TAVI en première intention: quel impact sur la technique d'implantation?

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Conlits d’intérêts:

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Eviter les fuites paraprothétiques

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Impact clinique négatif des fuites aortiques post TAVI

Five-year outcomes of mild paravalvular regurgitation after transcatheter aortic valve implantation

Taishi Okuno[1], MD; Daijiro Tomii[1], MD; Dik Heg[2], PhD; Jonas Lanz[1], MD, MSc; Fabien Praz[1], MD; Stefan Stortecky[1], MD; David Reineke[3], MD; Stephan Windecker[1], MD; Thomas Pilgrim[1]*, MD, MSc

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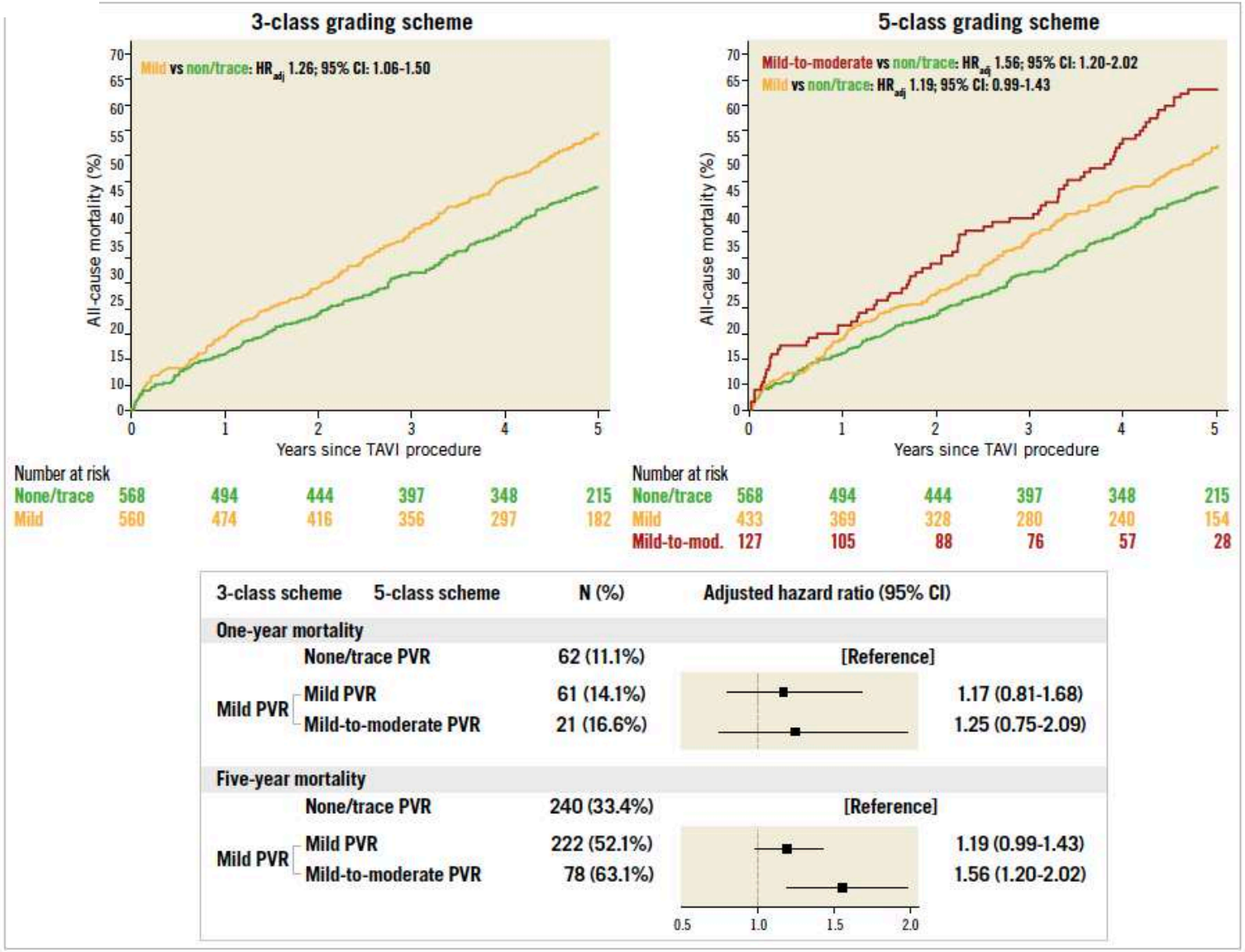


Quelles conséquences techniques ?

Sizing pointu

Choix de la prothèse TAVI la plus efficace

Positionnement optimal de la prothèse TAVI

Postdilatation +++si nécessaire

Minimiser les troubles conductifs

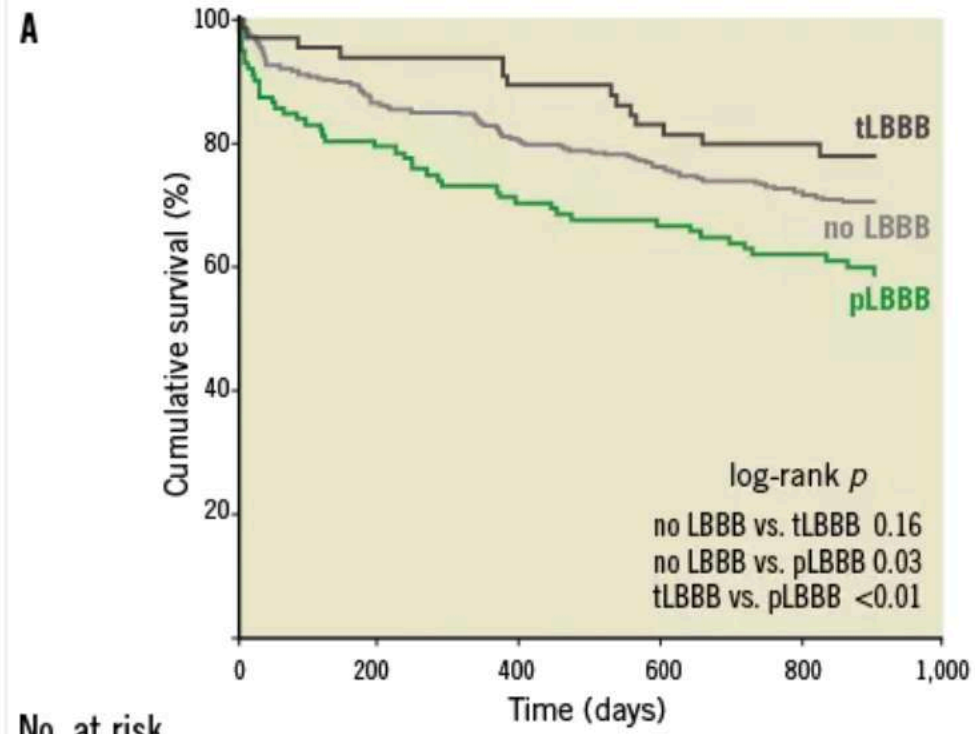
Les troubles conductifs sont liés:

-à la présence d’un BBD à l’état basal

-aux calcifications extensives de la chambre de chasse VG

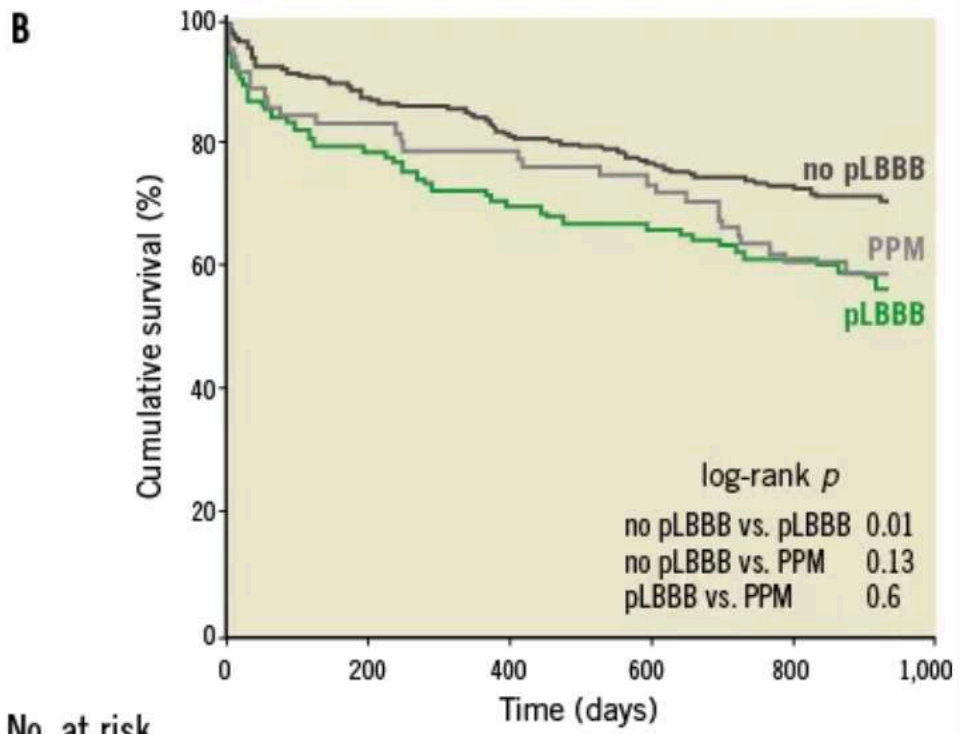
-au type de prothèse utilisé

-à la profondeur d’implantation



No. at risk

no LBBB	301	259	241	225	178	128
tLBBB	64	60	57	53	44	30
pLBBB	111	88	78	72	62	50



No. at risk

no pLBBB	365	319	298	278	222	158
pLBBB	111	88	78	72	62	50
PPM	73	60	57	53	38	28

Houithuizen et al. EuroInterv 2014

Quelles conséquences techniques ?

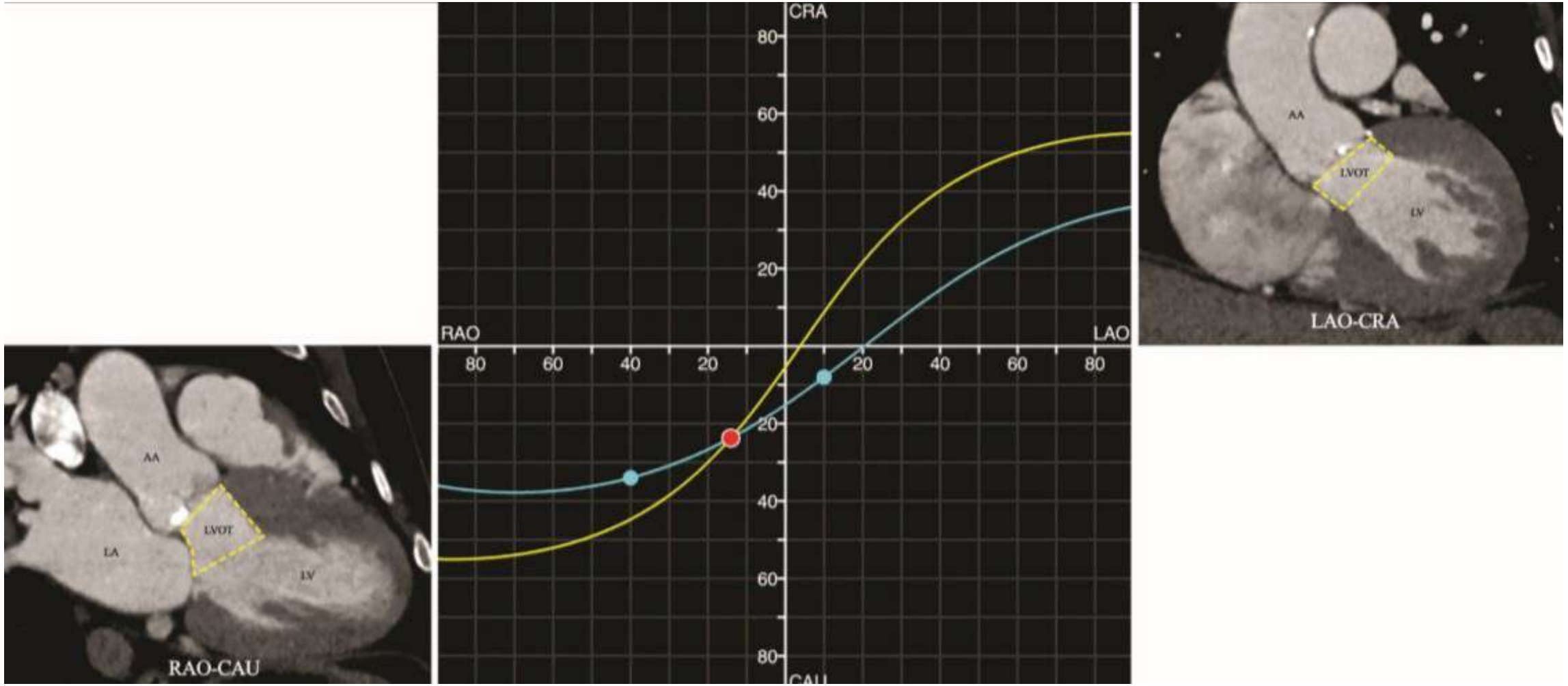
Minimal touch technique

Limiter la profondeur d’implantation

Cusp overlap technique pour toutes les prothèses

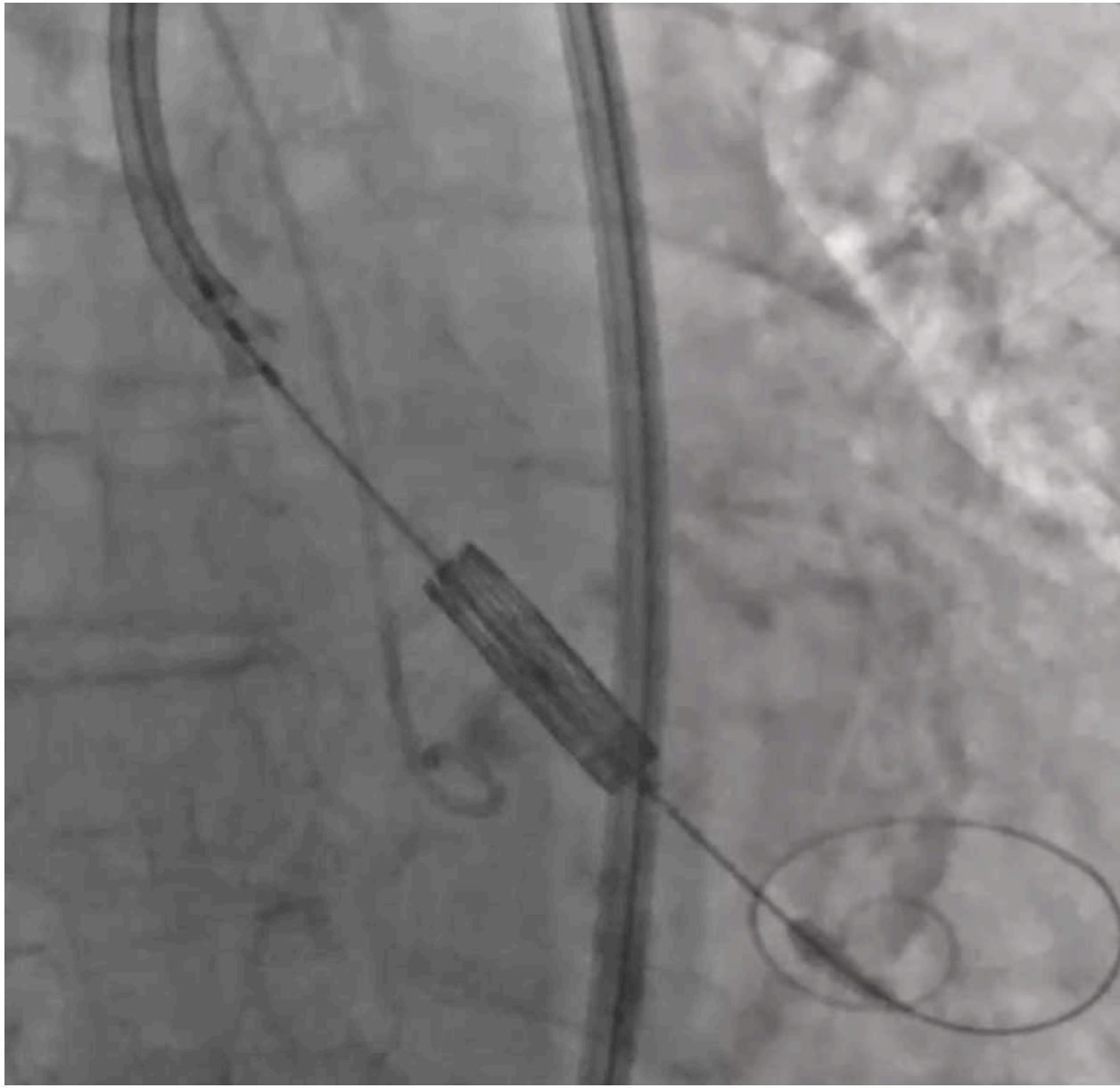
CUSP OVERLAP TECHNIQUE

DÉROULEMENT DE LA CHAMBRE DE CHASSE VG



Source: Armario X, et al. *Cardiovasc Interv*. 2021;15:1-5.

CLINIQUE
Pasteur



EVOLUT CUSP OVERLAP

PRELIMINARY CLINICAL RESULTS

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Author	Abstract	Centers	No. Pts	Valves	Standard View — PPI	Cusp Overlap — PPI
Pisaniello, et al[1]	PCR2019	Single	382	EV, S3	NR	< 5%
Mendiz, et al[2]	TCT2020	Two	443	EV, Neo, S3, Port, Jena	30.9%	6.6%
Gada, et al[3]	TCT2020	Single	169	EV 34 mm	NR	5.2%
Ajabbary, et al[4]	CCC2020	Single	520	EV	16.5%	7.2%
Giuliani, et al[5]	TCT2020	Two	65	EV	24.9%	0%
Gada, et al[6]	TCT2020	7 countries	114	EV	NR	5.7%

1. Pisaniello, et al. Abstract. Presented at PCR 2019.
2. Mendiz, et al. Presented at TCTConnect2020.
3. Gada, et al. Cusp Overlap. Presented at TCTConnect2020.
4. Aljabbary, et al. Abstract. Presented at Canadian CV Society 2020.
5. Giuliani, et al. TCT2020 Abstract.
6. Gada, et al. Presented at TCTConnect2020.

Eviter le patient-prosthesis mismatch

Ce que l’on sait

Le mismatch sévère :

-est asssocié à une surmortalité post TAVI

-est plus frequent dans les petites anatomies

Clinical Impact of Indexed EOA

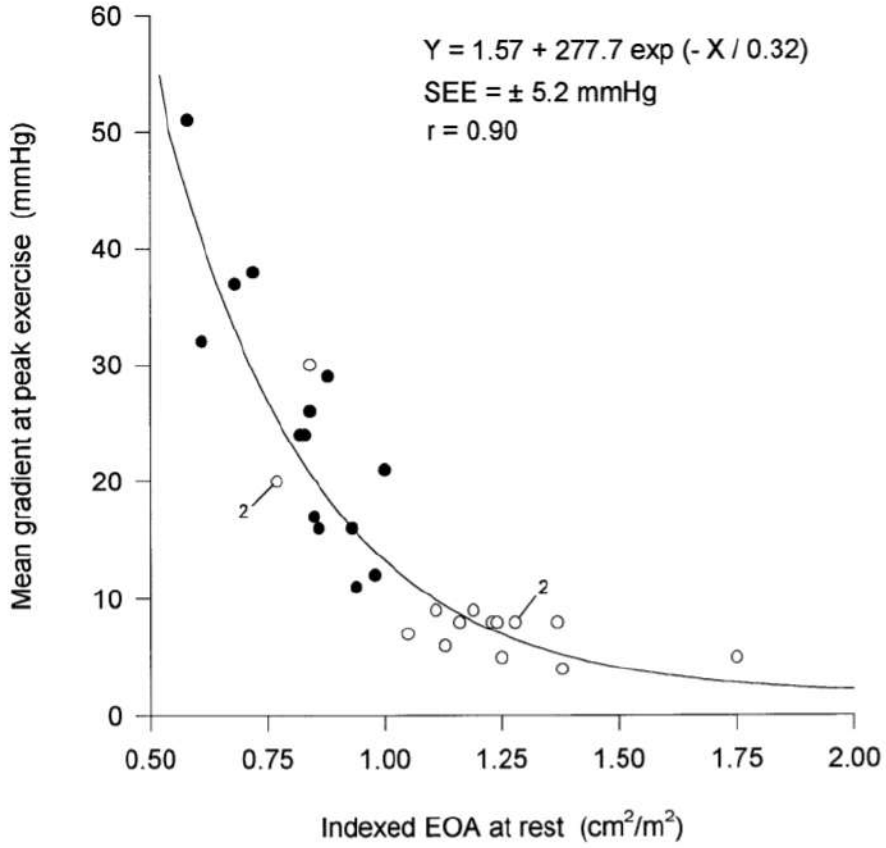
SAVR and PPM | Exercise capacity and SVD

Ensuring adequate EOAs for AVR patients has implications in physical capacity post-implant:

- A large indexed EOA confers lower mean gradients at peak exercise[1]
- Patients with PPM have significantly lower exercise capacity[2]

Small indexed EOAs may also factor into valve durability and patients' time-to-reintervention:

- PPM has been independently associated with 2.3-fold increased risk of structural valve deterioration (SVD) in SAVR patients[3]



1. Pibarot P, et al. JACC. November 1999;34(5):1609-1617; 2. Bleizheiffer S, et al. Cardiovasc Surg 2008;94:637-41. 3. Flameng W, et al. Circulation 2010;121(19):2123-212

Quelles conséquences techniques ?

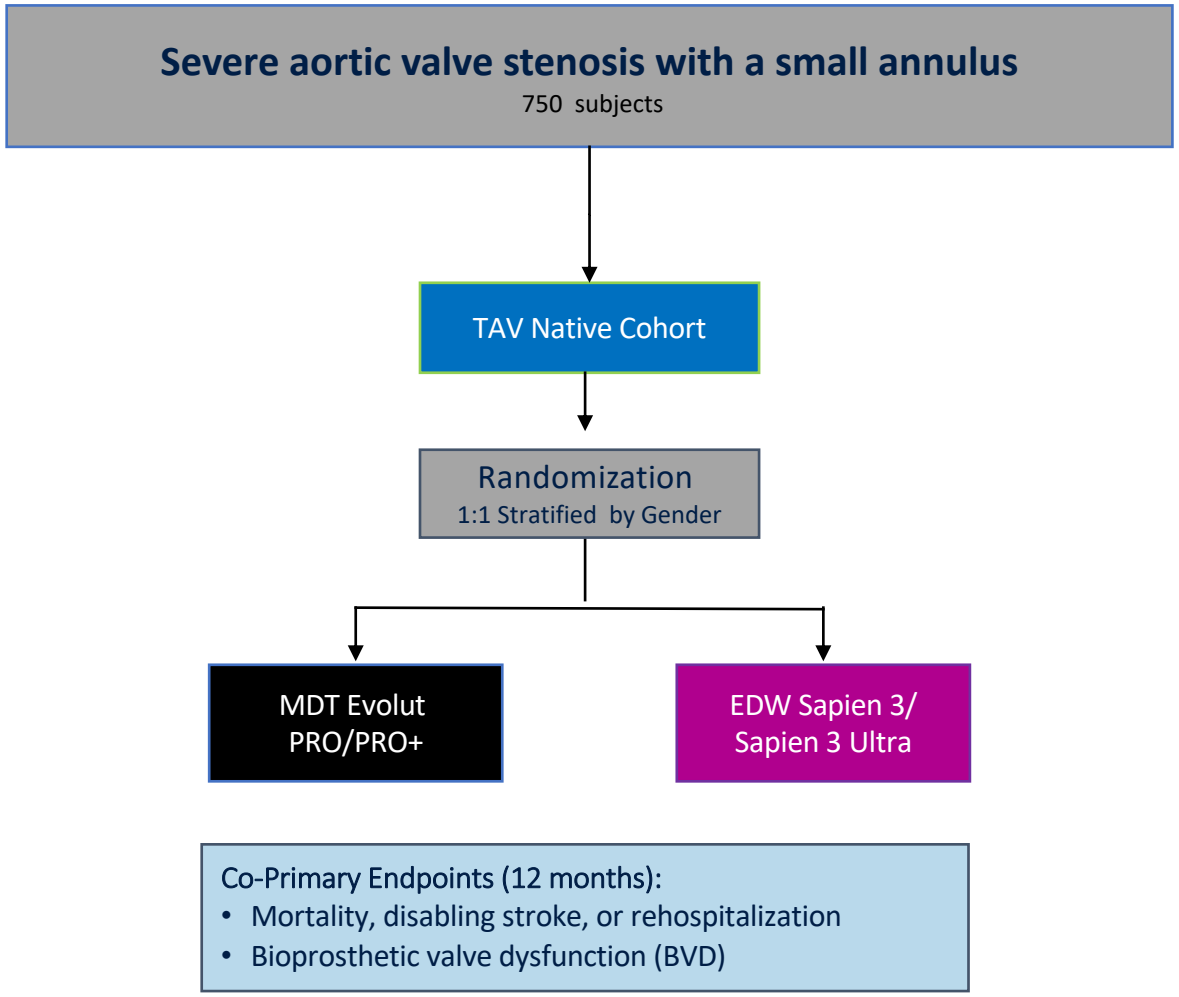
Choix de la prothèse TAVI la plus adaptée

Prédilatation si besoin

Mesure invasive du gradient en perprocédure

Post dilatation si besoin

SMART Trial design



5 Year Follow Up for all patients

Maintenir l’acccès aux coronaires

Ce que l’on sait?

Cathétérisme coronaire plus complexe après TAVI

Risque de coronaropathie future chez les patients jeunes

Tips and tricks pour coro/angioplastie post TAVI

Quelles conséquences techniques ?

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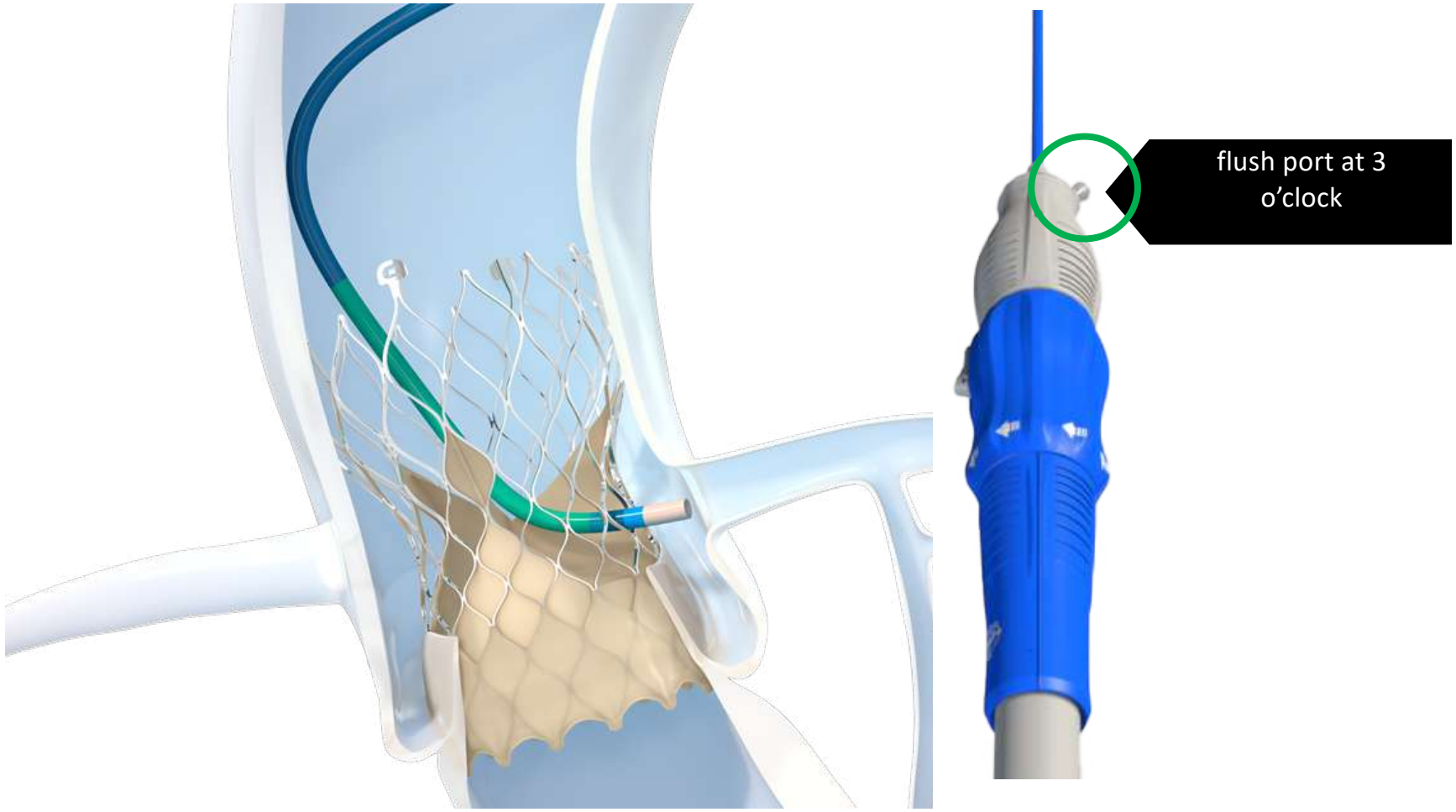
Obtenir un bon alignement commissural per TAVI

EVOLUT COMMISSURAL ALIGNMENT

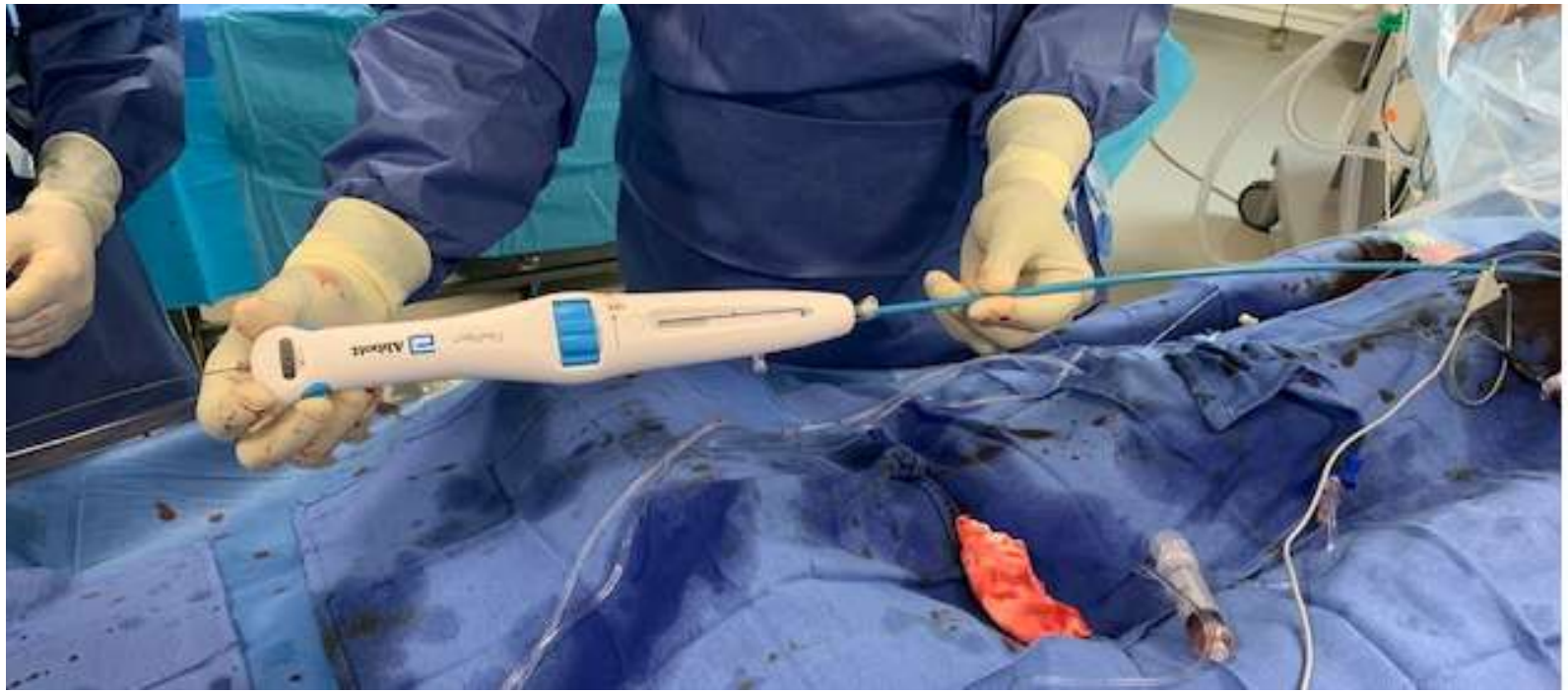
CORONARY ACCESS

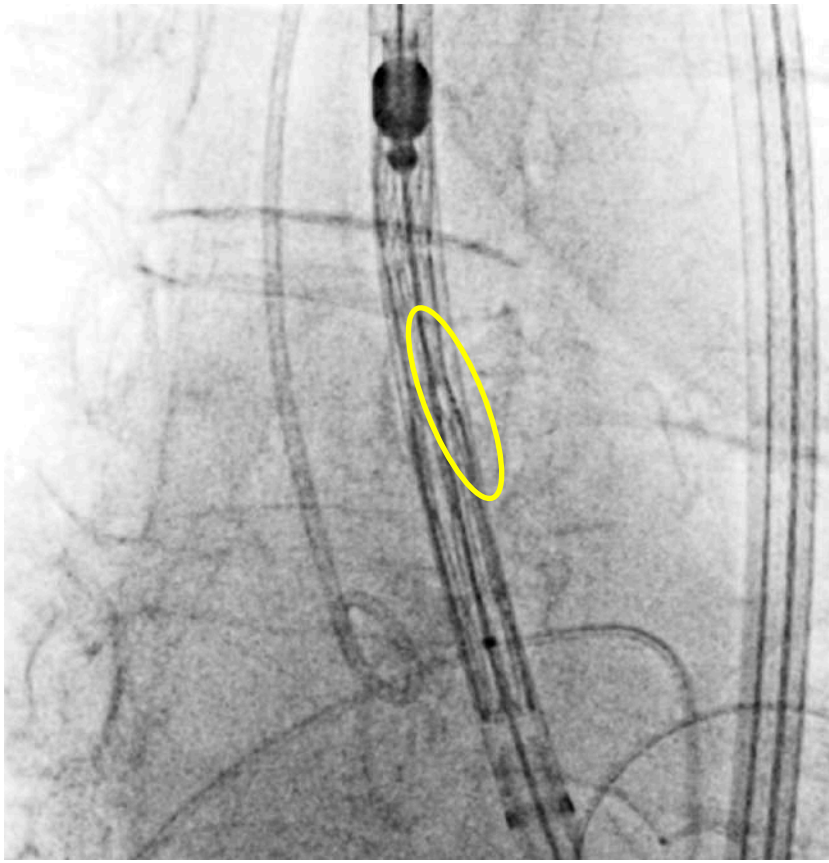


Positioning the flush port at 3 o'clock during delivery system insertion to help achieve commissural alignment that may help facilitate future coronary access.[1]

1. Tang, et al. JACC: Cardiovascular Interventions, 2020.

Abbott Portico-90° clockwise rotation





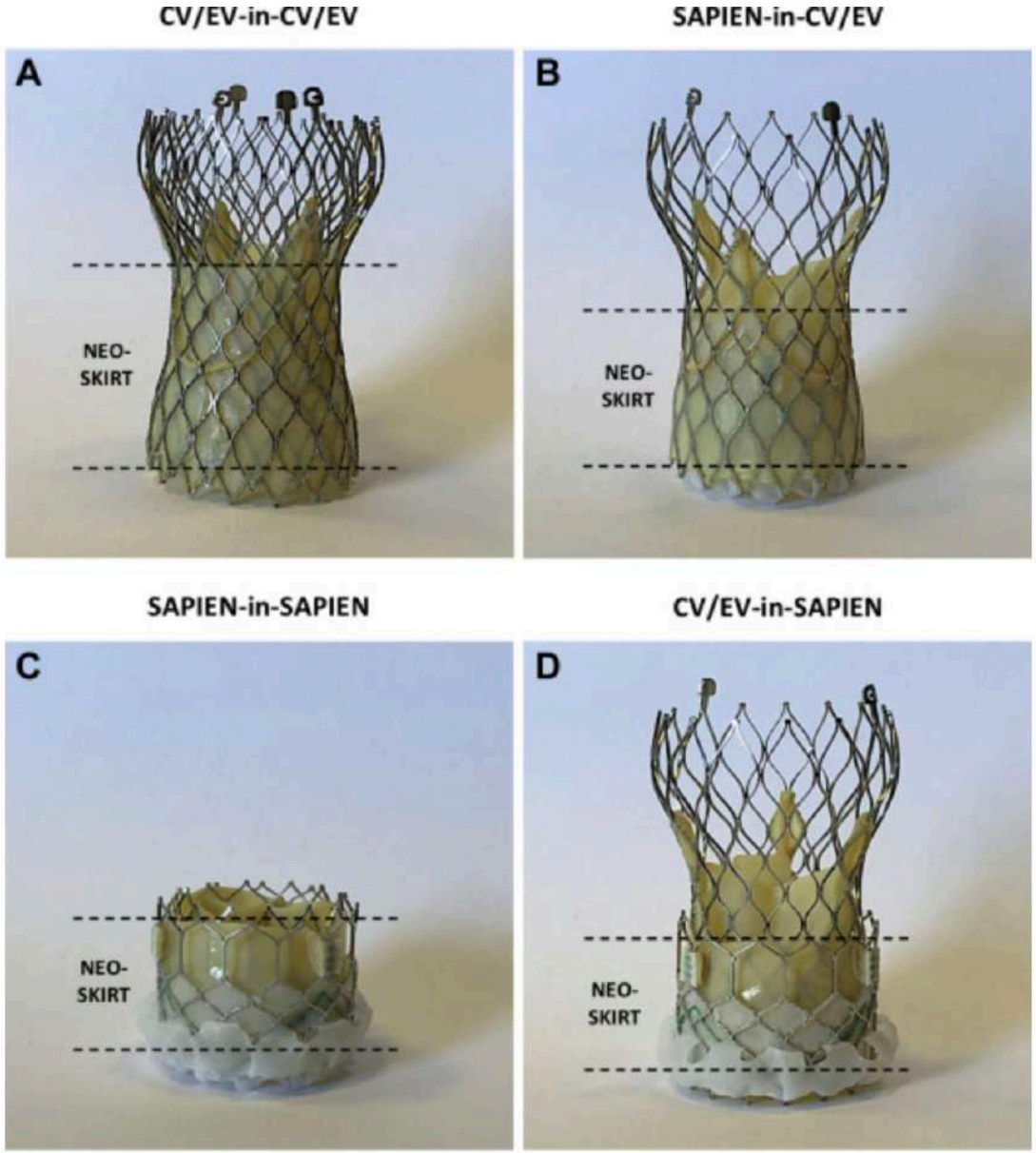
Acurate Neo: use the commissural posts

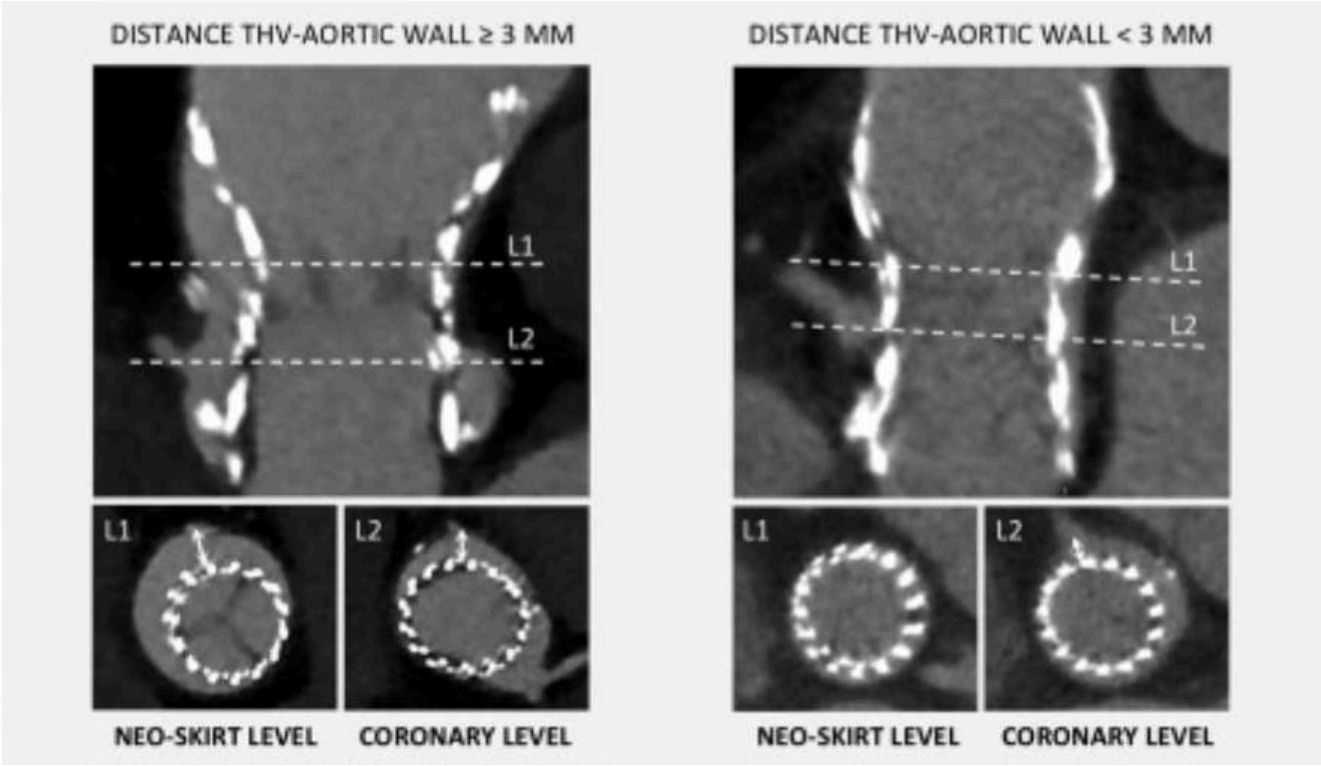
Eviter les futurs TAV-in-TAV complexes

Ce que l’on sait?

Risque de sequestration des sinus avec la neo-skirt

Risque coronaire majeur dans certaines anatomies


CV/EV-in-CV/EV
A
NEO-
SKIRT
SAPIEN-in-CV/EV
B
NEO-
SKIRT
SAPIEN-in-SAPIEN
C
NEO-
SKIRT
CV/EV-in-SAPIEN
D
NEO-
SKIRT


DISTANCE THV-AORTIC WALL ≥ 3 MM
L1
L2
L1
L2
NEO-SKIRT LEVEL
CORONARY LEVEL
DISTANCE THV-AORTIC WALL < 3 MM
L1
L2
L1
L2
NEO-SKIRT LEVEL
CORONARY LEVEL

Quelles conséquences techniques ?

Rediriger vers la chirurgie les patients à risque élevé

Choisir la bonne prothèse TAVI dans les anatomies à risque

BASILICA lors du TAV-in-TAV

Pi-Cardia ShortCut™ Catheter

First dedicated transcatheter leaflet splitting device

Designed to enable coronary access & prevent coronary obstruction during TAVI

Complete control over positioning & leaflet splitting location

Allows for safe, simple splitting of single or double leaflets using same device

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TAVI en première intention:

- **Sizing extrêmement pointu**
- **Choix de la prothèse TAVI la plus adaptée**
- **Anticiper un TAV-in-TAV futur**
- **Objectif “0 fuites ou Troubles conductifs”**
- **Maintenir l’accès aux coronaires**
- **Eviter les cas techniquement trop complexes**

MERCI

THANK YOU

DANKE

どうもありがとう

GRACIAS

谢谢

OBRIGADO

GRAZIE

BEDANKT

DEKUJI

Спасибо

EFHARISTO