ELECTRA

5-6 DÉCEMBRE 2024

HOTEL VILLA MASSALIA,
MARSEILLE I FRANCE

18èmes journées françaises
pratiques de rythmologie
& de stimulation cardiaque

WWW.CONGRES-ELECTRA.COM

2004 - 2024
20 ans
ELECTRA

Implante / implante pas
Cas n°1 : post TAVI

Thibaut MOULIN
Hôpital Henri Mondor, Créteil
05/12/2024

Pas de conflit d’intérêt

Cas clinique

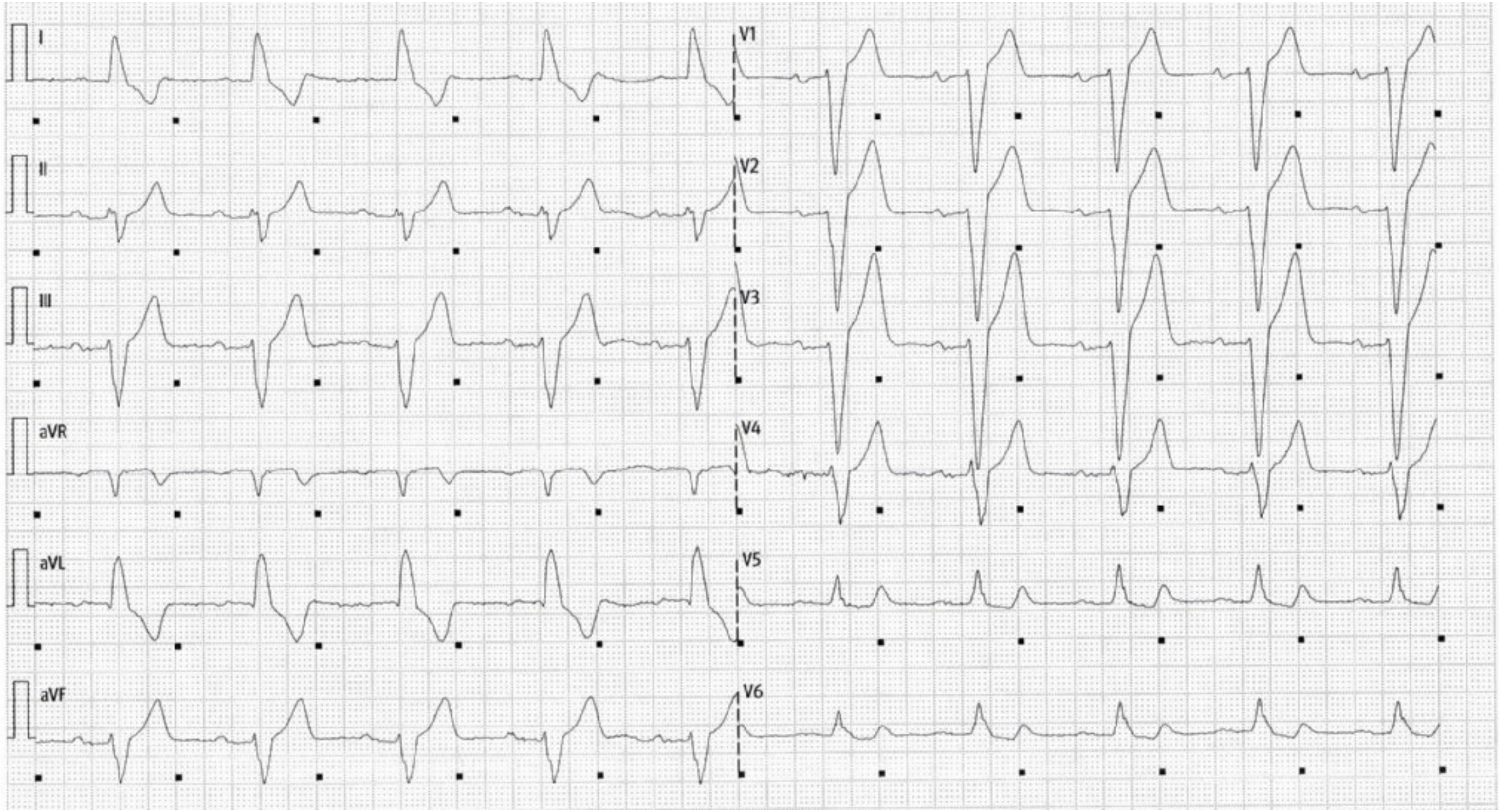
- Homme 80 ans
- HTA, dyslipidémie, diabète sous Metformine
- Cardiopathie ischémique, angioplastie IVA1 et CD2
- RAC serré symptomatique
- FEVG normale

- TAVI Evolut Pro+ 26, voie fémorale

ECG pré-TAVI

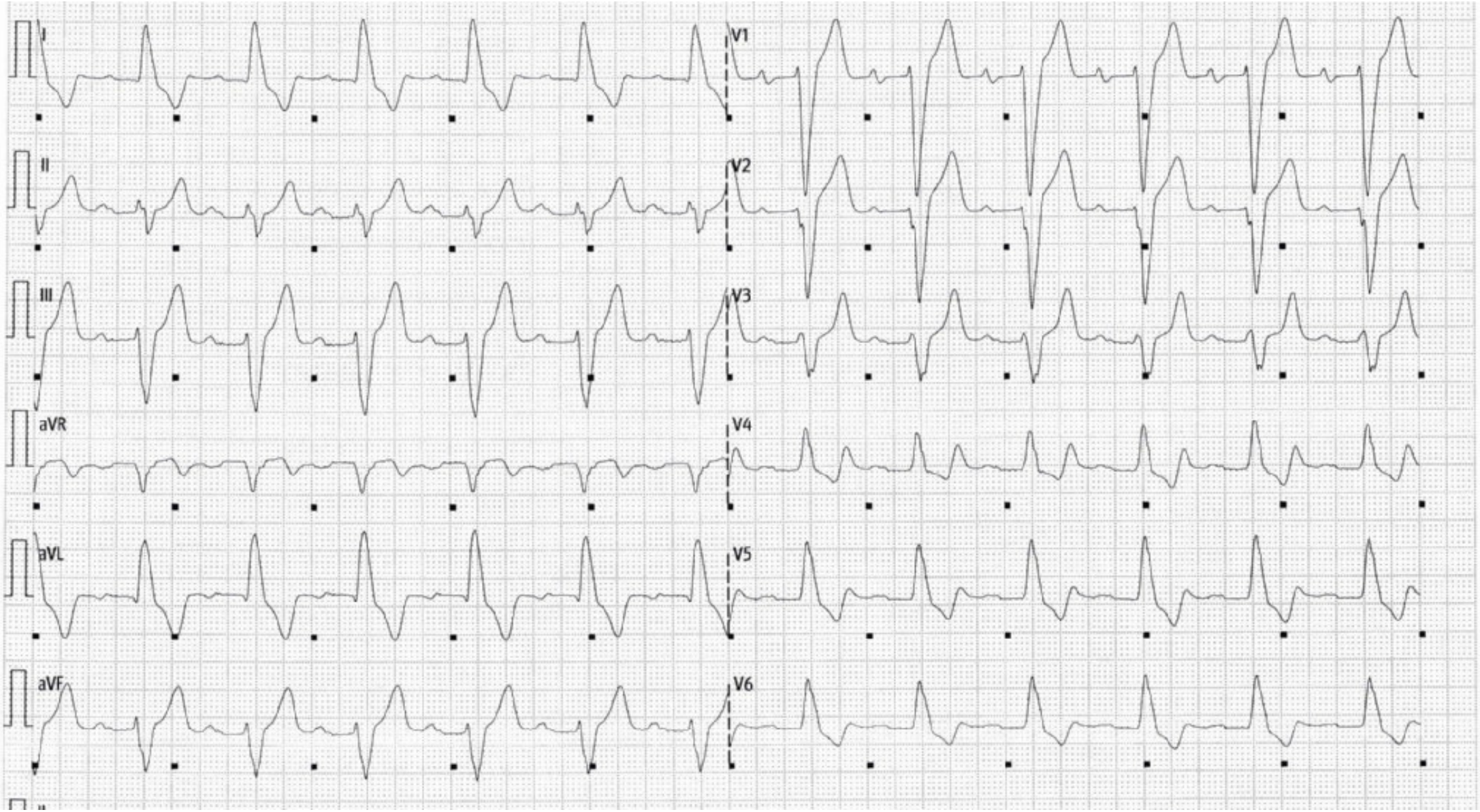
Post-TAVI J0

PR 250 ms, QRS 160 ms



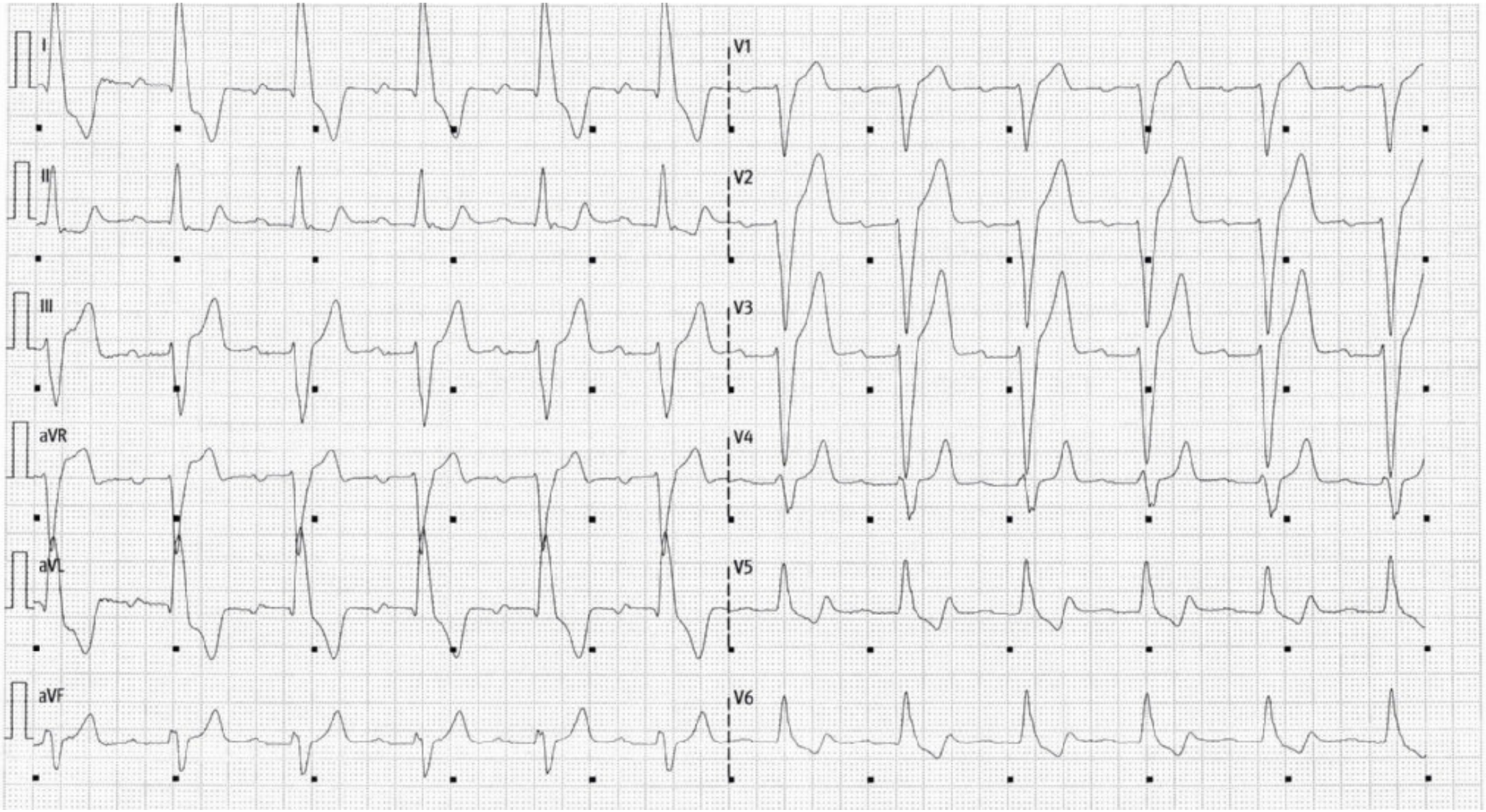
Post-TAVI J+2

PR 280 ms, QRS 160 ms



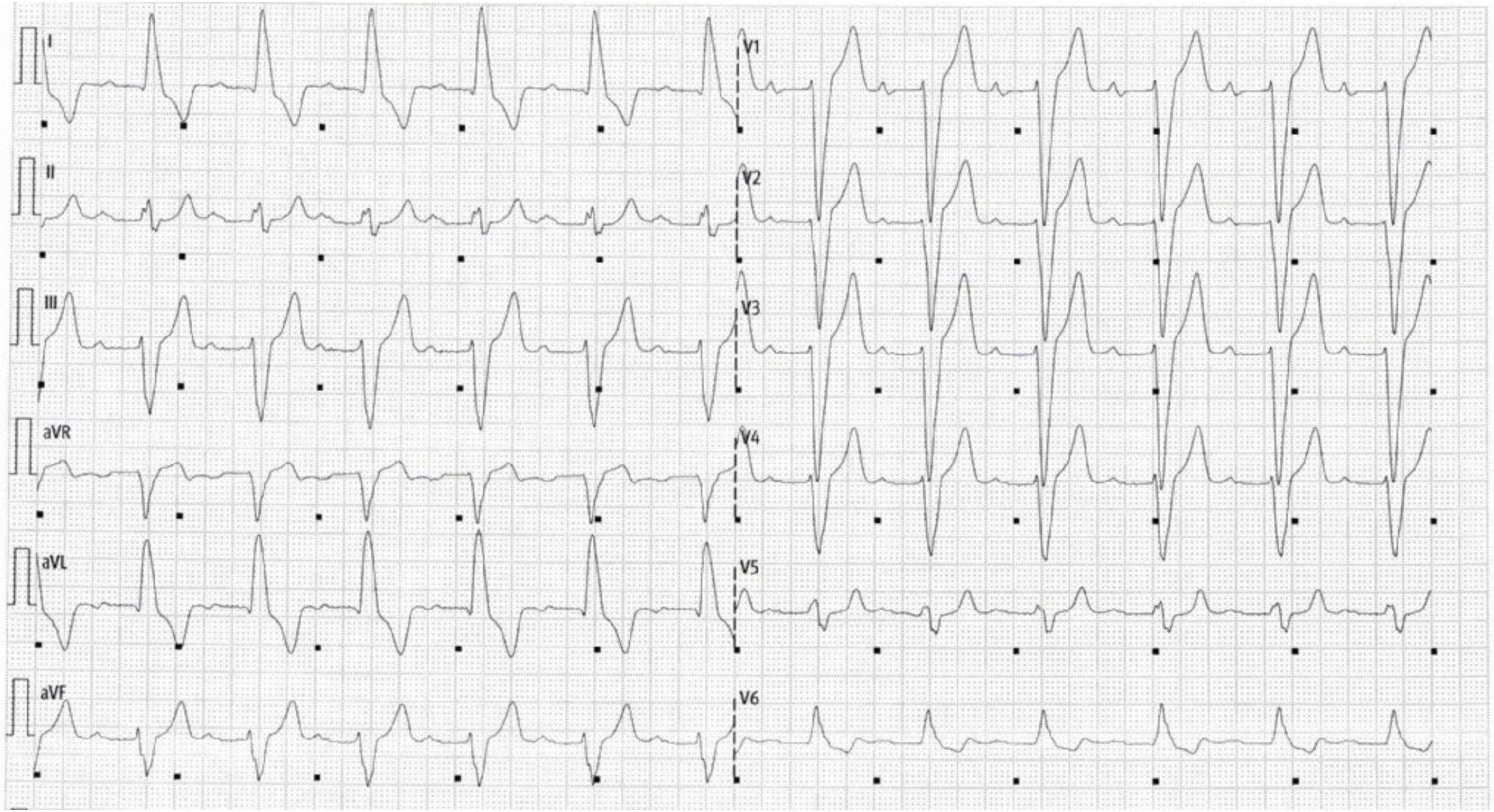
Post-TAVI J+3

PR 300 ms, QRS 160 ms



Post-TAVI J+5

PR 320 ms, QRS 160 ms



J’implante / je n’implante pas ?

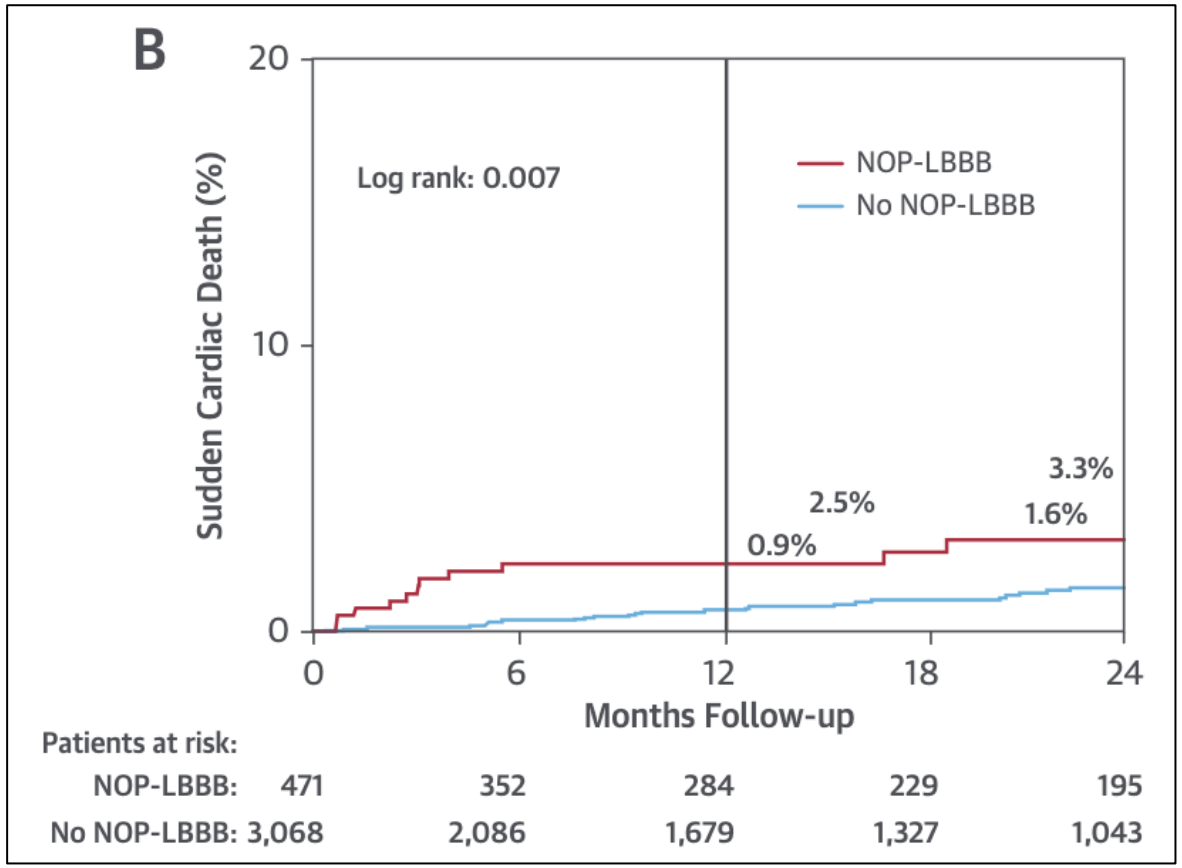
J’implante / j’attends ?

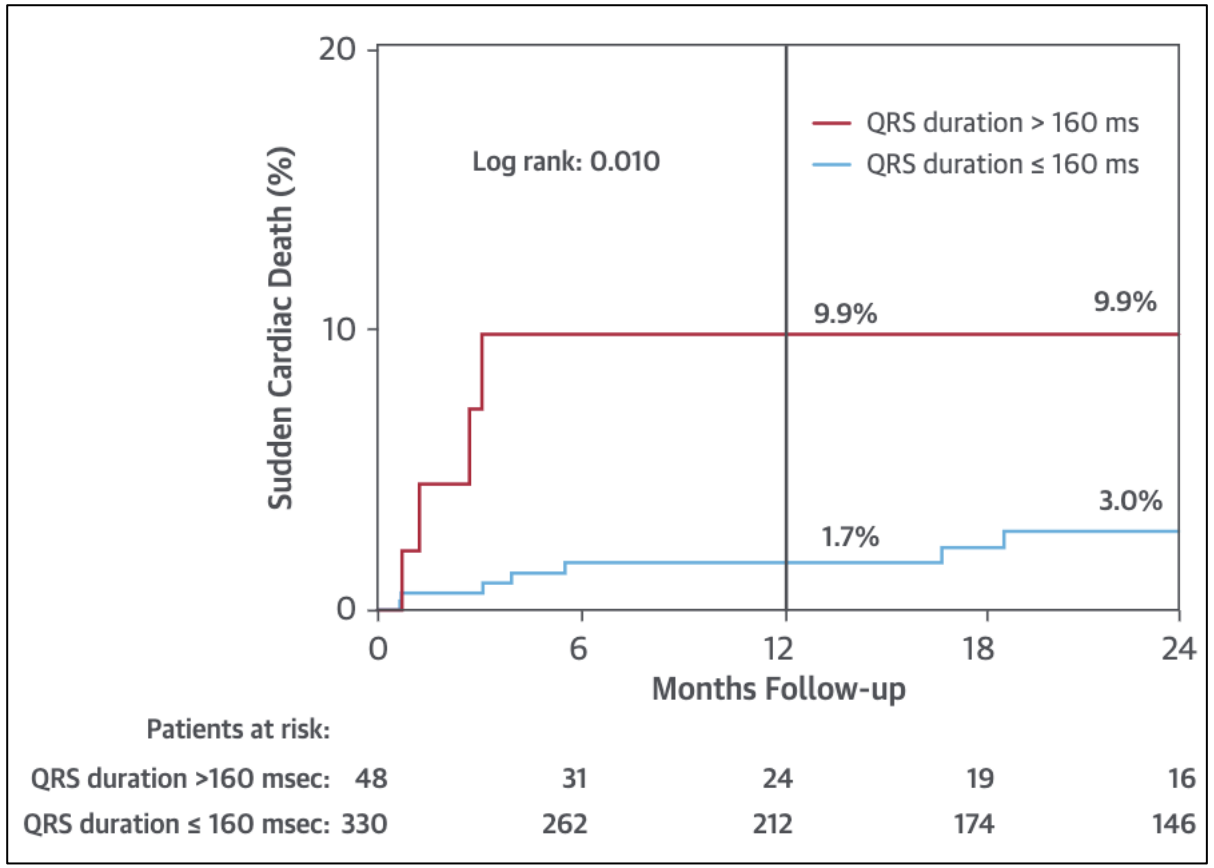
BBG post TAVI, les chiffres

- **Incidence : 13 – 37%** (méta-analyse, *Regueiro, Circ Cardiovasc interv 2016)*

- **Taux d'implantation**
- 14.2% - *Schymik, Clin Res Cardiol 2015*
- 17.3% - *Regueiro, Circ Cardiovasc Interv 2016*
- 11% - *Rodes Cabau, JACC Cardiovasc Interv 2018*
- 9.4% - *Chamandi, JACC Cardiovasc Interv 2019*
- 7% - *Nazif, Eur Heart J 2019*
- 9% - *Faroux, Am J Cardiol 2020*

BBG post TAVI et mort subite



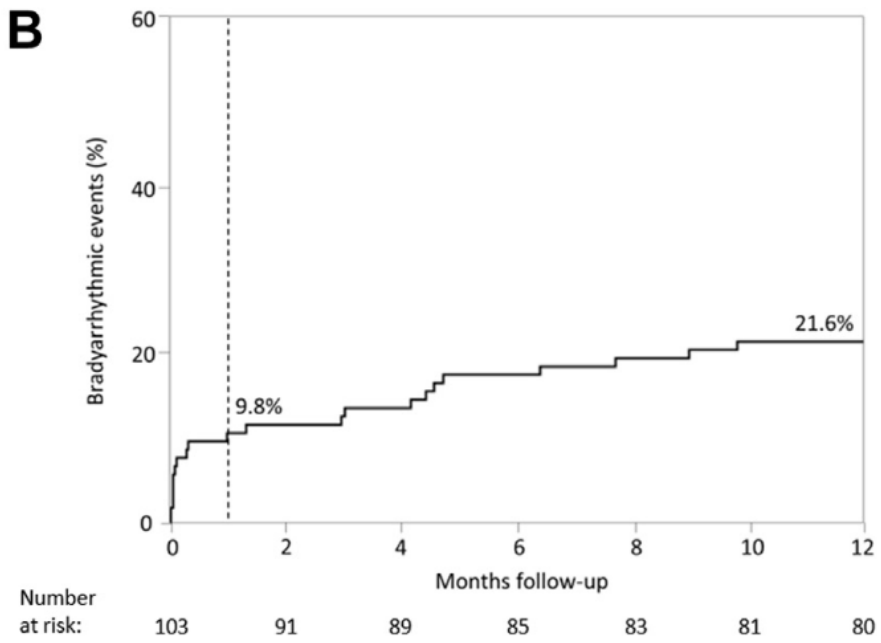


Urena, JACC 2015

Monitoring ECG

Arrhythmic Burden as Determined by Ambulatory Continuous Cardiac Monitoring in Patients With New-Onset Persistent Left Bundle Branch Block Following Transcatheter Aortic Valve Replacement

The MARE Study



ILR for new LBBB after TAVI (n = 103, 1 year)

- 15% high grade AV Block (≈ 50% < 30 days)
- 10% PM implantation (≈ 50% asymptomatic)
- 1% Sudden death (unknown cause)

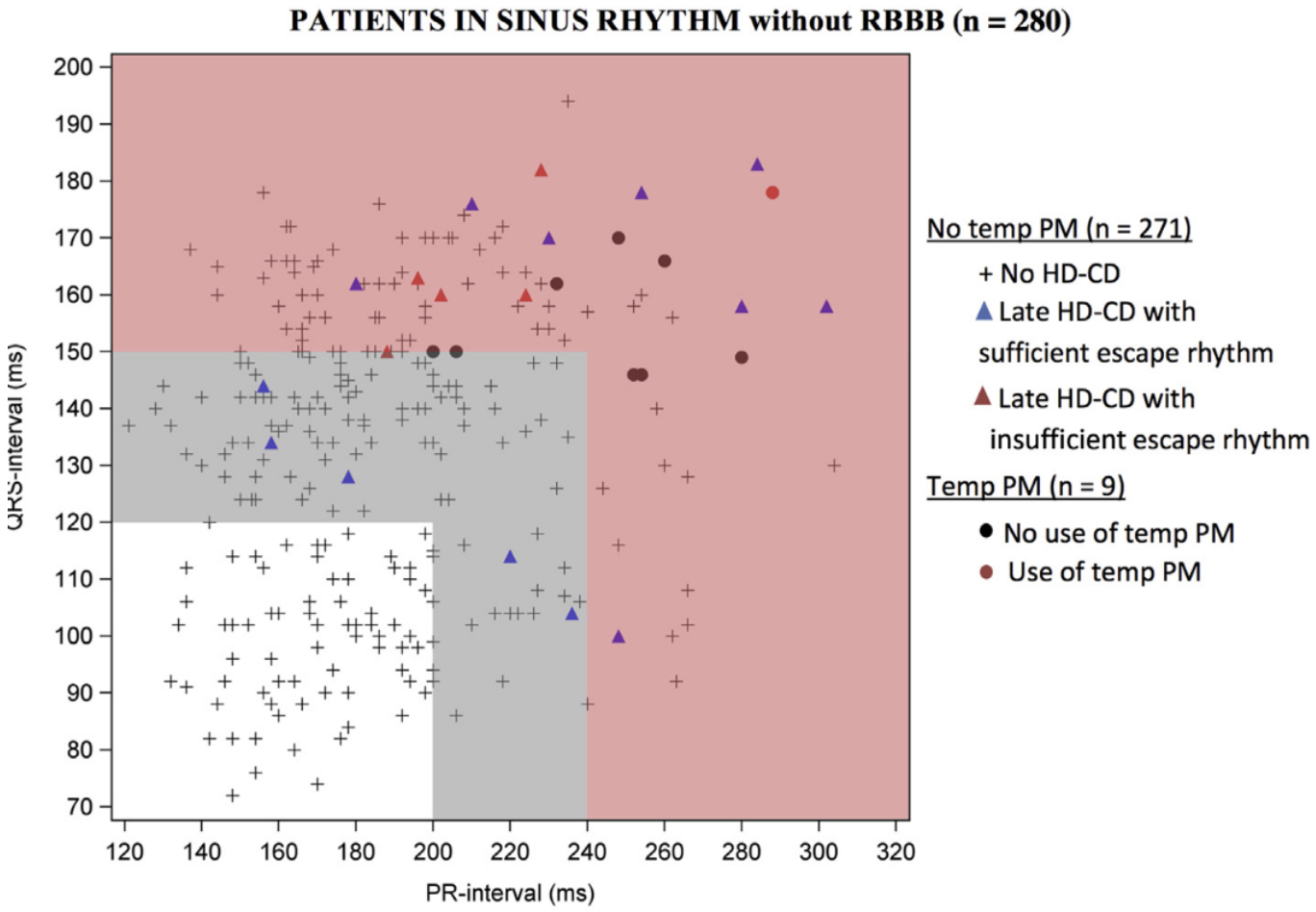
TABLE 4 Clinical Events at 12-Month Follow-Up

	Overall (N = 103)	Sapien XT/3 (n = 53)	CoreValve/ Evolut R (n = 50)	p Value
Overall death	12 (12)	8 (15)	4 (8)	0.26
Cardiovascular death	4 (4)	2 (4)	2 (4)	1.0
Sudden death	1 (1)	1 (2)	0 (0)	1.0
Stroke/TIA	8 (8)	4 (8)	4 (8)	1.0
Myocardial infarction	4 (5)	2 (4)	2 (4)	1.0
Rehospitalization*	19 (18)	12 (23)	7 (14)	0.26
Rehospitalization because of cardiac causes*	12 (12)	8 (15)	4 (8)	0.26

Values are n (%). *Number of patients.
TIA = transient ischemic attack.

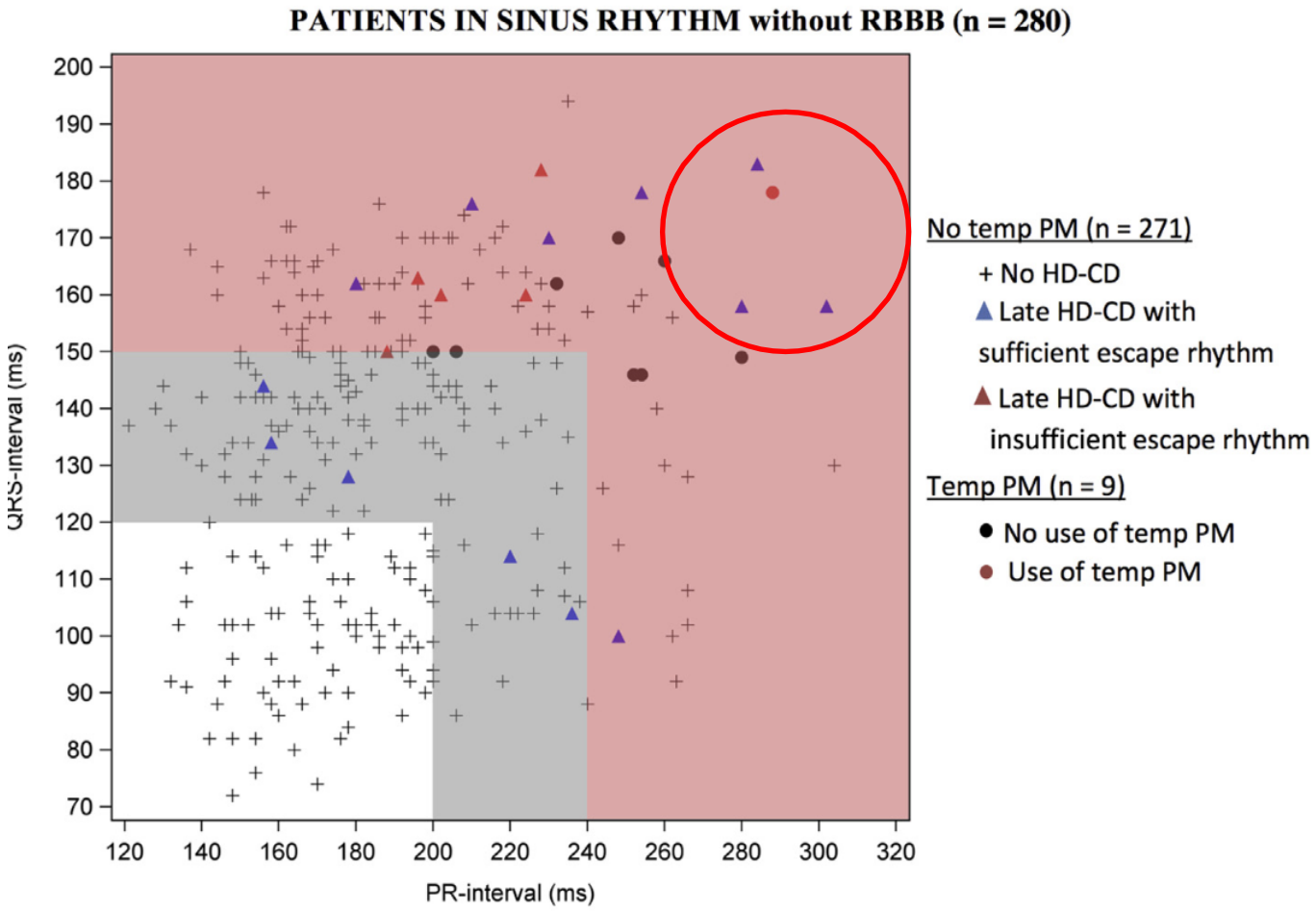
Rodes Cabau, JACC Cardiovasc Interv 2018

Stratification du risque par ECG



Jorgensen, JACC Cardiovasc Interv 2019

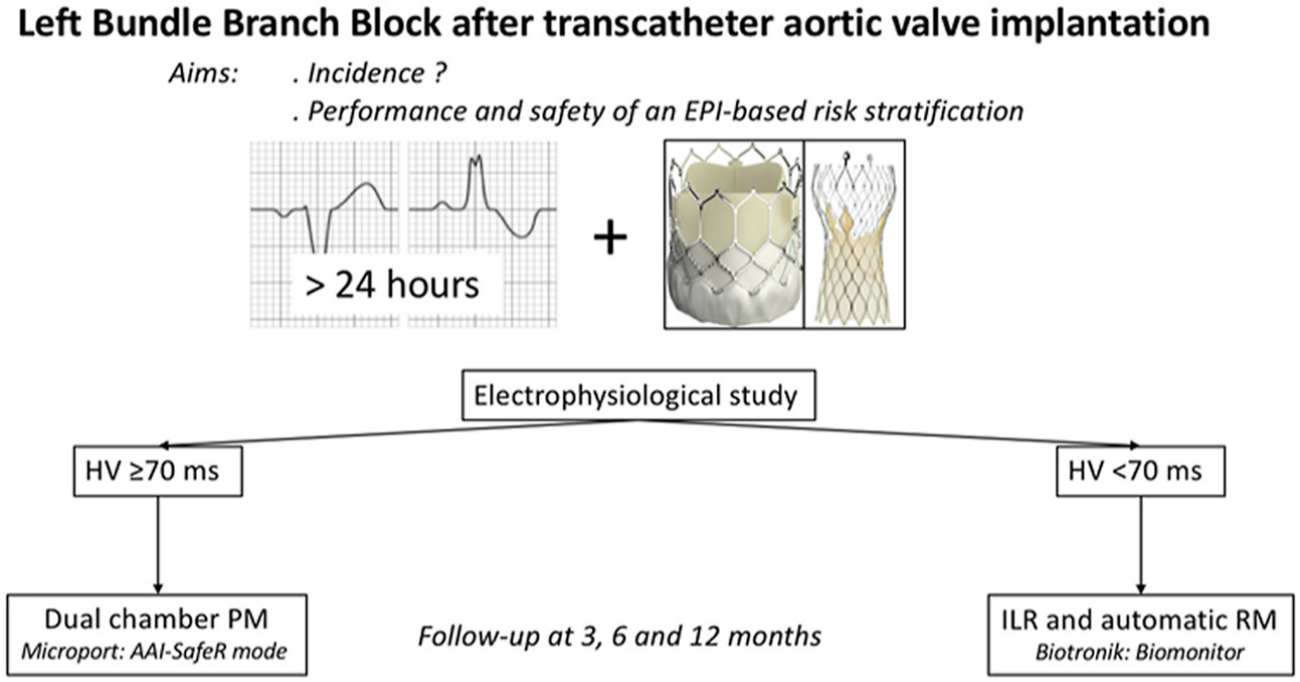
Stratification du risque par ECG



Jorgensen, JACC Cardiovasc Interv 2019

Stratification par EEP

Incidence and management of atrioventricular conduction disorders in new-onset left bundle branch block after TAVI: A prospective multicenter study



N = 183 persistent LBBB post TAVI

HV > 70 ms → PM (SafeR Mode)
HV < 70 ms → ILR

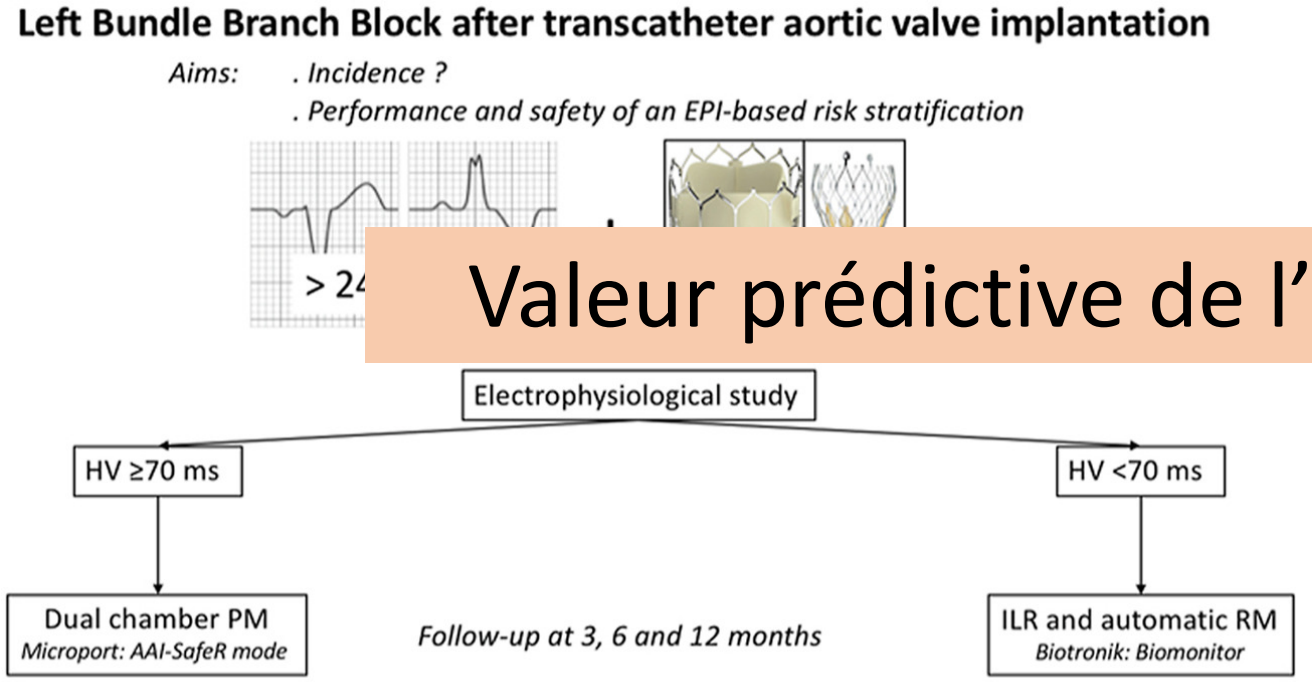
30% High Grade AV block :
53% (PM) vs 23% (ILR) (p<0.001)
4/31 symptomatic in ILR groupe
No sudden death

HV > 70 ms independently associated with AVB (SHR 2.4)

Massoullié, Heart Rhythm 2023

Stratification par EEP

Incidence and management of atrioventricular conduction disorders in new-onset left bundle branch block after TAVI: A prospective multicenter study



N = 183 persistent LBBB post TAVI

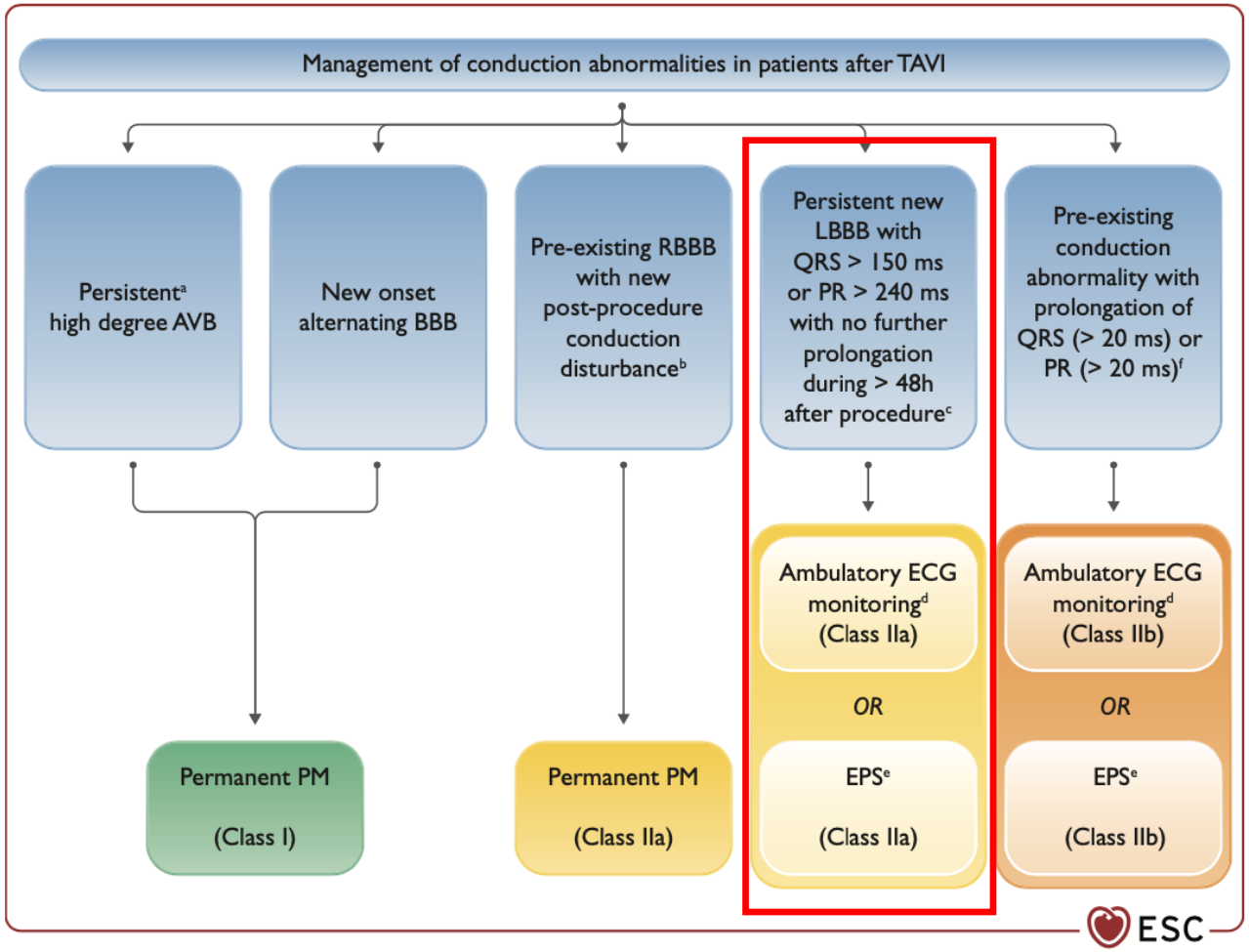
HV > 70 ms → PM (SafeR Mode)
HV < 70 ms → ILR

Valeur prédictive de l'EEP vs ECG ?

: <0.001)
4/31 symptomatic in ILR groupe
No sudden death

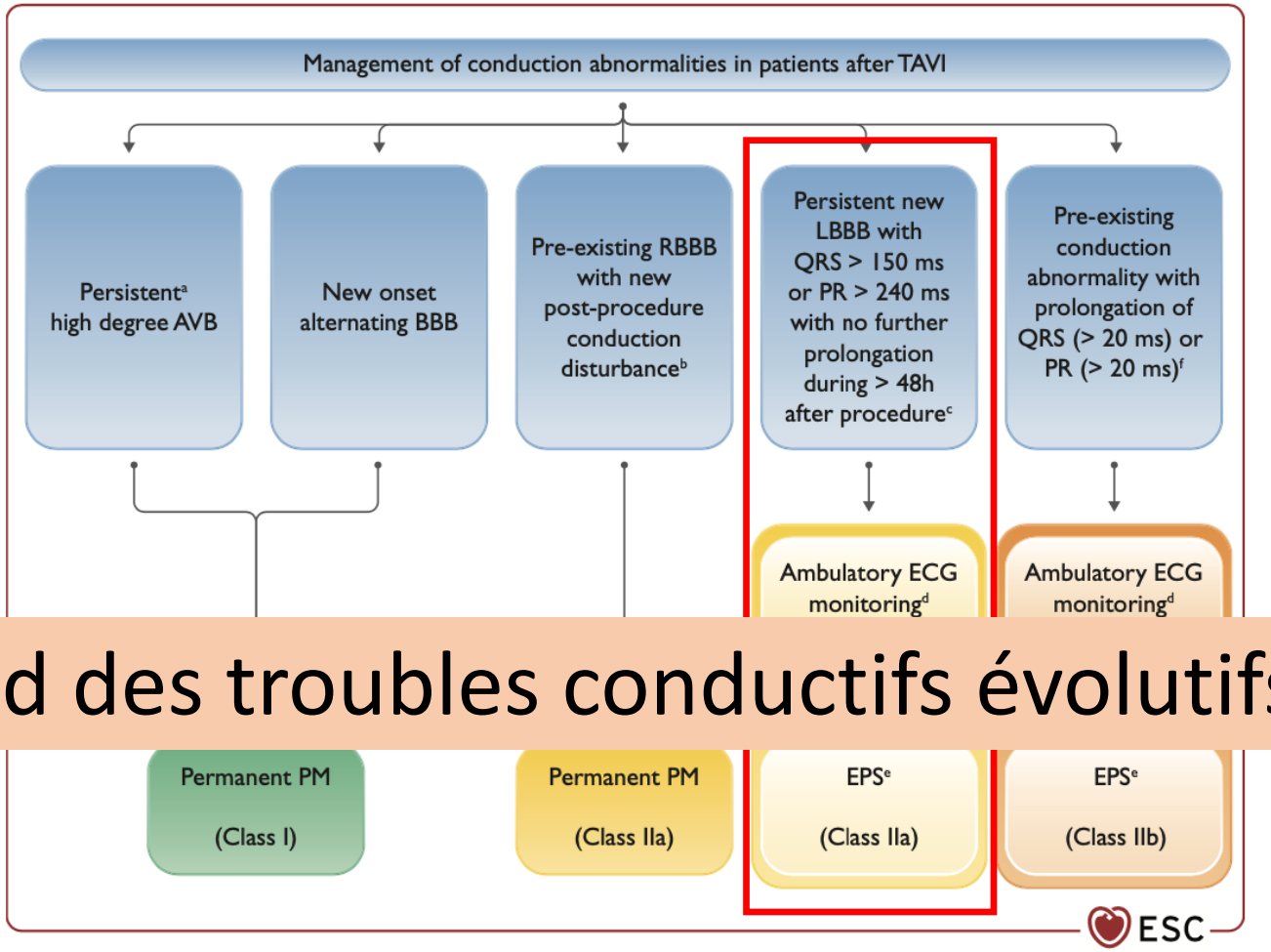
HV > 70 ms independently associated with AVB (SHR 2.4)

Massoullié, Heart Rhythm 2023



ESC guidelines 2021

Figure 12 Management of conduction abnormalities after transcatheter aortic valve implantation. AF = atrial fibrillation; AV = atrioventricular; AVB = atrioventricular block; BBB = bundle branch block; ECG = electrocardiogram; EPS = electrophysiology study; HV = His–ventricular interval; LBBB = left bundle branch block; LVEF = left ventricular ejection fraction; PM = pacemaker; QRS = Q, R, and S waves; RBBB = right bundle branch block; TAVI = transcatheter aortic valve implantation. [a]24-48 h post-procedure. [b]Transient high-degree AVB, PR prolongation, or axis change. [c]High-risk parameters for high-degree AV block in patients with new-onset LBBB include: AF, prolonged PR interval, and LVEF <40%. [d]Ambulatory continuous ECG monitoring for 7 - 30 days. [e]EPS with HV ≥70 ms may be considered positive for permanent pacing. [f]With no further prolongation of QRS or PR during 48-h observation.

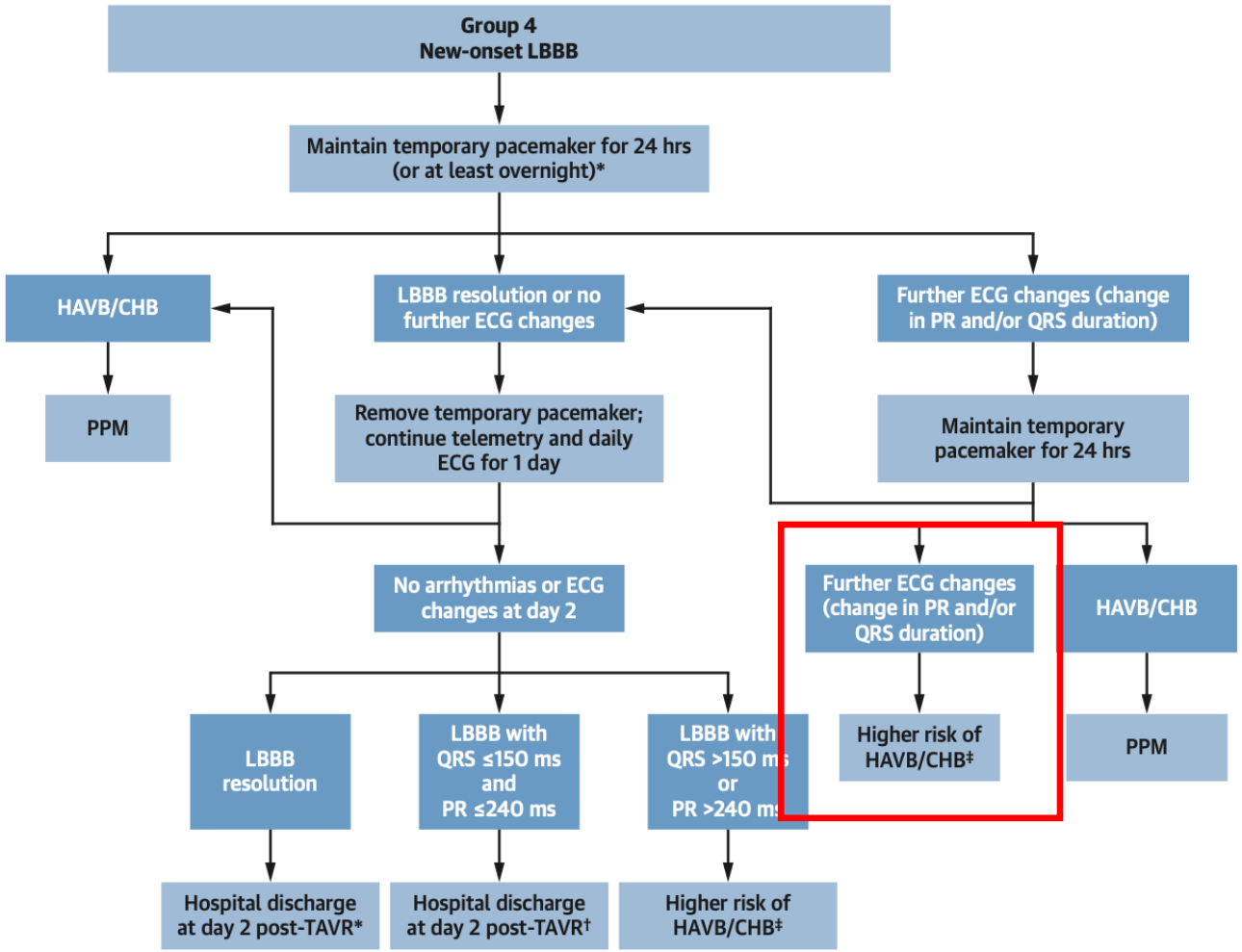


Quid des troubles conductifs évolutifs ?

elines 2021

Figure 12 Management of conduction abnormalities after transcatheter aortic valve implantation. AF = atrial fibrillation; AV = atrioventricular; AVB = atrioventricular block; BBB = bundle branch block; ECG = electrocardiogram; EPS = electrophysiology study; HV = His–ventricular interval; LBBB = left bundle branch block; LVEF = left ventricular ejection fraction; PM = pacemaker; QRS = Q, R, and S waves; RBBB = right bundle branch block; TAVI = transcatheter aortic valve implantation. [a]24-48 h post-procedure. [b]Transient high-degree AVB, PR prolongation, or axis change. [c]High-risk parameters for high-degree AV block in patients with new-onset LBBB include: AF, prolonged PR interval, and LVEF <40%. [d]Ambulatory continuous ECG monitoring for 7 - 30 days. [e]EPS with HV ≥70 ms may be considered positive for permanent pacing. [f]With no further prolongation of QRS or PR during 48-h observation.

FIGURE 5 Strategy Algorithm Proposal for the Management of Patients With New-Onset LBBB Post-TAVR



*Consider earlier discontinuation of temporary pacing along with hospital discharge at day 1 if partial/complete resolution of LBBB in <24 h.
†Consider continuous ECG monitoring at hospital discharge.
‡Consider: 1) invasive EPS to guide the decision about PPM; 2) continuous ECG monitoring at hospital discharge; 3) PPM.

Expert Panel, *Rodes Cabau, JACC 2019*

J’implante...

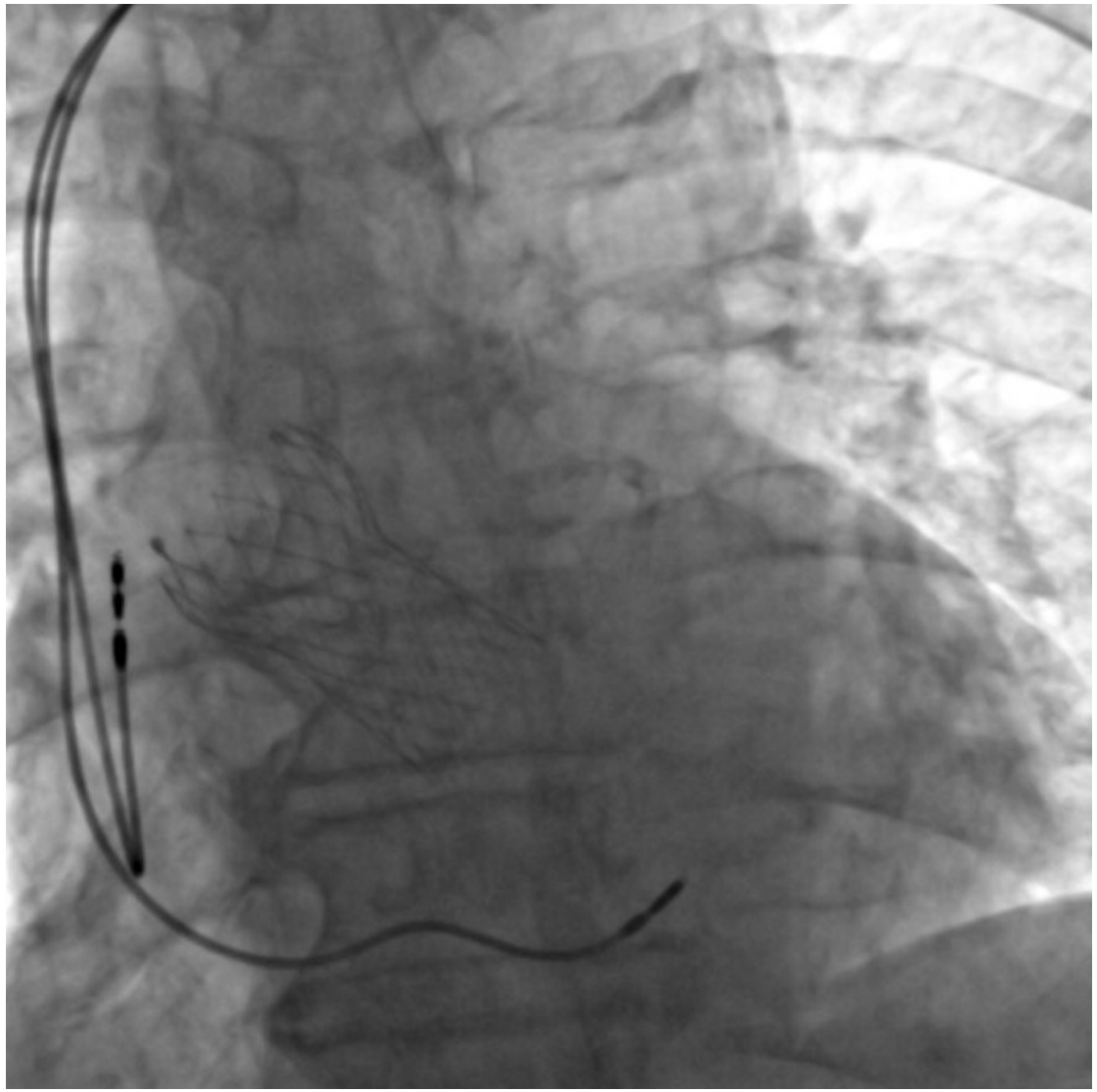
- car il est à haut risque
- pour prévenir une syncope/mort subite
- pour raccourcir l’hospitalisation

J’attends...

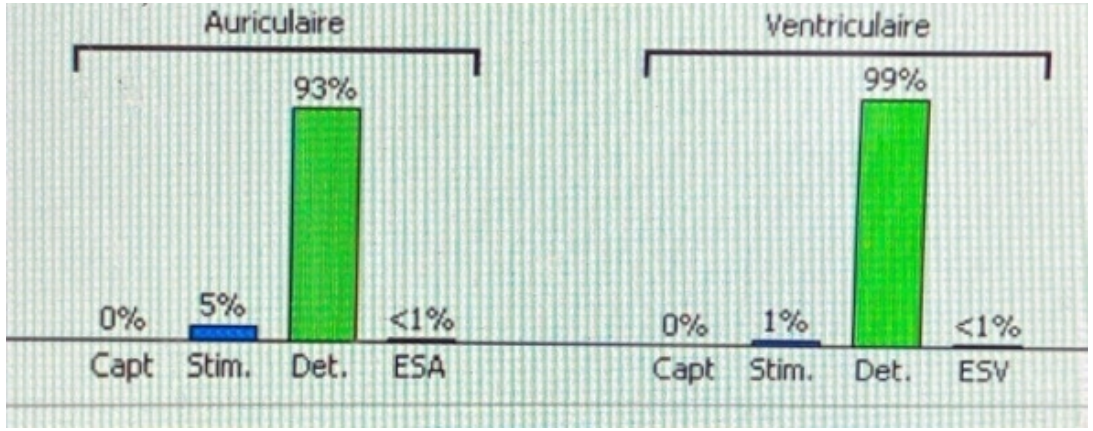
- car il peut récupérer
- pour stratifier le risque (EEP)
- pour suivre les guidelines

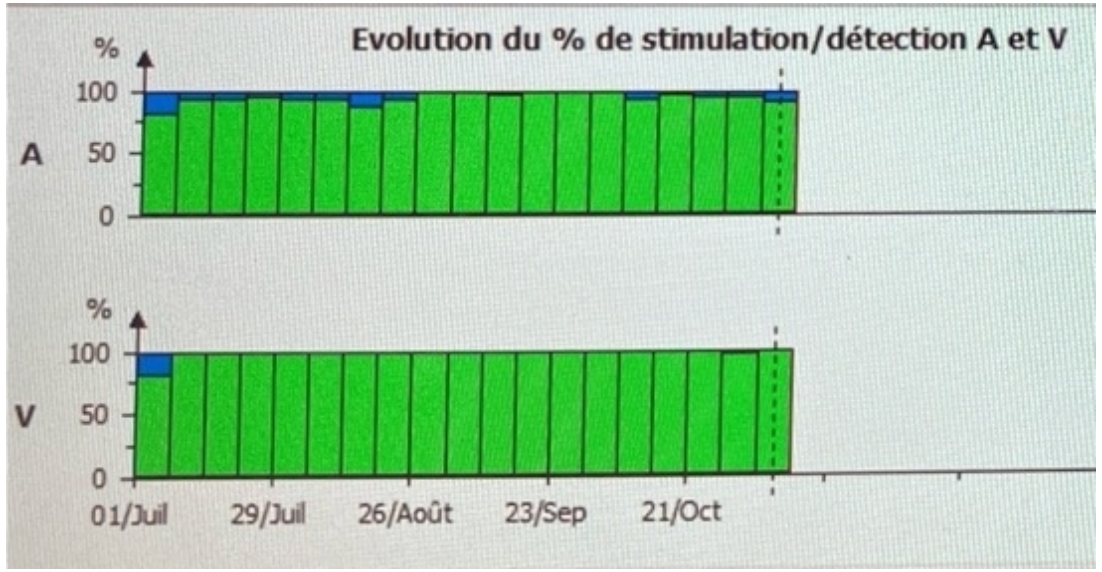
... combien de temps?

Epilogue



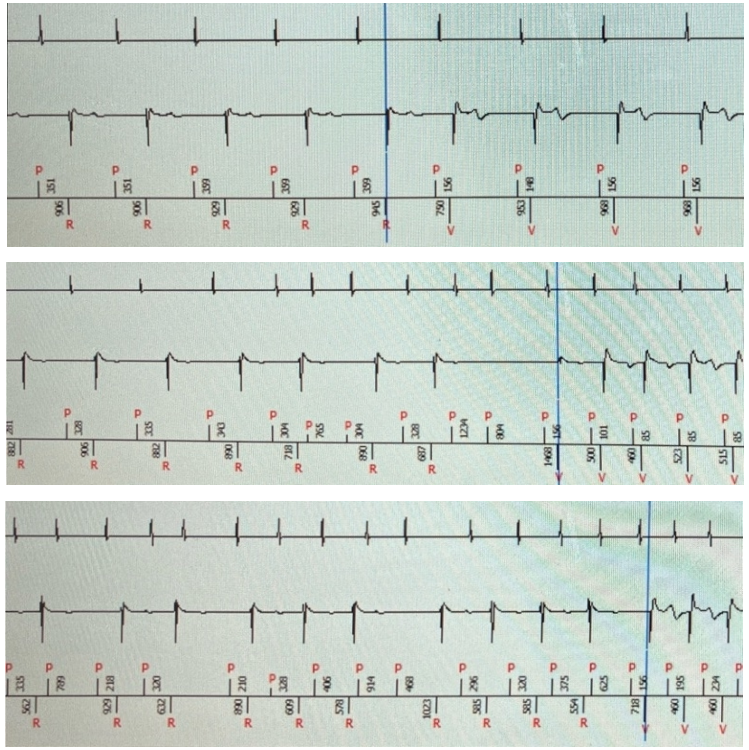
Epilogue



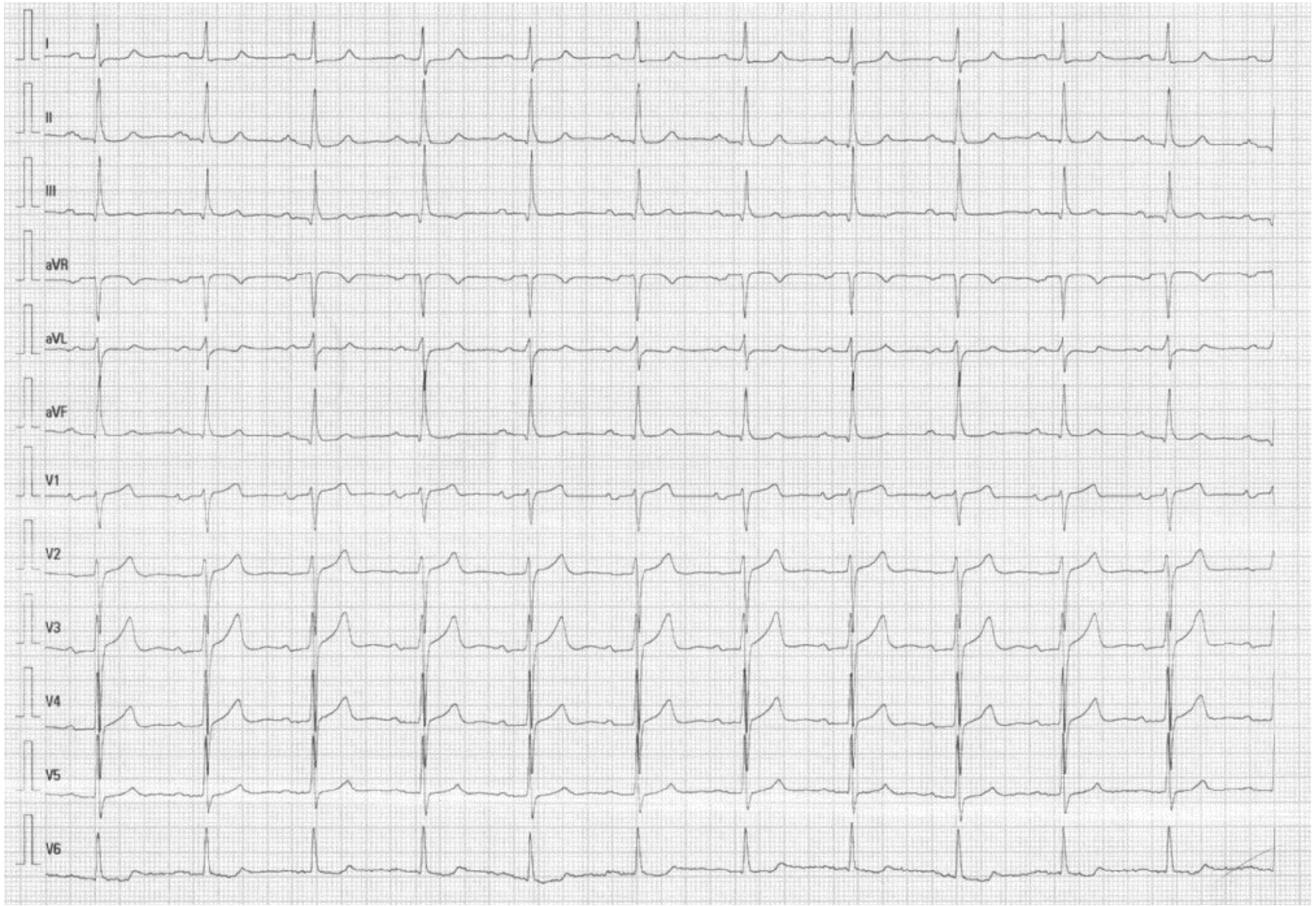


Synthèse des Episodes de BAV

	Jour		Nuit	Total
	Jour effort	Jour repos		
Pause	-	1 (50%)	1 (50%)	2
BAV I	4 (3%)	54 (40%)	77 (57%)	135
BAV II	1 (50%)	-	1 (50%)	2
BAV III	-	1 (100%)	-	1
Episodes BAV	**4 (9%)**	**9 (20%)**	**31 (70%)**	**44**



ECG M+3



Merci de votre attention !