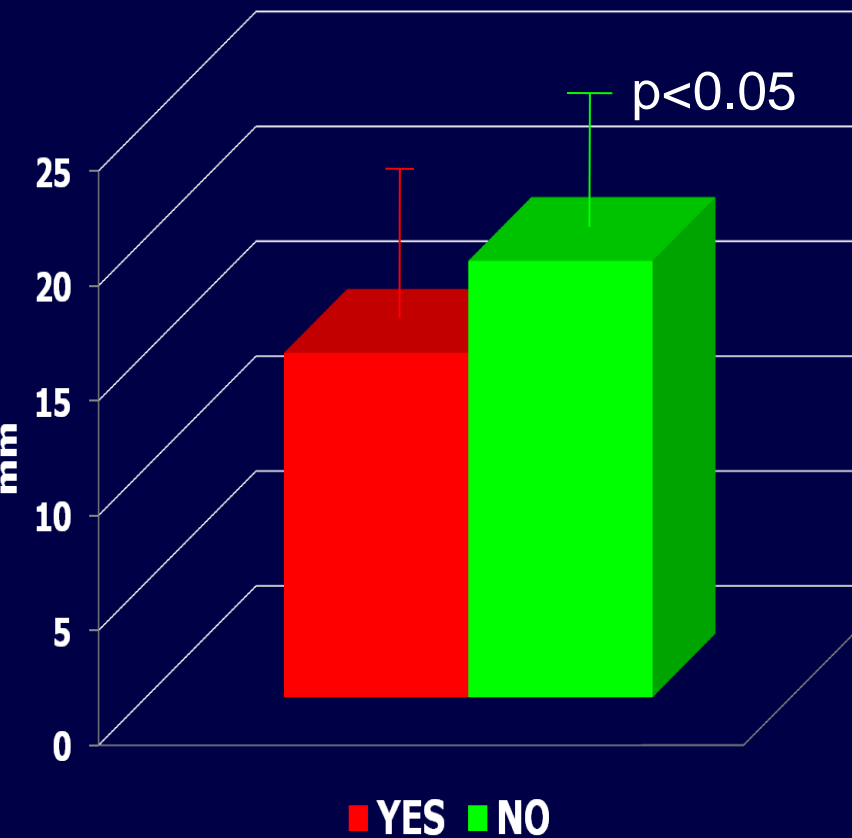
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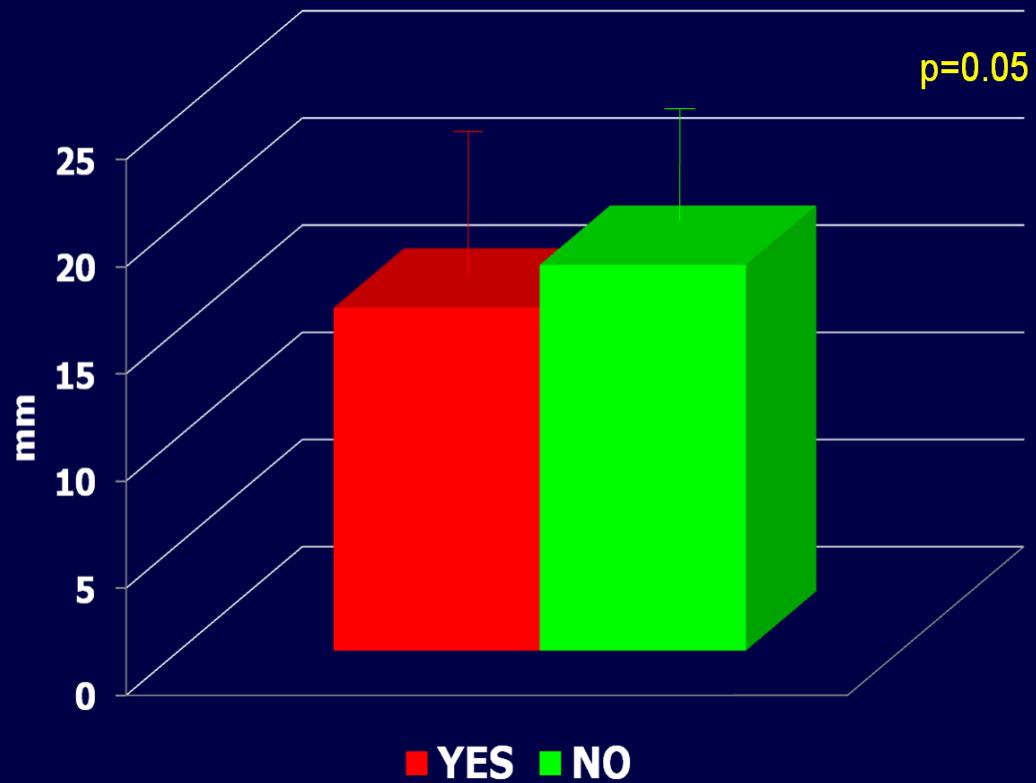
## Diastolic frame

1. Septal thickness
2. Maximal Septal thicknes
3. Distance from the aortic annulus to the subannular septal bulge
4. Distance from the center of aortic annulus to the subannular septal bulge

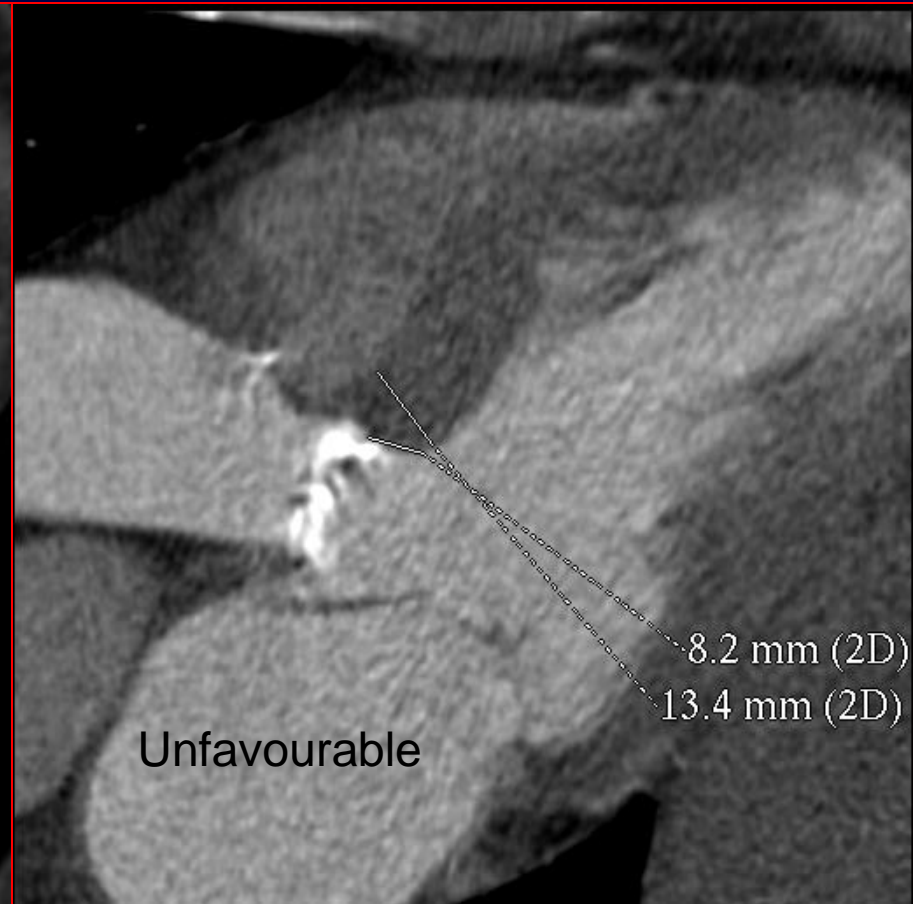
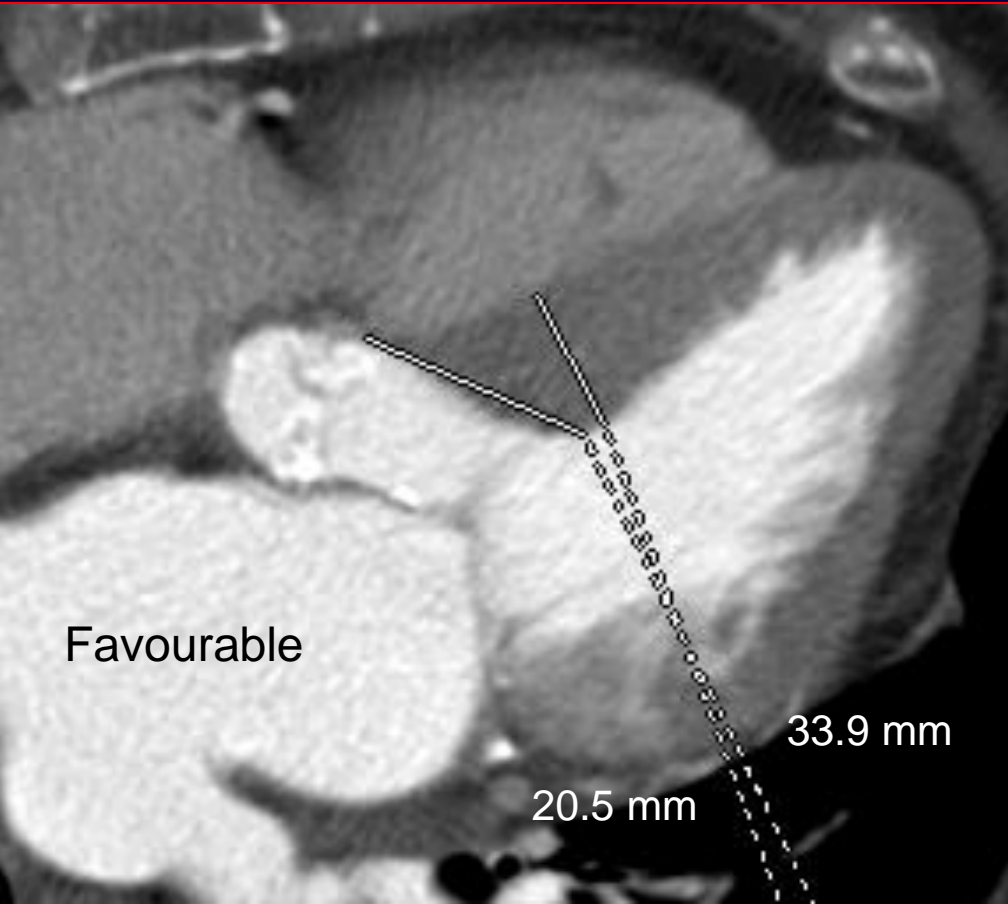
## Distance from the aortic annulus to the subannular septal bulge



## Maximal septal thickening

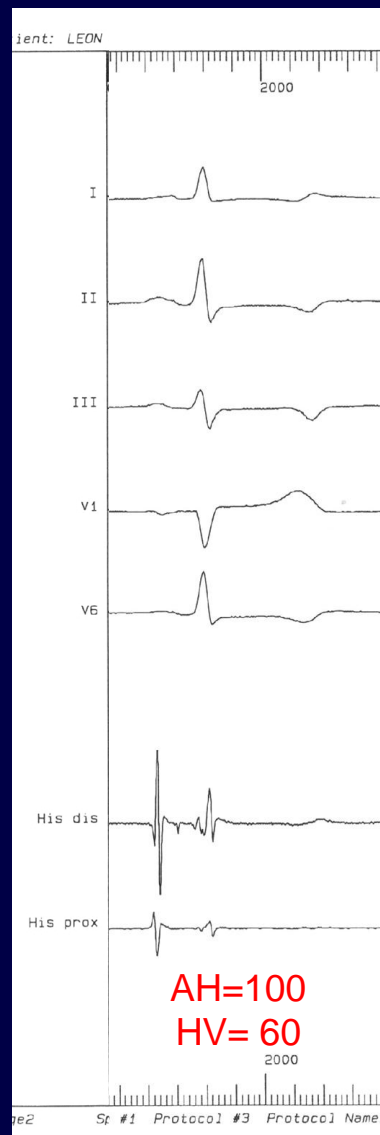


Need for pacemaker implantation

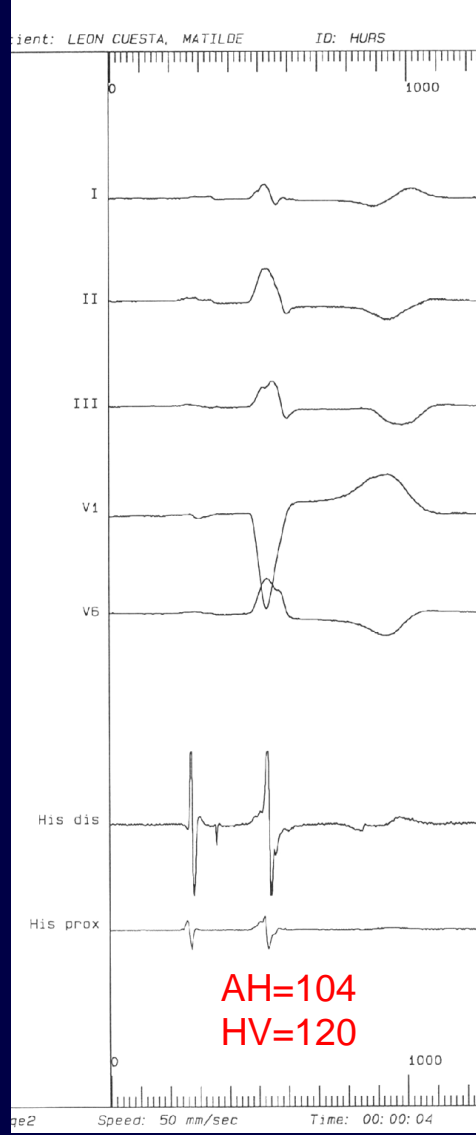
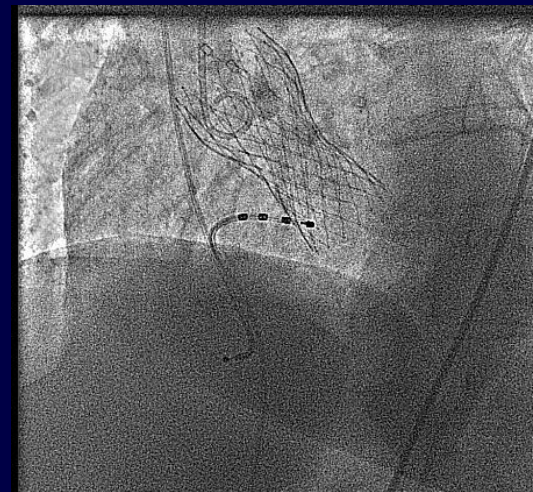




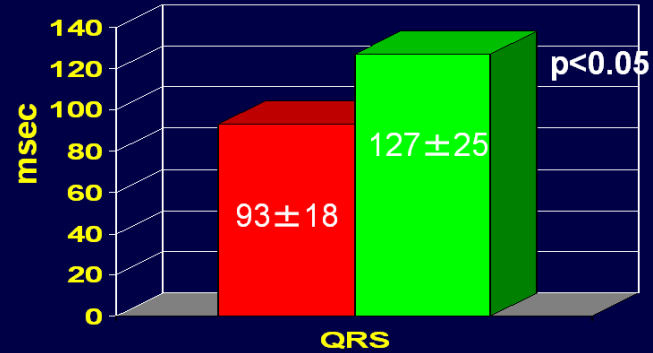
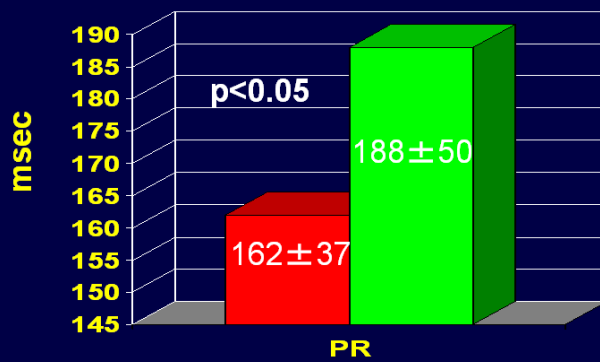
# BASAL



# POST PAVR

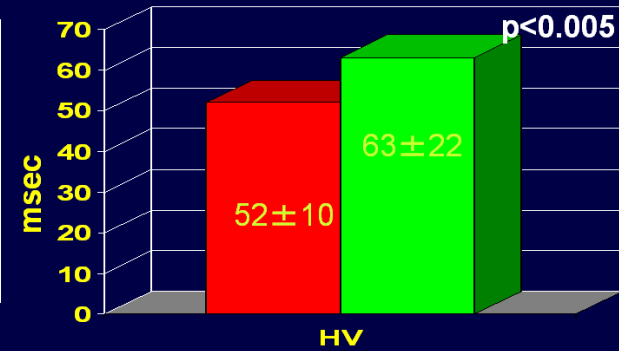
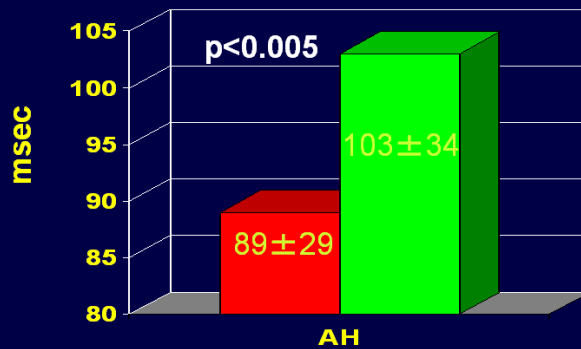


# Surface electrocardiogram

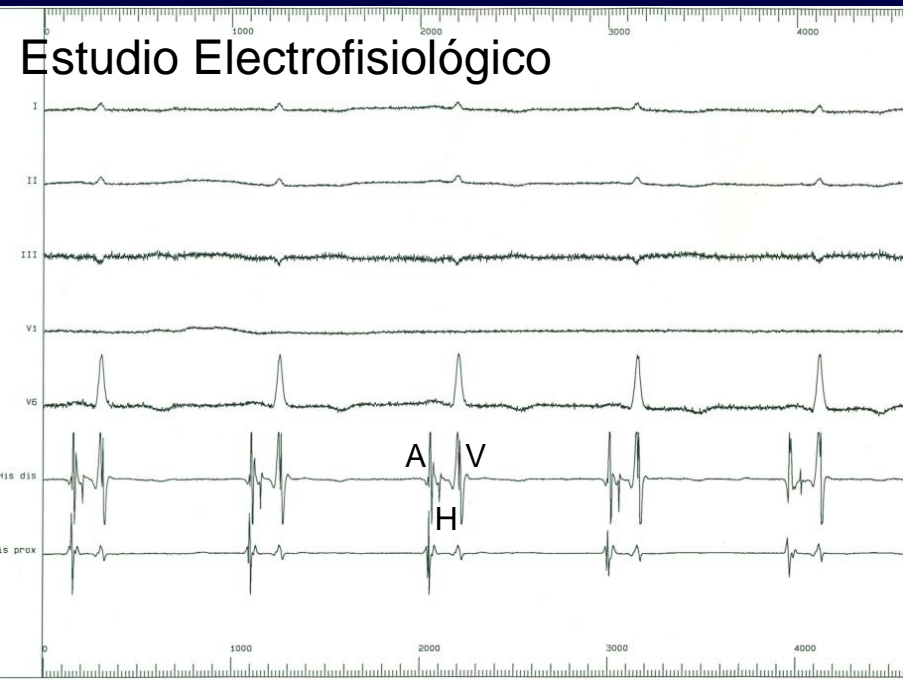
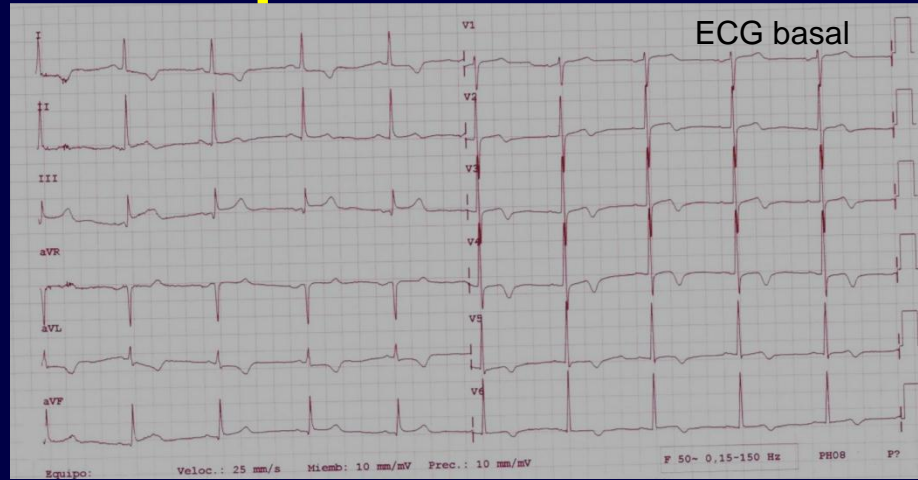


■ BASAL      ■ Post Implantation

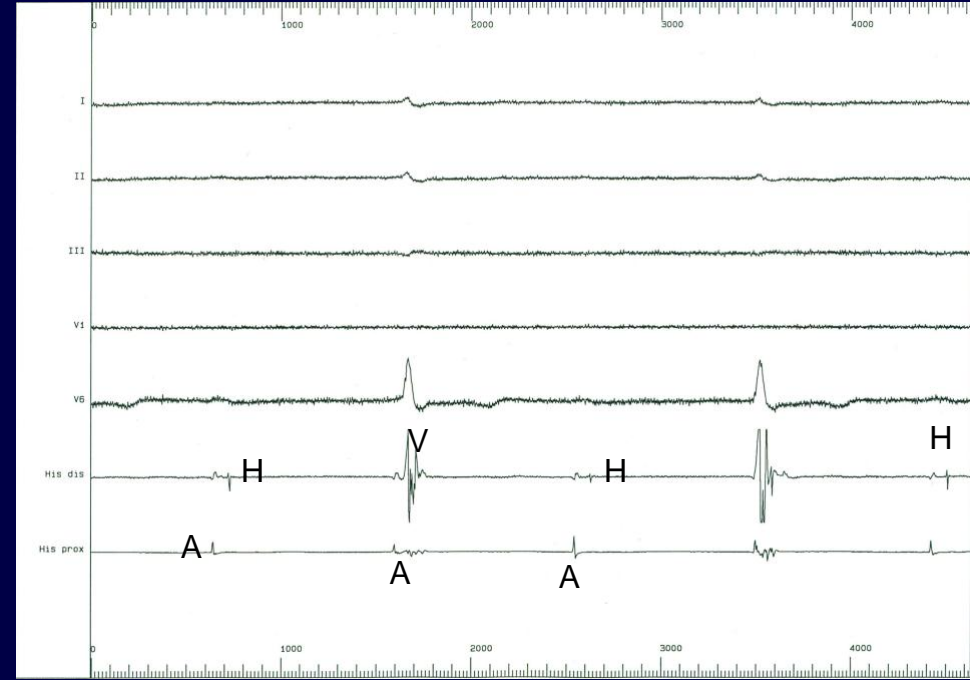
# Intracardiac electrograms



# Bloqueo Infra-His

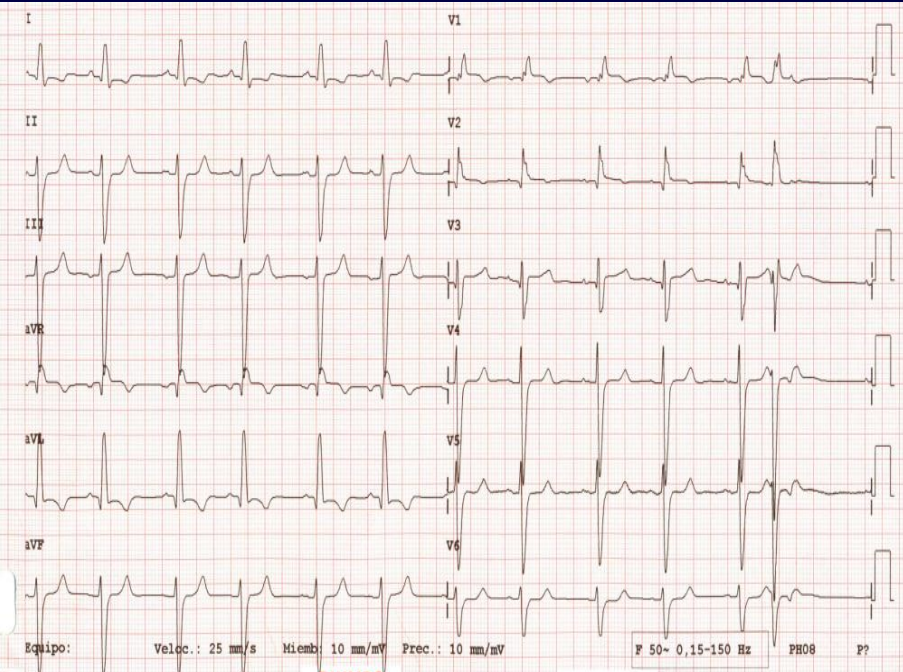


BASAL



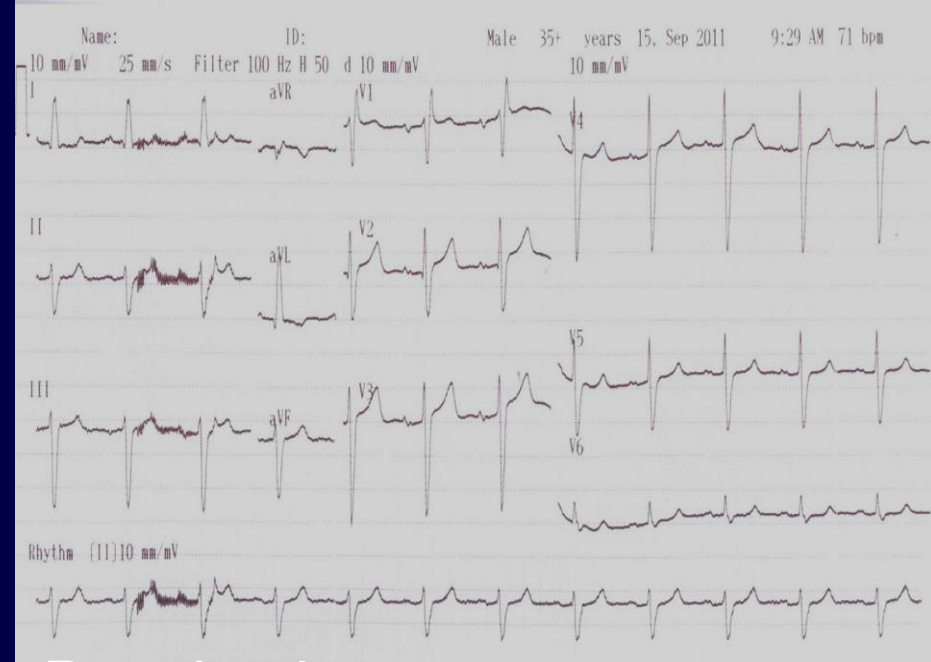
Post implante





**Basal**

**PR 120 msec**



**Post-implante**

**PR 180 msec**



**AH= 64 msec  
HV=58 msec**



**AH= 86 msec  
HV=140 msec**

# Intervalos intracavitarios 7 días post implante



AH= 129 msec

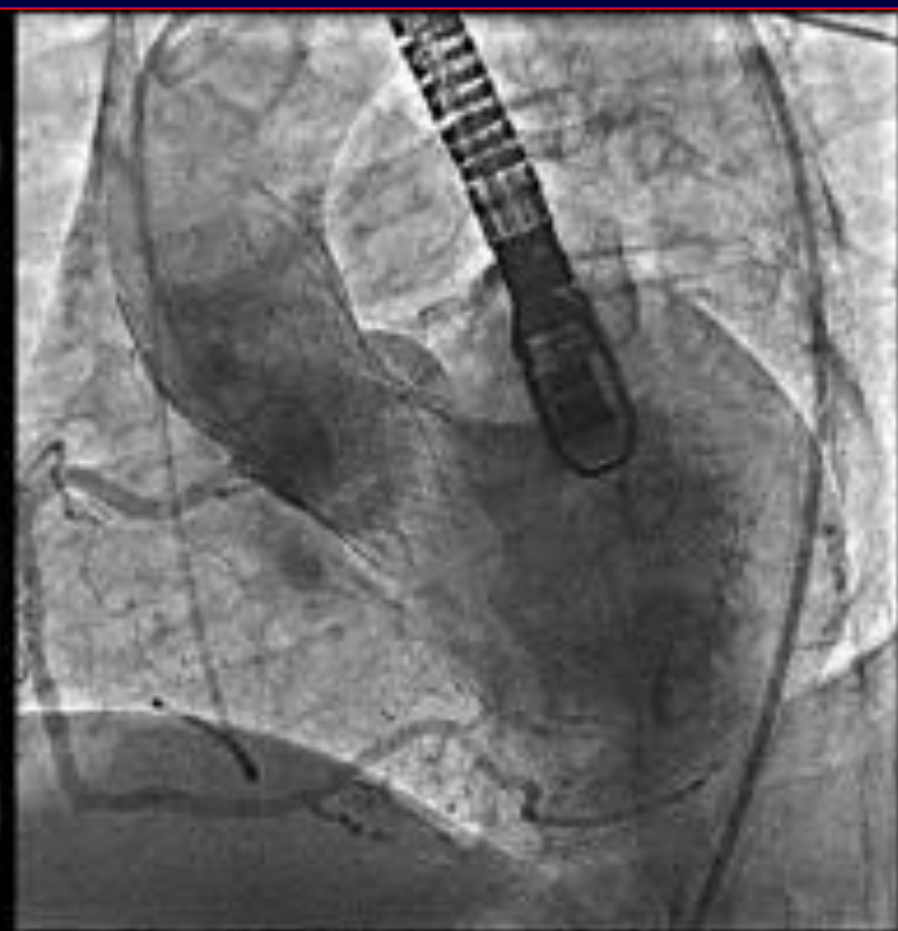
HV= 54 msec

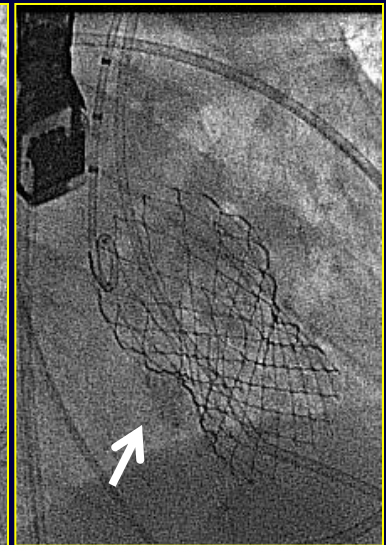
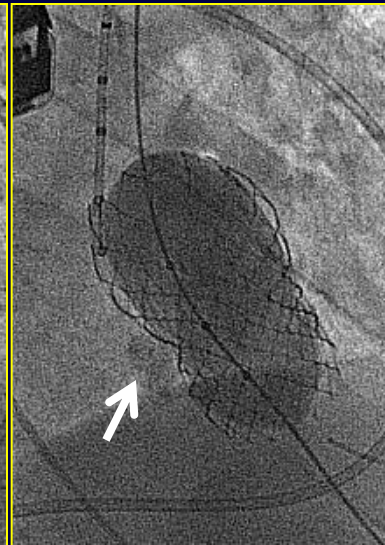
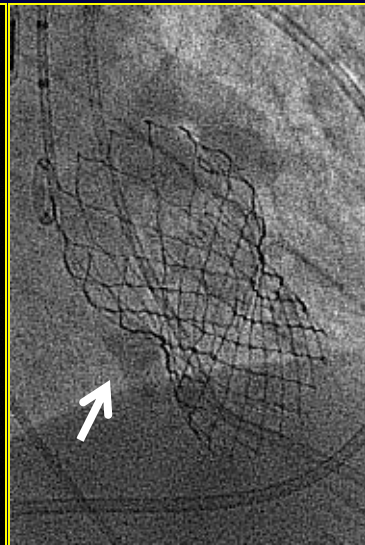
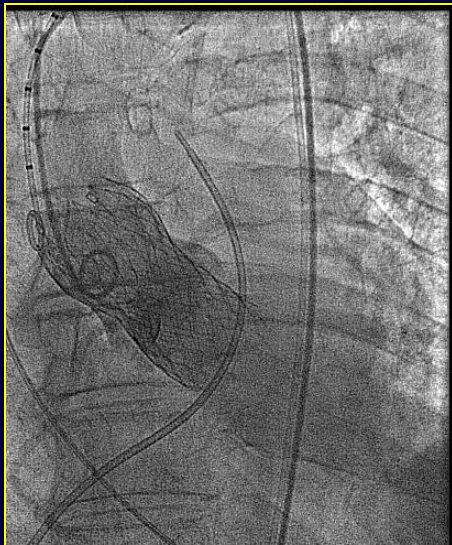
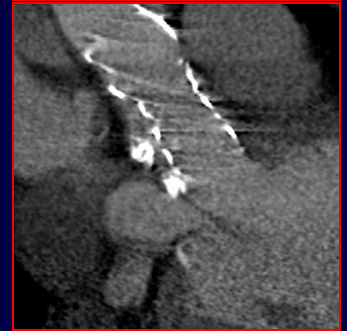
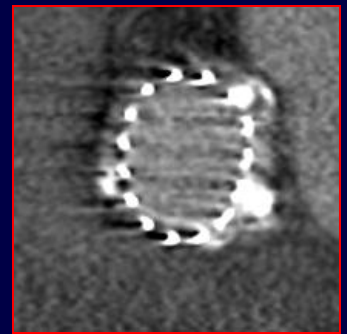
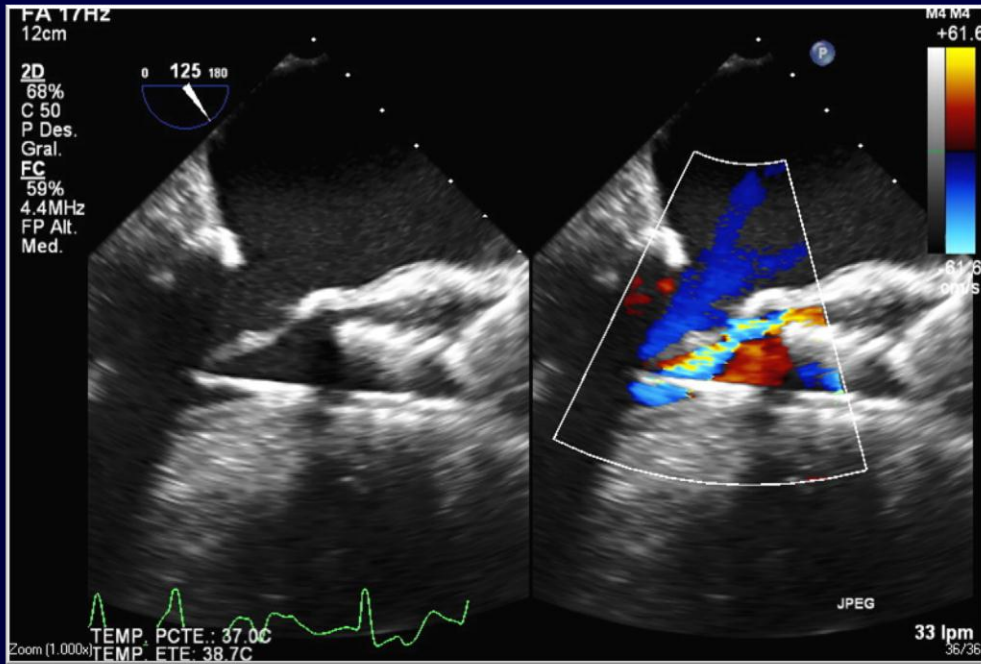
# Wenckebach anterógrado 7 dias post implante











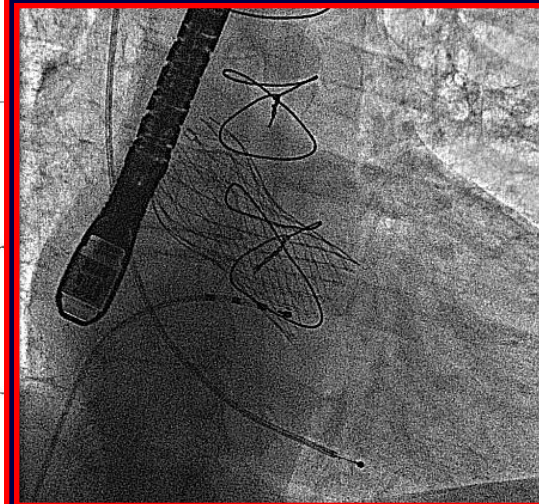
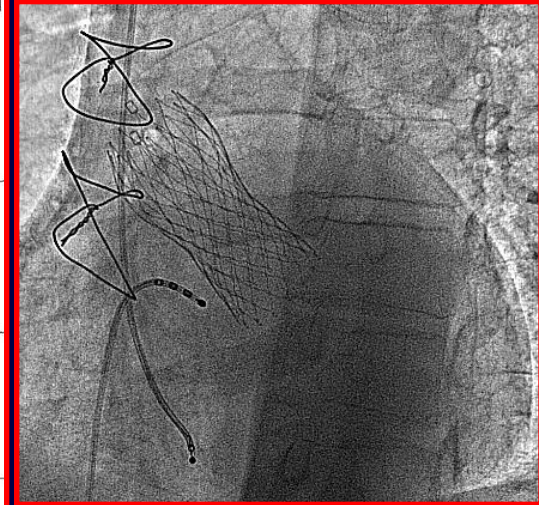
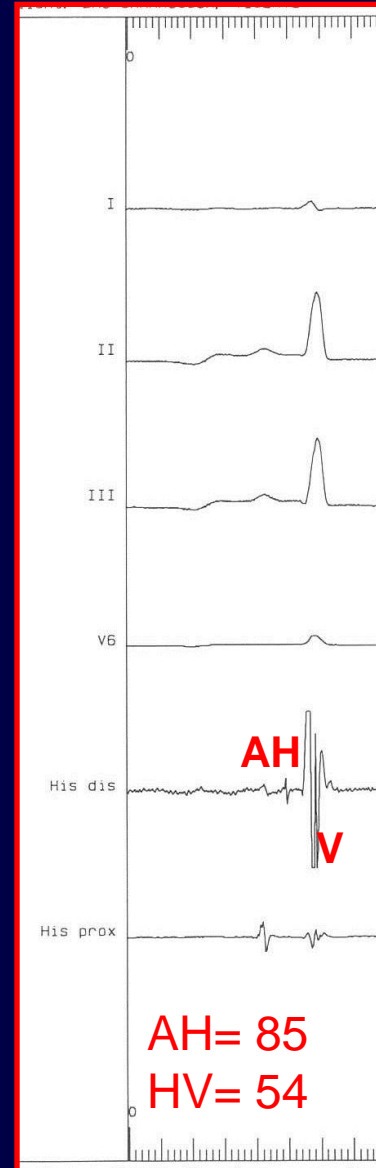
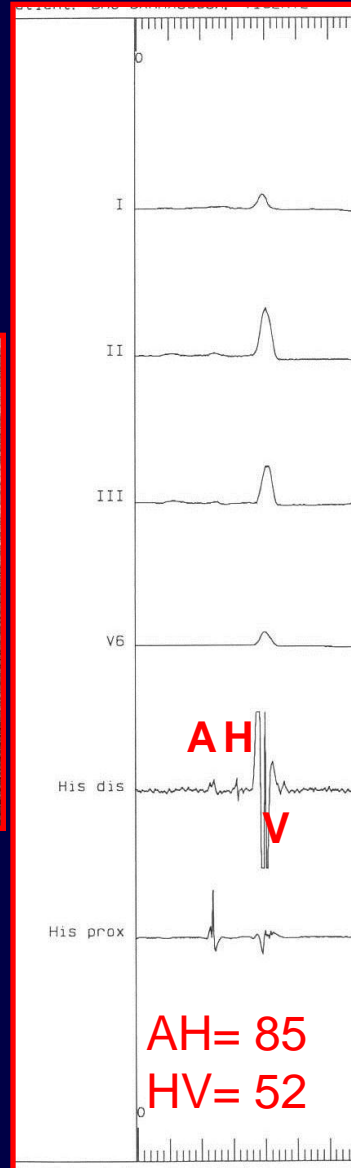


# INTRACARDIAC ELECTROGRAMS

No changes

## BASELINE

## POST Corevalve





# Perspectivas futuras

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- **Importantes avances en prótesis valvulares percutáneas**
- **Nuevos modelos valvulares**
- **Durabilidad de las válvulas implantadas**
- **“Valve in Valve”, si necesario**
- **Expansión en el rango de edad**
- **Prótesis Mitral Percutánea ... está cerca**