

Proč je lepší plastika aortální chlopně oproti náhrad?

XXXI. Sjezd ČKS, Brno 2023

Jan Vojáček

Kardiochirurgická klinika FN a LF

Hradec Králové





ESC

European Society
of Cardiology

European Heart Journal (2021) **00**, 1–72

doi:10.1093/eurheartj/ehab395

ESC/EACTS GUIDELINES

2021 ESC/EACTS Guidelines for the management of valvular heart disease

Recommendations on indications for intervention in severe primary mitral regurgitation

Recommendations	Class ^a	Level ^b
Mitral valve repair is the recommended surgical technique when the results are expected to be durable. ^{293–296}	I	B



ESC

European Society
of Cardiology

European Heart Journal (2022) **43**, 561–632

<https://doi.org/10.1093/eurheartj/ehab395>

ESC/EACTS GUIDELINES

2021 ESC/EACTS Guidelines for the management of valvular heart disease

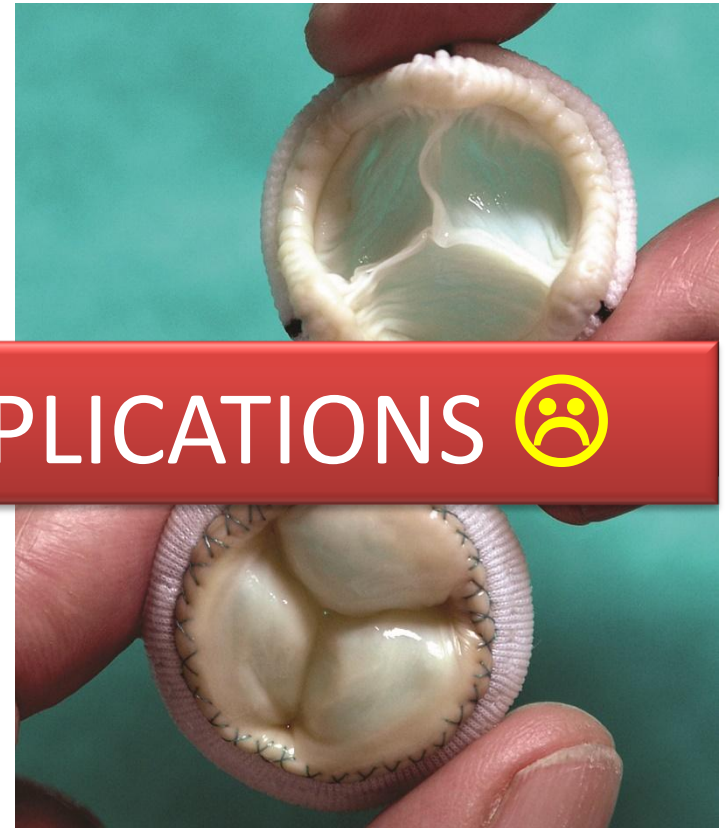
Valve-sparing aortic root replacement is recommended in young patients with aortic root dilation, if performed in experienced centres and durable results are expected.^{133–136,140}

I

B

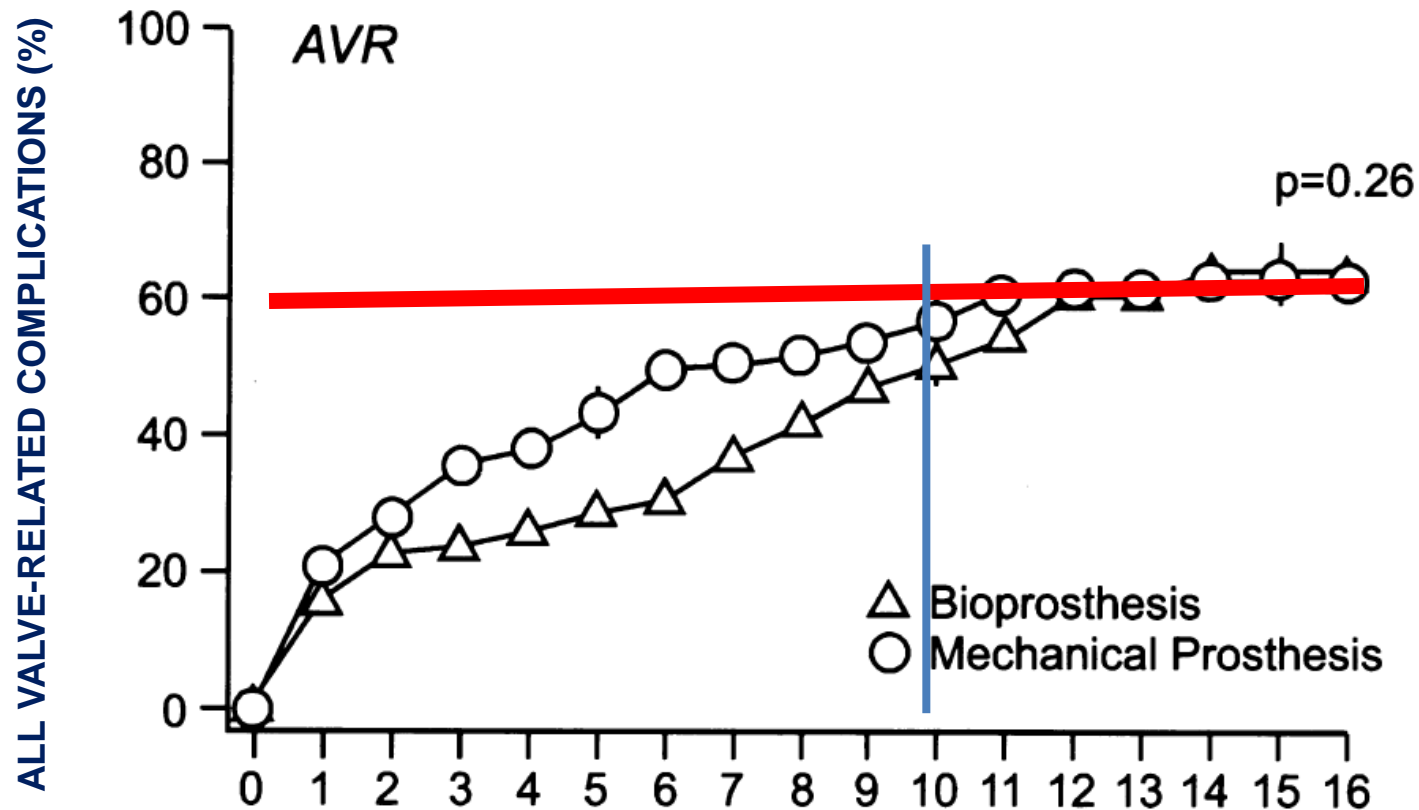
Why???





VALVE RELATED COMPLICATIONS ☹️

The long-term results of mechanical and bioprosthetic AVR



Loss in Life Expectancy After Surgical Aortic Valve Replacement

JACC 2019

SWEDHEART Study

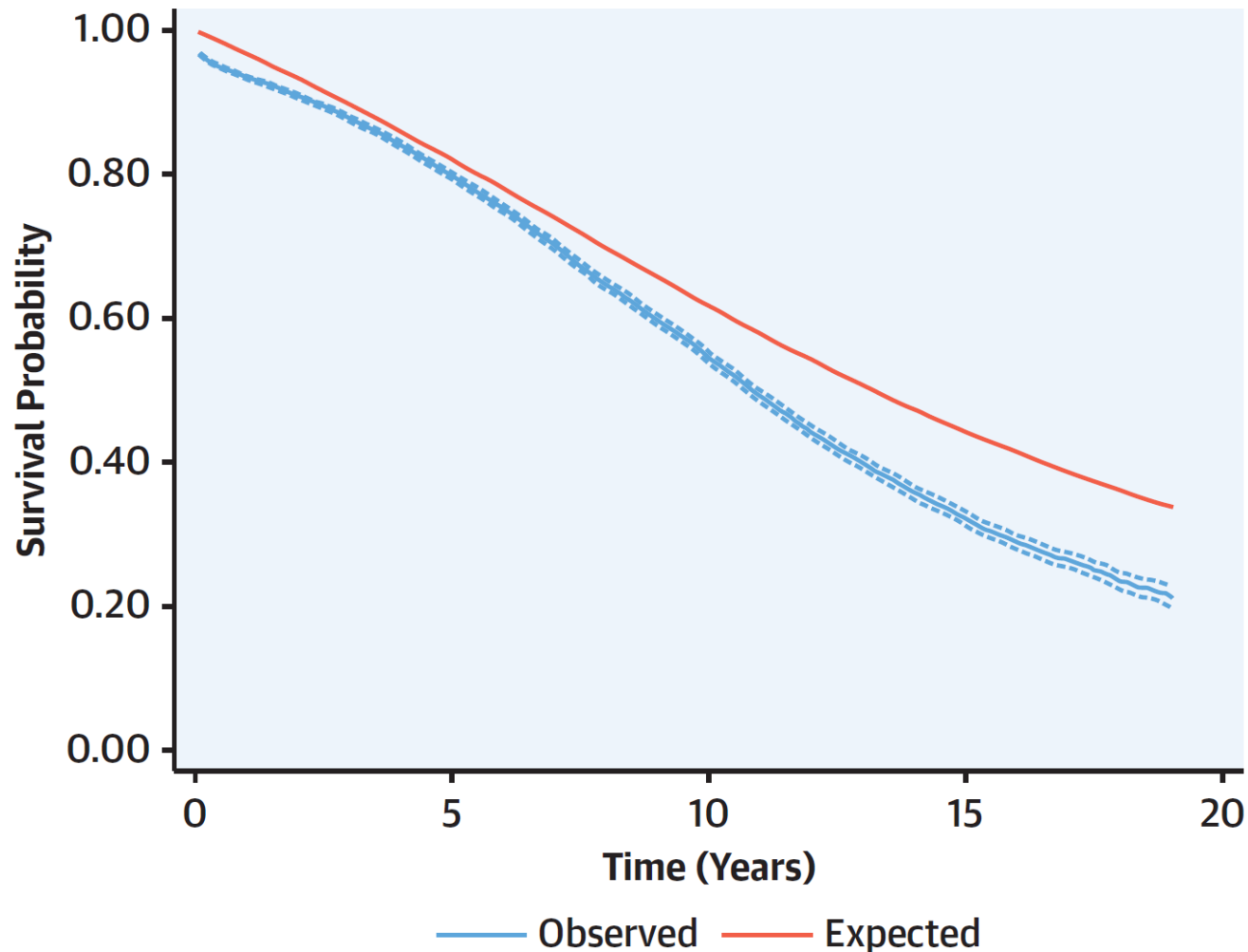
23 528 patients after AVR



Loss in Life Expectancy After Surgical Aortic Valve Replacement

JACC 2019

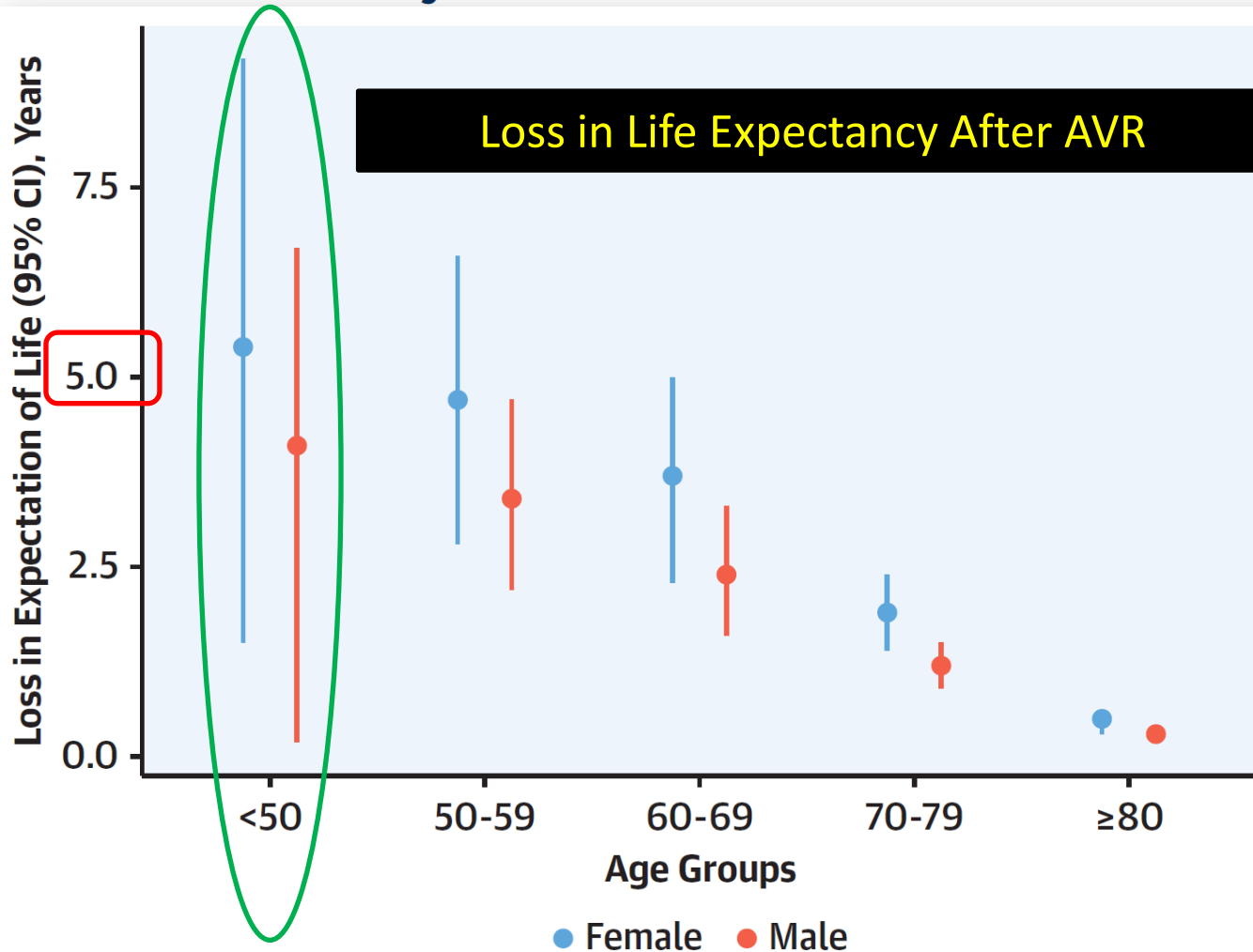
SWEDHEART Study



Loss in Life Expectancy After Surgical Aortic Valve Replacement

JACC 2019

SWEDHEART Study



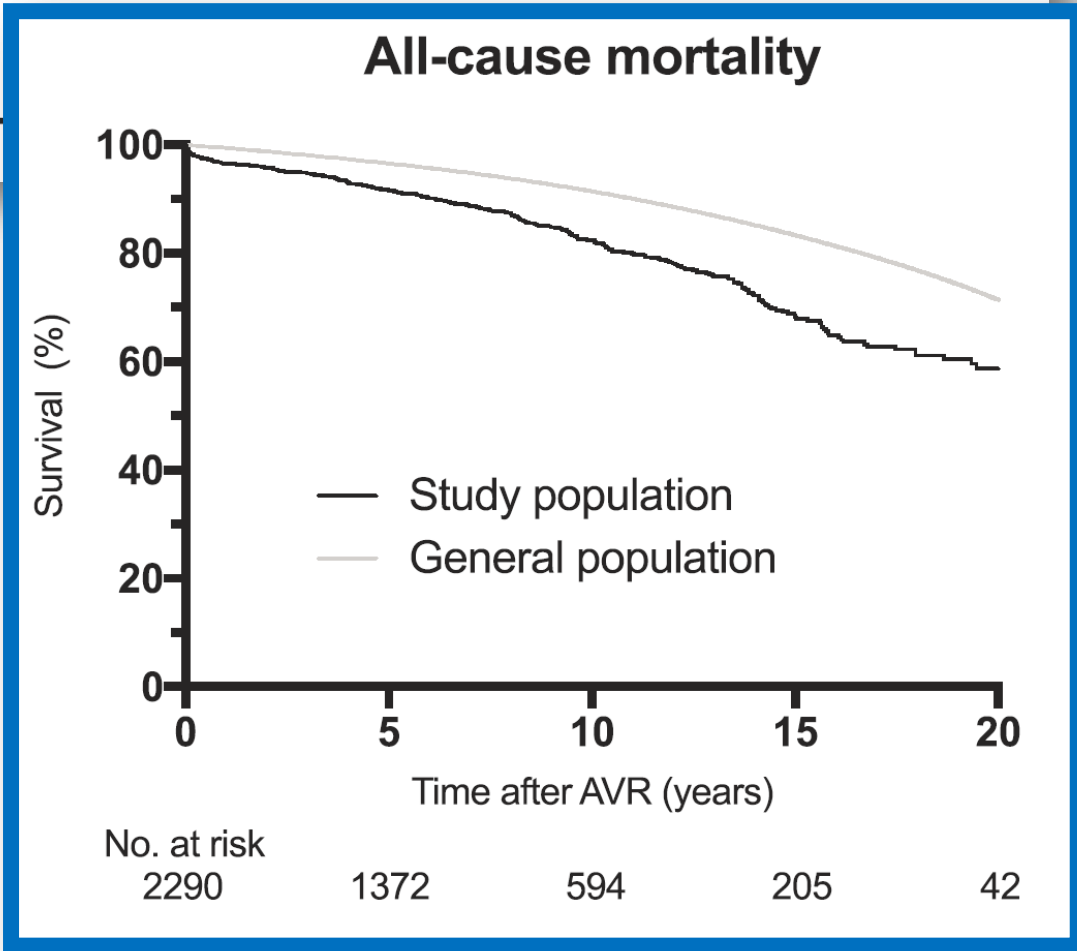
Life expectancy after biological AVR



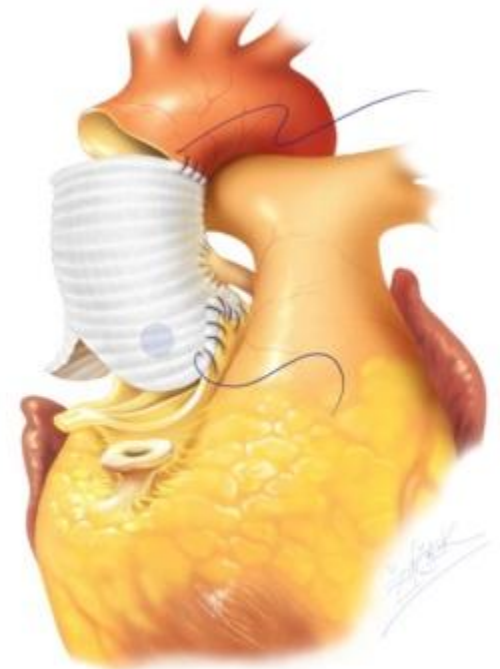
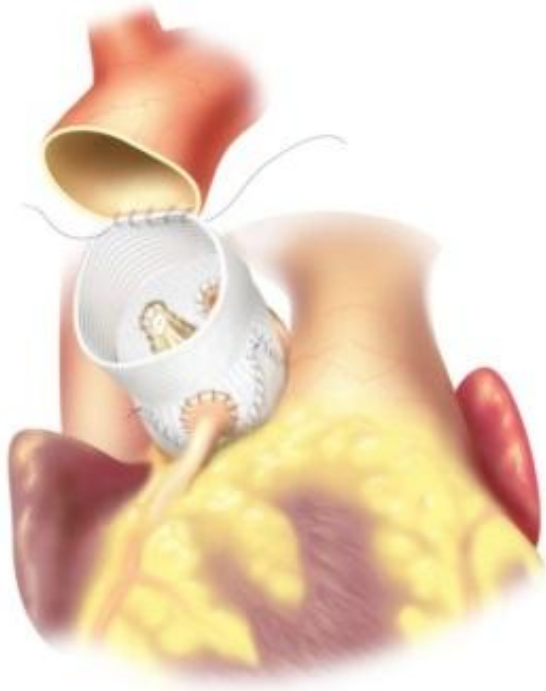
ORIGINAL ARTICLE

Bioprosthetic Aortic Valve Replacement in Nonelderly Adults

A Systematic Review, Meta-



Valve related complications in aortic valve repair???



The long-term results of VSARR

Table 2. Linearized Occurrence Rates of Late Outcome Events

Pooled Late Outcome Events	LOR + 95% CI	Heterogeneity (I ²)	Included Studies (n)
Late mortality	1.53 (1.19–1.96)	82.6	31
Reoperation on aortic valve	1.32 (1.0–1.74)	72.3	31
Hemorrhage	0.23 (0.13–0.42)	78.7	26
Thromboembolism	0.41 (0.22–0.77)	27.6	26
Endocarditis	0.23 (0.11–0.51)	0.00	30
MAVRE	1.66 (1.24–2.23)	100	20

Cumulative risk of hemorrhage, TE = **0,64** (6% at 10 years)

Arabkhani et al. **Reported Outcome After Valve-Sparing Aortic Root Replacement for Aortic Root Aneurysm: A Systematic Review and Meta-Analysis.** Ann Thorac Surg 2015 Sep;100(3):1126-31.

The long-term results of VSARR

Table 2. Linearized Occurrence Rates of Late Outcome Events

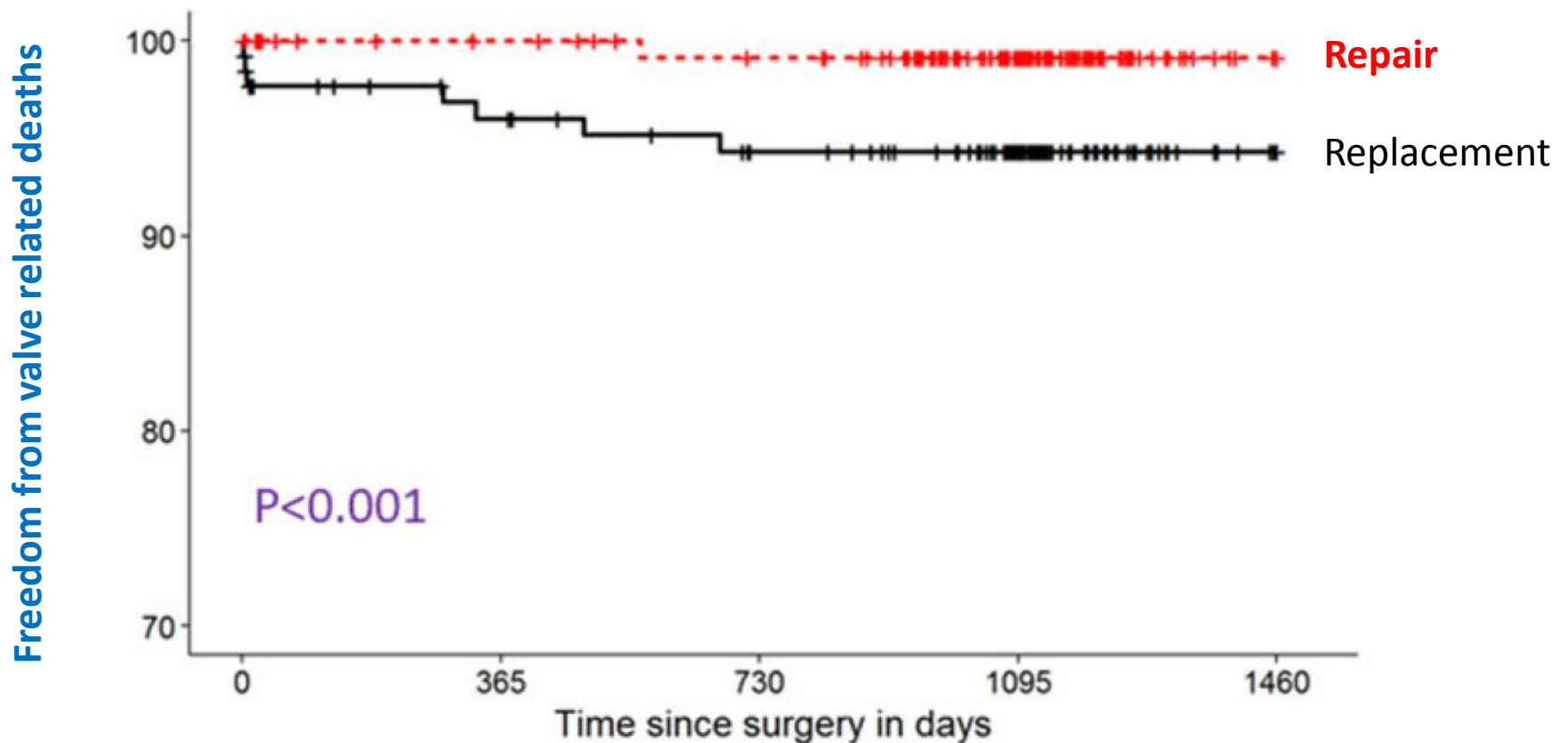
Pooled Late Outcome Events	LOR + 95% CI	Heterogeneity (I ²)	Included Studies (n)
Late mortality	1.53 (1.19–1.96)	82.6	31
Reoperation on aortic valve	1.32 (1.0–1.74)	72.3	31
Hemorrhage	0.23 (0.13–0.42)	78.7	26
Thromboembolism	0.41 (0.22–0.77)	27.6	26
Endocarditis	0.23 (0.11–0.51)	0.00	30
MAVRE	1.66 (1.24–2.23)	100	20

Risk of ReDo: **13% at 10 years**

Arabkhani et al. **Reported Outcome After Valve-Sparing Aortic Root Replacement for Aortic Root Aneurysm: A Systematic Review and Meta-Analysis.** Ann Thorac Surg 2015 Sep;100(3):1126-31.

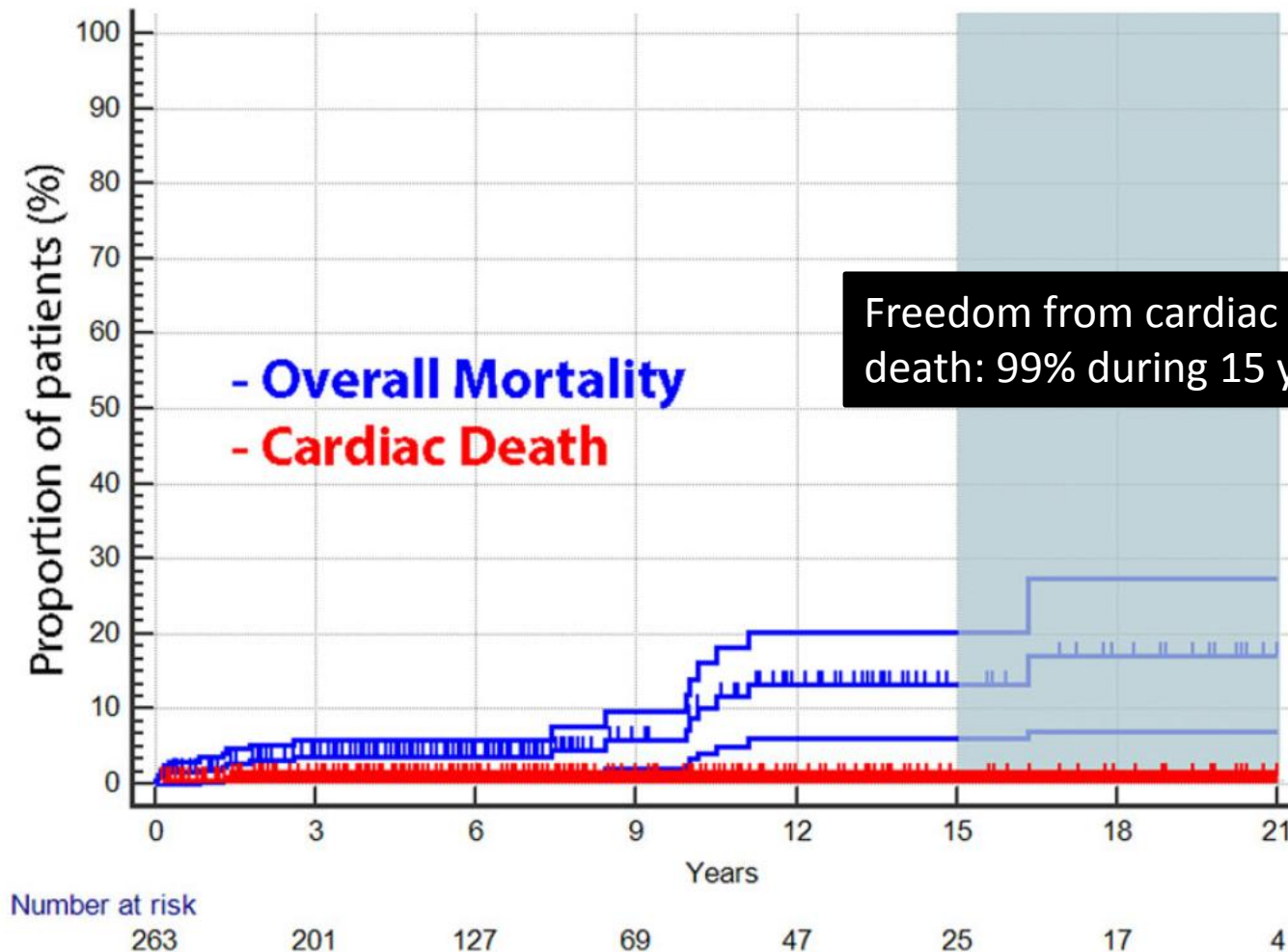
How about the survival.....??

Aortic valve repair versus mechanical valve replacement for root aneurysm: the CAVIAAR multicentric study



Cite this article as: Chirichilli I, Scaffa R, Irace FG, Salica A, Weltert LP, D'Aleo S *et al.* Twenty-year experience of aortic valve reimplantation using the Valsalva graft. *Eur J Cardiothorac Surg* 2023; doi:10.1093/ejcts/ezac591.

Twenty-year experience of aortic valve reimplantation using the Valsalva graft



Quality of life after aortic valve surgery: Replacement versus reconstruction

Diana Aicher, MD,^a Annika Holz,^a Susanne Feldner, MD,^a Volker Köllner, MD,^b and Hans-Joachim Schäfers, MD^a

The Journal of Thoracic and Cardiovascular Surgery • August 2011

Zacek et al. *BMC Cardiovascular Disorders* (2016) 16:63
DOI 10.1186/s12872-016-0236-0

BMC Cardiovascular Disorders

RESEARCH ARTICLE

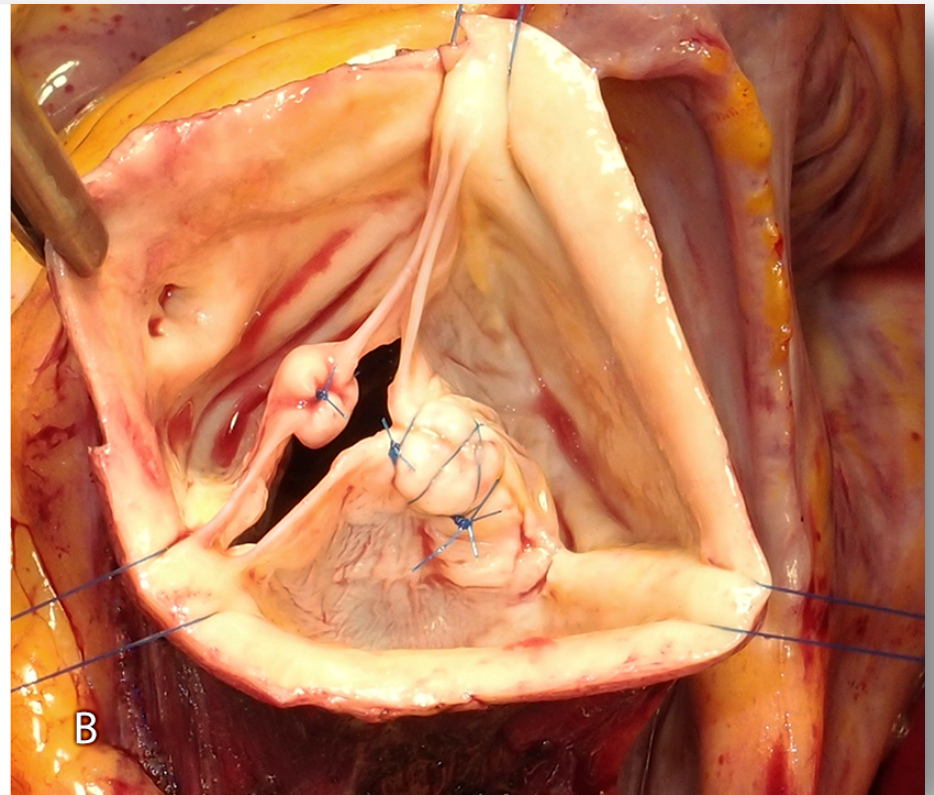
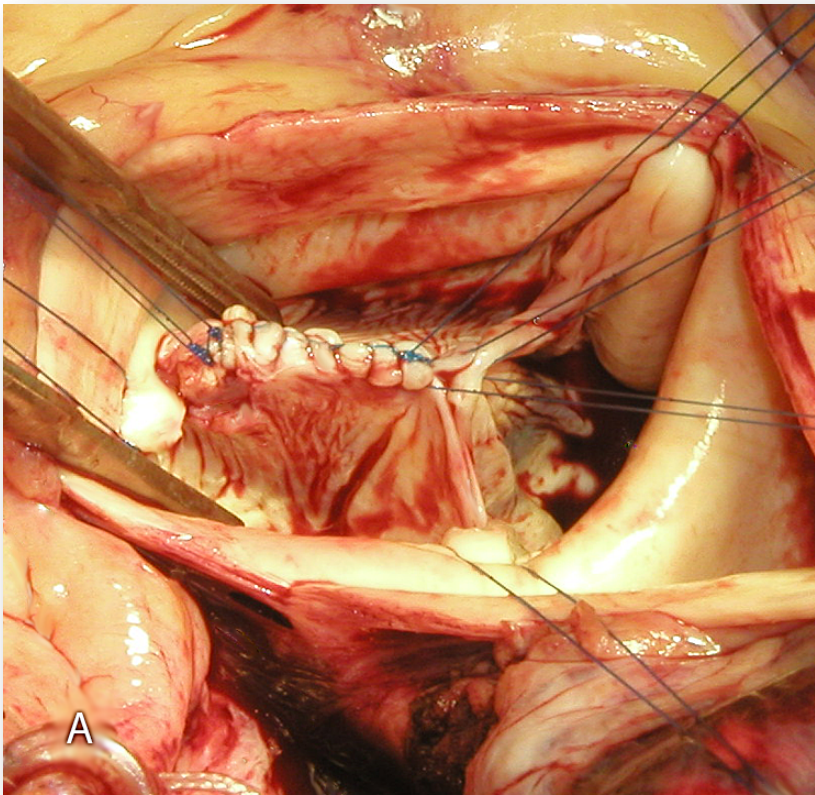
Open Access



Quality of life after aortic valve repair is similar to Ross patients and superior to mechanical valve replacement: a cross-sectional study

Pavel Zacek^{1*†}, T. Holubec^{2†}, M. Vobornik¹, J. Dominik¹, J. Takkenberg³, J. Harrer¹ and J. Vojacek¹

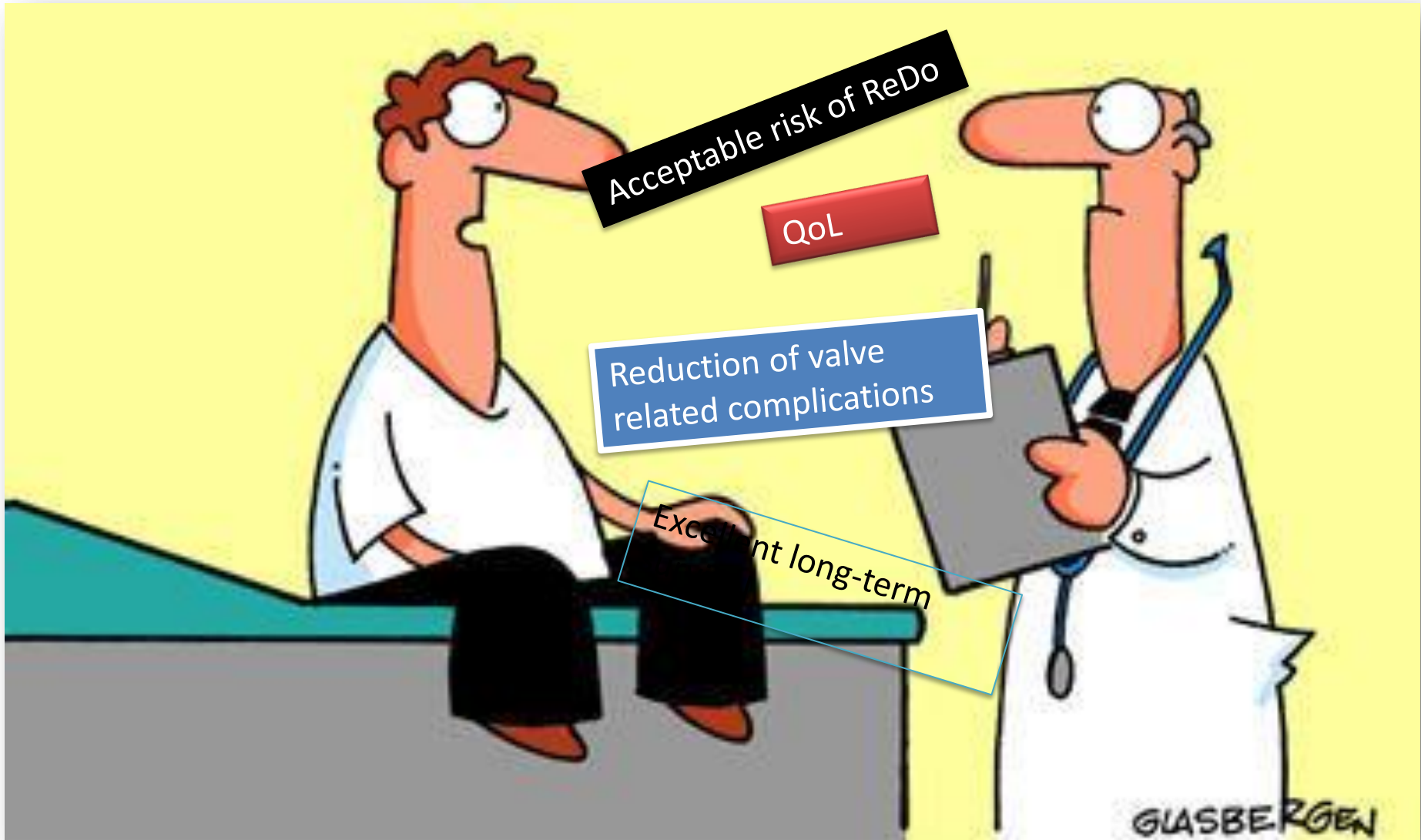
Bicuspid aortic valve





WHY???

GLASBERGEN



Acceptable risk of ReDo

QoL

Reduction of valve related complications

Excellent long-term

GLASBERGEN

When???

Patient selection



When??? – patient selection

Young or middle-age patient with AR +/- aortic dilatation

AR – pure/not mixed lesions

TAV/BAV

Only mild degenerative changes
- limited calcification

Not restricted leaflets (gH)

Thank you for your attention 😊

