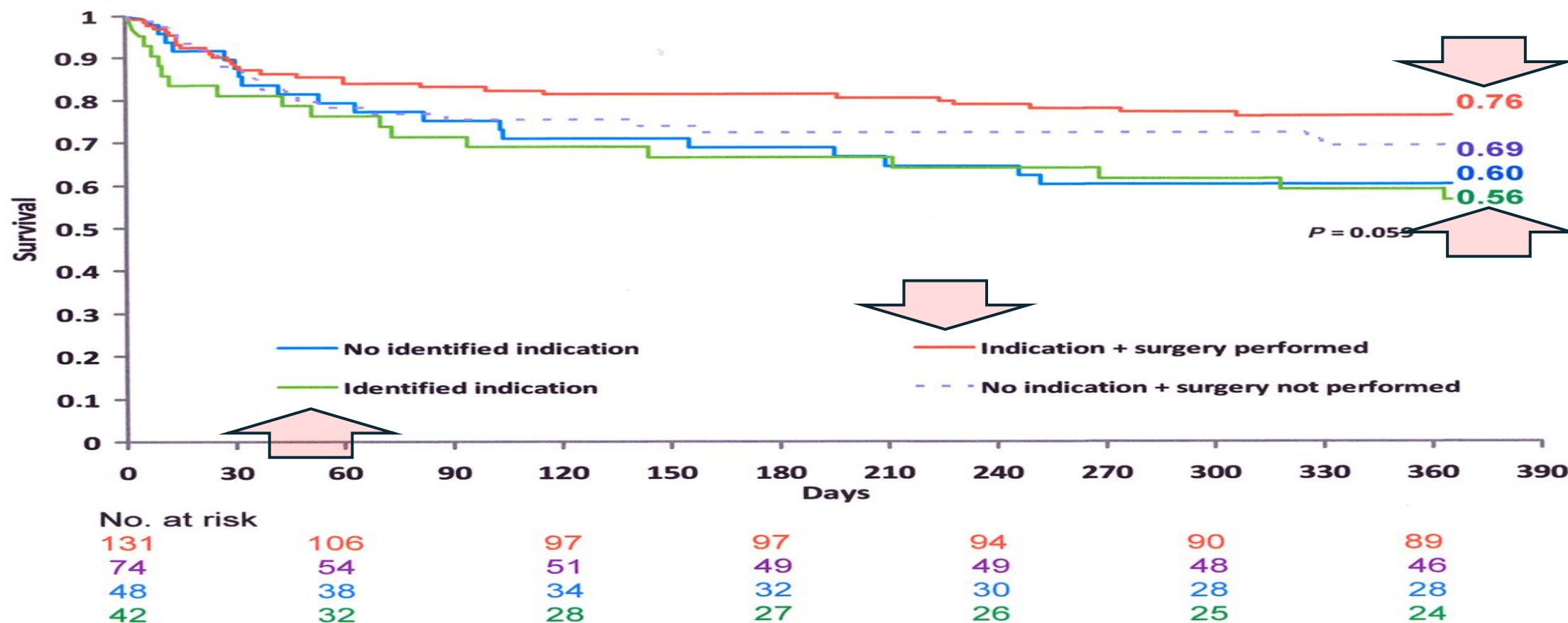


Quando indicar tratamento cirúrgico precoce?

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Declaro para os devidos fins,
não possuir conflito de interesses pessoal,
comercial, acadêmico, político e financeiro.

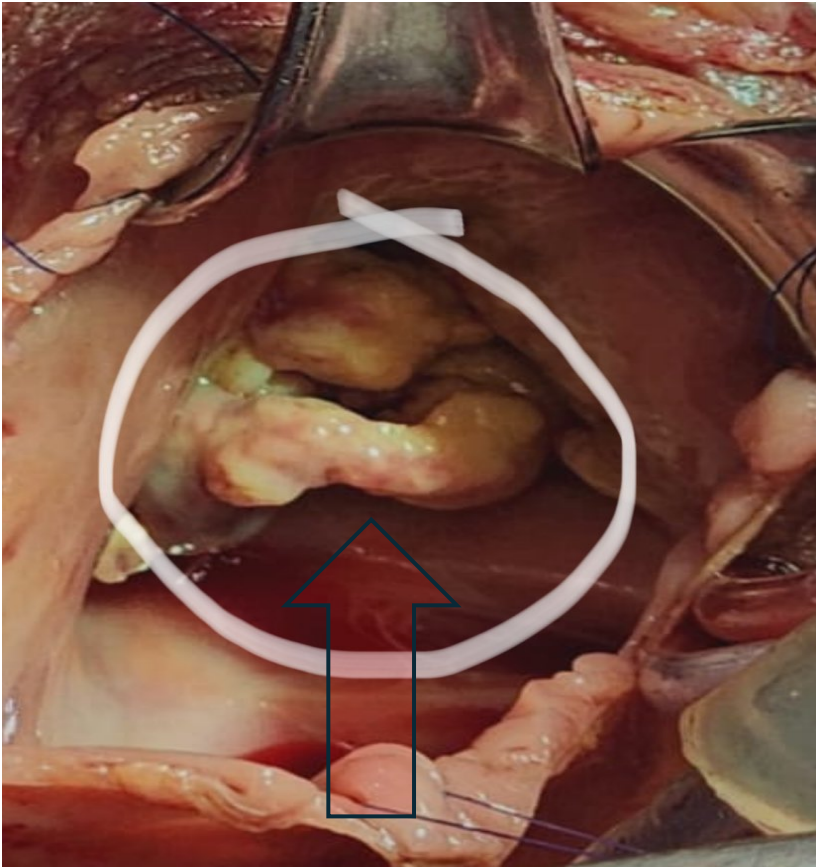
Sobrevida com a intervenção cirúrgica



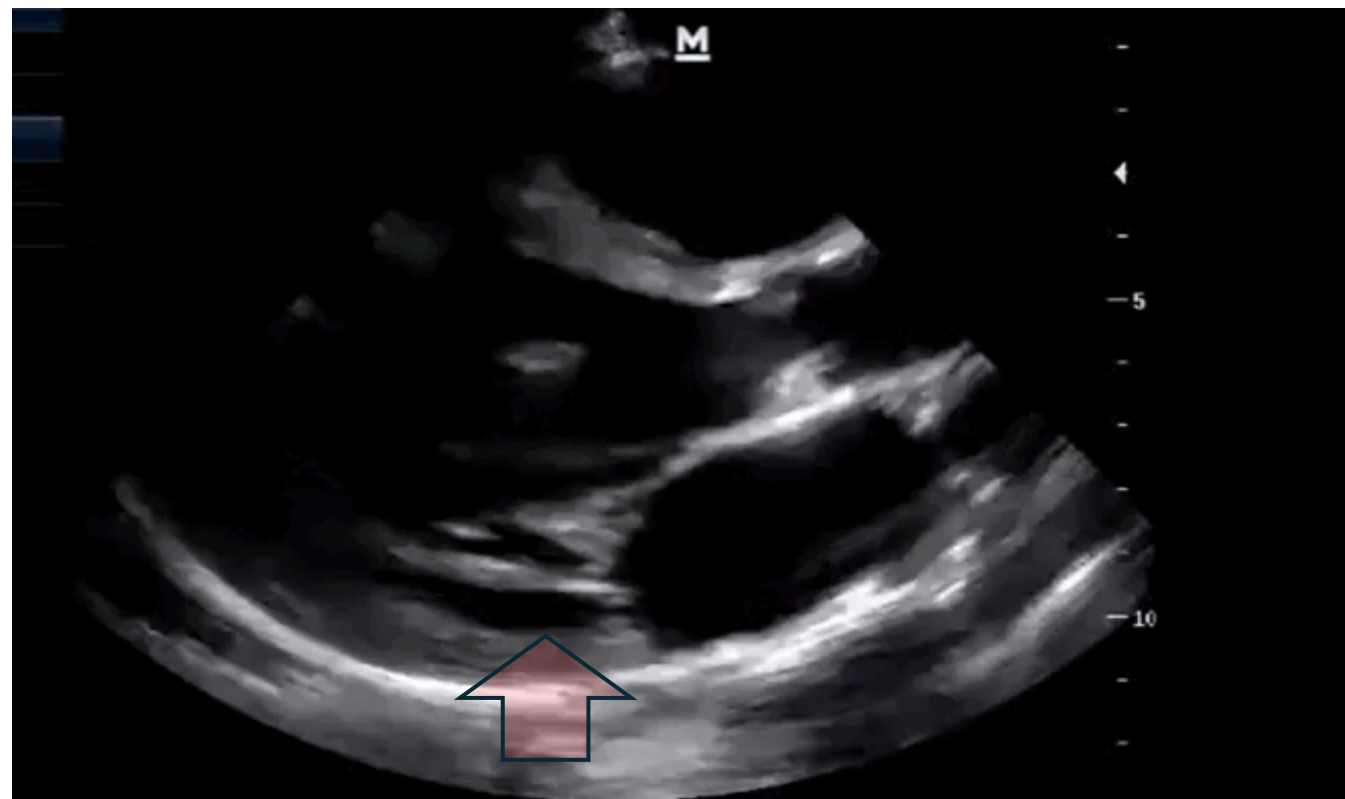
Diagnóstico por imagem confiável



Endocardite de Tricúspide



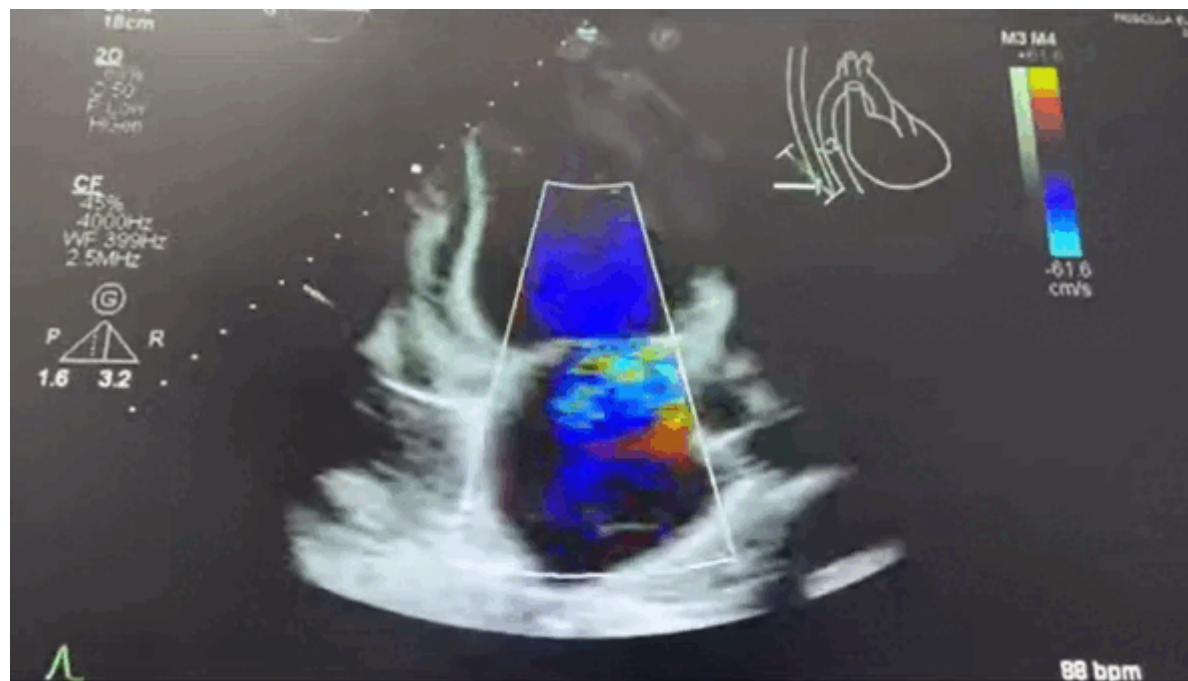
Endocardite Dupla



Diretrizes Americanas

1	B-NR	2. In patients with IE who present with valve dysfunction resulting in symptoms of HF, early surgery (during initial hospitalization and before completion of a full therapeutic course of antibiotics) is indicated. ^{598,618–629}	Em doentes com EI que apresentem disfunção valvular com sintomas de IC, está indicada a cirurgia precoce (durante o internamento inicial e antes da conclusão de um ciclo terapêutico completo de antibióticos)
1	B-NR	3. In patients with left-sided IE caused by <i>S. aureus</i> , a fungal organism, or other highly resistant organisms, early surgery (during initial hospitalization and before completion of a full therapeutic course of antibiotics) is indicated. ^{515,598,618,625,630–644}	Em doentes com EI do lado esquerdo causada por <i>S. aureus</i> , um organismo fúngico ou outros organismos altamente resistentes, está indicada a cirurgia precoce (durante o internamento inicial e antes de completar um ciclo terapêutico completo de antibióticos)

Endocardite de Mitral e Refluxo



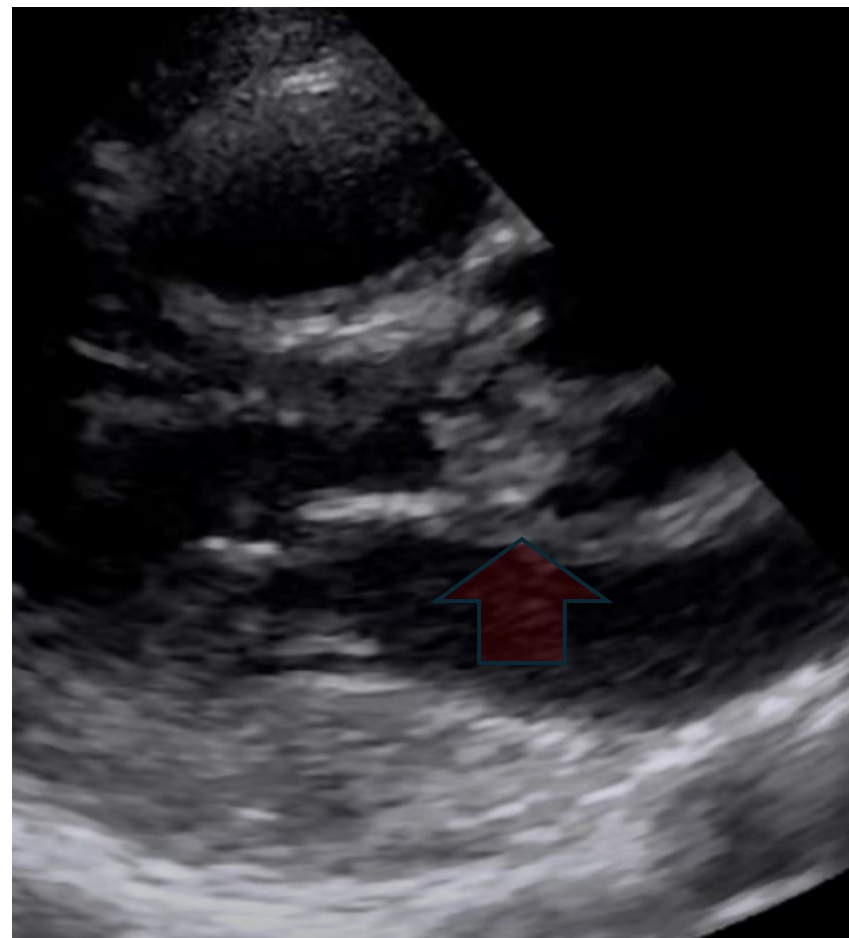
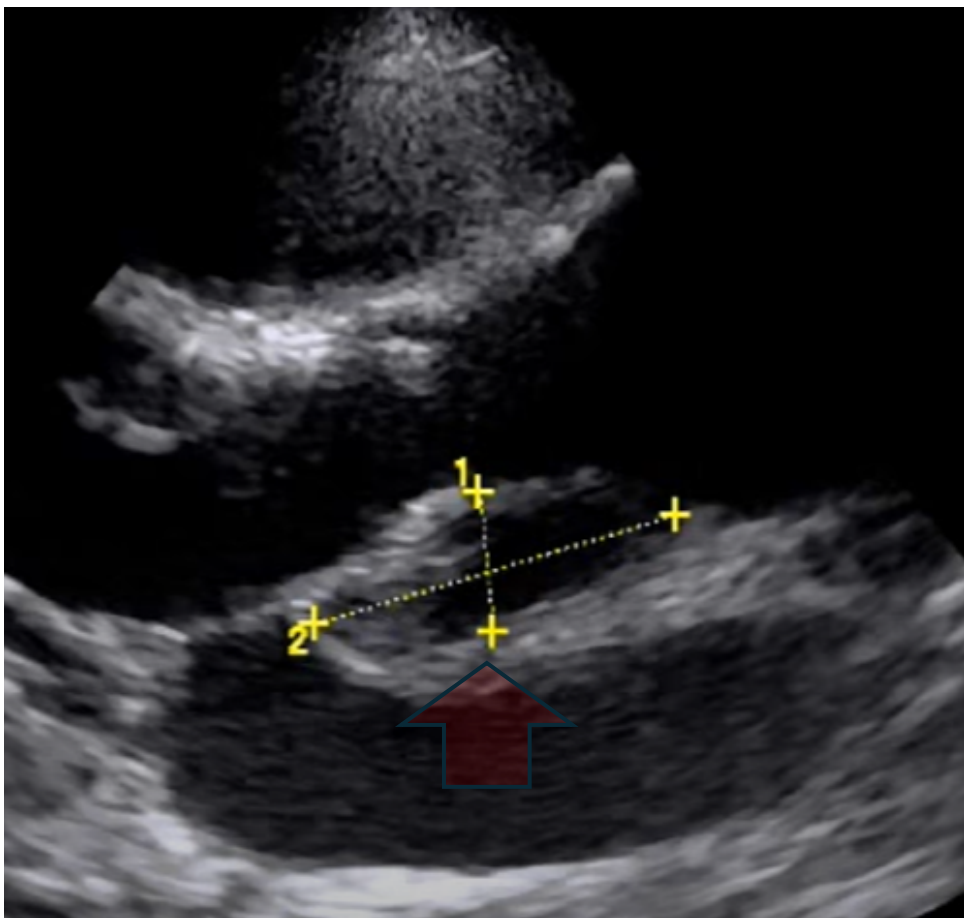
Diretrizes Americanas

1	B-NR	4. In patients with IE complicated by heart block, annular or aortic abscess, or destructive penetrating lesions, early surgery (during initial hospitalization and before completion of a full therapeutic course of antibiotics) is indicated. ^{598,618,645–653}
1	B-NR	5. In patients with IE and evidence of persistent infection as manifested by persistent bacteremia or fevers lasting >5 days after onset of appropriate antimicrobial therapy, early surgery (during initial hospitalization and before completion of a full therapeutic course of antibiotics) for IE is indicated. ^{598,618,625,634,635,654–657}

Em doentes com EI complicada por bloqueio cardíaco, abscesso anular ou aórtico, ou lesões penetrantes destrutivas, está indicada a cirurgia precoce.

Em doentes com EI e evidência de infecção persistente, manifestada por bacteremia persistente ou febre com duração superior a 5 dias após o início da terapêutica antimicrobiana adequada, está indicada a cirurgia precoce.

Abcesso para valvar



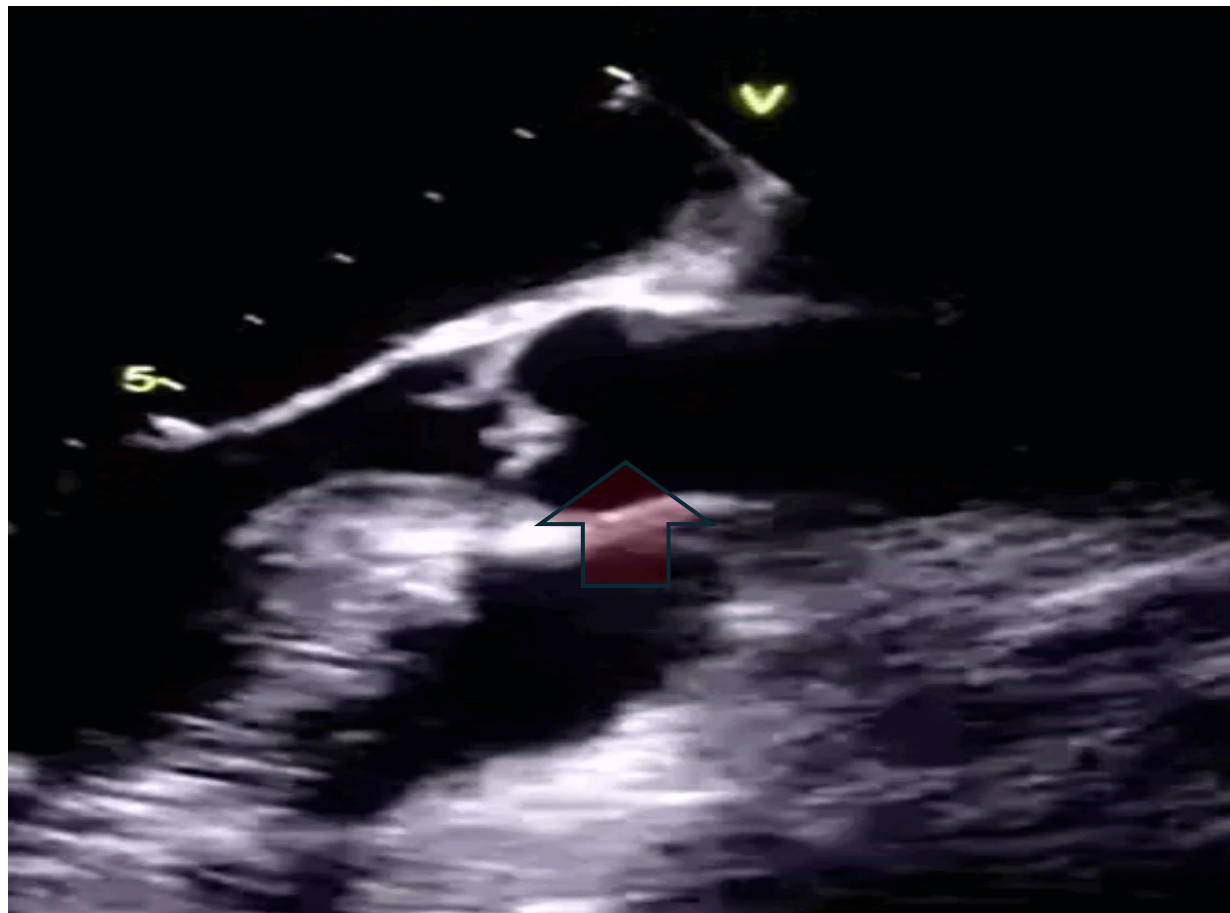
Diretrizes Americanas

2a	B-NR	9. In patients with IE who present with recurrent emboli and persistent vegetations despite appropriate antibiotic therapy, early surgery (during initial hospitalization and before completion of a full therapeutic course of antibiotics) is reasonable. ^{518,542,661,667–670}
2b	B-NR	10. In patients with native left-sided valve endocarditis who exhibit mobile vegetations >10 mm in length (with or without clinical evidence of embolic phenomenon), early surgery (during initial

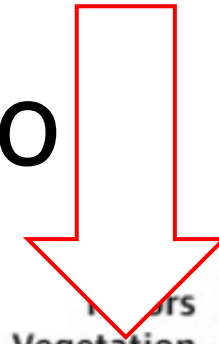
Nos doentes com EI que apresentam êmbolos recorrentes e vegetações persistentes apesar de uma terapêutica antibiótica adequada, é razoável a realização de uma cirurgia precoce

Em doentes com endocardite valvular nativa do lado esquerdo que apresentem vegetações móveis com mais de 10 mm de comprimento (com ou sem evidência clínica de fenómeno embólico), pode ser considerada uma cirurgia precoce

Vegetação longa na válvula Aórtica



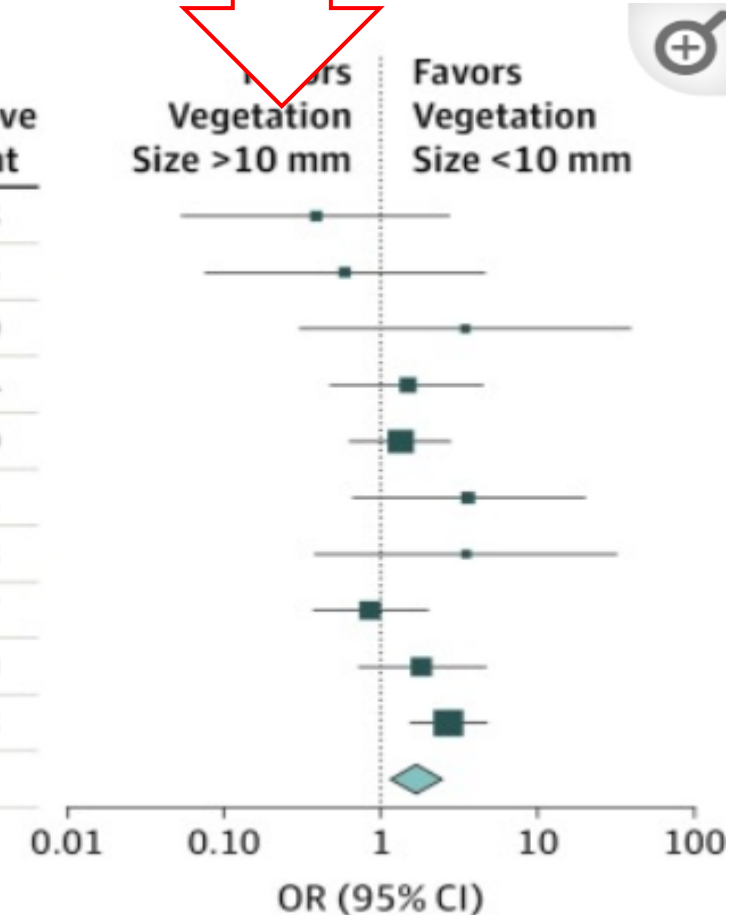
Tamanho da vegetação



Source	OR (95% CI)	No. of Deaths/No. of Patients		Relative Weight
		Vegetation Size >10 mm	Vegetation Size <10 mm	
Wong et al, ¹² 1983	0.38 (0.05-2.78)	2/16	3/11	3.28
Lutas et al, ¹⁴ 1986	0.58 (0.07-4.61)	2/26	2/16	3.05
Buda et al, ⁷ 1986	3.43 (0.30-39.64)	4/11	1/7	2.20
Erbel et al, ¹⁵ 1988	1.47 (0.47-4.61)	8/47	6/49	9.24
Vilacosta et al, ²¹ 2002	1.31 (0.61-2.80)	40/124	12/45	18.50
Deprèle et al, ²² 2004	3.58 (0.65-19.71)	5/35	2/45	4.41
Gotsman et al, ²³ 2007	3.46 (0.37-32.18)	5/31	1/19	2.63
Pepin et al, ²⁴ 2009	0.85 (0.36-2.01)	15/65	13/50	15.27
Leitman et al, ²⁵ 2012	1.81 (0.71-4.63)	13/46	10/56	13.09
Hajihossainlou et al, ²⁶ 2013	2.69 (1.52-4.75)	33/96	31/190	28.33
Overall	1.63 (1.13-2.35)			

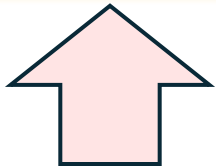
Test for heterogeneity: $I^2 = 11\%$; $Q = 10.12$, $P = .34$

Test for overall effect: $Z = 2.60$, $P = .009$

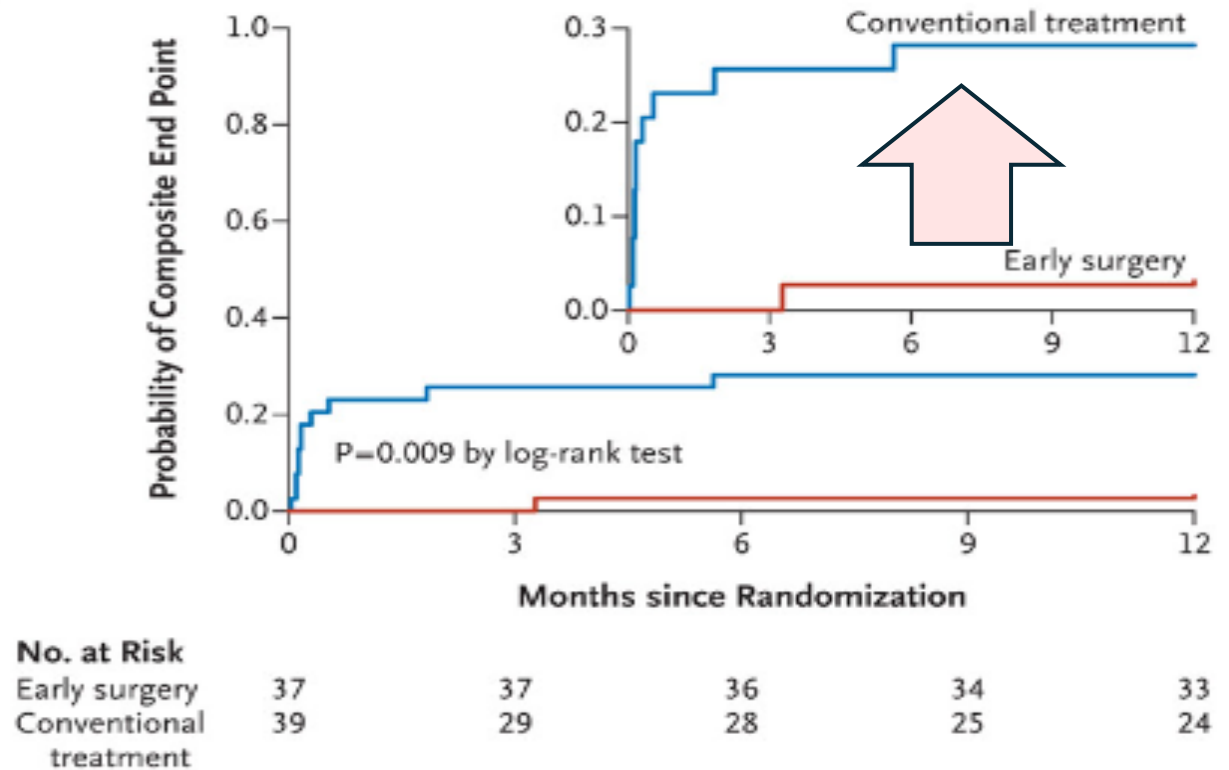


Quando indicar tratamento cirúrgico precoce?

Vegetation diameter	14.1±3.5	13.5±3.2
>10–15 mm — no. (%)	26 (67)	26 (70)
>15 mm — no. (%)	13 (33)	11 (30)



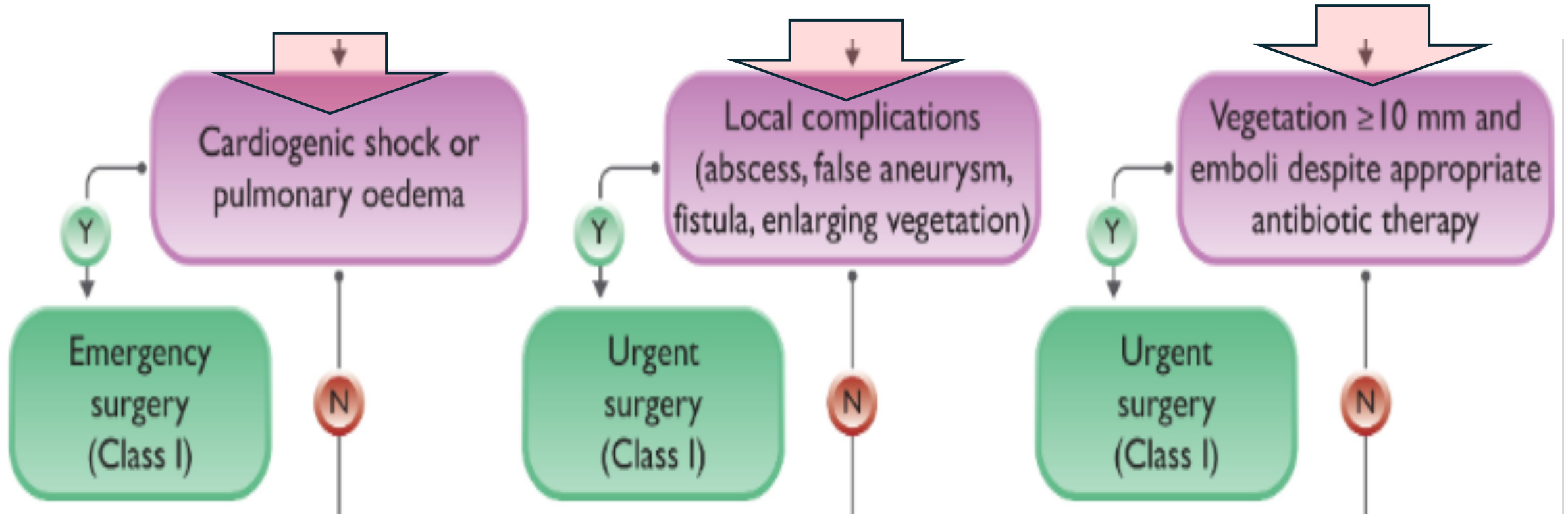
B



Redução em eventos embólicos

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

Diretrizes da Europa 2023



Recommendations for the main indications of surgery in infective endocarditis (native valve endocarditis and prosthetic valve endocarditis) (2)



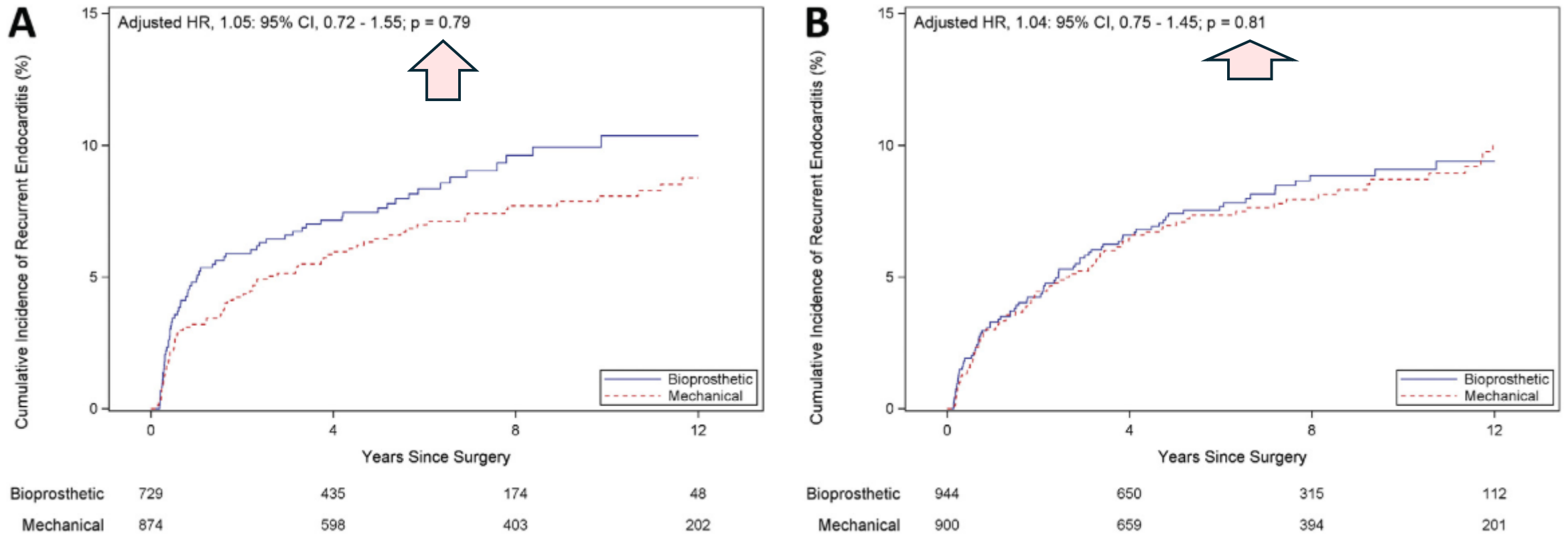
Recommendations	Class	Level
(ii) Uncontrolled infection		
Urgent surgery is recommended in locally uncontrolled infection (abscess, false aneurysm, fistula, enlarging vegetation, prosthetic dehiscence, new AVB).	I	B
Urgent or non-urgent surgery is recommended in IE caused by fungi or multiresistant organisms according to the haemodynamic condition of the patient.	I	C
Urgent surgery should be considered in IE with persistently positive blood cultures >1 week or persistent sepsis despite appropriate antibiotic therapy and adequate control of metastatic foci.	IIa	B
Urgent surgery should be considered in PVE caused by <i>S. aureus</i> or non-HACEK Gram-negative bacteria.	IIa	C

Recommendations for the main indications of surgery in infective endocarditis (native valve endocarditis and prosthetic valve endocarditis) (3)

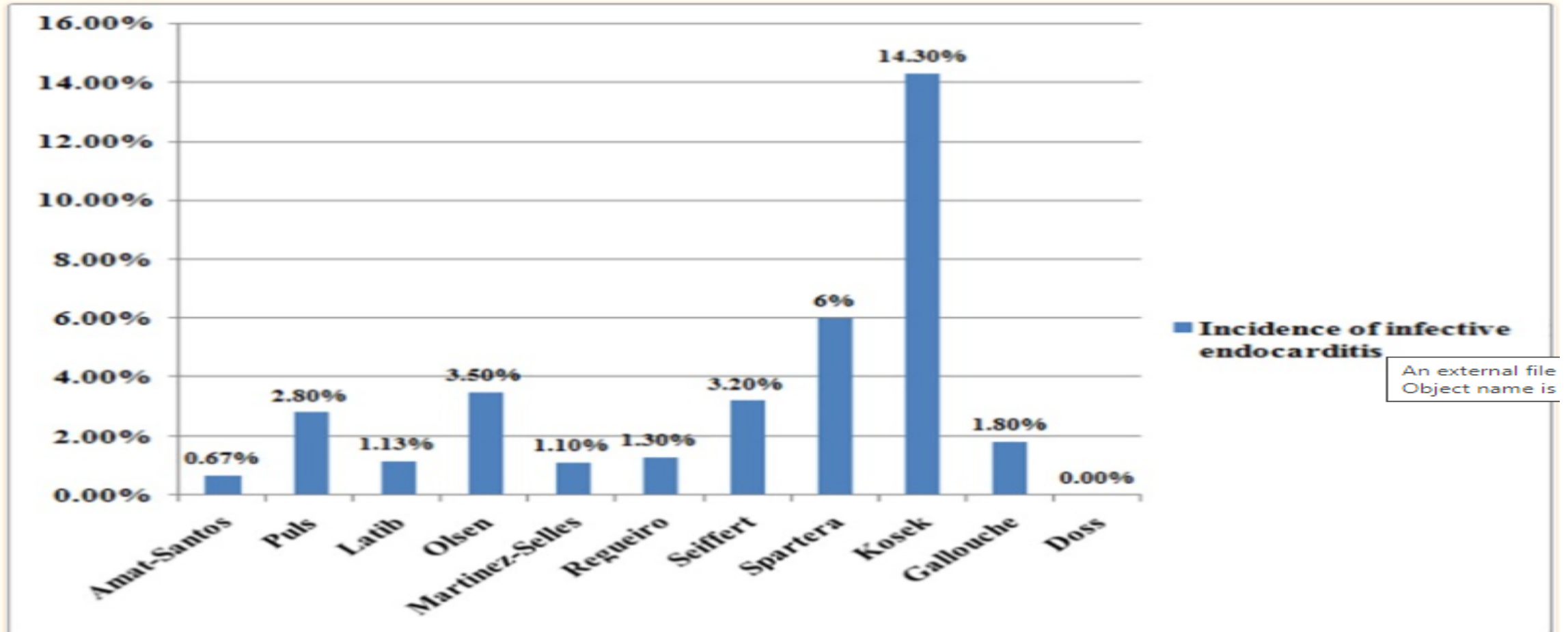


Recommendations	Class	Level
(iii) Prevention of embolism		
Urgent surgery is recommended in aortic or mitral NVE or PVE with persistent vegetations ≥ 10 mm after one or more embolic episodes despite appropriate antibiotic therapy.	I	B
Urgent surgery is recommended in IE with vegetation ≥ 10 mm and other indications for surgery.	I	C
Urgent surgery may be considered in aortic or mitral IE with vegetation ≥ 10 mm and without severe valve dysfunction or without clinical evidence of embolism and low surgical risk.	IIb	B

A análise multicêntrica sugere
que a escolha da válvula biológica versus mecânica não afetou
significativamente a mortalidade a longo prazo ou o risco de
endocardite recorrente na endocardite infecciosa do lado esquerdo.

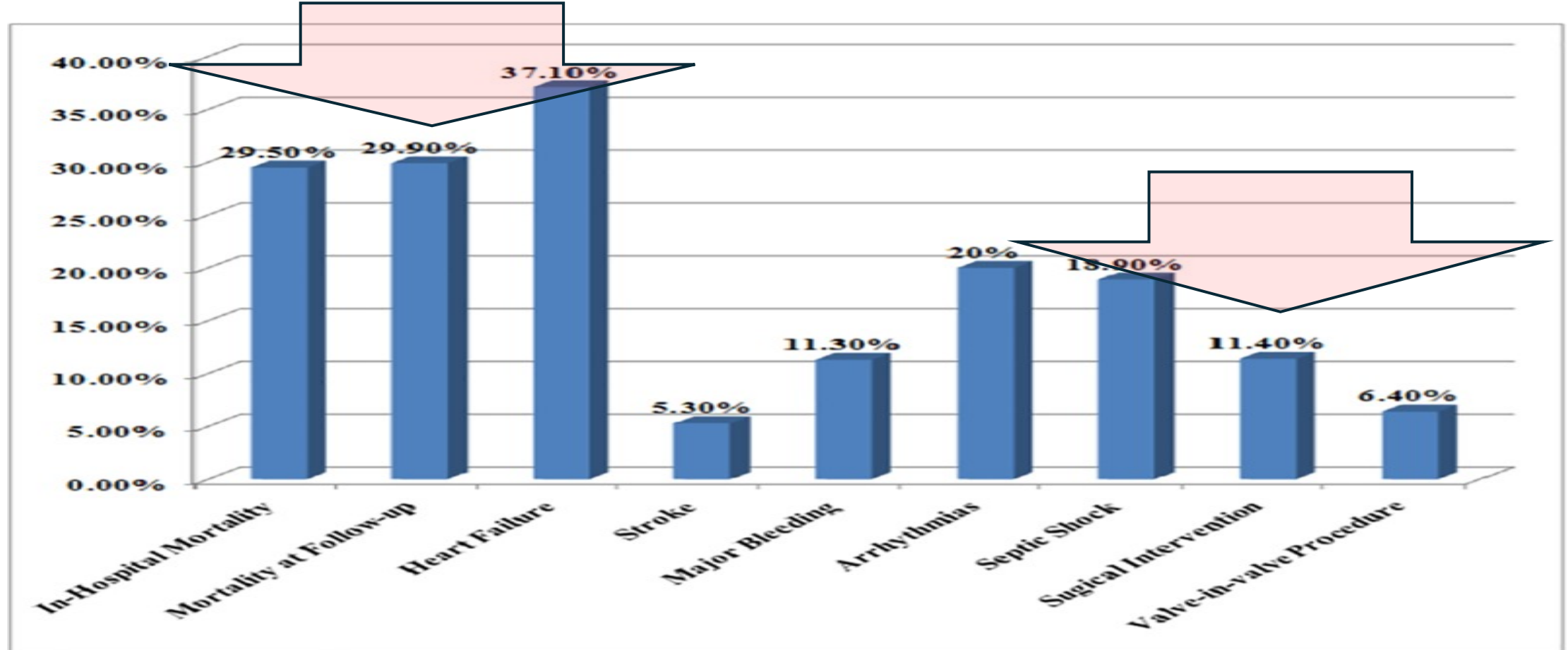


Endocardite após TAVI

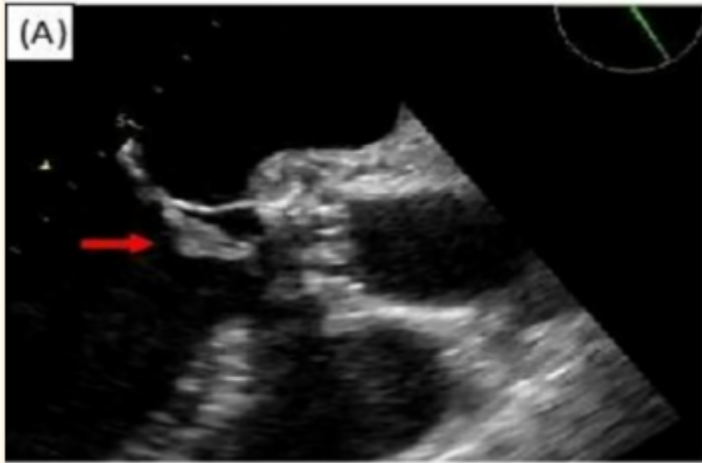


Khan A. Infective endocarditis post-transcatheter aortic valve implantation (TAVI), microbiological profile and clinical outcomes: A systematic review. PLoS One. 2020 Jan 17;15(1):e0225077.

Endocardite após TAVI



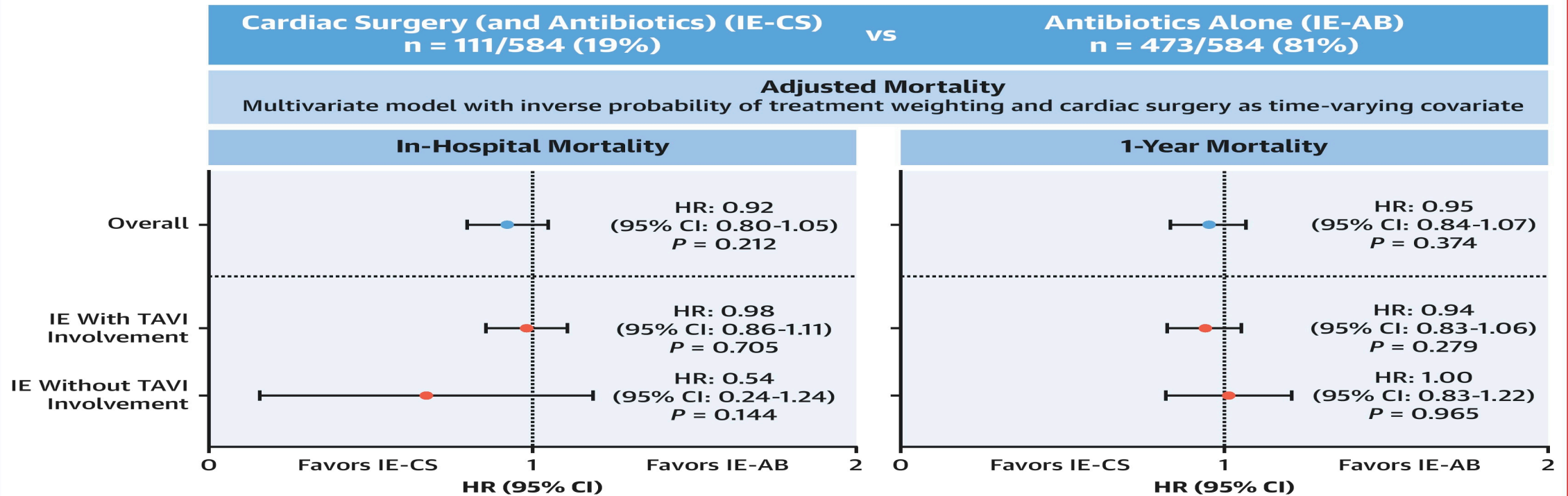
Endocardite após TAVI



A incidência de endocardite infecciosa pós-TAVI é baixa, sendo de 3,25%, mas está associada a elevada mortalidade e complicações. A complicação mais comum é a insuficiência cardíaca com uma incidência cumulativa de 37,1%.

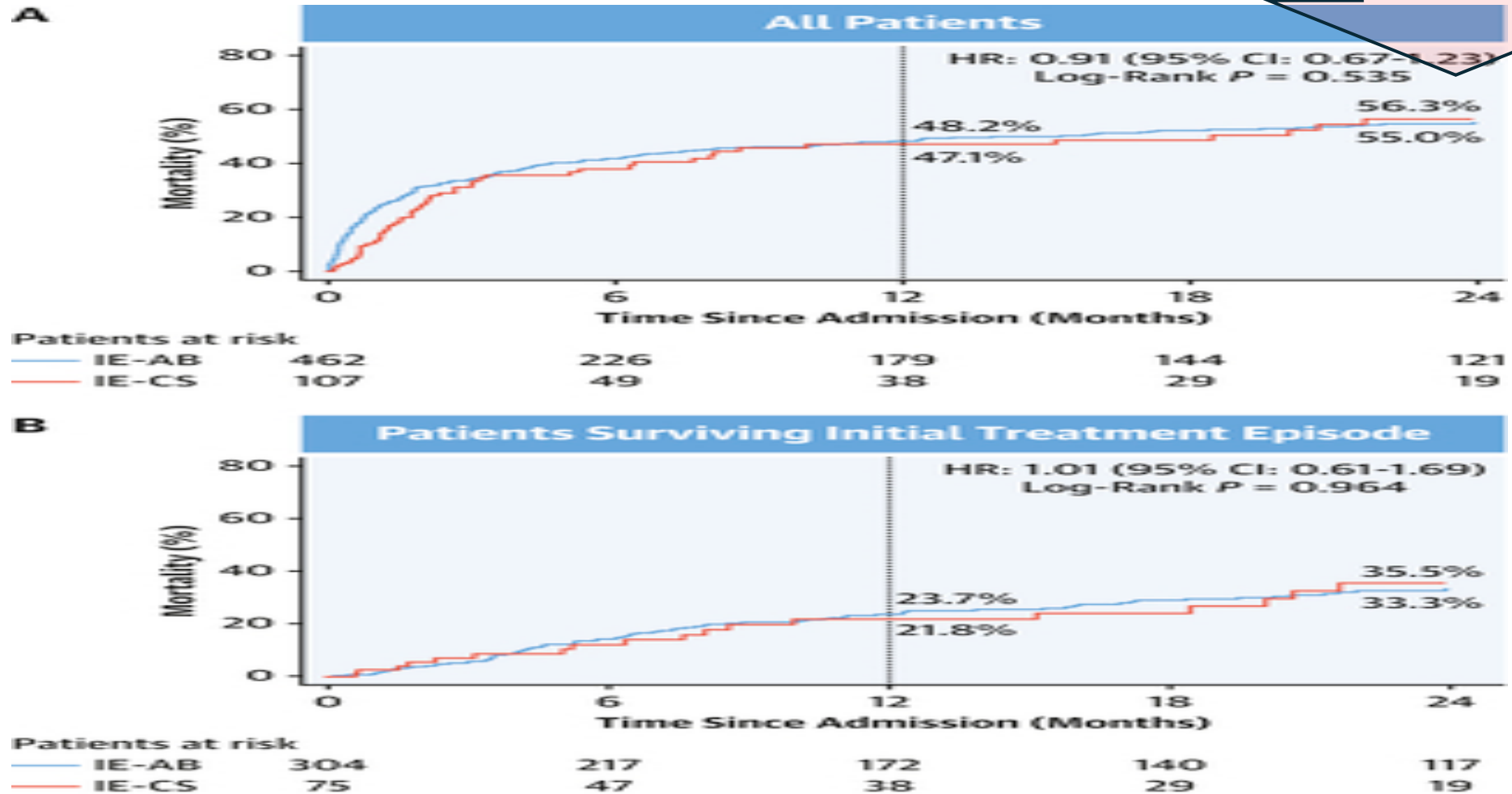
Tratamento cirúrgico

CENTRAL ILLUSTRATION: Surgical Treatment of Patients With Infective Endocarditis After Transcatheter Aortic Valve Implantation



Mangner, N. et al. J Am Coll Cardiol. 2022;79(8):772-785.

Tratamento cirúrgico



Resumo

- As intervenções cirúrgicas bem indicadas podem reduzir a mortalidade.
- Procure ativamente as complicações que indicam a intervenção.
- As embolizações são riscos ainda não definidos em relação ao tamanho das vegetações
- As TAVI e outros implantes vão adicionar um novo capítulo nas Endocardites de Próteses.