

Atelier NEOVASC

Angor réfractaire, réducteur du sinus coronaire

Comment ça marche? Mécanisme d'action et
évaluation physiologique



Introduction



Claude Schaeffer Beck
(1894-1971)

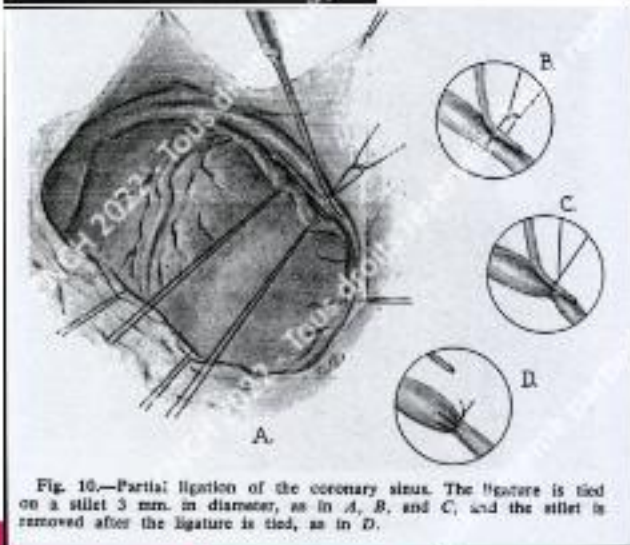


Fig. 10.—Partial ligation of the coronary sinus. The ligature is tied on a silet 3 mm. in diameter, as in A, B, and C, and the silet is removed after the ligature is tied, as in D.

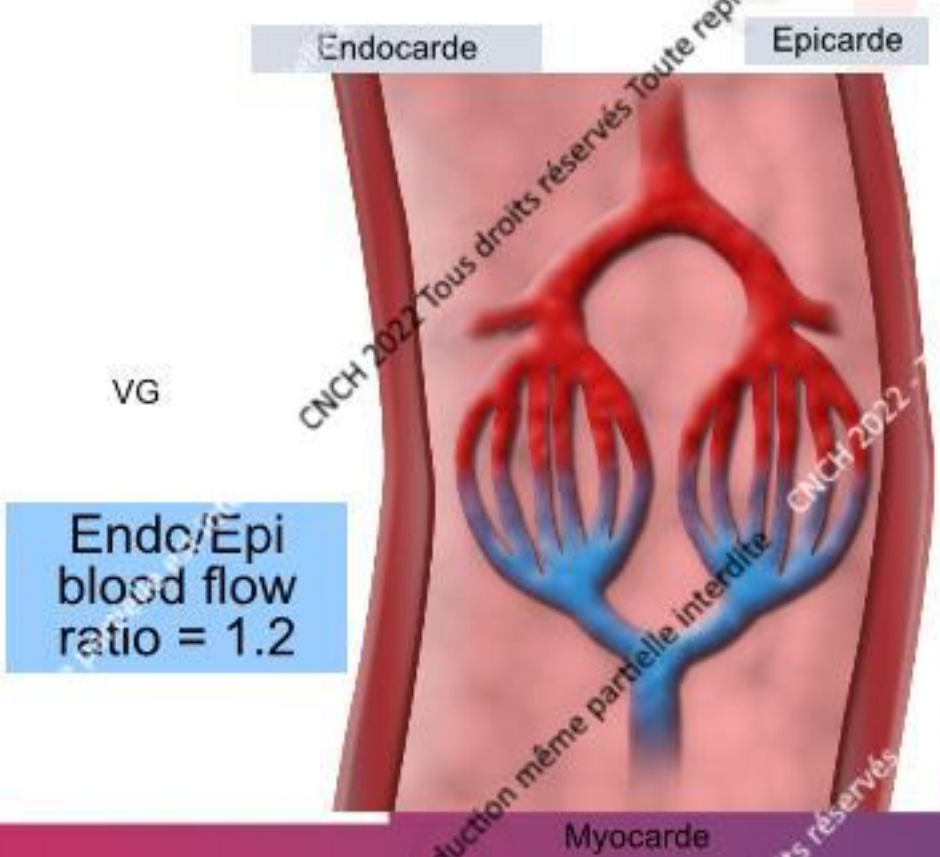
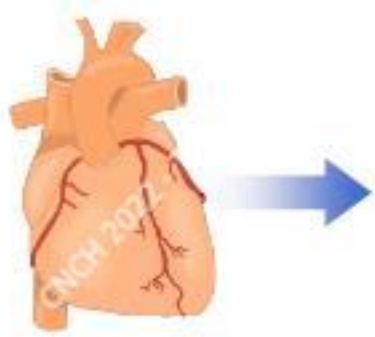
Table IV. Consumption of nitrites by 45 patients who underwent Beck-I operation

No. of patients	No of tablets/day				
	0	1—5	6—10	11—20	> 20
Before op.	0	5	27	10	3
At follow-up	16	21	3	3	0



Mécanisme

Perfusion coronaire normale



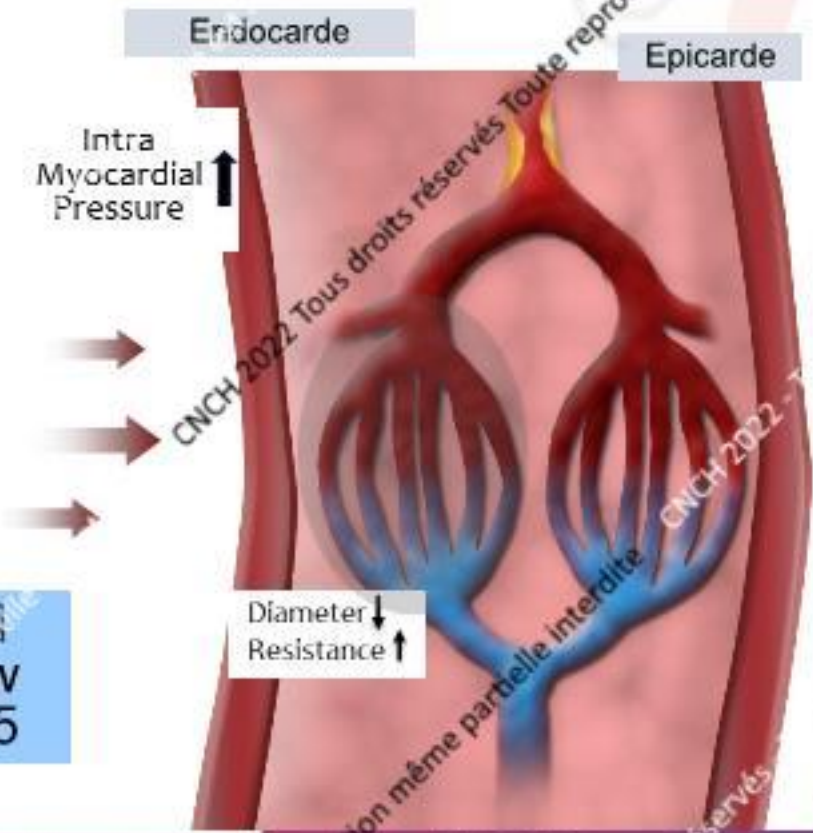
Mécanisme

Perfusion coronaire ischémique



LVEDP ↑

Endo/Epi
blood flow
ratio = 0.5

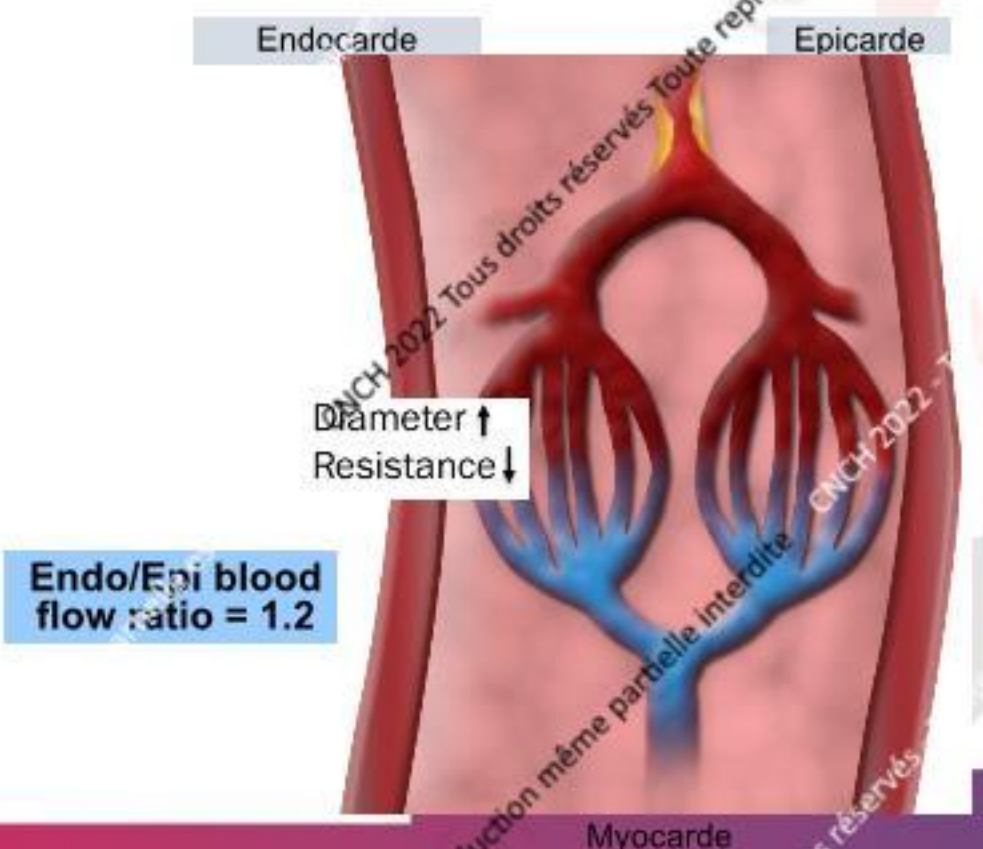
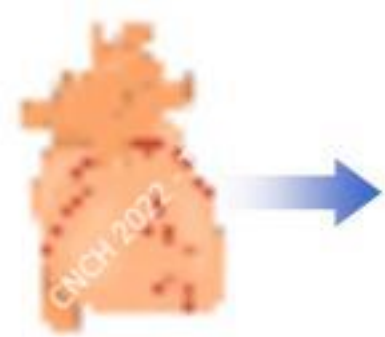


Myocarde

Mécanisme



Perfusion coronaire ischémique & augmentation pression sinus coronaire





Claude Schaeffer Beck (1894-1971)

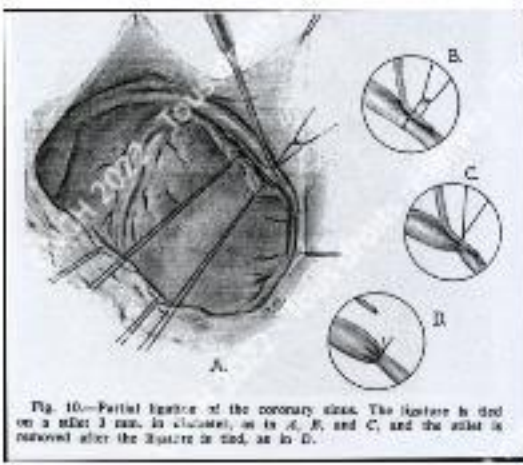
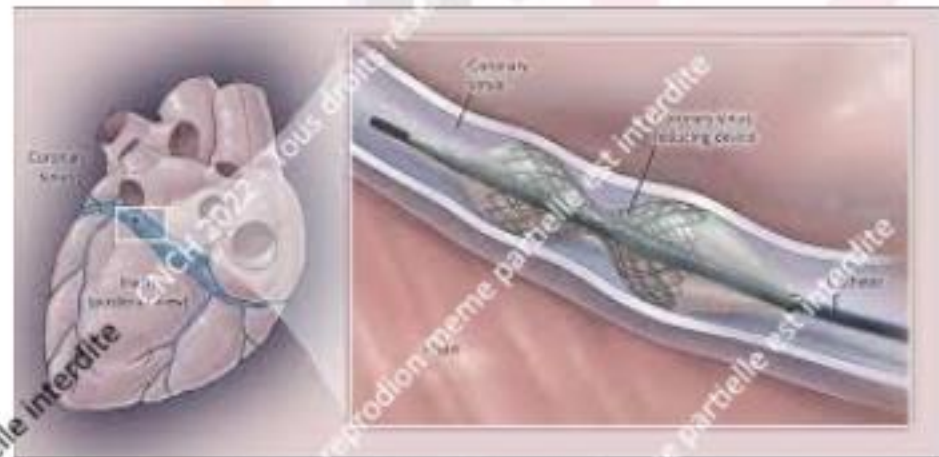
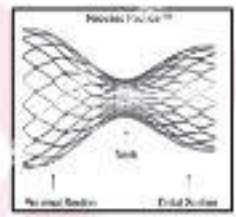
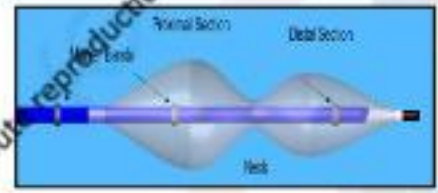
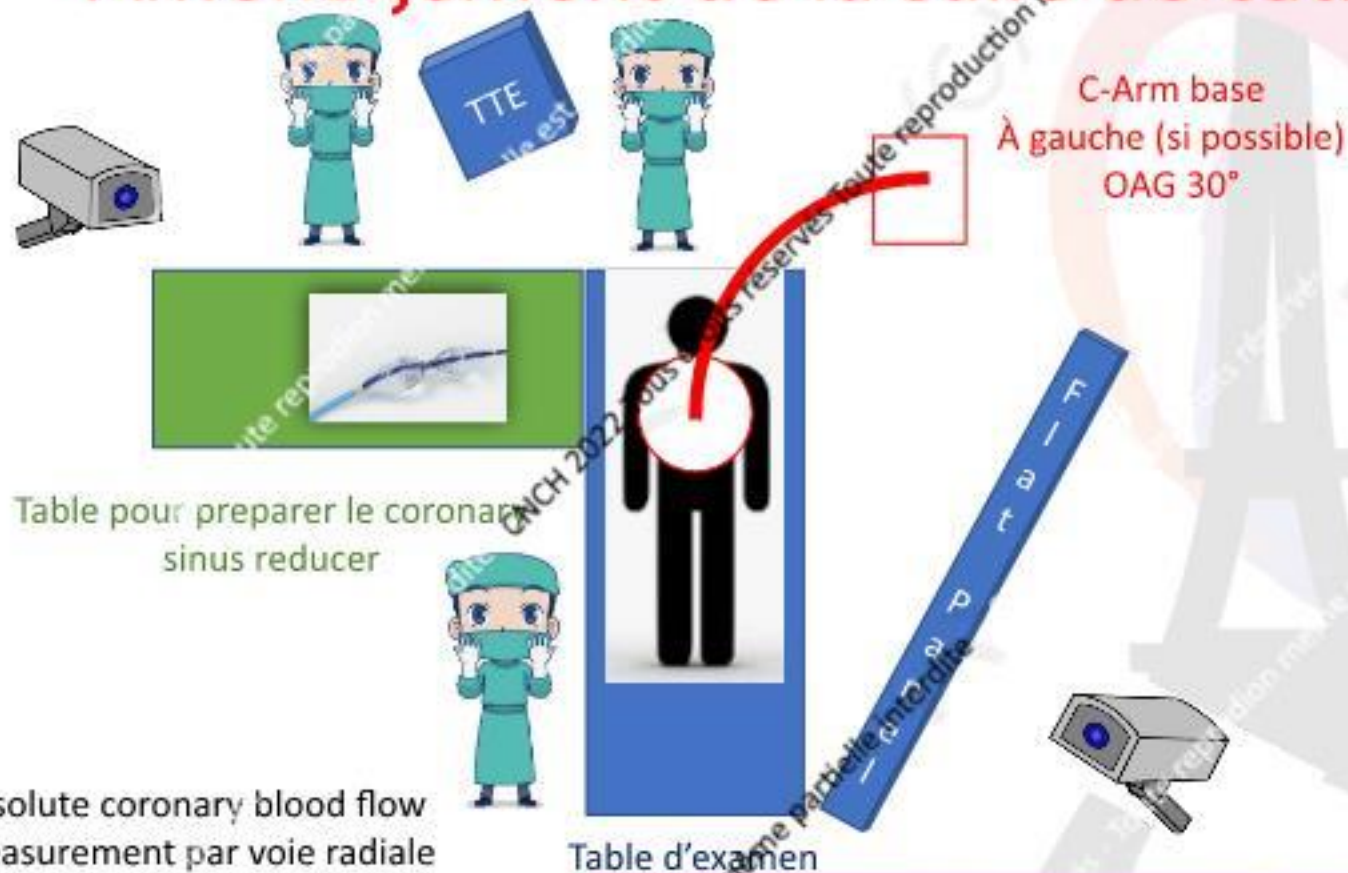


Fig. 10.—Partial ligation of the coronary artery. The ligature is tied on a suture 3 mm. in diameter, as in A, B, and C, and the artery is removed after the ligature is tied, as in D.



Aménagement de la salle de cath



Absolute coronary blood flow
Measurement par voie radiale

Table d'examen

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RETOUR SUR LE TITRE ORIGINAL



Flux absolu par Thermodilution coronaire

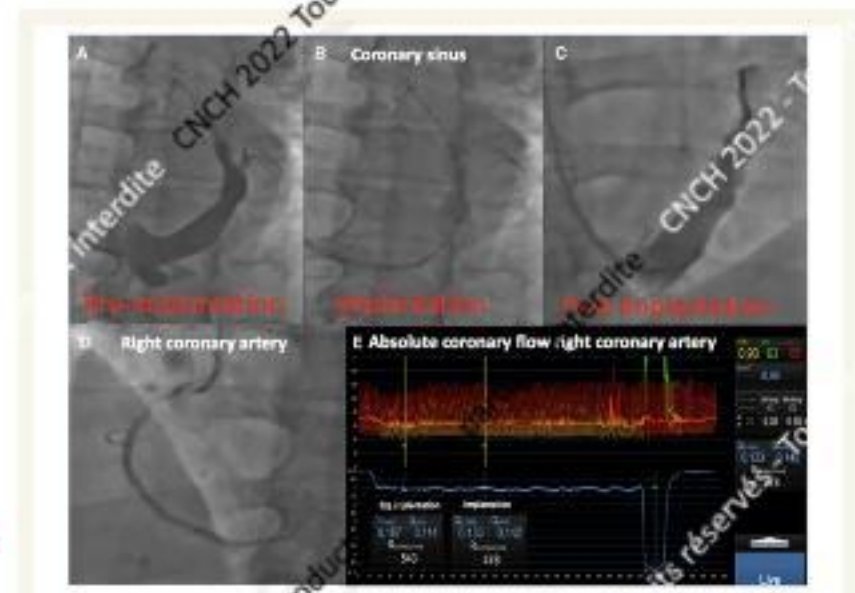


ESC European Society of Cardiology
European Heart Journal - Case Reports (2022) 4, 1-1
14761/doi.org/10.1093/ehjcr/ytab159
CARDIOVASCULAR FLASHLIGHT
Other

Impact of the coronary sinus reducer on the coronary artery circulation: Cases report

Francesco Giannini¹, Léo Cuenin², and Julien Adjedj^{1,2*}

¹International Cardiology Clinic, CHU de Grenoble-Hospice Civils Hospital, Grenoble, France; and ²Department of Cardiology, Arnaud Tzanck Institute, Saint-Laurent-la-Vergne, France
Received 22 November 2021, first decision 24 December 2021, accepted 3 April 2022, online publication date 16 April 2022



From the previous case report



The image is a composite of three main visual elements:

- Top Left:** A photograph of a surgical team in an operating room, wearing blue scrubs and masks, focused on a patient.
- Bottom Left:** A screenshot of a medical monitor displaying multiple waveforms, likely ECG and pressure, with a green 'AD' indicator.
- Center:** A large, grayscale fluoroscopic image showing a catheter or wire inserted into a vessel.
- Right Panel:** A control panel with various settings and a timer. The settings include:
 - 82 kVp
 - 10 mA
 - 7.5 Pfs
 - FL
 - A
 - Coro
 - ClearStent
 - Scopie CARD
 - 0 1.0
 - 00:07:21
 - 288 mCi
 - 41 mCi/min
 - 21%
 - 00:00
 - Relecture
 - Sauvegarder la préférence

At the bottom of the fluoroscopic image, the text "cm 22 LAO 28° / CRAN 1°" is visible.

Absolute coronary blood flow pre-implantation



From the previous case report



Institut Amalut Tzanck
ADJEDJ, Julien
ADJEDJ, Julien
AXIOM-ARIS
VC21C 171211
HFS
/00m/00f

2.60 sec

97.7 kVp CARD
320 mA 7.5 Is.
A
Coro
Clear Stent
Scope CARD
0 0 >1.0 Gy
00:24:53
1187 mGy
13843.87 µSv
17%
00:00
Relecture

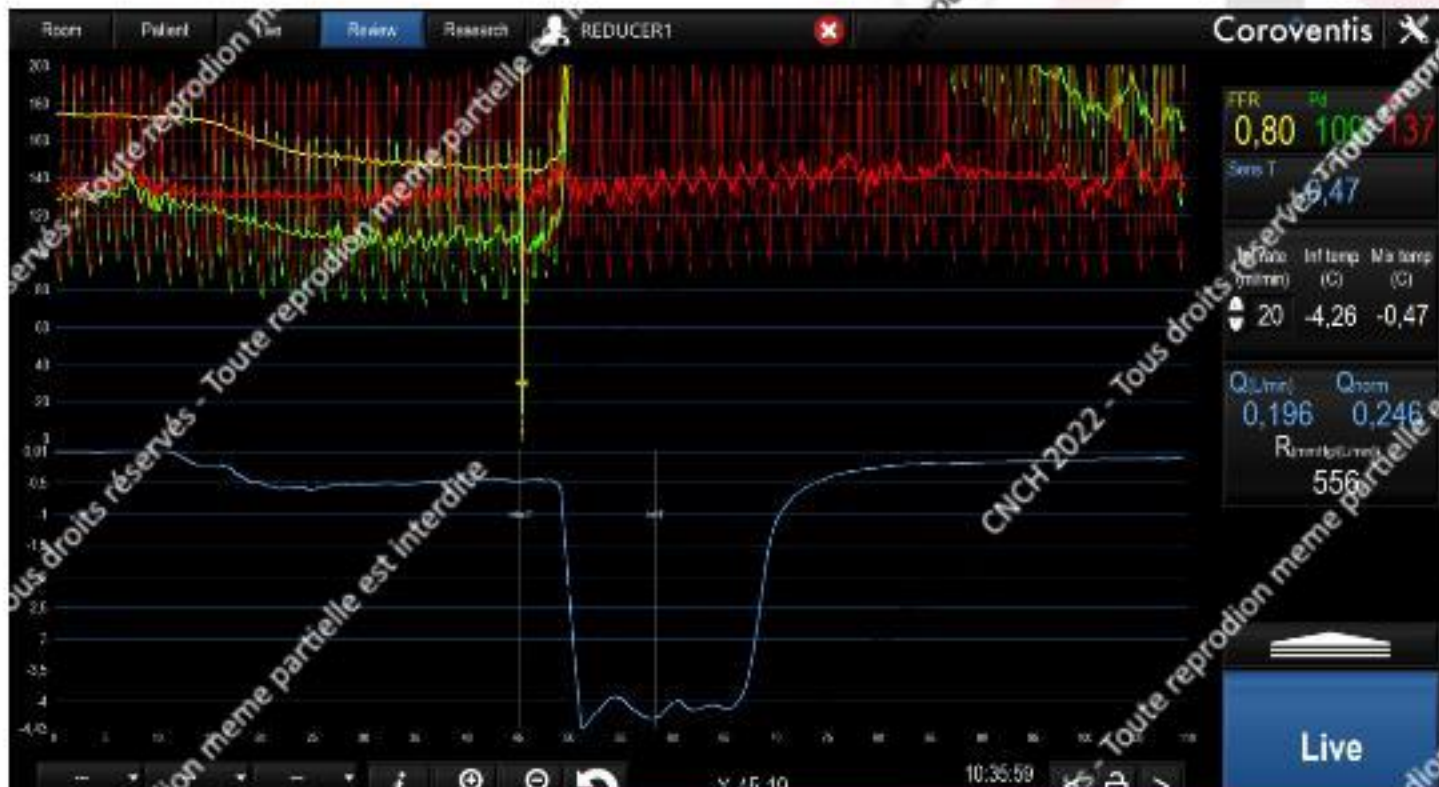
Coro
cm 32
A
D 170
LAO 30° / 0°

WB 13%
ODO 50%

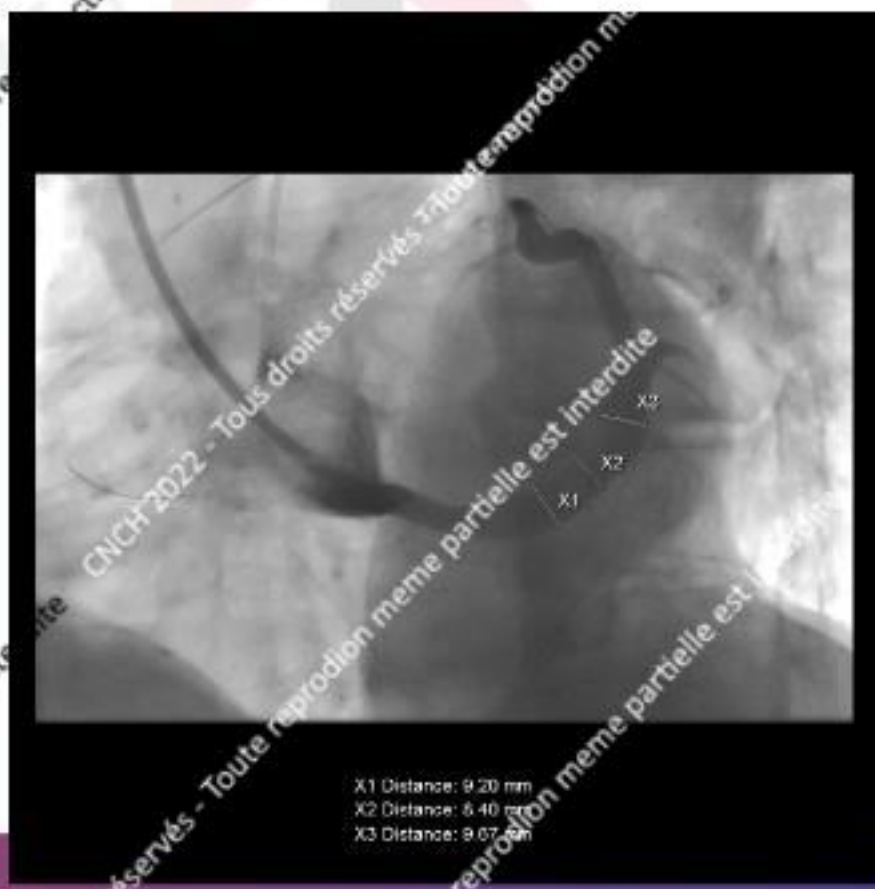
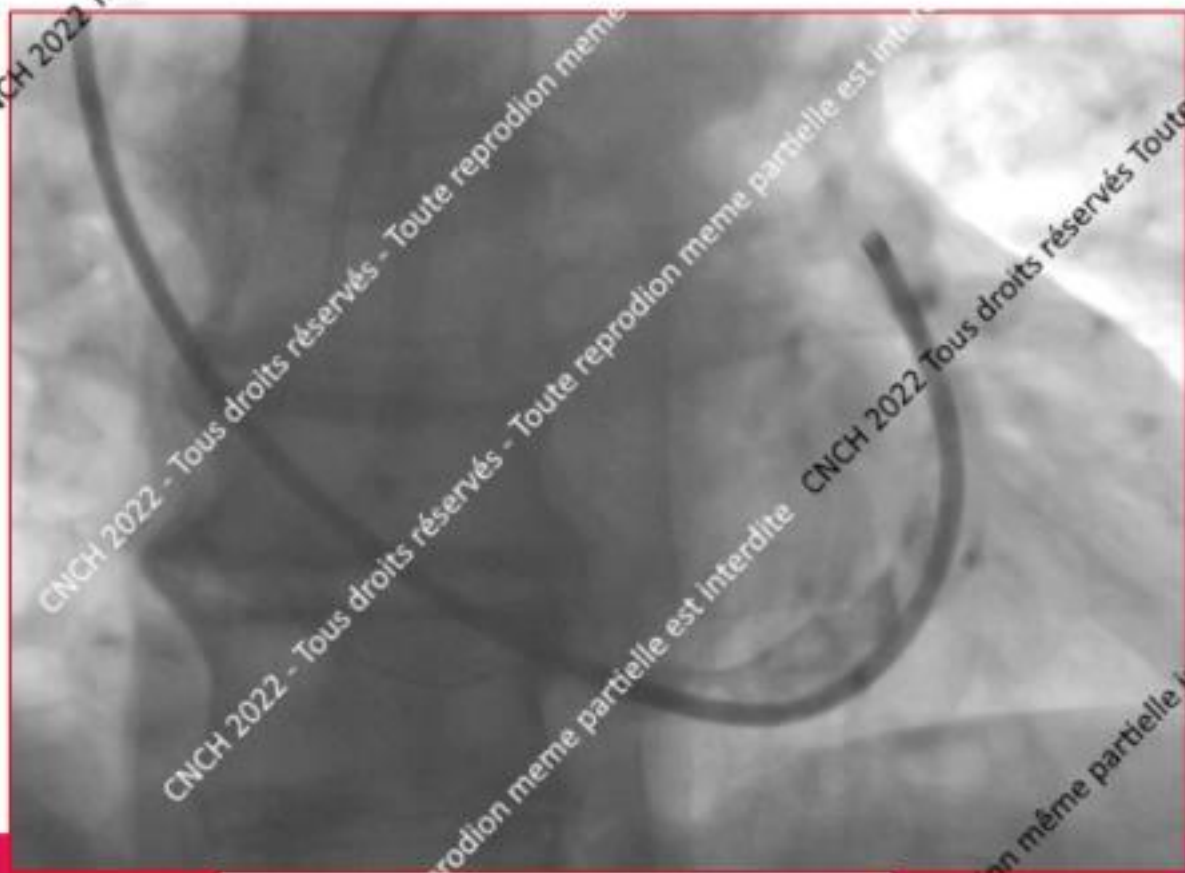
WC 1900
WW 2100

Sauvegarder référence

Absolute coronary blood flow after implantation



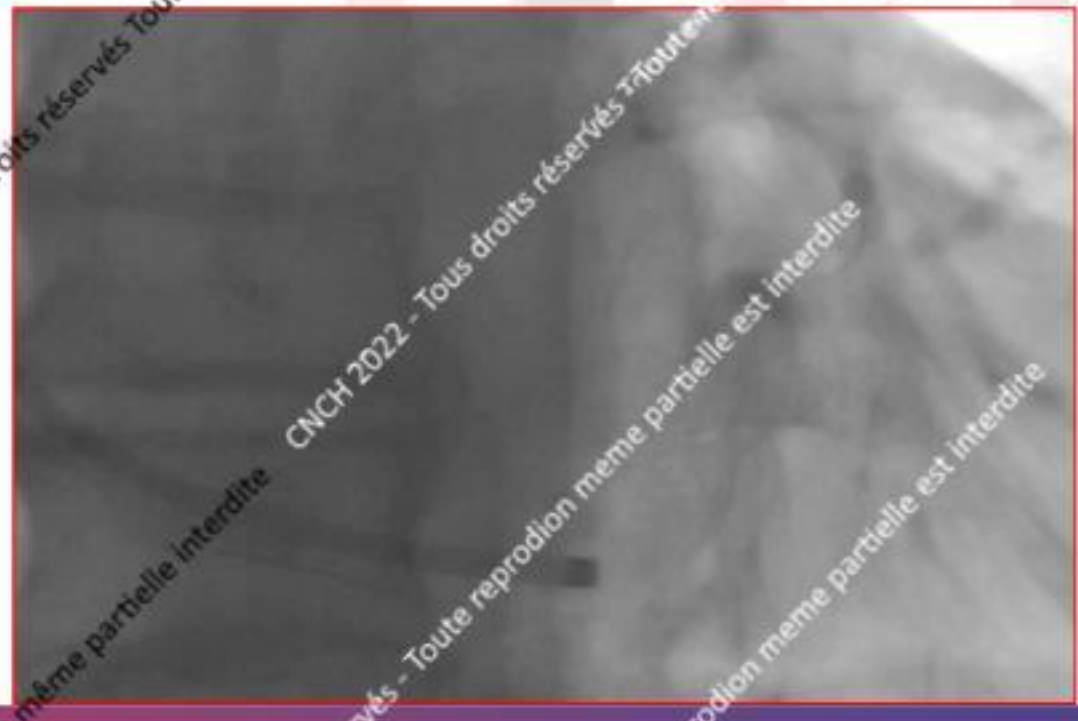
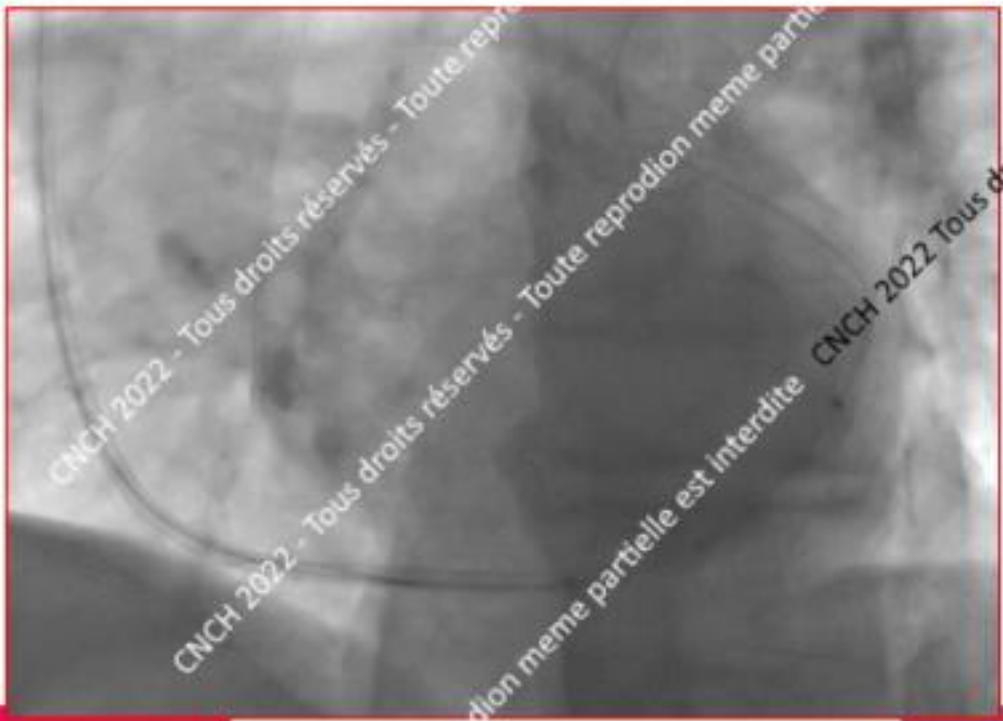
Coronary Sinus Reducer implantation Mars 2022



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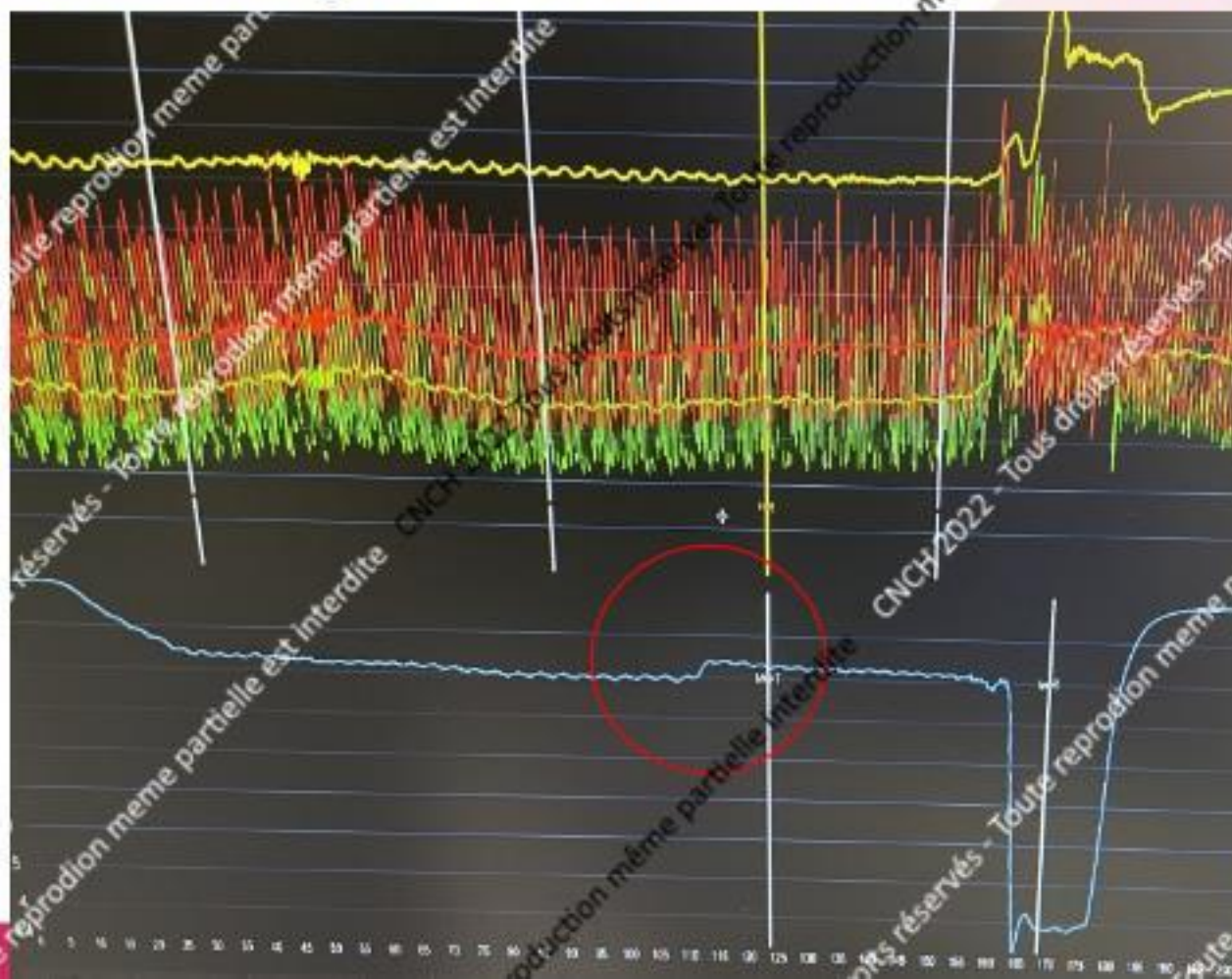
Coronary Sinus Reducer implantation Mars 2022





Retour sur le mécanisme

Flux absolu par thermodilution coronaire

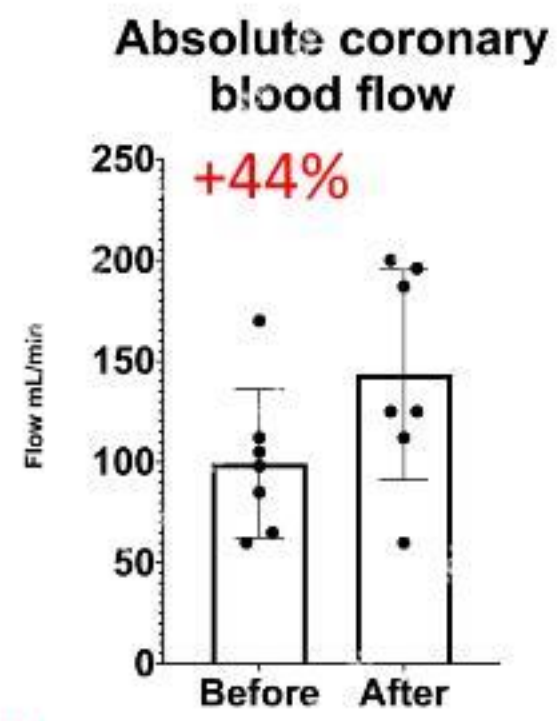




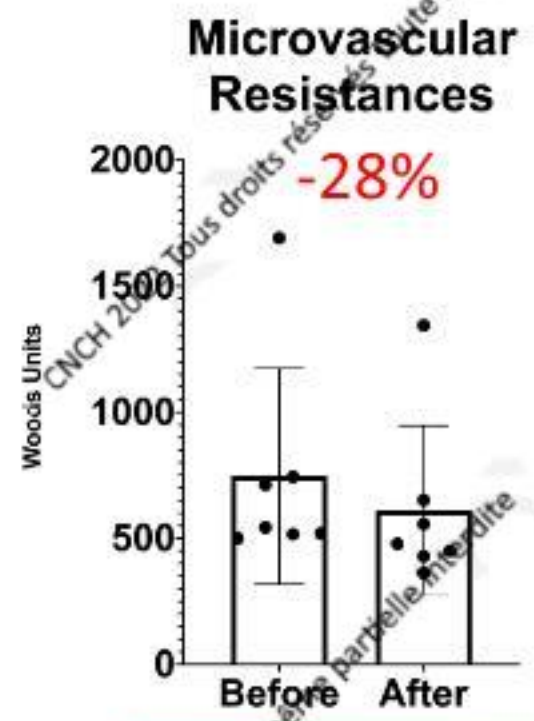
Retour sur le mécanisme

Flux absolu par Thermodilution coronaire

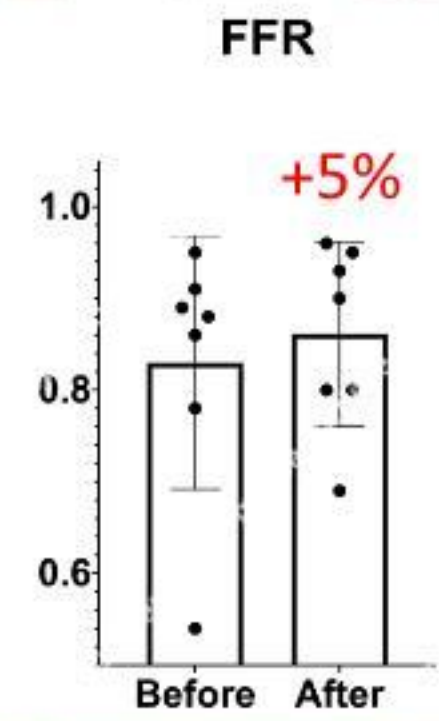
n=7



P=0.06

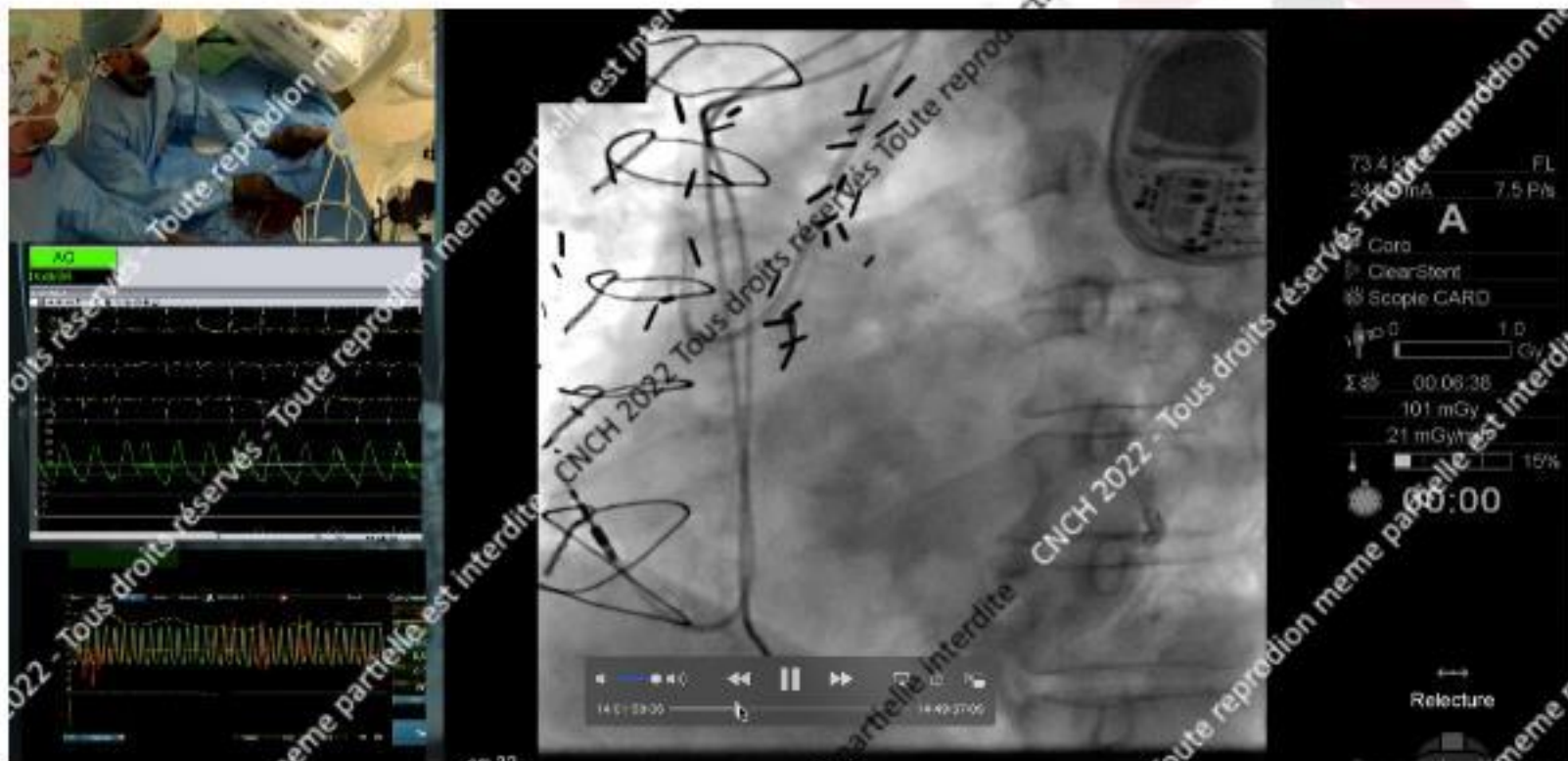


P=0.02



P=0.31

Angiographie du patient 5



Reducer MVD Study Design

Subjects with refractory angina, referred for coronary angiography and invasive coronary physiology evaluation and diagnosed as having MVD

1-month trial of maximal tolerable medical therapy
Including high dose BB

Symptomatic improvement

yes → Medical Rx

Consented and enrolled ↓ No

CS Reducer implantation

4-months repeat coronary angiography and
invasive coronary physiology evaluation



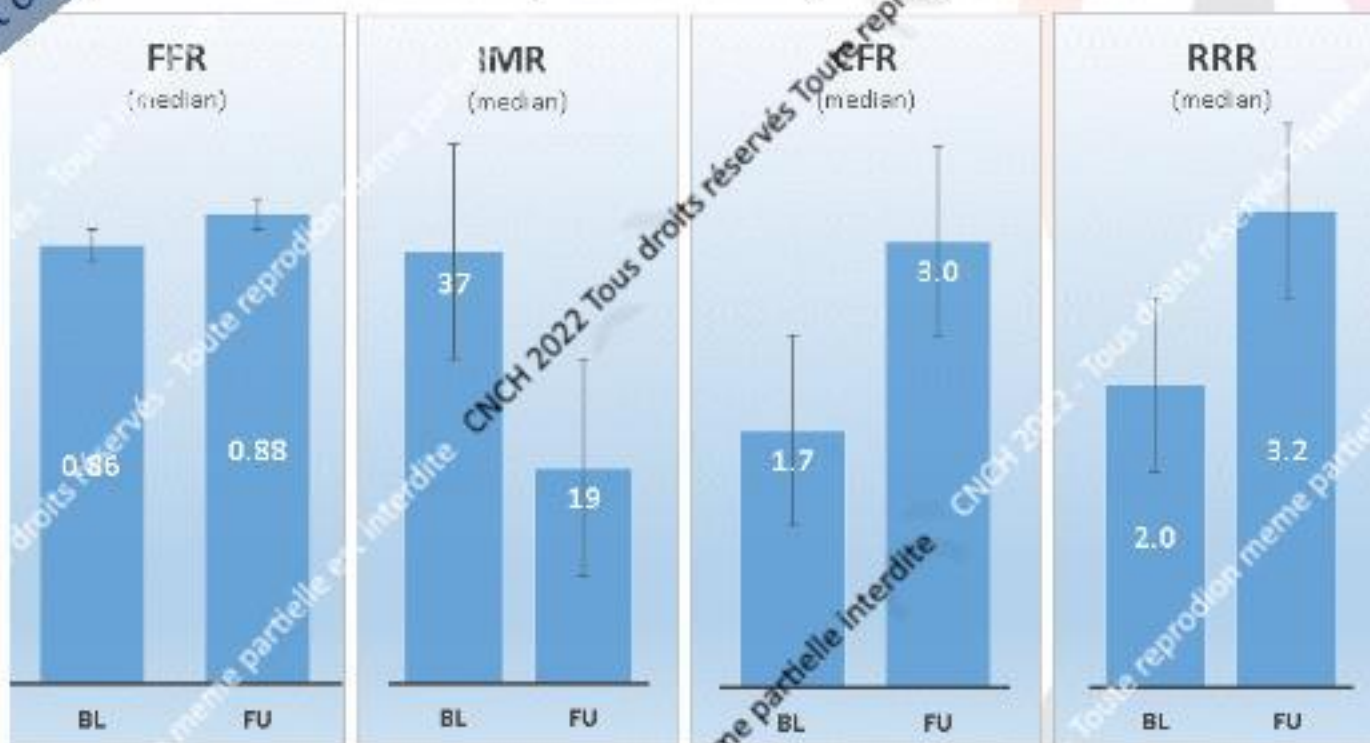
Tel Aviv Medical Center Reducer MVD Prospective Study Interim analysis

Patients' status		N=12	
Planned	30	Female gender	67%
Enrolled	12	Diabetes mellitus	58%
Completed FU	10	Smoking	58%
		Hypercholesterolemia	100%
		Hypertension	83%
		History of valve disease	0%
		Peripheral vascular disease	25%
		Previous stroke	8%
		Previous MI	8%
		Previous PCI	58%
		Previous CABG	8%

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Preliminary Results
Interim analysis of the first
10 patients (out of 30)

The Effect of Coronary Sinus Narrowing on Coronary Microvascular Function

Invasive Coronary Blood Flow Physiology Evaluation



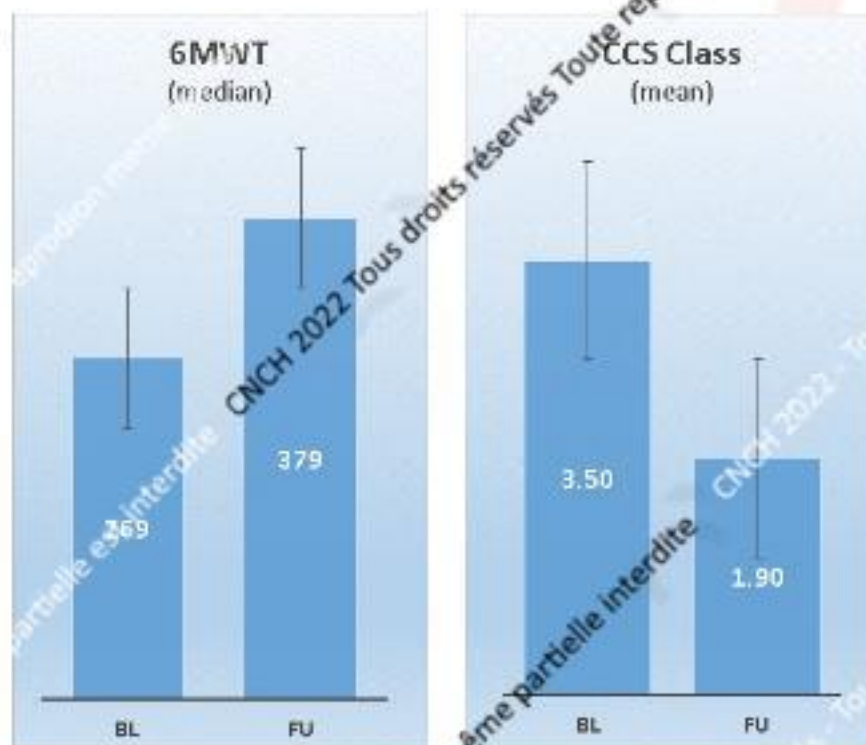
Tel Aviv Medical Center single center study

N=10

The Effect of CS Narrowing on functional capacity and angina severity in ANOCA patients

Preliminary Results
Interim analysis of the first
10 patients (out of 30)

Functional capacity and QOL



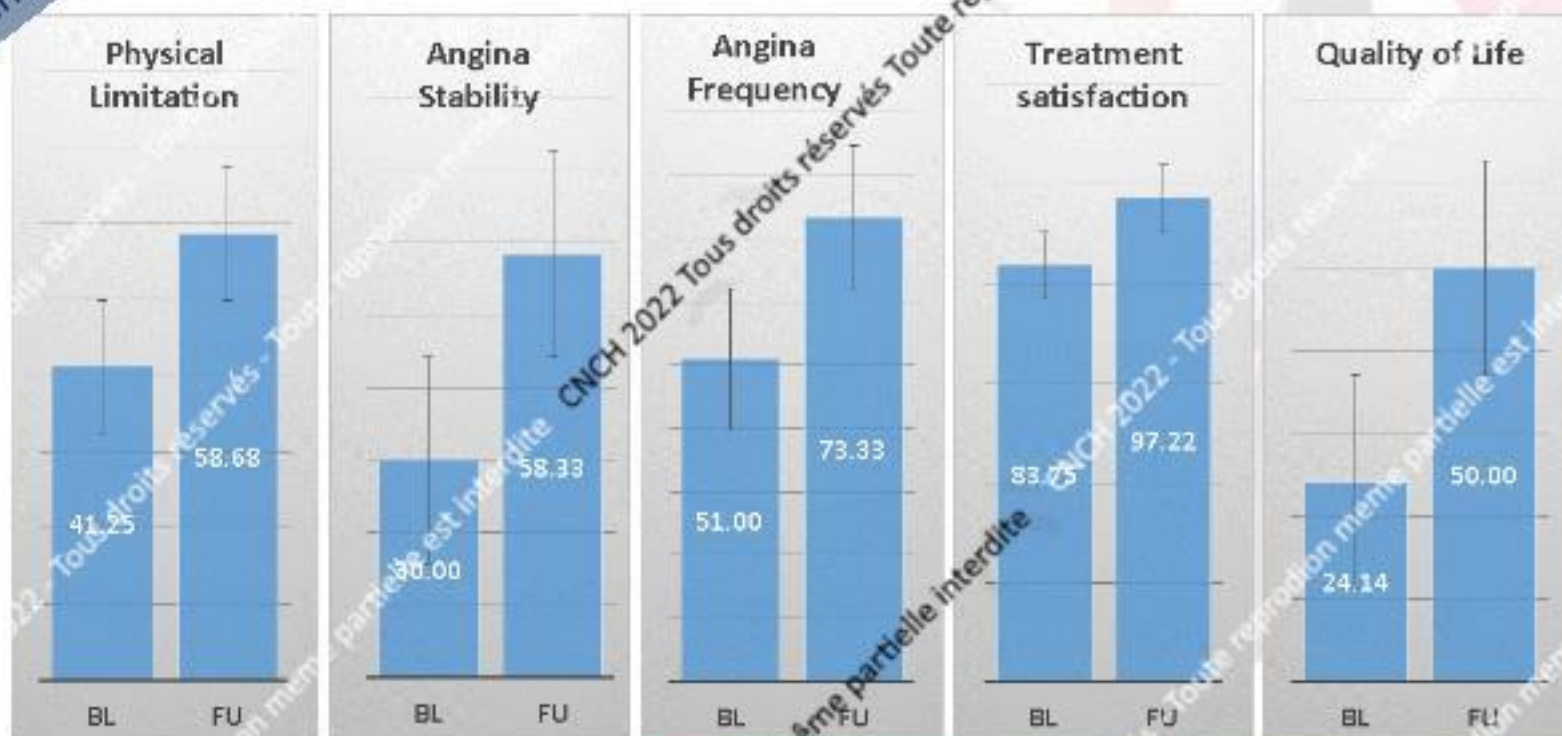
Tel Aviv Medical Center single center study

N=10

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Preliminary Results
Interim analysis of the first
10 patients (out of 30)

The Effect of CS Narrowing on QOL in ANOCA patients

Seattle Angina Questionnaire



Tel Aviv Medical Center single center study

N=10

Réévaluation des symptômes

Antibes, le 25 Avril 2022

Cher Confrère,

J'ai revu Monsieur [redacted] pour son contrôle après l'implantation par le Docteur ADOLFI d'un réducteur de sinus coronaire. Le dispositif a permis une nette amélioration de 70% de la dyspnée d'effort et de l'angor.

Je n'ai pas noté de complication lors de cette consultation.

De ce fait, je conseille à ce patient de suspendre le Corevasal et de maintenir pendant trois mois l'association Kardégic Plavix. Le reste de son traitement n'a pas été modifié.

Je revois ce patient dans trois mois.

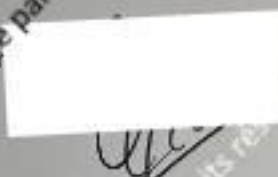
EXAMEN CLINIQUE:

TA : 130/80

Auscultation cardiaque : normale.

Electrocardiogramme : inchangé. sinusal, espace PR normal, repolarisation normale.

Bien Amicalement



Les messages clés

- Le Reducteur du Sinus coronaire est une nouvelle technique pour traiter l'angor réfractaire de façon efficace et sûre
- Nous avons observé une amélioration clinique, une augmentation du flux coronaire et une diminution des résistances microvasculaires
- Une procédure précieuse pour traiter les misères coronaires et INOCA

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