ENDOCARDITIS TRAS CIRUGIA CARDIACA. TRATAMIENTO QUIRURGICO

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Cirugía Cardiovascular

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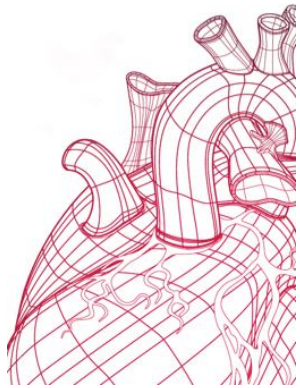

La endocarditis es una enfermedad infecciosa que se trata con antibióticos…

y que en el 50% de los casos requiere de cirugía.

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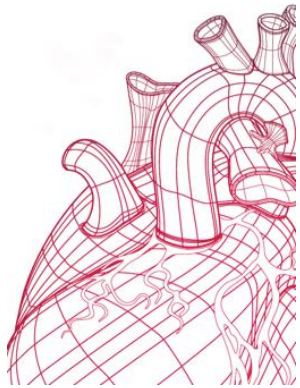

EPIDEMIOLOGIA ENDOCARDITIS

- **Antes**: adultos jóvenes con valvulopatía reumática.
- **Ahora**:
  - Portadores de prótesis
  - Pacientes mayores sin patología valvular previa, terapias médicas.

- Incidencia:
  - 3-10 episodios / 100.000 personas/año
  - 70-80 años: 14,5 episodios
  - Hombre / mujer: > 2:1

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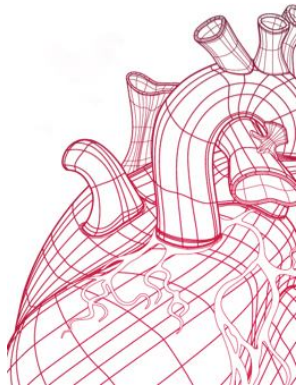
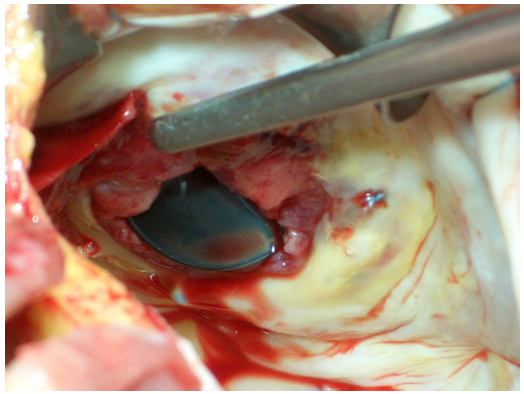


La incidencia de la EIVP oscila entre

0,3 – 1,2% paciente / año

Habib et al. Eur Heart J. 2009



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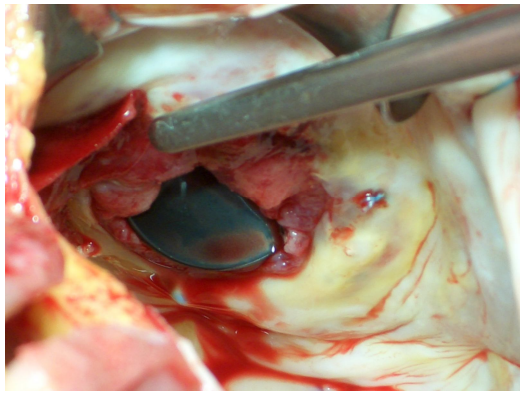
GAMES

1.598 EI → 453 EIVP (28%)

191 → Cirugía (43%)



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TRATAMIENTO QUIRURGICO

- 1. Manejo Preoperatorio
- 2. Momento Quirúrgico
- 3. Técnica quirúrgica

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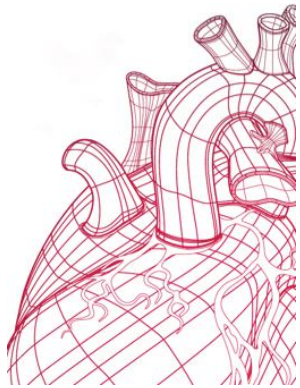

INTERVENCION

¿Sí?

¿Cuándo?

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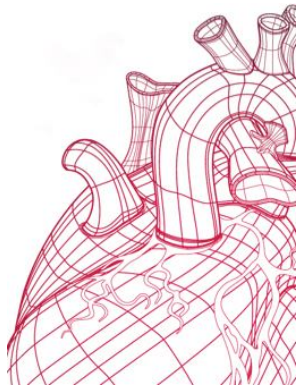

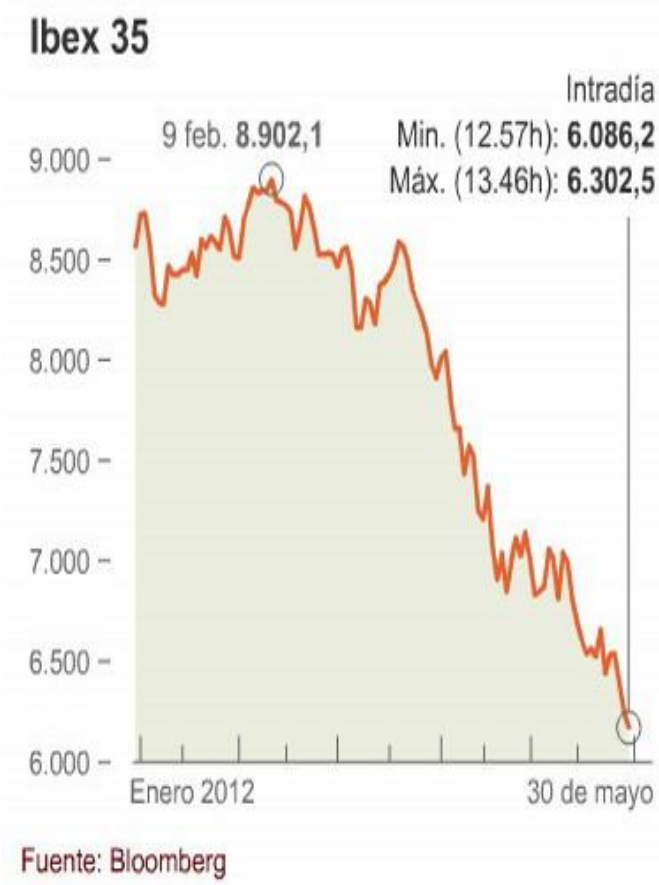

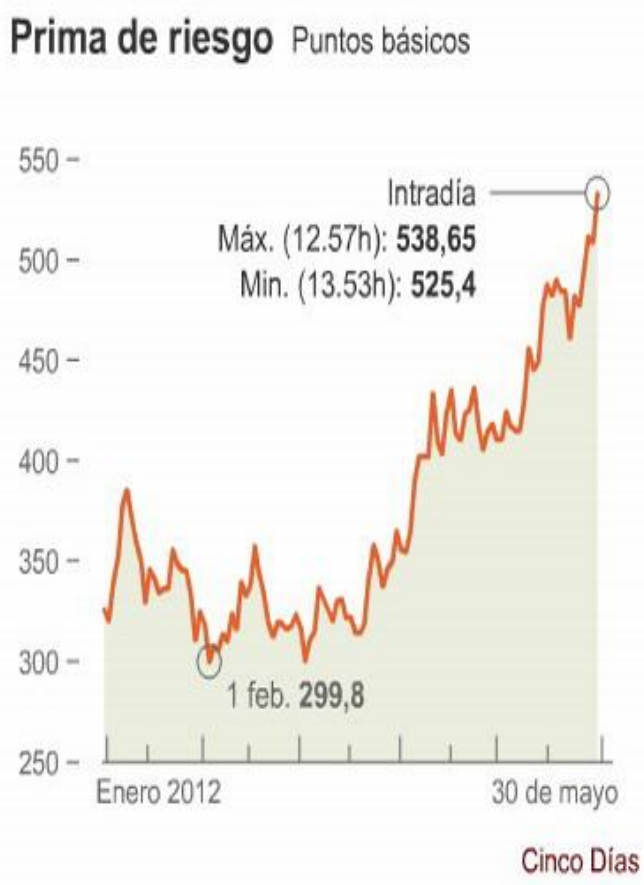

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1. INDICACIONES DE

Indications for surgery in PVE	Timing*	Class[a]	Level[b]
A - HEART FAILURE			
PVE with severe prosthetic dysfunction (dehiscence or obstruction) causing refractory pulmonary oedema or cardiogenic shock	Emergency	I	B
PVE with fistula into a cardiac chamber or pericardium causing refractory pulmonary oedema or shock	Emergency	I	B
PVE with severe prosthetic dysfunction and persisting heart failure	Urgent	I	B
Severe prosthetic dehiscence without HF	Elective	I	B
B - UNCONTROLLED INFECTION			
Locally uncontrolled infection (abscess, false aneurysm, fistula, enlarging vegetation)	Urgent	I	B
PVE caused by fungi or multiresistant organisms	Urgent/elective	I	B
PVE with persisting fever and positive blood cultures > 7–10 days	Urgent	I	B
PVE caused by staphylococci or gram negative bacteria (most cases of early PVE)	Urgent/elective	IIa	C
C - PREVENTION OF EMBOLISM			
PVE with recurrent emboli despite appropriate antibiotic treatment	Urgent	I	B
PVE with large vegetations (> 10 mm) and other predictors of complicated course (heart failure, persistent infection, abscess)	Urgent	I	C
PVE with isolated very large vegetations (> 15 mm)	Urgent	IIb	C

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2. CRITERIOS DE OPERABILIDAD

EDAD

No contraindica.

Edad biológica.

Esperanza de vida.

Reserva funcional.

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2. CRITERIOS DE OPERABILIDAD

EUROSCORE

Hepatopatía
Fragilidad
Inmunosupresión
Nº de reintervenciones
Calcificación de tejidos
Complicaciones infecciosas
Microorganismo

Preoperative risk stratification in infective endocarditis.
Does the EuroSCORE model work? Preliminary results☆,☆☆

Carlos A. Mestres*, Miguel A. Castro, Eduardo Bernabeu, Miguel Josa, Ramón Cartañá, José L. Pomar, José M. Miró, Jaime Mulet and the Hospital Clínico Endocarditis Study Group

Eur J Cardiothorac Surg 2007

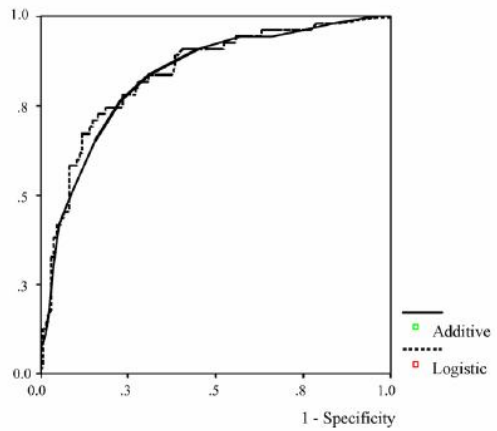

Fig. 1. ROC curves for the additive (area = 0.83) and logistic (area = 0.84) model.

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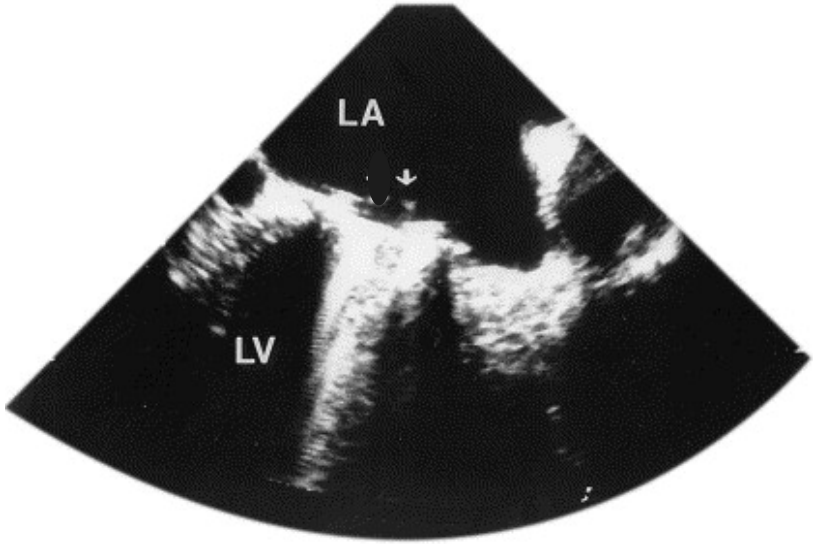
¿Qué hacemos con los pacientes que no están en entre estos supuestos?



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Guidelines on the prevention, diagnosis, and treatment of infective endocarditis (new version 2009)

In summary, PVE represents 20% of all cases of IE with increasing incidence. Diagnosis is more difficult than in NVE. Complicated PVE, staphylococcal PVE, and early PVE are associated with worse prognosis, if treated without surgery, and must be managed aggressively. Patients with non-complicated, non-staphylococcal late PVE can be [redacted] with close follow-up.

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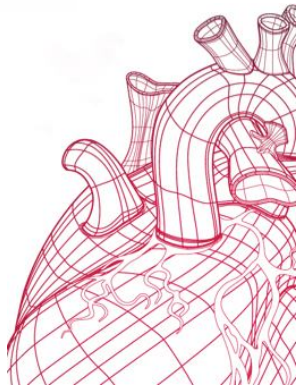

4.6.2. Surgery for Prosthetic Valve Endocarditis

Class I

1. Consultation with a [redacted] is indicated for patients with infective endocarditis of a prosthetic valve. *(Level of Evidence: C)*
2. Surgery is indicated for patients with infective endocarditis of a prosthetic valve who present with heart [redacted] *(Level of Evidence: B)*
3. Surgery is indicated for patients with infective endocarditis of a prosthetic valve who present with [redacted] evidenced by cine fluoroscopy or echocardiography. *(Level of Evidence: B)*
4. Surgery is indicated for patients with infective endocarditis of a prosthetic valve who present with evidence of [redacted] or worsening regurgitation. *(Level of Evidence: C)*
5. Surgery is indicated for patients with infective endocarditis of a prosthetic valve who present with complications (e.g., [redacted]ion). *(Level of Evidence: C)*

Class IIa

1. Surgery is reasonable for patients with infective endocarditis of a prosthetic valve who present with evidence of [redacted] or recurrent emboli despite appropriate antibiotic treatment. *(Level of Evidence: C)*
2. Surgery is reasonable for patients with infective endocarditis of a prosthetic valve who present with [redacted]. *(Level of Evidence: C)*

Class III

[redacted]

Do all patients with prosthetic valve endocarditis need surgery?

Saina Attaran*, Andrew Chukwuemeka, Prakash P. Punjabi and Jon Anderson

Interactive CardioVascular and Thoracic Surgery Advance Access published August 24, 2012

Interactive Cardiovascular and Thoracic Surgery 0 (2012) 1–5
doi:10.1093/icvts/ivs372

BEST EVIDENCE TOPIC

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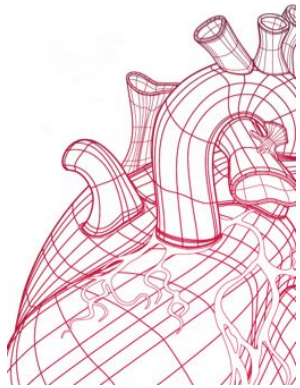

CLINICAL BOTTOM LINE

Unless a patient is not a surgical candidate, in PVE, [redacted] This is particularly the case in patients who develop complications as a result of PVE. These complications include heart failure, valvular dysfunction, valvular regurgitation or obstruction, valve dehiscence and annular abscess. In these patients, early surgery also improves the outcome and increases the survival.

Infection with [redacted] should be considered an indication for surgery in PVE even without cardiac or valvular complications. These patients should undergo surgery as soon as possible before cerebral complications develop. In patients with other micro-organisms, especially where the organism is sensitive to the particular antibiotic treatment regime and no structural damage or cardiac complications have occurred, surgery can be [redacted] o[redacted] if there is response to the treatment. This option should be considered for selected patients only and cardiac surgeons should be involved from the early stages of the diagnosis.

Interactive Cardiovascular and Thoracic Surgery 0 (2012) 1–5

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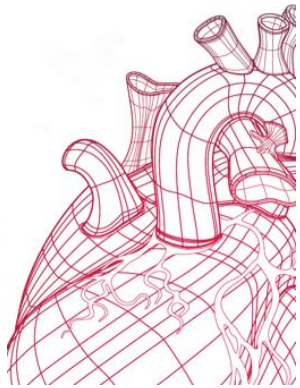
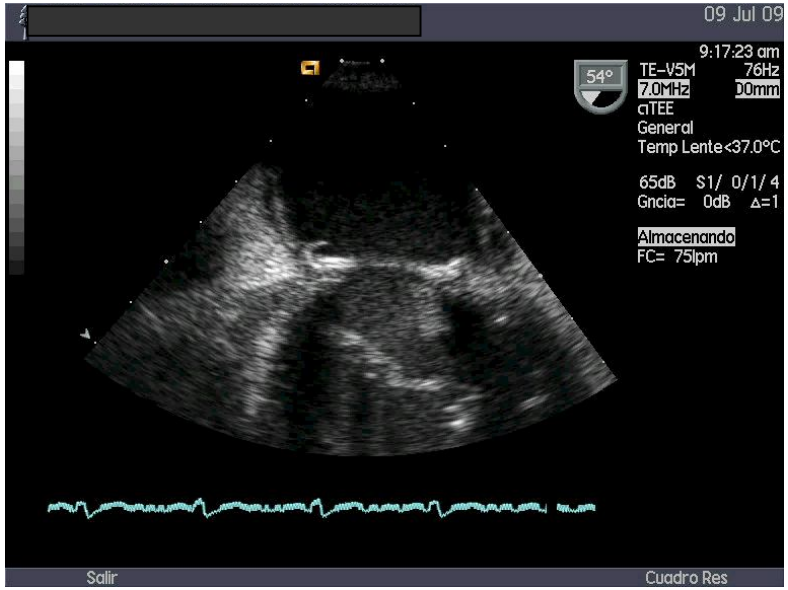
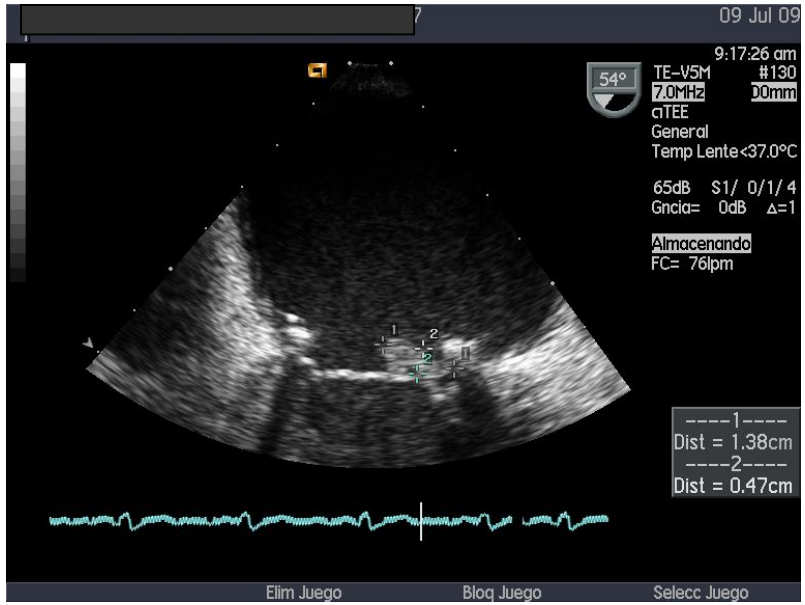
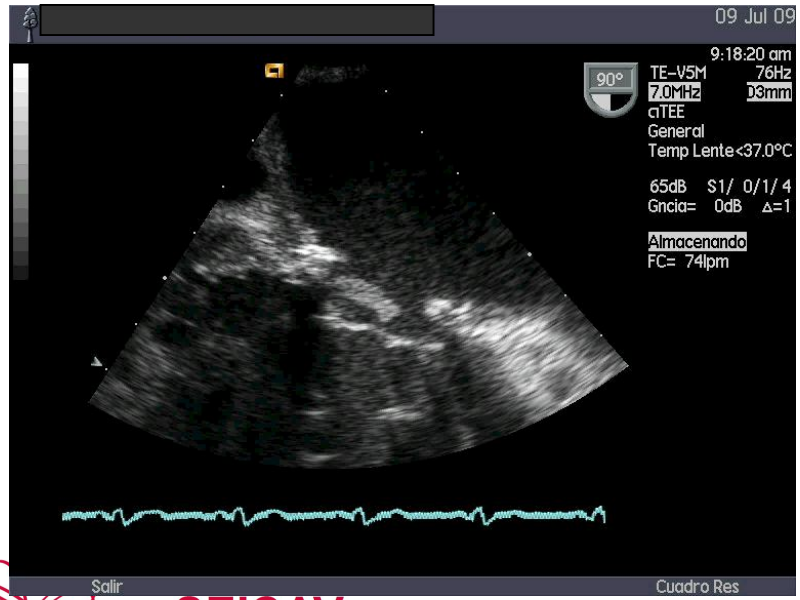








Varón 56 a. Cirrosis etílica. IRC en HD. Sin techo. Endocarditis x Neumococo: SVAo + PM

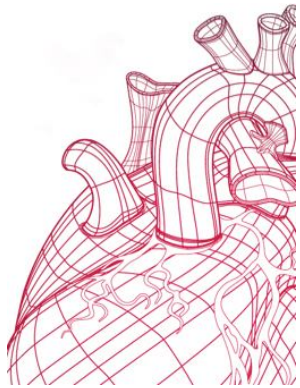
1 mes postoperatorio:

Tipo de Muestra: **SANGRE**

--- HEMOCULTIVOS ---

RESULTADO

Microorganismo: Enterococcus faecalis



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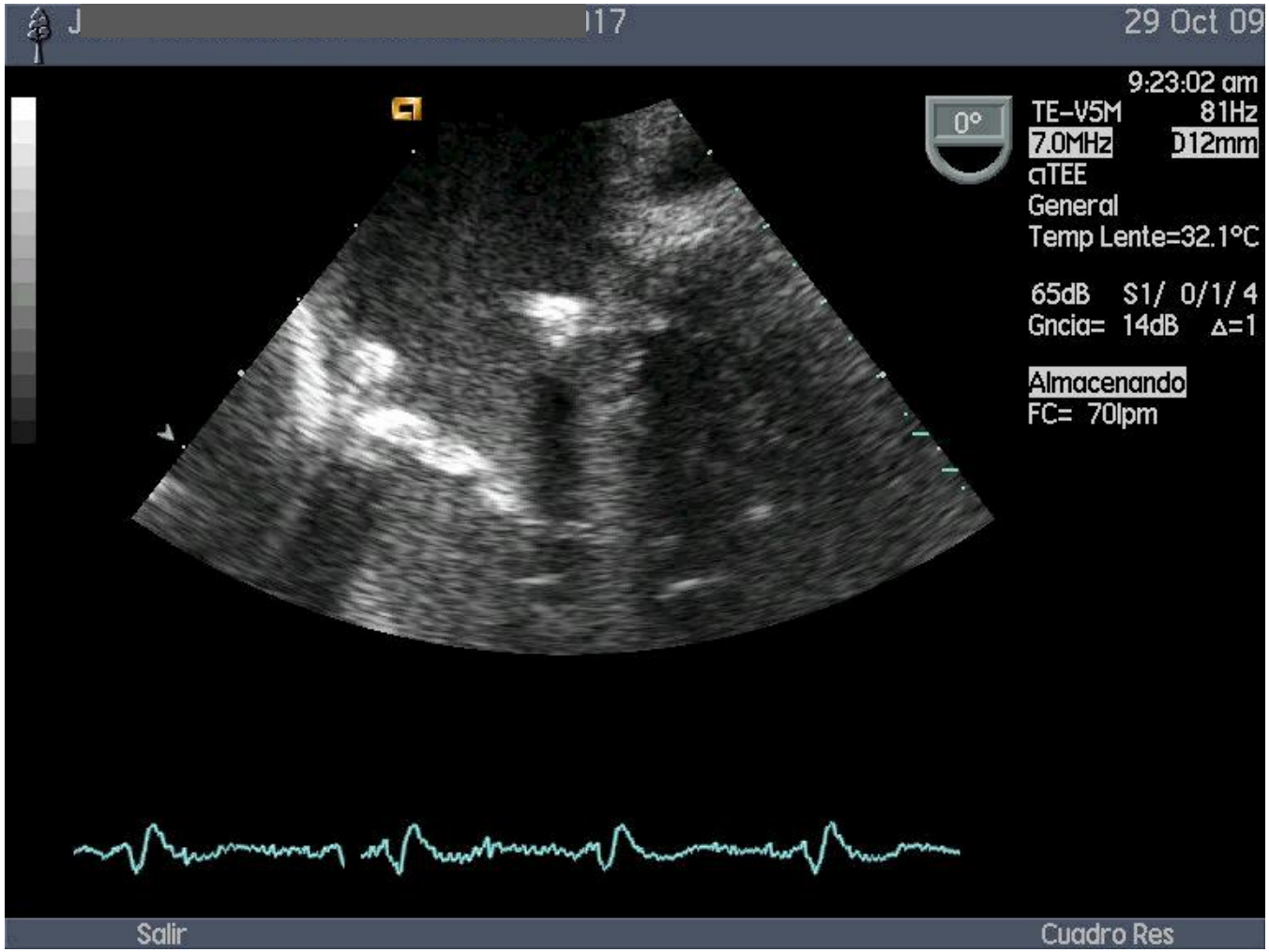

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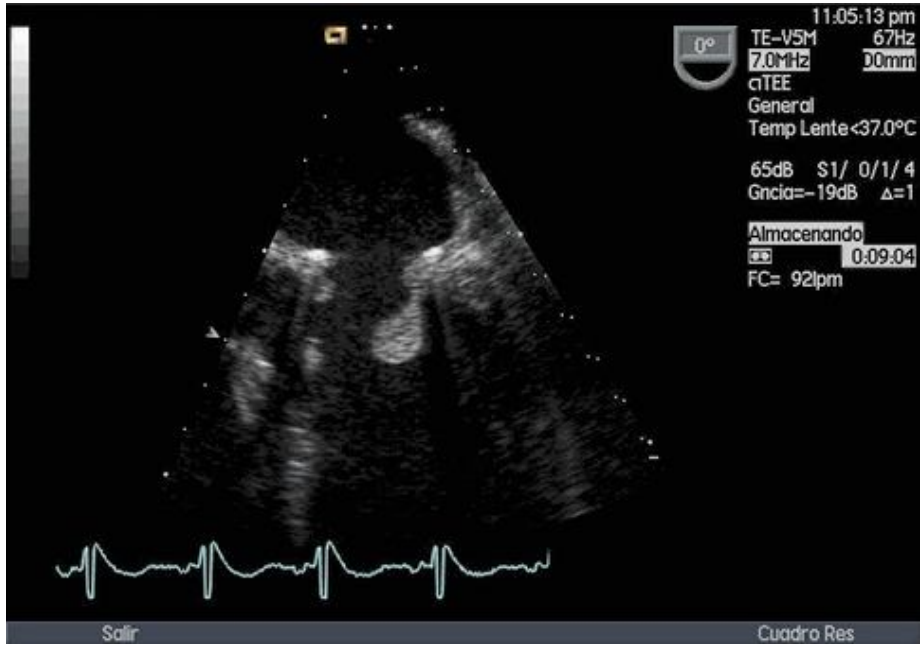

Varón de 48 a.
Plastia mitral P2 y anuloplastia.
1 mes postoperatorio:
febrícula

Ingreso
Triple antibioterapia +
anticoagulación IV

Tipo de Muestra: **SANGRE**

--- HEMOCULTIVOS ---

RESULTADO Estéril a los 5 días de incubación

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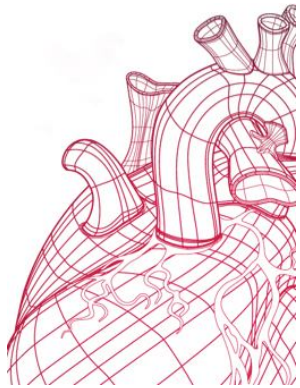

- INDICACION ⇨ OPERABILIDAD ⇨ INTERVENCION

- RETRASO DE LA INTERVENCIÓN

– **A.C.V.A.**

Isquémico: 2 semanas

Hemorrágico: 4 semanas

– **E.A.P.**

European Heart Journal (2009) **30**, 2369–2413

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What is the optimal timing for surgery in infective endocarditis with cerebrovascular complications?

Michele Rossi*, Alina Gallo, Ravi Joseph De Silva and Rana Sayeed

Interactive CardioVascular and Thoracic Surgery 14 (2012) 72–80

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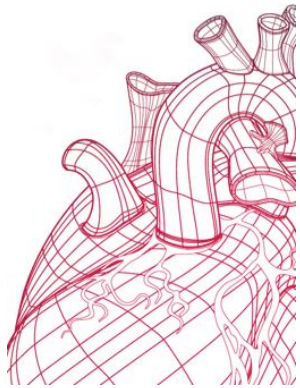

CLINICAL BOTTOM LINE

Evidence regarding the optimal time interval between CVC and cardiac surgery is [redacted] because of lack of controlled studies. The optimal timing for the operation [redacted] on the type of neurological complication and the urgency of the valve replacement. The new 2009 Guidelines on the Prevention, diagnosis, and treatment of infective endocarditis (IE) recommend a [redacted] approach and to wait for [redacted] of antibiotics treatment before performing cardiac surgery. However, early surgery is indicated in: [redacted] (class 1 B), uncontrolled [redacted] (class 1 B) and prevention of [redacted] events (class 1B/C). After a stroke, surgery should not be delayed as long as coma is absent and cerebral haemorrhage has been excluded by cranial CT (class IIa level B). After a [redacted] embolism, surgery is recommended without delay (class 1 level B); in [redacted] surgery must be postponed for at least 1 month (class 1 level C). Every patient should have a repeated head CT scan immediately before the operation. The presence of a haematoma warrants neurosurgical consultation and consideration of cerebral angiography.

Interactive CardioVascular and Thoracic Surgery 14 (2012) 72–80

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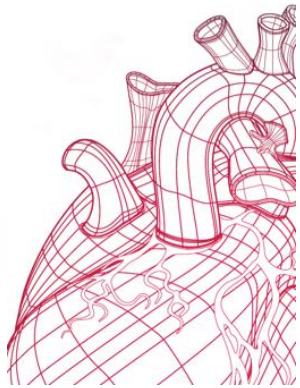

¡INTERVENCION!

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TECNICA QUIRURGICA

SISTEMATICA:

- ETE introperatorio
- Mínima manipulación cardiaca
- Inspección minuciosa
- Resección radical
- Cambio de material quirúrgico
- Evaluación resultado

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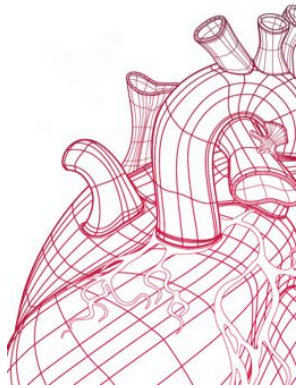
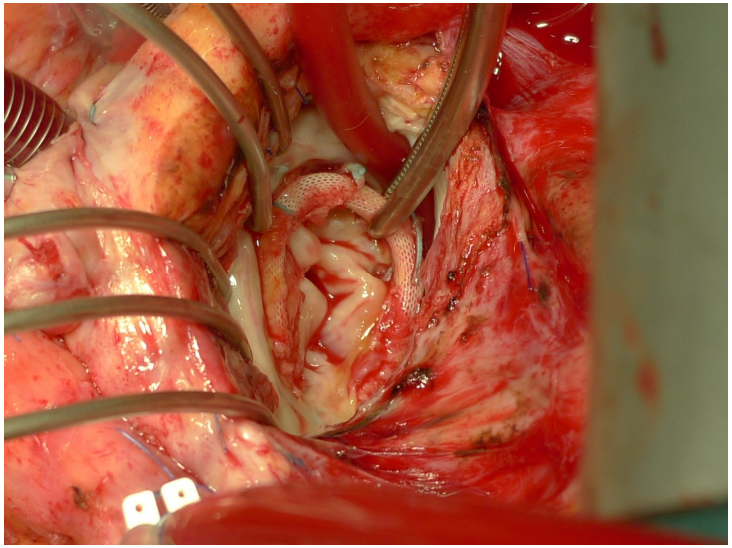
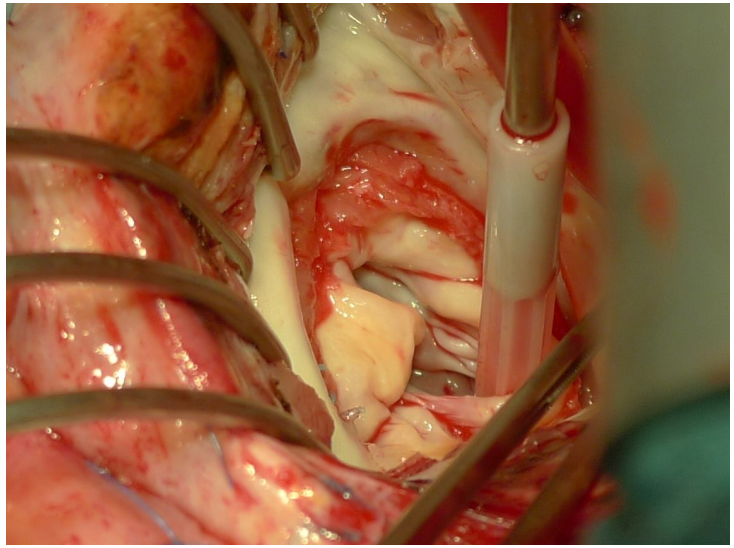
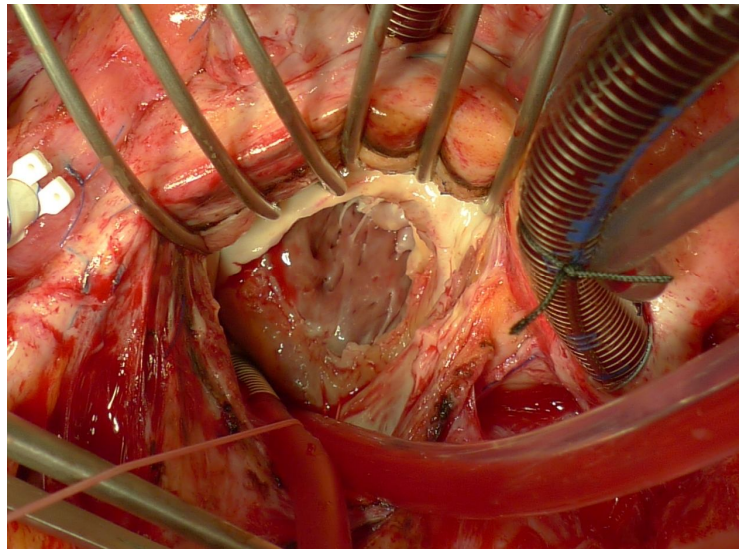






Endocarditis
sobre anillo mitral
en ADVP



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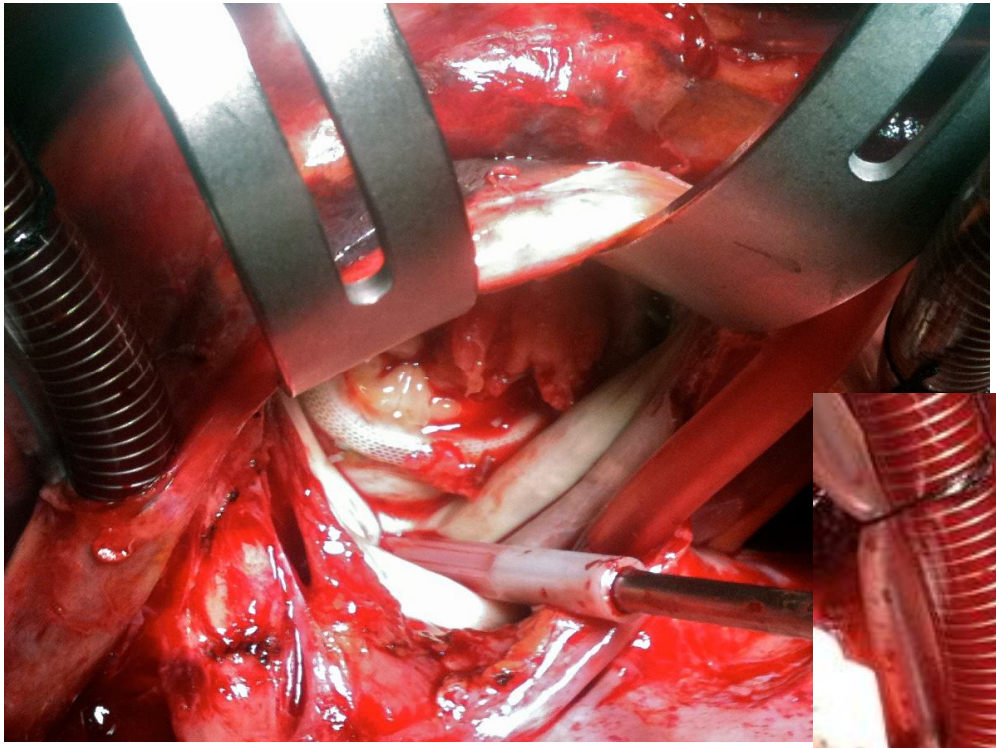

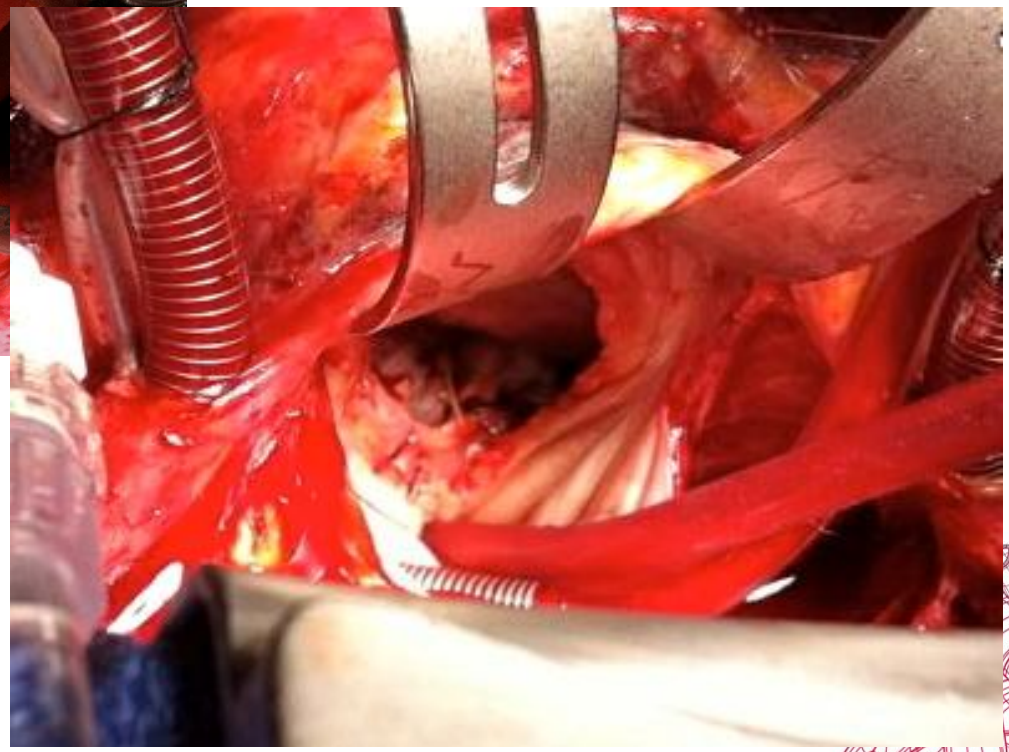

Endocarditis precoz sobre anillo mitral

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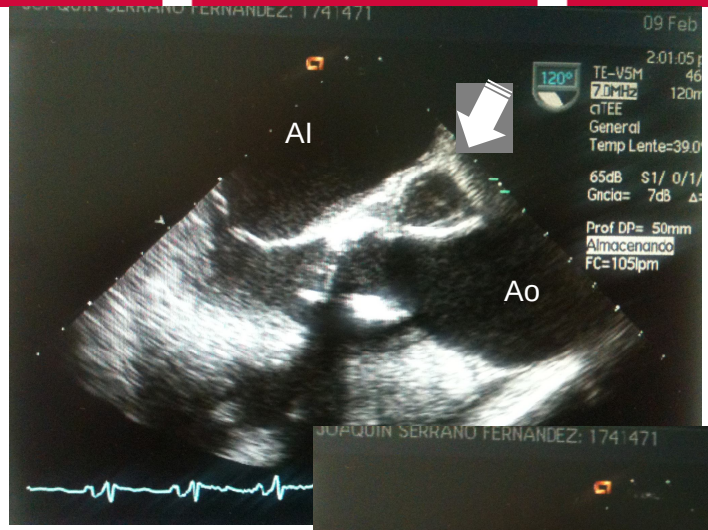

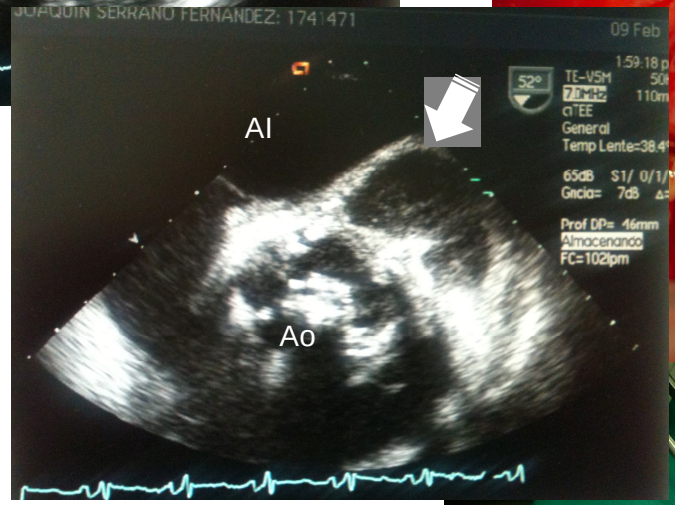

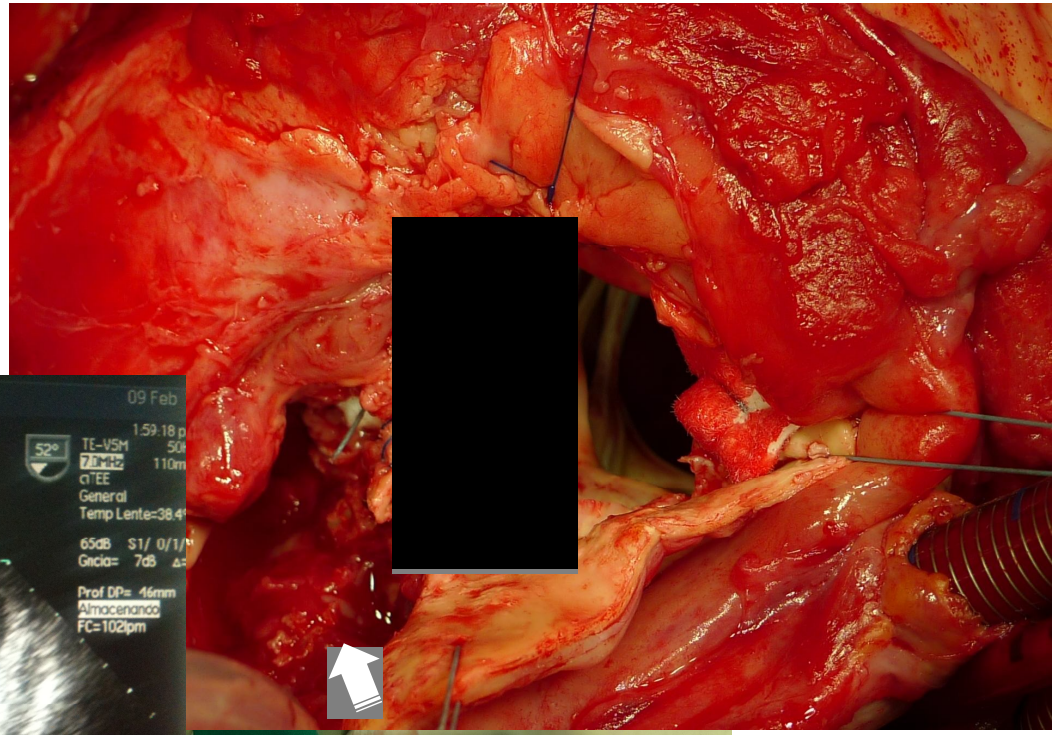

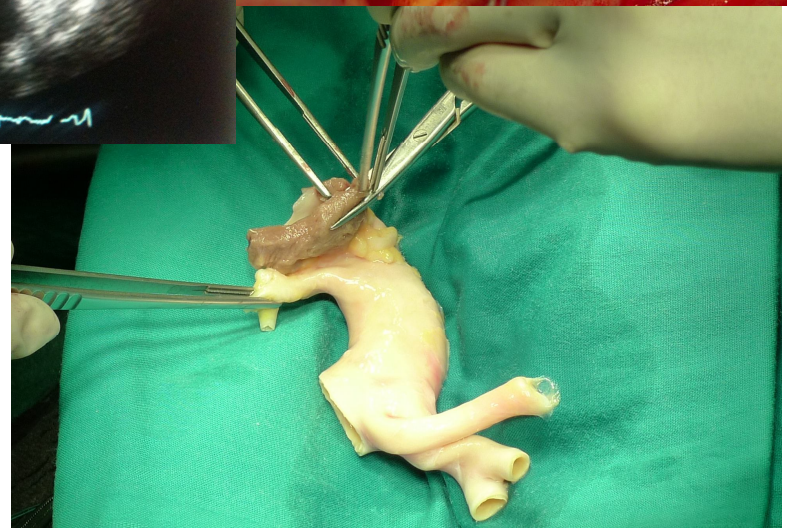

Absceso paraaórtico.

Reconstrucción anillo aórtico con paricardio. Implante de hominjerto

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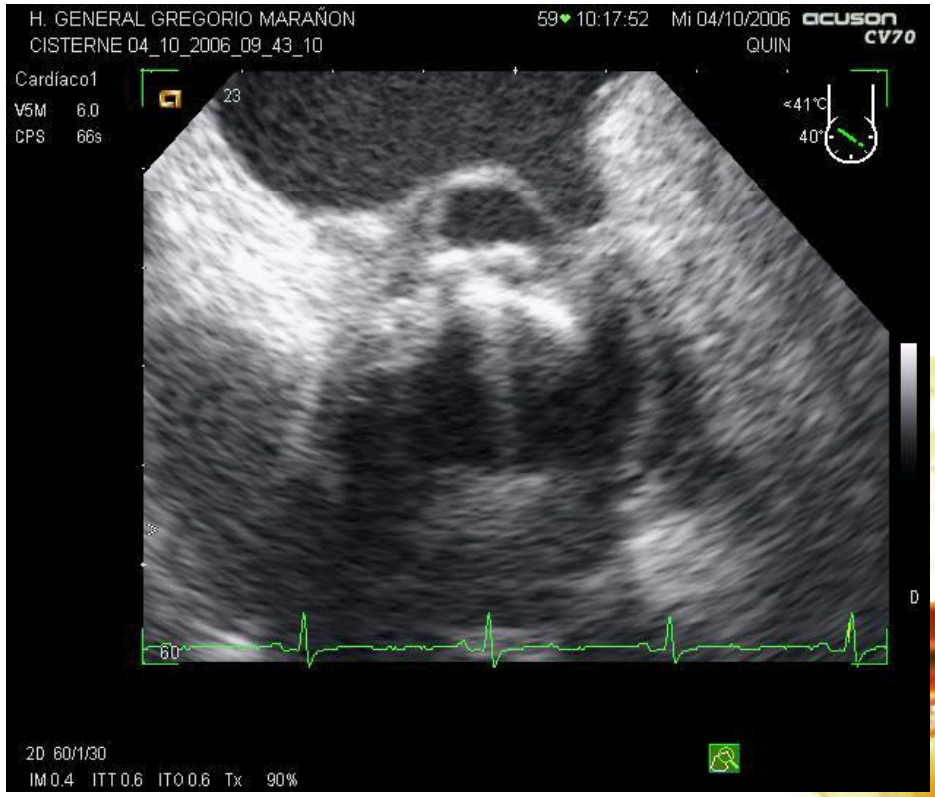

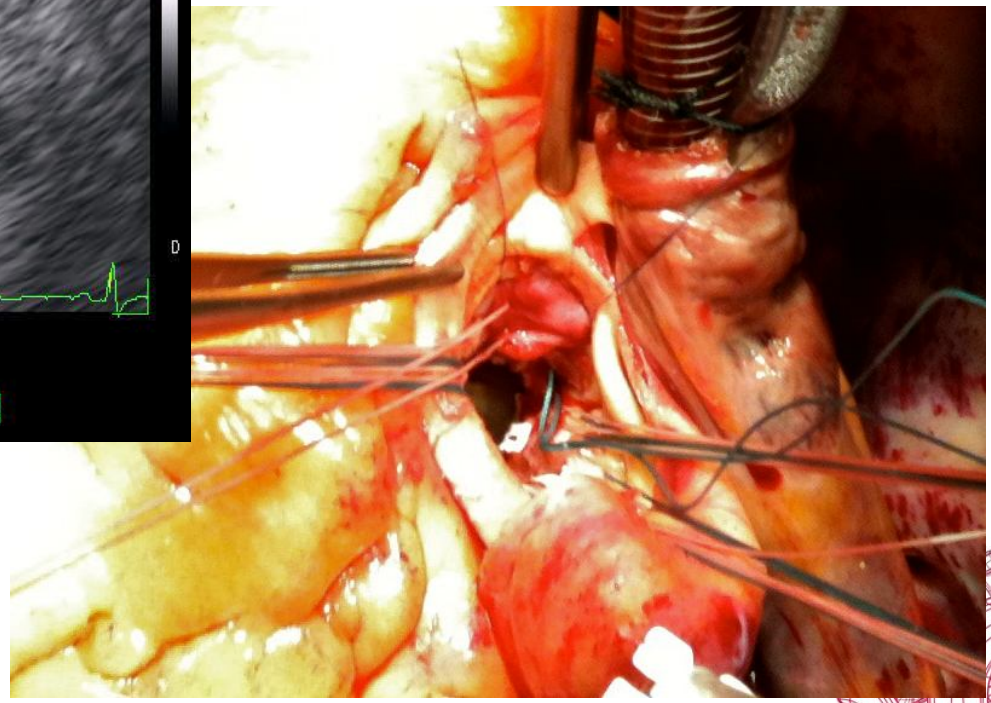

Pseudoaneurisma aórtico.
Reconstrucción con pericardio.

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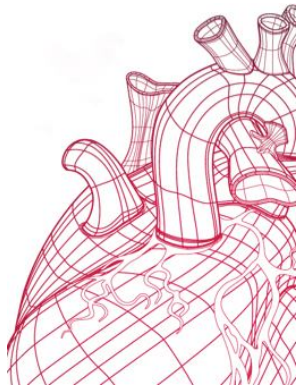
SUMARIO

Enfoque quirúrgico agresivo.

Tratamiento ATB también cura.

Importancia de la comisión de expertos.

La intervención no es gratis.



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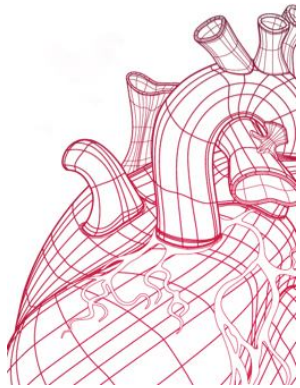
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