HOSPITAL UNIVERSITARIO CENTRAL de ASTURIAS

“Nuevos abordajes quirúrgicos de la Endocarditis Infecciosa”

VII CONGRESO SEICAV
Sociedad Española de Infecciones Cardiovasculares
SEVILLA · 16 Y 17 DE NOVIEMBRE DE 2018

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CONFLICTO DE INTERESES

- ASESOR GRUPO PALEX IBÉRICA.
- Proctor para Heart Mate III ABBOTT.

ESQUEMA

- ANTECEDENTES.
- GUIAS ESC/EACTS.
- ¿QUE HAY DE NUEVO EN EL TRATAMIENTO QUIRÚRGICO DE LA ENDOCARDITIS?
- CASO PRÁCTICO

ESQUEMA

- ANTECEDENTES.
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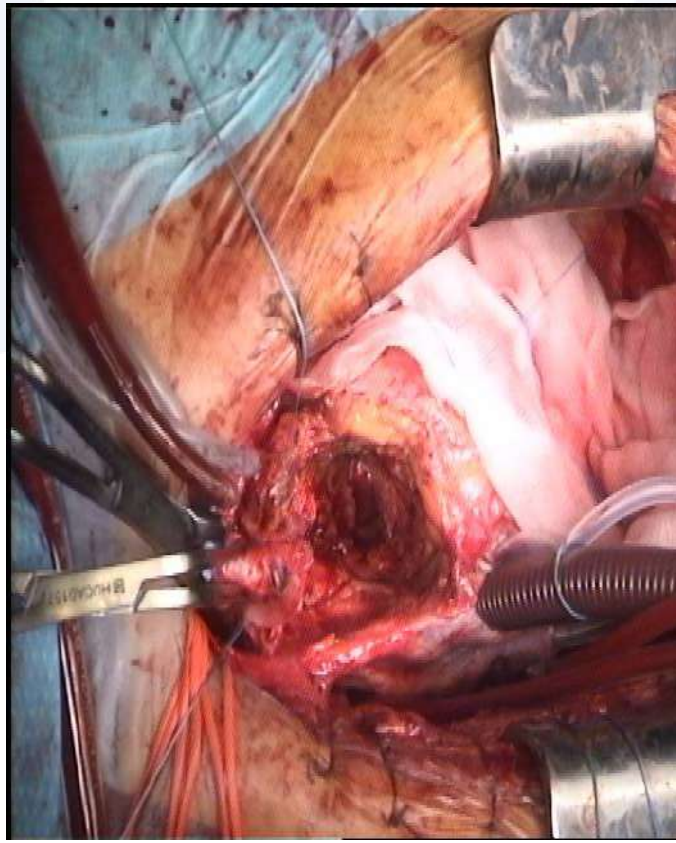
- CASO PRATICO

ANTECEDENTES

- 50% Endocarditis.

- Persisten los mismos principios quirúrgicos:
  - Resección total del tejido infectado.
  - Recambio de todo el material protésico.
  - ETE intraoperatorio.

- Mortalidad Elevada.(15-20%).



TÉCNICAS QUIRÚRGICAS

- Cirugía conservadora:
  - Verruguectomia
  - Plastia mitral
- Sustitución valvular por prótesis:
  - Mecánica Vs Biológica
- Cirugía reconstructiva:
  - Reconstrucción de anillos mitral y aórtico
  - Reconstrucción de continuidad mitroaórtica
  - Sustitución de raíz aórtica:
    - Homoinjertos
    - Tubo valvulado

ESQUEMA

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2015 ESC Guidelines for the management of infective endocarditis

The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC)

Endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM)

Las guías de la Sociedad Europea de Cardiología (ESC) están respaldadas por la Sociedad Española de Cardiología (SEC) y se traducen al castellano para su publicación en REVISTA ESPAÑOLA DE CARDIOLOGIA

Escasa Evidencia tipo A

Una única recomendación con Nivel de Evidencia A.

48 con Nivel B(la mitad de ellas referentes al tto. antibiótico).

50 con nivel C.(la mitad referentes al tto. antibiótico).

Substituyen a las del 2006

- Límite a la profilaxis a pacientes de alto riesgo en situaciones de alto riesgo han aparecido varios registros amplios con conclusiones diferentes.
- Se comenta por primera vez la necesidad de que una unidad especializada formada por expertos de diferentes especialidades .
- Se ha publicado por primera vez un estudio aleatorizado en el que se compara el tratamiento médico con el quirúrgico PRECOZ.
- Importante avance en el papel de técnicas de imagen.
- Cambios sustanciales en el tratamiento antibiótico propuesto, fundamentalmente dirigidos a evitar la toxicidad.

Tratamiento Quirúrgico

Unificación Endocarditis protésica y nativa.

Uso de Escalas alternativas al EuroSCORE II.

Las indicaciones se resumen en una sola tabla(nativas y protésicas) y son de tres tipos:

- 1) pacientes con insuficiencia cardiaca(60%).
- 2) pacientes en los que el tratamiento antibiótico no logra controlar la infección(40%).
- 3) pacientes que son remitidos a cirugía con el objetivo principal de evitar un episodio de embolia(48%).

Tratamiento Quirúrgico Novedades: Infección no controlada

- Infección no controlada: persistencia de bacteriemia(hemocultivos positivos) 2-3 días tras el tratamiento antibiótico correcto(IIa).(antes fiebre tras 5-7 días).

Tratamiento Quirúrgico Novedades: Prevención Embolias

- Regurgitación valvular severa y **vegetaciones > 10 mm,** son candidatos a cirugía, sobre todo si tienen un riesgo quirúrgico bajo y la posibilidad de reparación valvular es elevada. Esta recomendación es fruto de los resultados del único estudio aleatorizado en pacientes con endocarditis[1]. (IIaB).

- Otra situación en la que se puede considerar la cirugía es aquellos casos con **vegetaciones >3cm,** pues un estudio multicéntrico español ha documentado que la incidencia de complicaciones neurológicas en estos casos es muy alta [2] . (IIaB).

[1]**Duk-Hyun et al (NEJM 2012, 366, 26:2466-2477) .**
[2]**García-Cabrera et al - (*Circulation*. 2013;127:2272-2284.)**

Epidemiology and Prevention

Neurological Complications of Infective Endocarditis

Risk Factors, Outcome, and Impact of Cardiac Surgery: A Multicenter Observational Study

Emilio García-Cabrera, MSc; Nuria Fernández-Hidalgo, MD; Benito Almirante, MD, PhD; Radka Ivanova-Georgieva, MD, PhD; Mariam Noureddine, MD; Antonio Plata, MD; Jose M. Lomas, MD; Juan Gálvez-Acebal, MD, PhD; Carmen Hidalgo-Tenorio, MD, PhD; Josefa Ruíz-Morales, MD; Francisco J. Martínez-Marcos, MD, PhD; Jose M. Reguera, MD; Javier de la Torre-Lima, MD, PhD; Arístides de Alarcón González, MD, PhD; on behalf of the Group for the Study of Cardiovascular Infections of the Andalusian Society of Infectious Diseases (SAEI) and the Spanish Network for Research in Infectious Diseases (REIPI)

García-Cabrera et al - (*Circulation*. 2013;127:2272-2284.)

Background—The purpose of this study was to assess the incidence of neurological complications in patients with infective endocarditis, the risk factors for their development, their influence on the clinical outcome, and the impact of cardiac surgery.

Methods and Results—This was a retrospective analysis of prospectively collected data on a multicenter cohort of 1345 consecutive episodes of left-sided infective endocarditis from 8 centers in Spain. Cox regression models were developed to analyze variables predictive of neurological complications and associated mortality. Three hundred forty patients (25%) experienced such complications: 192 patients (14%) had ischemic events, 86 (6%) had encephalopathy/meningitis, 60 (4%) had hemorrhages, and 2 (1%) had brain abscesses. Independent risk factors associated with all neurological complications were vegetation size ≥3 cm (hazard ratio [HR] 1.91), *Staphylococcus aureus* as a cause (HR 2.47), mitral valve involvement (HR 1.29), and anticoagulant therapy (HR 1.31). This last variable was particularly related to a greater incidence of hemorrhagic events (HR 2.71). Overall mortality was 30%, and neurological complications had a negative impact on outcome (45% of deaths versus 24% in patients without these complications; $P<0.01$), although only moderate to severe ischemic stroke (HR 1.63) and brain hemorrhage (HR 1.73) were significantly associated with a poorer prognosis. Antimicrobial treatment reduced (by 33% to 75%) the risk of neurological complications. In patients with hemorrhage, mortality was higher when surgery was performed within 4 weeks of the hemorrhagic event (75% versus 40% in later surgery).

Conclusions—Moderate to severe ischemic stroke and brain hemorrhage were found to have a significant negative impact on the outcome of infective endocarditis. Early appropriate antimicrobial treatment is critical, and transitory discontinuation of anticoagulant therapy should be considered. **(*Circulation*. 2013;127:2272-2284.)**

Table 22 **Indications and timing of surgery in left-sided valve infective endocarditis (native valve endocarditis and prosthetic valve endocarditis)**

Indications for surgery	Timing[a]	Class[b]	Level[c]	Ref.[d]
1. Heart failure				
Aortic or mitral NVE or PVE with severe acute regurgitation, obstruction or fistula causing refractory pulmonary oedema or cardiogenic shock	Emergency	I	B	111,115, 213,216
Aortic or mitral NVE or PVE with severe regurgitation or obstruction causing symptoms of HF or echocardiographic signs of poor haemodynamic tolerance	Urgent	I	B	37,115, 209,216, 220,221
2. Uncontrolled infection				
Locally uncontrolled infection (abscess, false aneurysm, fistula, enlarging vegetation)	Urgent	I	B	37,209, 216
Infection caused by fungi or multiresistant organisms	Urgent/ elective	I	C	
Persisting positive blood cultures despite appropriate antibiotic therapy and adequate control of septic metastatic foci	Urgent	IIa	B	123
PVE caused by staphylococci or non-HACEK gram-negative bacteria	Urgent/ elective	IIa	C	
3. Prevention of embolism				
Aortic or mitral NVE or PVE with persistent vegetations >10 mm after one or more embolic episode despite appropriate antibiotic therapy	Urgent	I	B	9,58,72, 113,222
Aortic or mitral NVE with vegetations >10 mm, associated with severe valve stenosis or regurgitation, and low operative risk	Urgent	IIa	B	9
Aortic or mitral NVE or PVE with isolated very large vegetations (>30 mm)	Urgent	IIa	B	113
Aortic or mitral NVE or PVE with isolated large vegetations (>15 mm) and no other indication for surgery[e]	Urgent	IIb	C	

HACEK = *Haemophilus parainfluenzae*, *Haemophilus aphrophilus*, *Haemophilus paraphrophilus*, *Haemophilus influenzae*, *Actinobacillus actinomycetemcomitans*, *Cardiobacterium hominis*, *Eikenella corrodens*, *Kingella kingae* and *Kingella denitrificans*; HF = heart failure; IE = infective endocarditis; NVE = native valve endocarditis; PVE = prosthetic valve endocarditis.
[a]Emergency surgery: surgery performed within 24 h; urgent surgery: within a few days; elective surgery: after at least 1–2 weeks of antibiotic therapy.
[b]Class of recommendation.

TABLA 1. COMPARACIÓN ENTRE LAS INDICACIONES DE LAS GUÍAS DE LA SOCIEDAD EUROPEA DE CARDIOLOGÍA Y LA ASOCIACIÓN AMERICANA DEL CORAZÓN.

		Shock Cardiogénico. Edema Pulmonar. ICC. (Tipo de Recomendación)	Infección no Controlada. (Tipo de Recomendación)	Prevención de Embolismo. (Tipo de Recomendación)
GUIAS EUROPEAS 2015	Emergente (<24h)	Shock/ Edema Pulmonar (IB)		
	Urgente (<7 días)	ICC/Eco[1] (IB)	- Complicaciones locales(IB) - Hongos /Germ multirresistentes (IC) - Hemocultivos persistentes (IIaB) - Estafilococo o gram negativos no-HACEK (IIaC)	- Vegetación > 10mm y embolismo (IB) - Vegetación >10mm + Disf . valvular y bajo riesgo (IIaB) - Vegetación > 30mm (IIaB) - Vegetación > 15mm (IIbC)
GUÍAS AMERICANAS 2014	Cirugía Precoz (Durante el Ingreso antes completar tratamiento antibiótico	ICC (IB)	- Complicaciones locales (IB) - Infección persistente[2](IB) - Organismos resistentes (Estafilococo / Hongo/ Multirresistente) (IB)	- Embolia recurrente y vegetación (IIaB) - Vegetación móvil(>10mm) a pesa tratamiento antibiótico correcto (IIbB)

Preguntas sin Resolver

Endocarditis protésica precoz sin complicaciones.

Endocarditis por *Stafilococo Aureus*.

Insuficiencia valvular asintomática.

Bloqueo A-V que progresa.

⇒ TRATAMIENTO PRECOZ

ESQUEMA

- ANTECEDENTES.
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- ¿QUE HAY DE NUEVO EN EL TRATAMIENTO QUIRÚRGICO DE LA ENDOCARDITIS?
- CASO PRATICO

E HAY DE NUEVO EN EL TRATATMIENTO QUIRÚRGICO DE LA ENDOCARDITIS?

HOSPITAL UNIVERSITA CENTRAL de ASTURIAS

- Grupo Multidisciplinar. “Endocarditis Team”.
- Herramientas Diagnósticas: PET-TAC/TAC.
- Estimación del Riesgo.
- Tratamiento Precoz.
- Prótesis de Despliegue Rápido: “Suturless”

Table 8 Characteristics of the 'Endocarditis Team'

When to refer a patient with IE to an 'Endocarditis Team' in a reference centre

1. Patients with complicated IE (i.e. endocarditis with HF, abscess, or embolic or neurological complication or CHD), should be referred early and managed in a reference centre with immediate surgical facilities.
2. Patients with non-complicated IE can be initially managed in a non-reference centre, but with regular communication with the reference centre, consultations with the multidisciplinary 'Endocarditis Team', and, when needed, with external visit to the reference centre.

Characteristics of the reference centre

1. Immediate access to diagnostic procedures should be possible, including TTE, TOE, multislice CT, MRI, and nuclear imaging.
2. Immediate access to cardiac surgery should be possible during the early stage of the disease, particularly in case of complicated IE (HF, abscess, large vegetation, neurological, and embolic complications).
3. Several specialists should be present on site (the 'Endocarditis Team'), including at least cardiac surgeons, cardiologists, anaesthesiologists, ID specialists, microbiologists and, when available, specialists in valve diseases, CHD, pacemaker extraction, echocardiography and other cardiac imaging techniques, neurologists, and facilities for neurosurgery and interventional neuroradiology .

Role of the 'Endocarditis Team'

1. The 'Endocarditis Team' should have meetings on a regular basis in order to discuss cases, take surgical decisions, and define the type of follow-up.
2. The 'Endocarditis Team' chooses the type, duration, and mode of follow up of antibiotic therapy, according to a standardized protocol, following the current guidelines.
3. The 'Endocarditis Team' should participate in national or international registries, publicly report the mortality and morbidity of their centre, and be involved in a quality improvement programme, as well as in a patient education programme.
4. The follow-up should be organized on an outpatient visit basis at a frequency depending on the patient's clinical status (ideally at 1, 3, 6, and 12 months after hospital discharge, since the majority of events occur during this period[57]).

CHD = Congenital heart disease; CT = computed tomography; HF = heart failure; ID = Infectious disease; IE = infective endocarditis; MRI = magnetic resonance imaging; TOE = transoesophageal echocardiography; TTE = transthoracic echocardiography.

Herramientas Diagnósticas

- Pilares del Diagnóstico: Imagen, Microbiología deben sustentarlos.
- Ecocardiograma Transesofágico técnica de elección.

- Nuevas Técnicas(RMN, TAC, SPECT-TAC):
  - Detección abscesos.
  - Actividad Inflamatoria postcirugía(>3 meses).
  - Detección embolias cerebrales y periféricas.

NUEVOS CRITERIOS DIAGNÓSTICOS-IMAGEN

HOSPITAL UNIVERSITARIO CENTRAL de ASTURIAS

- CRITERIOS MAYORES:
  - Lesiones paravalvulares en CT cardíaco.
  - Leucocitos marcados SPECT/CT o 18F-FDG PECT/CT en prótesis valvulares (>3 meses).
- CRITERIOS MENORES:
  - La identificación de embolias-aneurismas.

Table 14 Definitions of the terms used in the European Society of Cardiology 2015 modified criteria for the diagnosis of infective endocarditis

Major criteria
1. Blood cultues positive for IE a. Typical microorganisms consistent with IE from 2 separate blood cultures: • *Viridans streptococci, Streptococcus gallolyticus (Streptococcus bovis), HACEK group, Staphylococcus aureus;* or • Community-acquired enterococci, in the absence of a primary focus; or b. Microorganisms consistent with IE from persistently positive blood cultures: • ≥2 positive blood cultures of blood samples drawn >12 h apart; or • All of 3 or a majority of ≥4 separate cultures of blood (with first and last samples drawn ≥1 h apart); or c. Single positive blood culture for Coxiella burnetii or phase I IgG antibody titre >1:800
2. Imaging positive for IE a. Echocardiogram positive for IE: • Vegetation; • Abscess, pseudoaneurysm, intracardiac fistula; • Valvular perforation or aneurysm; • New partial dehiscence of prosthetic valve. b. Abnormal activity around the site of prosthetic valve implantation detected by ^{18}F-FDG PET/CT (only if the prosthesis was implanted for >3 months) or radiolabelled leukocytes SPECT/CT. c. Definite paravalvular lesions by cardiac CT.
Minor criteria
1. Predisposition such as predisposing heart condition, or injection drug use. 2. Fever defined as temperature >38°C. 3. Vascular phenomena (including those detected by imaging only): major arterial emboli, septic pulmonary infarcts, infectious (mycotic) aneurysm, intracranial haemorrhage, conjunctival haemorrhages, and Janeway's lesions. 4. Immunological phenomena: glomerulonephritis, Osler's nodes, Roth's spots, and rheumatoid factor. 5. Microbiological evidence: positive blood culture but does not meet a major criterion as noted above or serological evidence of active infection with organism consistent with IE.

CT = computed tomography; FDG = fluorodeoxyglucose; HACEK = Haemophilus parainfluenzae, H. aphrophilus, H. paraphrophilus, H. influenzae, Actinobacillus actinomycetemcomitans, Cardiobacterium hominis, Eikenella corrodens, Kingella kingae, and K. denitrificans; IE = infective endocarditis; Ig = immunoglobulin; PET = positron emission tomography; SPECT = single photon emission computerized tomography. Adapted from Li *et al.*[87]

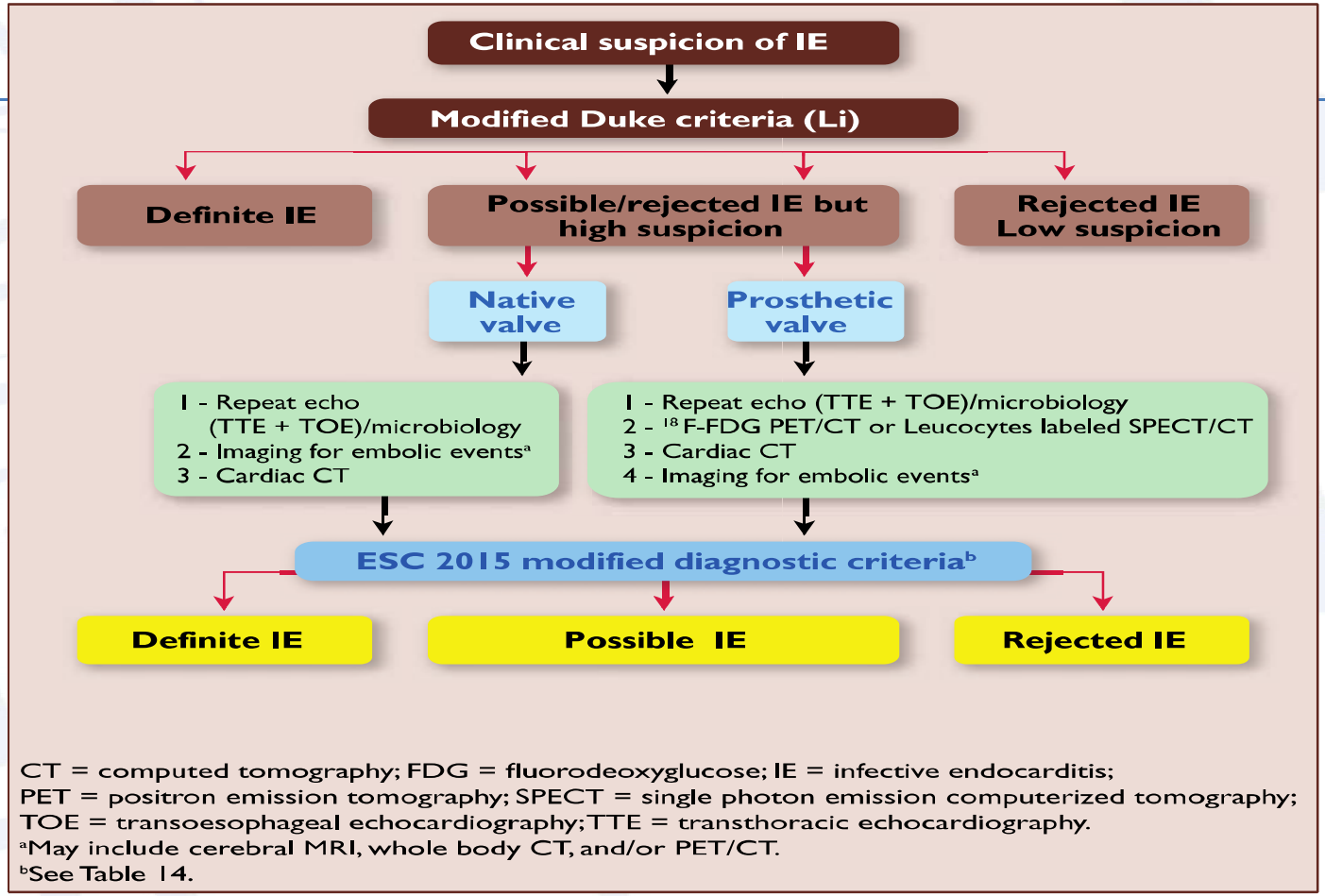

Figure 3 European Society of Cardiology 2015 algorithm for diagnosis of infective endocarditis.

ESTIMACIÓN DEL RIESGO

Risk score for cardiac surgery in active left-sided infective endocarditis

Carmen Olmos,[1] Isidre Vilacosta,[1] Gilbert Habib,[2,3] Luis Maroto,[1] Cristina Fernández,[1] Javier López,[4] Cristina Sarriá,[5] Erwan Salaun,[2,3] Salvatore Di Stefano,[4] Manuel Carnero,[1] Sandrine Hubert,[3] Carlos Ferrera,[1] Gabriela Tirado,[1] Afonso Freitas-Ferraz,[1] Carmen Sáez,[5] Javier Cobiella,[1] Juan Bustamante-Munguira,[5] Cristina Sánchez-Enrique,[1] Pablo Elpidio García-Granja,[4] Cecile Lavoute,[3] Benjamin Obadia,[3] David Vivas,[1] Ángela Gutiérrez,[5] José Alberto San Román[4]

Table 2 Independent preoperative predictors of mortality in infective endocarditis by logistic regression analysis and the deriving scoring system for mortality prediction after cardiac surgery (RISK-E score)

	β coefficients	SE	p Value	Score
Age (years)				
≤51	0			0
61 (14)	0.916	0.370	0.010	9
65 (13)	1.336	0.367	<0.001	13
≥73	1.362	0.363	<0.001	14
Prosthetic endocarditis	0.645	0.239	0.007	6
Virulent microorganism*	0.903	0.392	0.020	9
Septic shock	0.702	0.350	0.041	7
Thrombocytopaenia†	0.655	0.241	0.006	7
Acute renal insufficiency	0.542	0.233	0.022	5
Cardiogenic shock	1.486	0.275	<0.001	15
Periannular complications‡	0.541	0.238	0.020	5
Constant	−3.358			

**Staphylococcus aureus* or fungi.
†Thrombocytopaenia (<1 50 000 platelets/mm^3).
‡Presence of abscess, pseudoaneurysm, fistula or prosthetic dehiscence.

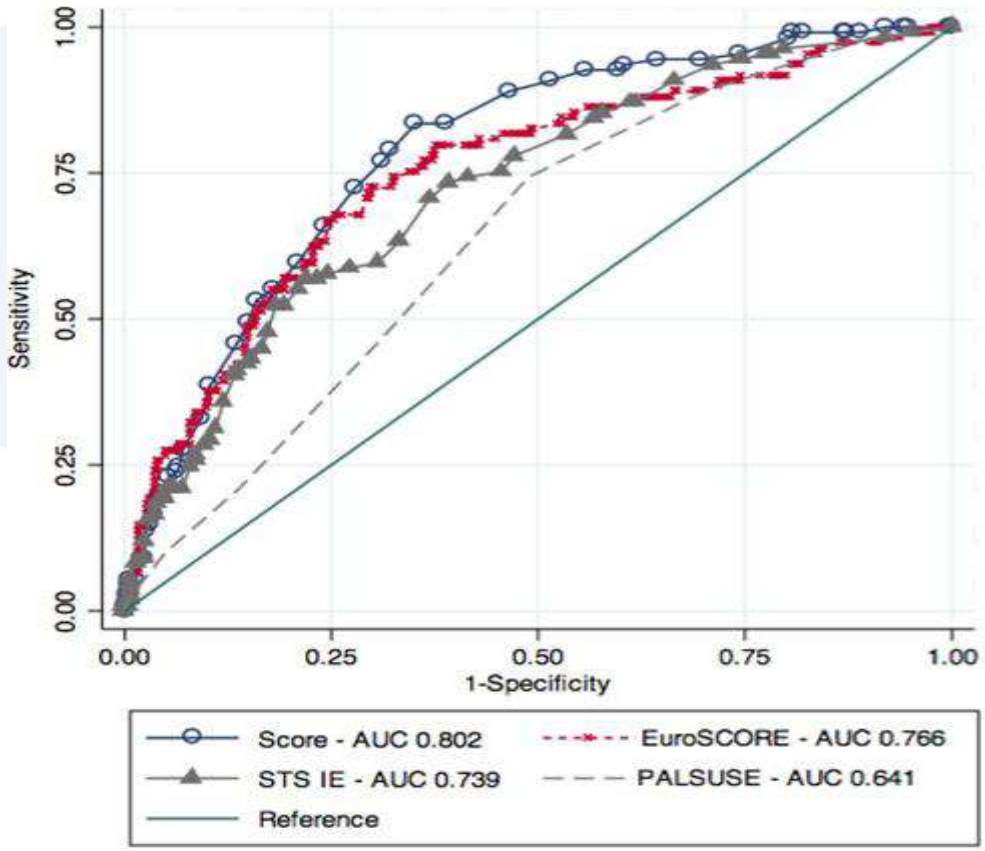

Figure 5 Comparison of the discriminative performance of different surgical risk scores. Analysis of the discriminative power betwee EuroSCORE, STS-IE, PALSUSE score and our score (RISK-E) assessed by comparison of receiver-operator characteristic (ROC) curves in 6 (The discriminative power of logistic EuroSCORE and EuroSCORE II in our cohort was identical. Thus, EuroSCORE II is not represented i avoid confusion). AUC, area under the curve; EuroSCORE, European System for Cardiac Operative Risk Evaluation; PALSUSE, Prosthesis Intracardiac Destruction, *Staphylococcus*, Urgent Surgery, Sex (female); STS-IE, Society of Thoracic Surgeons's Infective Endocarditis Sc

Olmos C, *et al*. *Heart* 2017;**103**:1435–1442.

Cir Cardiov. 2018;**25(6)**:268–273

Original

Valor pronóstico de la trombocitopenia preoperatoria en la cirugía de la endocarditis infecciosa: experiencia de un centro☆

Laura Varela Barca[a,*], Jose López-Menéndez[a], Javier Miguelena Hycka[a], Ana Redondo Palacios[a], Edmundo Ricardo Fajardo Rodríguez[a], Miren Martín García[a], Rafael Muñoz Pérez[a], Tomasa Centella Hernández[b], Enrique Navas Elorza[c], Jose Luis Moya Mur[d] y Jorge Rodríguez-Roda Stuart[a]

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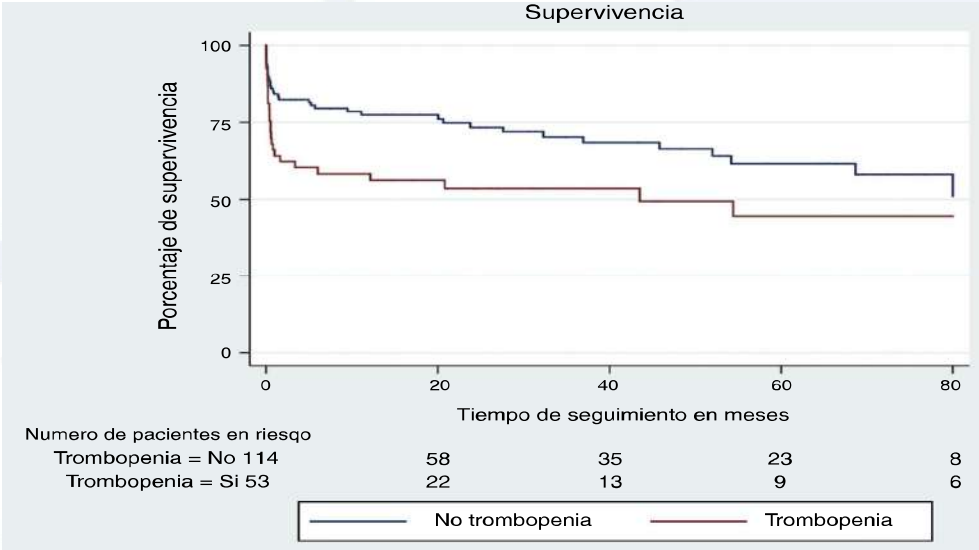


Figura 1. Curva Kaplan-Meier de supervivencia estratificada en función de la presencia de TrP.

Tratamiento Quirúrgico Novedades: Tratamiento Precoz

Management of infective endocarditis: challenges and perspectives

Franck Thuny, Dominique Grisoli, Frederic Collart, Gilbert Habib, Didier Raoult

Despite improvements in medical and surgical therapies, infective endocarditis is associated with poor prognosis and remains a therapeutic challenge. Many factors affect the outcome of this serious disease, including virulence of the microorganism, characteristics of the patients, presence of underlying disease, delays in diagnosis and treatment, surgical indications, and timing of surgery. We review the strengths and limitations of present therapeutic strategies and propose future directions for better management of endocarditis according to the most recent research. Novel perspectives on the managemei residual deaths by accelerating the proc icrobial therapy, rapid transfer of high- surgical methods, and close long-term fo

Lancet 2012; 379: 965–75

Published Online February 7, 2012 DOI:10.1016/S0140-6736(11)60755-1

Département de Cardiologie (F Thuny MD, Prof G Habib MD) **and Département de Chirurgie Cardiaque** (Prof F Collart MD, D Grisoli MD), **Hôpital de La Timone, AP-HM, Aix-Marseille**

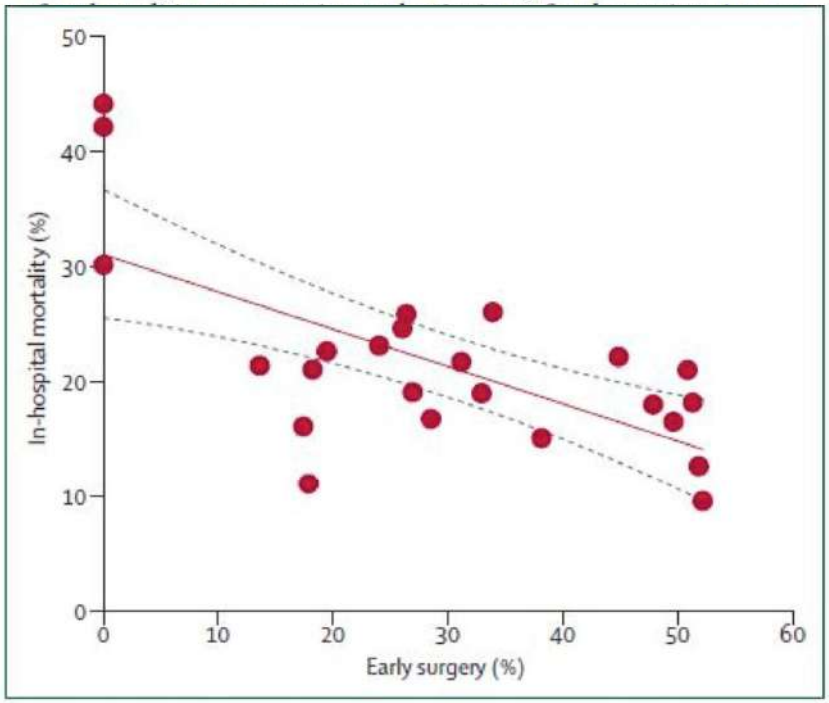


Figure 1: **In-hospital mortality as a function of the rate of early surgery**
This linear regression (R^2=0·45, p=0·0003) was done with the data from the 24 investigations (webappendix). Dotted lines represent the 95% CI. After exclusion of the four studies that differed the most from the line of regression (Anderson al 1948, Morgan et al 1959, Bishara et al 2001, Fefer et al 2002), the correlation remained significant (R^2=0·48, p=0·0008). The references of studies included are presented in the webappendix.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Early Surgery versus Conventional Treatment for Infective Endocarditis

Duk-Hyun Kang, M.D., Ph.D., Yong-Jin Kim, M.D., Ph.D.,
Sung-Han Kim, M.D., Ph.D., Byung Joo Sun, M.D., Dae-Hee Kim M.D., Ph.D.,
Sung-Cheol Yun, Ph.D., Jong-Min Song, M.D., Ph.D.,
Suk Jung Choo, M.D., Ph.D., Cheol-Hyun Chung, M.D., Ph.D.,
Jae-Kwan Song, M.D., Ph.D., Jae-Won Lee, M.D., Ph.D.,
and Dae-Won Sohn, M.D., Ph.D.

NEJM 2012;366:2466-73

- Veg > 10 mm Cirugía 48 h vs Tto. Médico inic

Table 3. Clinical End Points.

Outcome	Conventional Treatment (N = 39)	Early Surgery (N = 37)	P Value
Primary end point — no. (%)			
In-hospital death or embolic event at 6 wk	9 (23)	1 (3)	0.01
In-hospital death	1 (3)	1 (3)	1.00
Embolic event at 6 wk			
Any	8 (21)	0	0.005
Cerebral	5 (13)	0	
Coronary	1 (3)	0	
Popliteal	1 (3)	0	
Splenic	1 (3)	0	
Secondary end points at 6 mo — no. (%)			
Any	11 (28)	1 (3)	0.003
Death	2 (5)	1 (3)	1.00
Embolic event	8 (21)	0	0.005
Recurrence of infective endocarditis	1 (3)	0	1.00

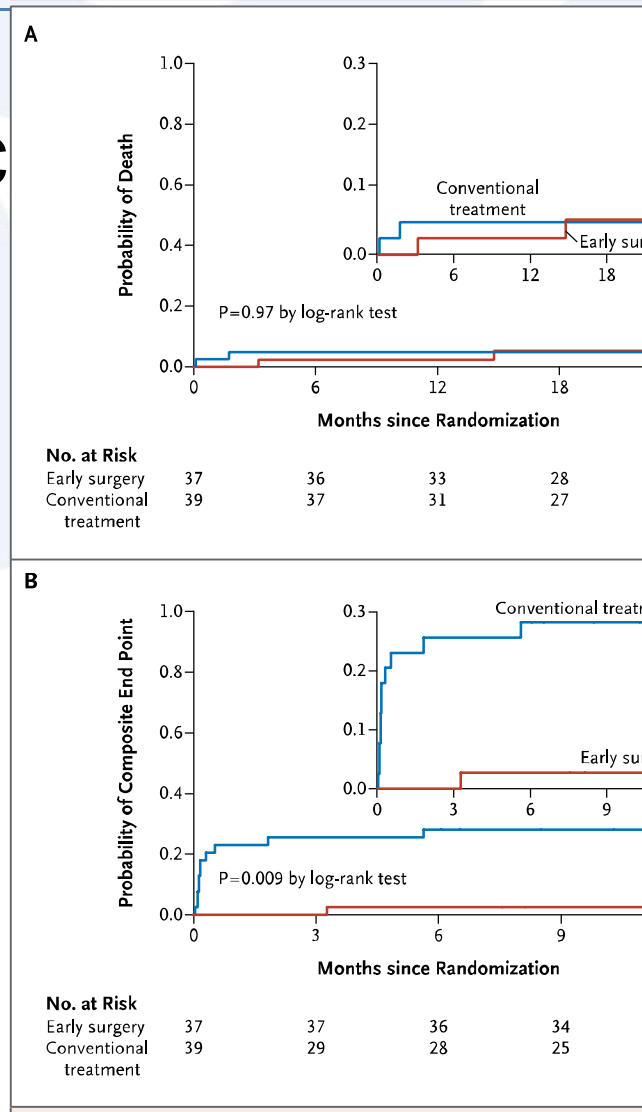


Figure 2. Kaplan–Meier Curves for the Cumulative Probabilities of D and of the Composite End Point at 6 Months, According to Treatmen Group.

PROTESIS RÁPIDO DESPLIEGUE

HOSPITAL UNIVERSITA CENTRAL de ASTURIAS

Use of the Perceval Sutureless Valve in Active Prosthetic Aortic Valve Endocarditis

CrossMark

ena Roselló-Díez, MD, Gregorio Cuerpo, MD, PhD, Francisco Estévez, MD, hristian Muñoz-Guijosa, MD, PhD, Manel Tauron, MD, José J. Cuenca, MD, ngel González-Pinto, MD, PhD, and Josep María Padró, MD, PhD

partment of Cardiac Surgery, Hospital de la Santa Creu i Sant Pau, Barcelona; Department of Cardiac Surgery, Hospital Gregorio rañón, Madrid; Department of Cardiac Surgery, Complejo Hospitalario Universitario A Coruña, Coruña; and Department of Cardiac rgery, Hospital 12 de Octubre, Madrid, Spain

Ann Thorac Surg 2018; 105(4): 1168-74.

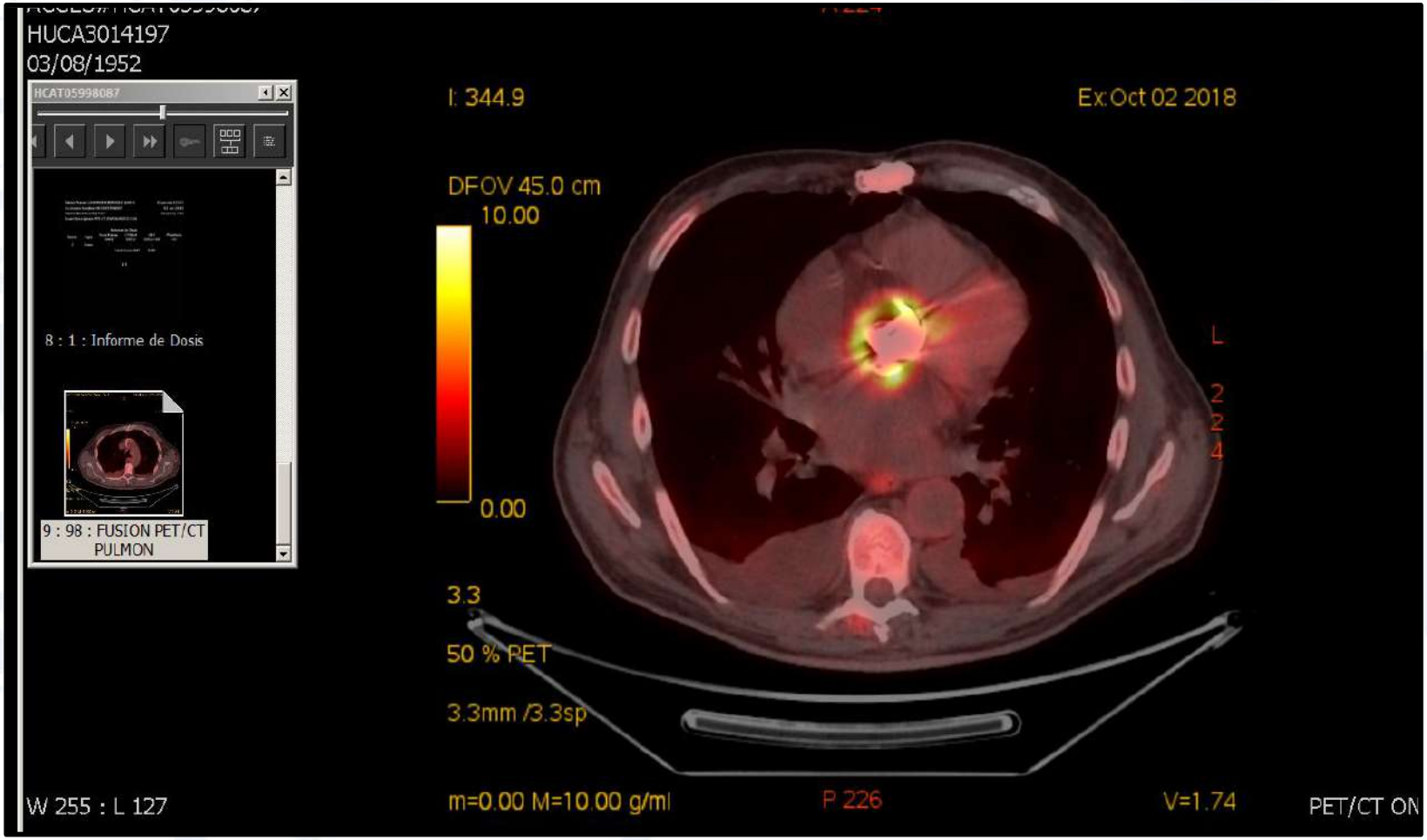
CASO CLÍNICO

- Varón 66 años.
- AP:
  - HTA.DL.HBP.
  - Bentall-Bono por VAB (Diciembre 2014).
- H Actual: Pérdida de Peso(8kg), astenia e hiporexia(Sep 2018).
- 16 Septiembre 2018 acude a urgencias por fiebre y lesiones purpúricas MMII(Vasculitis leucocitoclástica).
- Analítica: Cr 2,84, Leucocitos:$6,88x10^3$ PCR:4,7
- Hemocultivos(x3): *Propionibacterium Acnes Multisensible.*

Evolución

- Serología: ANCA+.
- Biopsia renal: GN proliferativa extracapilar compatible con GN Paucinmune ANCA +. Afectación Túbulo-intersticial.
- ECG. Rs BAV 1º gardo(227ms).
- ETT: prótesis normofuncionante. ETE(27/09/18): no concluyente.
- TAC: normal.
- TTO Antibiótico: Cefotaxima+RMP+Septrim.
- Modificada tras antibiograma: Cefotaxima+Daptomicina.

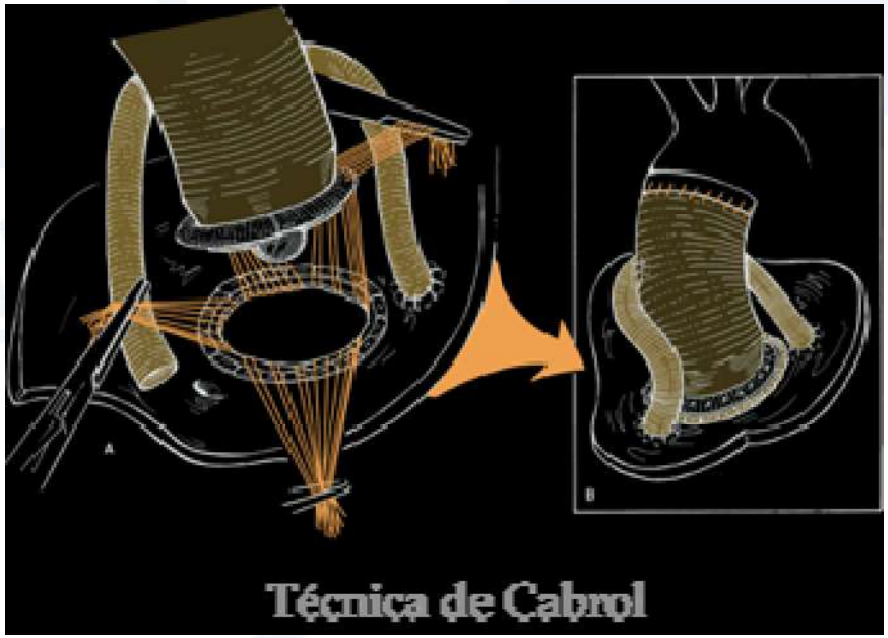
PET/TAC 18F-FDG(2/10/18)



TRATAMIENTO QUIRÚRGICO

RISK-E Score: 29. Mortalidad esperada: 38%. EII:17,5%

Procedimiento Cabrol+ reconstrucción continuidad mitro-aórtica.(DACRON 8 MM. TUBO VALVULADO CARBO-SEAL 25MM)



Evolución

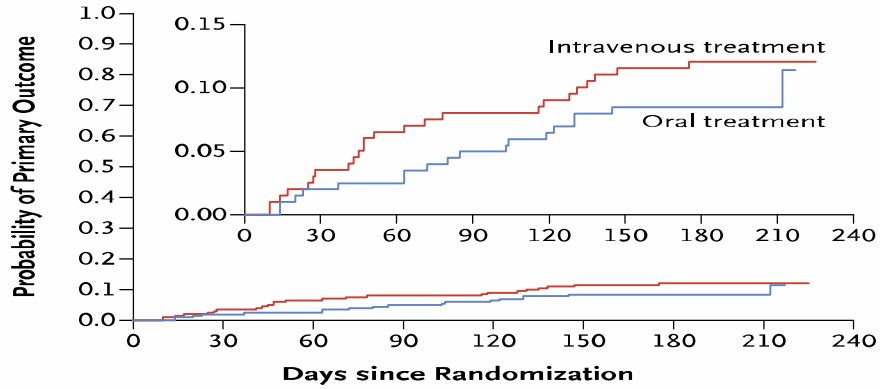
- Alta hospitalaria a los 15 días con Tto. Ambulatorio.
- Bencilpenicilina Na iv/6h. Ultimas dos semanas Linezolid oral.
- Cr 0,89. ANCAS-.

The NEW ENGLAND JOURNAL of MEDICINE

HOSPITAL UNIVERSITARIO CENTRAL de ASTURIAS

ORIGINAL ARTICLE

Partial Oral versus Intravenous Antibiotic Treatment of Endocarditis



No. at Risk									
Intravenous treatment	199	192	186	183	181	176	174	28	0
Oral treatment	201	197	196	191	188	184	183	36	0

Figure 2. Kaplan–Meier Plot of the Probability of the Primary Composite Outcome.

The primary composite outcome was all-cause mortality, unplanned cardiac surgery, embolic events, or relapse of bacteremia with the primary pathogen, from randomization until 6 months after antibiotic treatment was completed. The oral treatment group shifted from intravenously administered antibiotics to orally administered antibiotics at a median of 17 days after the start of treatment. The inset shows the same data on an enlarged y axis.

NEJM 2018, 28:1-10.

Conclusiones

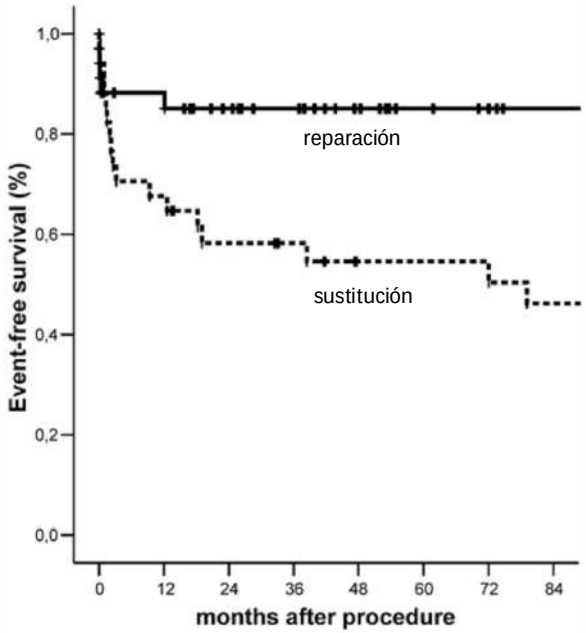
- Pocos cambios en las técnicas qx.
- Se comenta por primera vez la necesidad de que una unidad especializada formada por expertos de diferentes especialidades .
- Se ha publicado por primera vez un estudio aleatorizado en el que se compara el tratamiento médico con el quirúrgico.
- Importante avance en el papel de técnicas de imagen.
- Nuevas Escalas de Riesgo.

HOSPITAL UNIVERSITARIO CENTRAL de ASTURIAS

MUCHAS GRACIAS

TÉCNICAS CONSERVADORAS

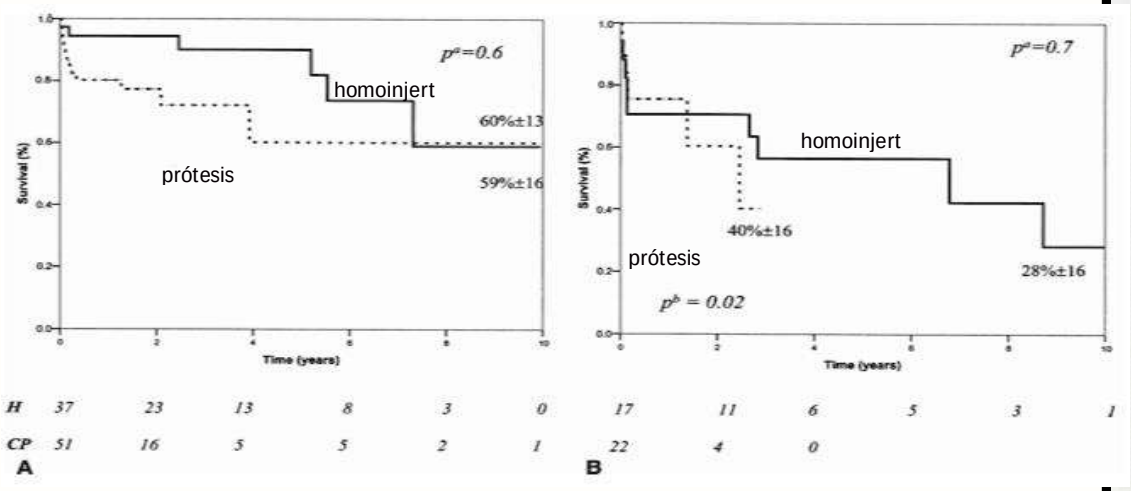
Supervivencia libre de muerte, reoperación y recurrencia de endocarditis



EI activa

Ruttmann E et al. Mitral valve repair provides improved outcome over replacement in active infective endocarditis. J Thorac Cardiovasc Surg 2005;130:765-771

Supervivencia libre de recurrencia de EI, disfunción protésica o muerte cardiaca tardía



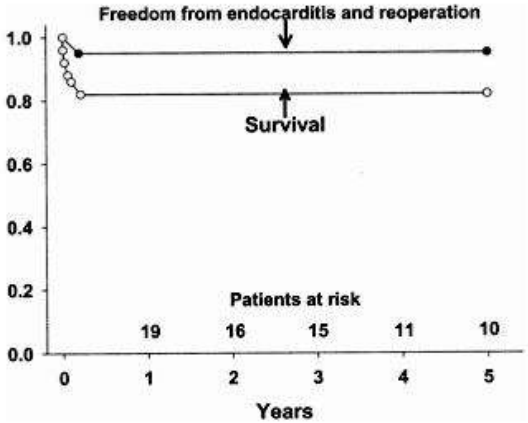
EI nativa

EI protésica

Conclusions. Implantation of conventional prostheses during the active phase of aortic endocarditis yields similar low operative mortality and long-term prognosis as compared with aortic homografts, even in patients with annulus abscess.

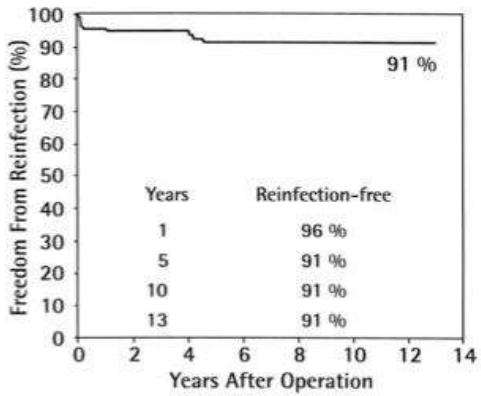
Aviernios JF et al. Surgical Treatment of Active Aortic Endocarditis: Homografts Are Not the Cornerstone of Outcome. Ann Thorac Surg 2007;84:1935-1942

TUBO VALVULADO Vs HOMOINJERTO



Conclusions. These results indicate that prosthetic root replacement may be superior to use of a homograft for acute aortic prosthetic valve endocarditis, with only a 4% incidence of recurrent endocarditis and reoperation.

A



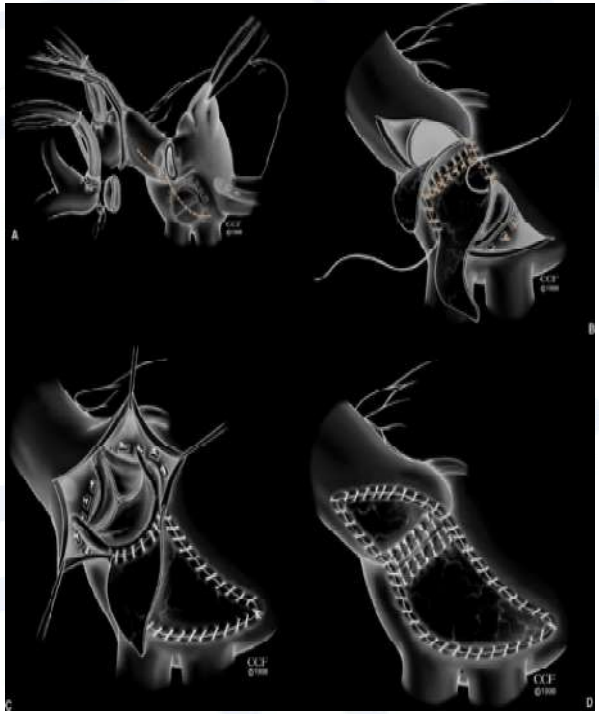
Years	1	2	4	6	8	10
Pts at risk	*128*	*105*	*84*	*47*	*28*	*7*

B

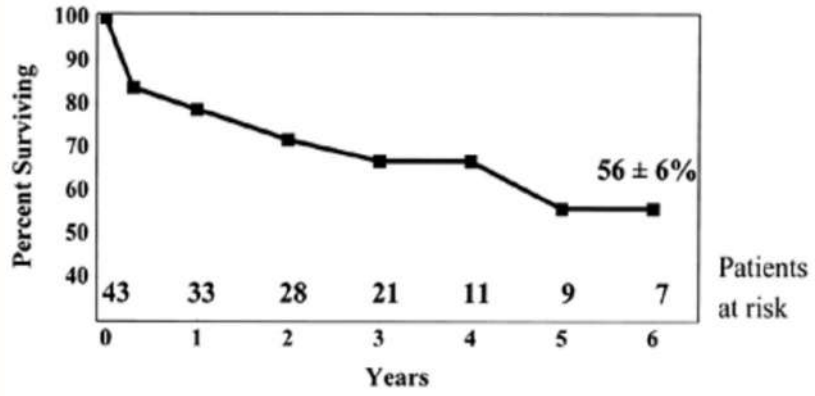
(A) Hagl C et al. Replacing the Ascending Aorta and Aortic Valve for Acute Prosthetic Valve Endocarditis: Is Using Prosthetic Material Contraindicated?. Ann Thorac Surg 2002;74:1781

(B) Yankah AC et al. Surgical management of acute aortic root endocarditis with viable homograft: 13-year experience. Eur J Cardiothorac Surg 2002; 21:260

Reconstrucción Continuidad -Mitroaórtica



RECONSTRUCCION CONTINUIDAD MITRO-AORTICA



David TE et al. Aortic and mitral valve replacement with reconstruction of the intervalvular fibrous body. J Thorac Cardiovasc Surg 1997;114:766-772