Rétrécissement aortique calcifié chez le patient hémodialysé

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Les patients HD ont un risque accru de RAC

En littérature les patients HD +RAC ont un plus mauvais pronostic que les patients RAC

Le remplacement valvulaire aortique améliore le pronostic comparé au traitement médical

- Management of aortic stenosis in patients with end stage renal disease on hemodialysis
- *Mentias A, Circ Cardiovasc Interv 2020*

- 8107 patients registre MEDPAR 2015-2017
- 4130 (50%) TAVI
- 2562 (31,6%) RVA
- 1412 (17,4%) Traitement médical

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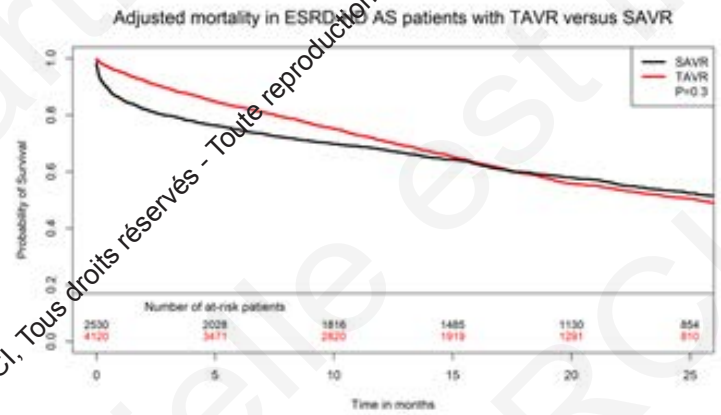

Figure 1:
Adjusted Kaplan Meier curves of survival with TAVR versus SAVR in ESRD-HD patients. TAVR=Transcatheter aortic valve replacement, SAVR=Surgical aortic valve replacement, ESRD-HD= End stage renal disease on hemodialysis.

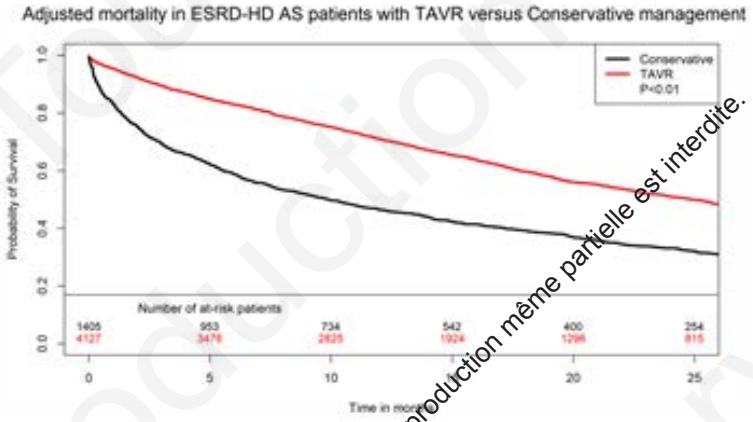

Figure 2:
Adjusted Kaplan Meier curves of survival with TAVR versus conservative management in patients with ESRD-HD. Abbreviations as Figure 1.

Mortalité précoce > chirurgie 4,6% TAVI 12,8% RVA

Mortalité à 1 an pas de différence 28,1% TAVI 31% RVA

What is known

- End stage renal disease patients on hemodialysis (ESRD-HD) with aortic stenosis (AS) have poor prognosis.
- Transcatheter aortic valve replacement (TAVR) in ESRD-HD patients have worse outcomes when compared to patients not on dialysis.

What the study adds

- Survival of ESRD-HD patients with AS is better with TAVR and surgical AVR (SAVR) when compared to conservative management.
- Rates of heart failure admissions in ESRD-HD patients with AS declined after TAVR and SAVR.
- Short-term mortality is lower with TAVR compared to SAVR in ESRD-HD patients, but long-term mortality is not different.

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Surmortalité:

- Saignement
- AIT/AVC
- IDM
- Ischémie mésentérique
- Infection / sepsis
- Défaillance multi-viscérale

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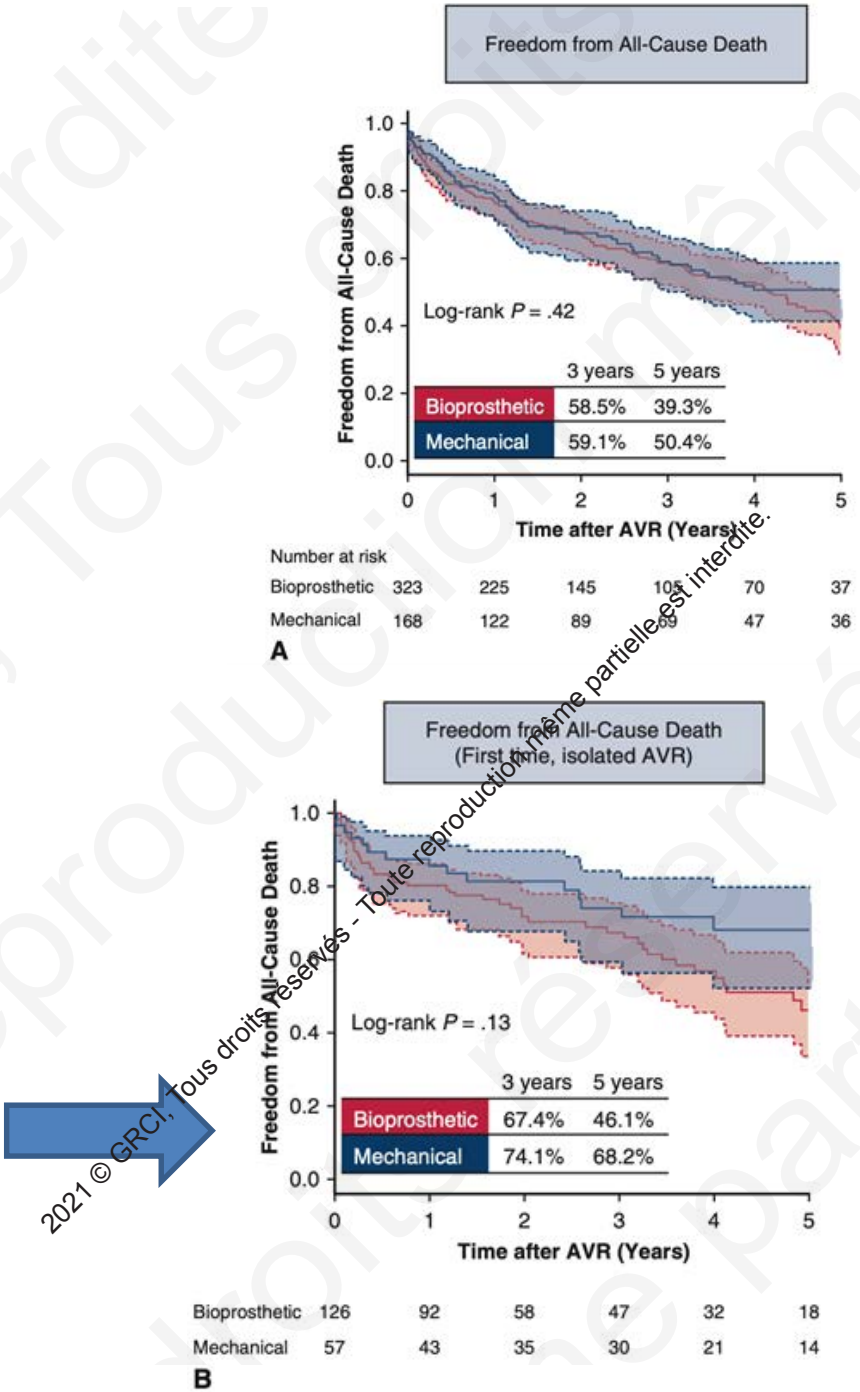
Survie similaire RVA par prothèse mécanique ou par prothèse bioprothèse



Nakatsu et al, J Thorac Cardiovasc Surg 2019

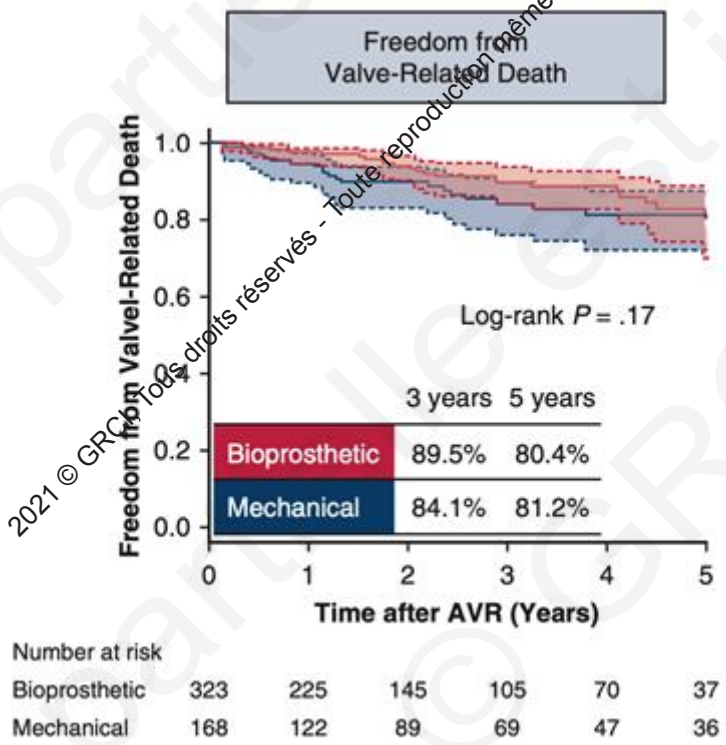


TABLE 3. Late outcomes

	Group B (n = 323), bioprosthetic	Group M (n = 168), mechanical
All-cause mortality	107 (33.1%)	63 (37.5%)
Valve-related death	26 (8.0%)	23 (13.7%)
Bleeding event related	10 (3.1%)	8 (4.8%)
Prosthetic valve endocarditis related	4 (1.2%)	4 (2.4%)
Thromboembolic event related	1 (0.3%)	1 (0.6%)
Sudden death	11 (3.4%)	10 (6.0%)
Non–valve-related cardiac death	21 (6.5%)	10 (6.0%)
Peripheral arterial disease–related death	10 (3.1%)	11 (6.5%)
Pneumonia	16 (5.0%)	3 (1.8%)
Infection	7 (2.2%)	3 (1.8%)
Malignancy	6 (1.9%)	2 (1.2%)
Gastrointestinal disease	6 (1.9%)	2 (1.2%)
Others and/or unknown	15 (4.6%)	9 (5.4%)
Valve-related event		
Bleeding event*	68 (21.1%)	42 (25.0%)
Thromboembolic event	11 (3.4%)	8 (4.8%)
Structural valve deterioration	6 (1.9%)	0
Prosthetic valve endocarditis	6 (1.9%)	7 (4.2%)
Aortic valve reoperation	2 (0.6%)	2 (1.2%)

*One patient may have had more than 1 event.

CHOIX PROTHESE

- PM et BP : risque accru d'endocardite
- L'anticoagulation à vie est un facteur important dans la décision
- Dégénérescence accélérée fréquente pour les BP, longue durabilité pour les PM
- La prothèse optimale reste controversée
- Les recommandations ont évolué dans le temps
- Actuellement il n'y pas de recommandations spécifiques
- BP sur le court terme OK (< 5 ans)
- Plusieurs études montrent une survie à 5 ans similaires
- Bénéfices des BP se portent sur les saignements, les thromboses et les AVC avec moins de complications liées à la valve
- Survie à 10 ans est de 18%
- CHOIX INDIVIDUALISE : âge et état clinique

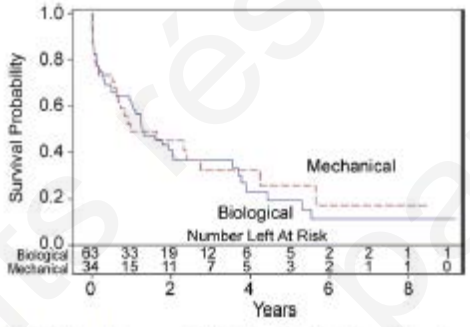


Fig 2. Kaplan-Meier survival estimates for all isolated aortic valve replacement: biologic versus mechanical.

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Recommendations for prosthetic valve selection

Recommendations	Class[a]	Level[b]
Mechanical prostheses		
A mechanical prosthesis is recommended according to the desire of the informed patient and if there are no contraindications to long-term anticoagulation.[c]	I	C
A mechanical prosthesis is recommended in patients at risk of accelerated SVD.[d]	I	C
A mechanical prosthesis should be considered in patients already on anticoagulation because of a mechanical prosthesis in another valve position.	IIa	C
A mechanical prosthesis should be considered in patients aged <60 years for prostheses in the aortic position and aged <65 years for prostheses in the mitral position.[462, 464 e]	IIa	B
A mechanical prosthesis should be considered in patients with a reasonable life expectancy for whom future redo valve surgery or TAVI (if appropriate) would be at high risk.[f]	IIa	C
A mechanical prosthesis may be considered in patients already on long-term anticoagulation due to the high risk for thromboembolism.[f]	IIb	C
Biological prostheses		
A bioprosthesis is recommended according to the desire of the informed patient.	I	C
A bioprosthesis is recommended when good-quality anticoagulation is unlikely (adherence problems, not readily available), contraindicated because of high bleeding risk (previous major bleed, comorbidities, unwillingness, adherence problems, lifestyle, occupation) and in those patients whose life expectancy is lower than the presumed durability of the bioprosthesis.[g]	I	C
A bioprosthesis is recommended in case of reoperation for mechanical valve thrombosis despite good long-term anticoagulant control.	I	C
A bioprosthesis should be considered in patients for whom there is a low likelihood and/or low operative risk of future redo valve surgery.	IIa	C
A bioprosthesis should be considered in young women contemplating pregnancy.	IIa	C
A bioprosthesis should be considered in patients aged >65 years for a prosthesis in the aortic position or aged >70 years in a mitral position.	IIa	C
A bioprosthesis may be considered in patients already on long-term NOACs due to the high risk for thromboembolism.[466–469 f]	IIb	B

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11.1.2. Selection of Prosthetic Valve Type: Bioprosthetic Versus Mechanical Valve

Recommendations for Prosthetic Valve Type: Bioprosthetic Versus Mechanical Valve
Referenced studies that support the recommendations are summarized in Online Data Supplement 35.

COR	LOE	Recommendations
1	C-LD	1. For patients who require heart valve replacement, the choice of prosthetic valve should be based on a shared decision-making process that accounts for the patient's values and preferences and includes discussion of the indications for and risks of anticoagulant therapy and the potential need for and risks associated with valve reintervention.

Recommendations for Prosthetic Valve Type: Bioprosthetic Versus Mechanical Valve (Continued)

COR	LOE	Recommendations
1	C-EO	2. For patients of any age requiring valve replacement for whom anticoagulant therapy is contraindicated, cannot be managed appropriately, or is not desired, a bioprosthetic valve is recommended.
2a	B-NR	3. For patients <50 years of age who do not have a contraindication to anticoagulation and require AVR, it is reasonable to choose a mechanical aortic prosthesis over a bioprosthetic valve.[110]
2a	B-NR	4. For patients 50 to 65 years of age who require AVR and who do not have a contraindication to anticoagulation, it is reasonable to individualize the choice of either a mechanical or bioprosthetic AVR, with consideration of individual patient factors and after informed shared decision-making.[110]
2a	B-NR	5. In patients >65 years of age who require AVR, it is reasonable to choose a bioprosthesis over a mechanical valve.[110]
2a	B-NR	6. For patients <65 years of age who have an indication for mitral valve replacement, do not have a contraindication to anticoagulation, and are unable to undergo mitral valve repair, it is reasonable to choose a mechanical mitral prosthesis over a bioprosthetic valve.[110,116,119,414]
2a	B-NR	7. For patients ≥65 years of age who require mitral valve replacement and are unable to undergo mitral valve repair, it is reasonable to choose a bioprosthesis over a mechanical valve.[110,116,414]
2b	B-NR	8. In patients <50 years of age who prefer a bioprosthetic AVR and have appropriate anatomy, replacement of the aortic valve by a pulmonic autograft (the Ross procedure) may be considered at a Comprehensive Valve Center.[120-122]