

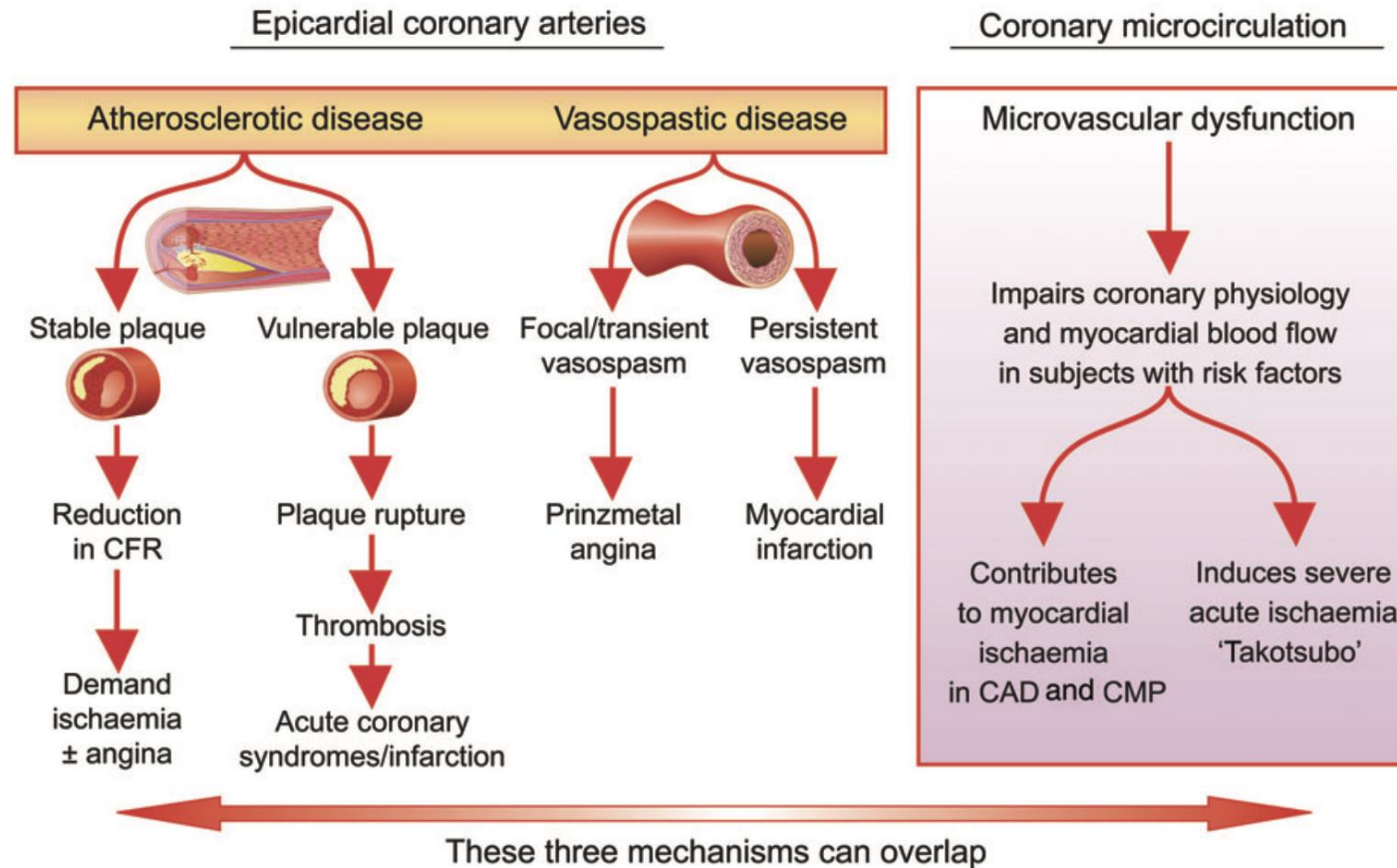
INOCA :
Ischemia with No Obstructive Coronary Artery Disease
Une pathologie de la micro-circulation

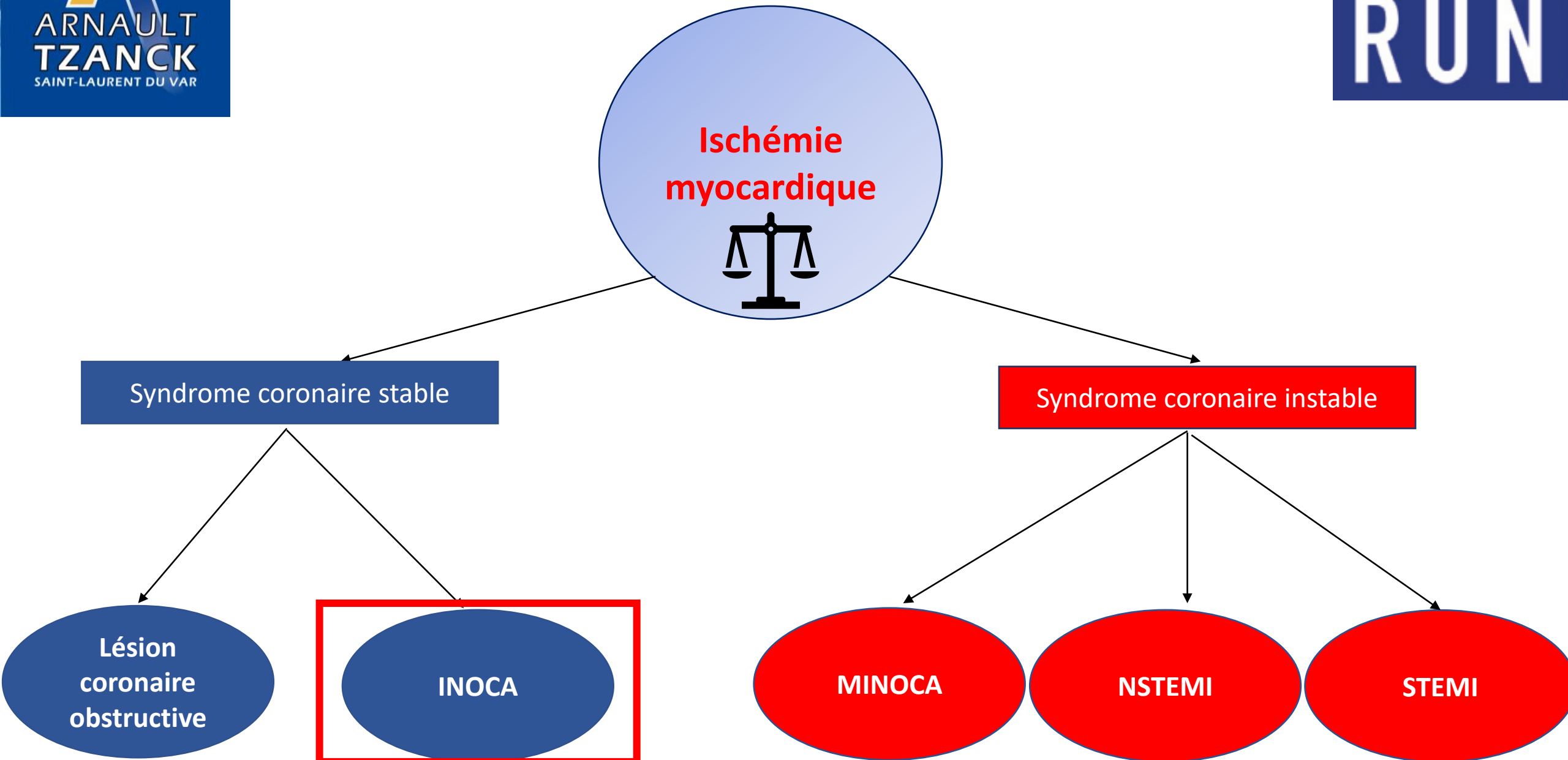
Julien Adjedj

Ischémie myocardique

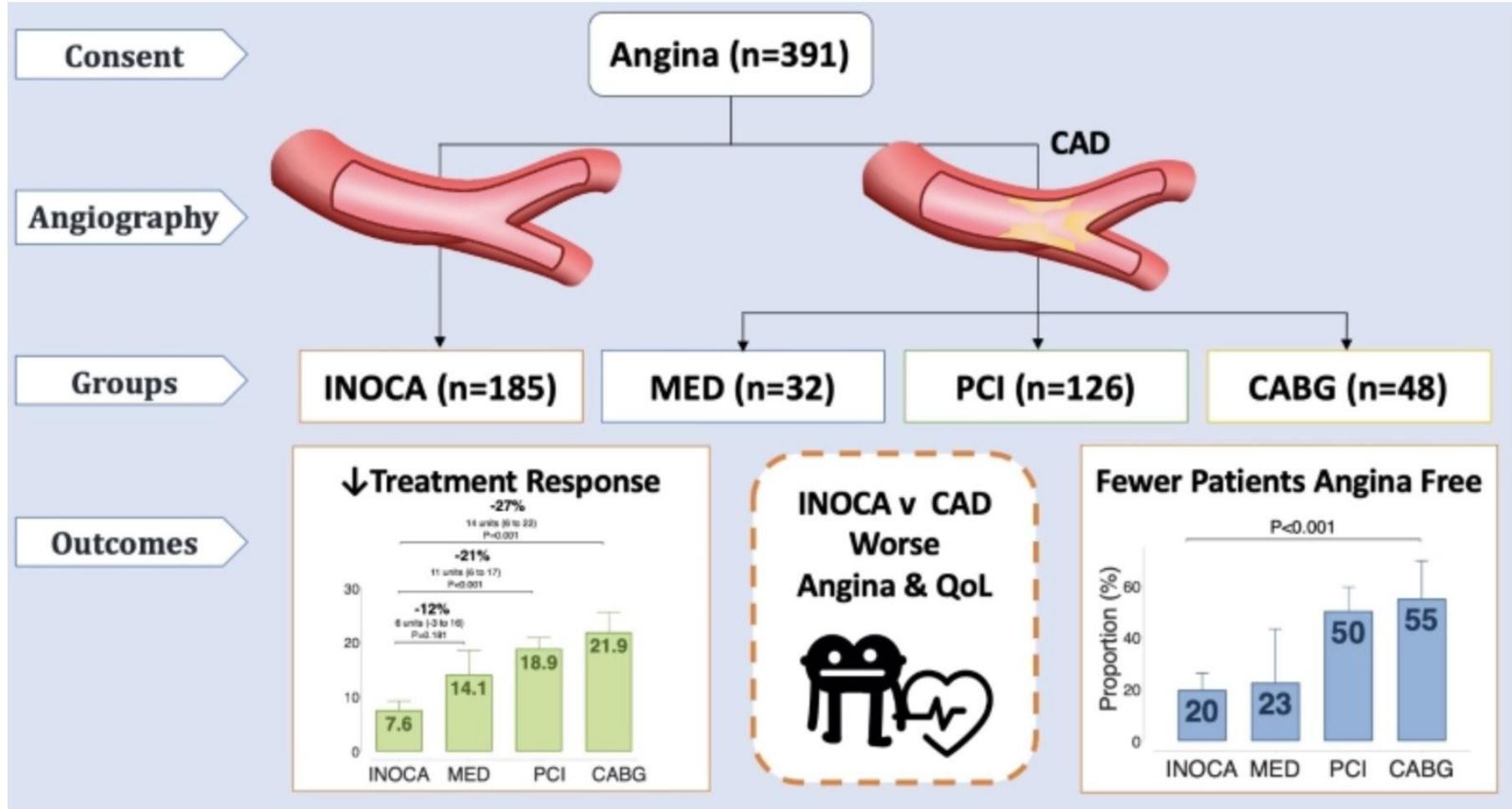


Mechanisms of myocardial ischaemia



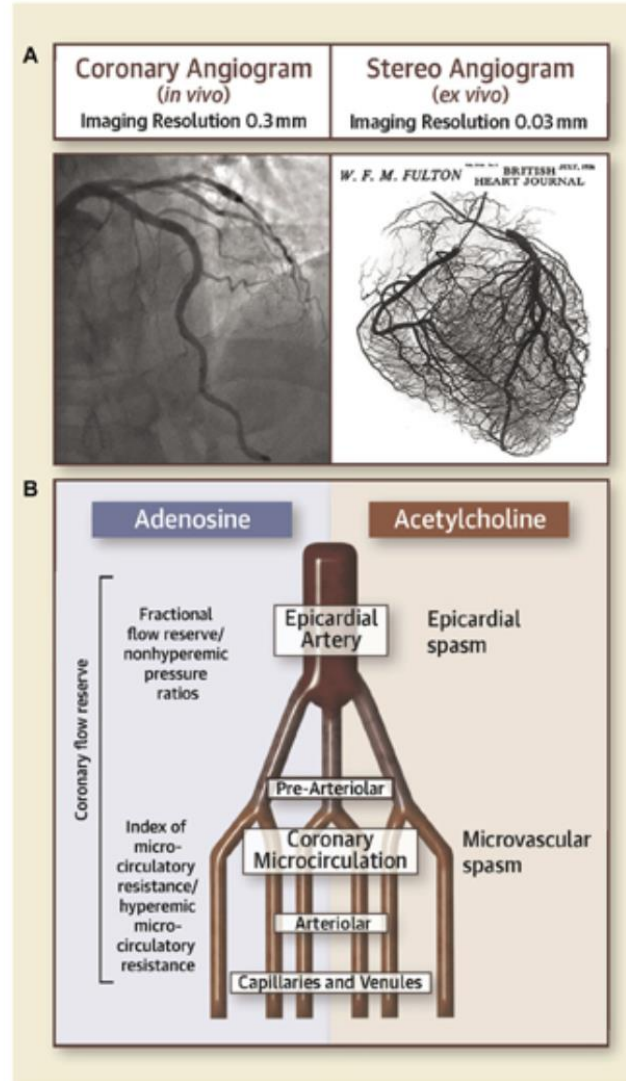


INOCA: défi de demain

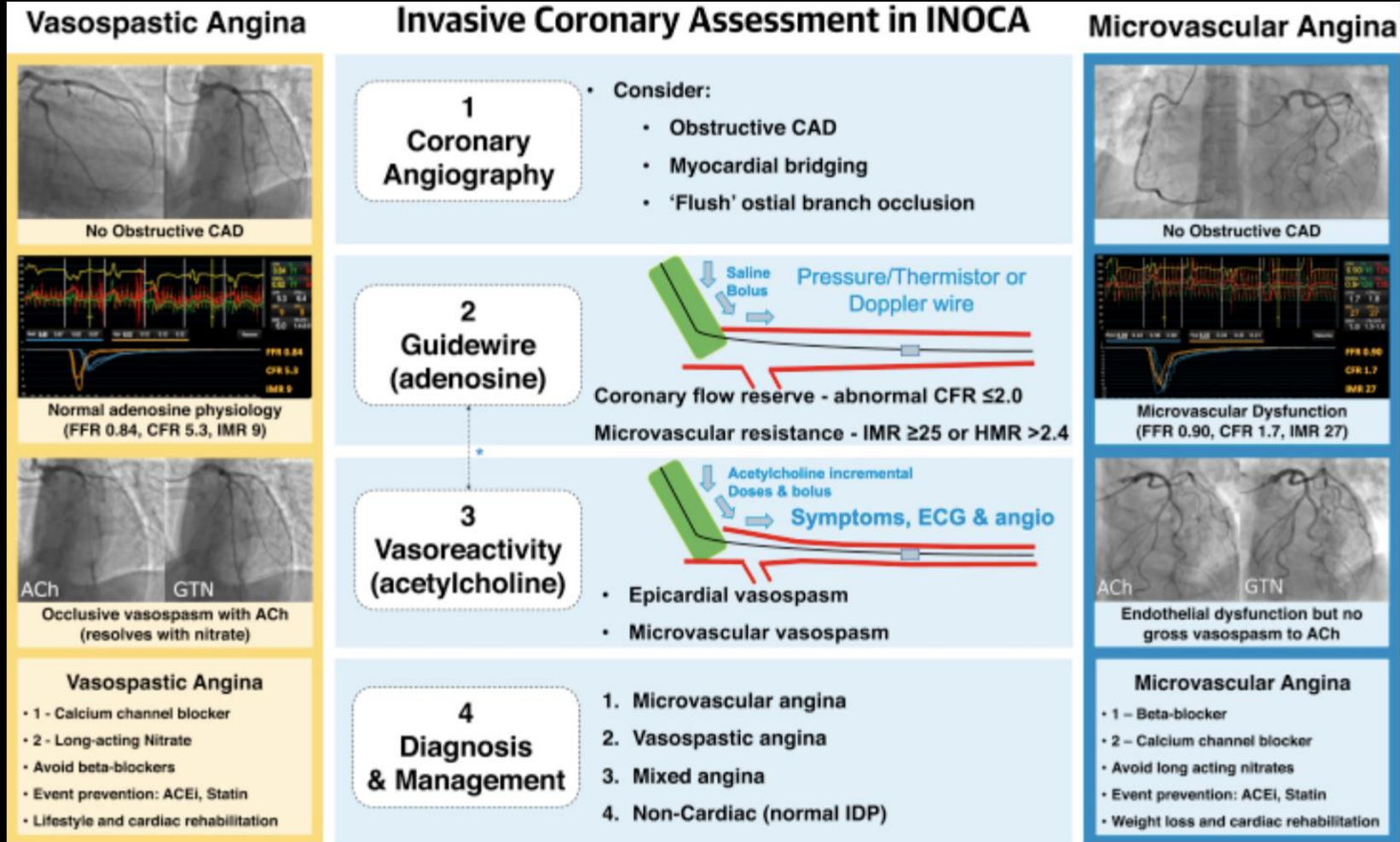


INOCA: défi de demain

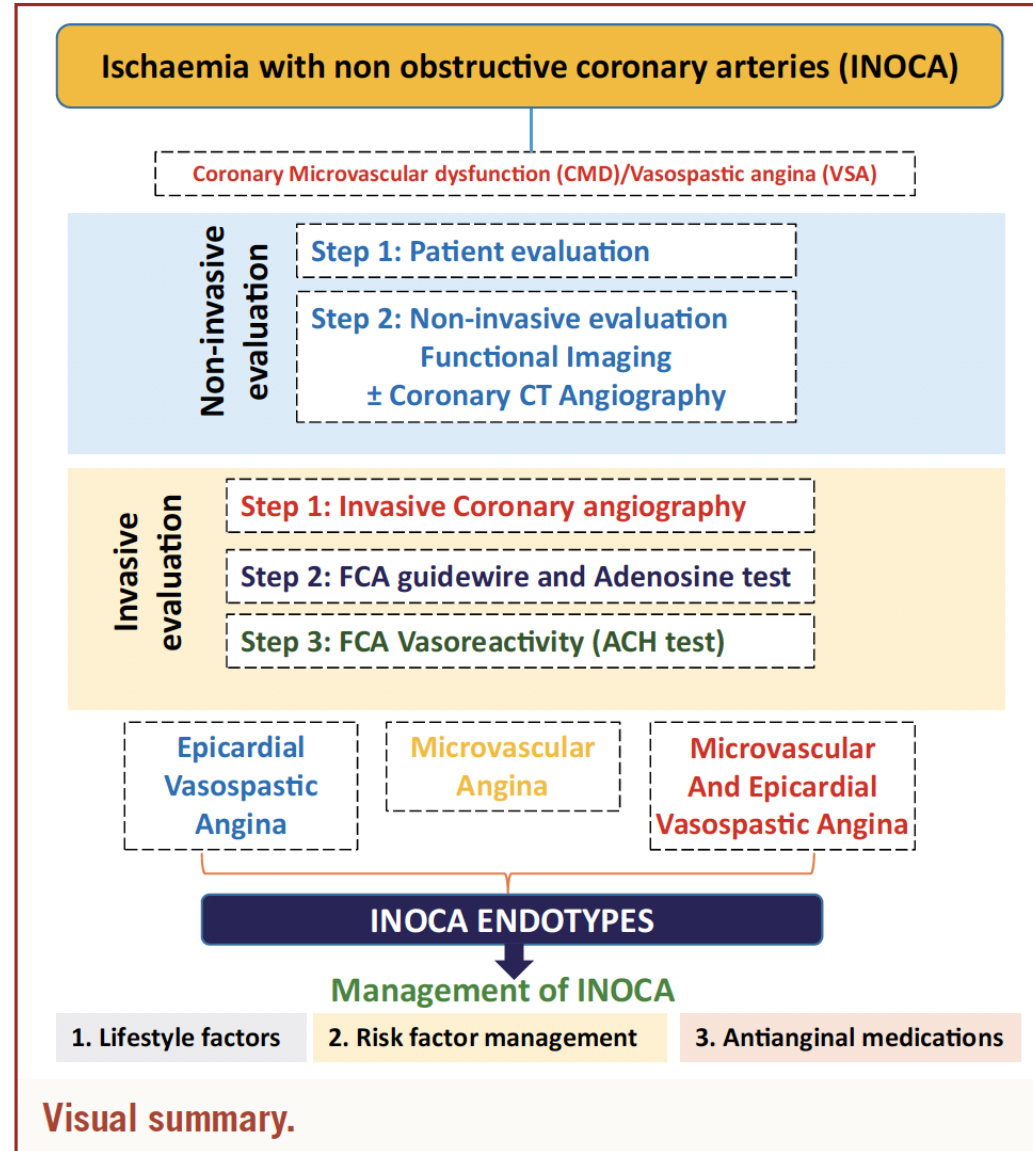
CENTRAL ILLUSTRATION: Limited Visualization of the Coronary Microvasculature With Invasive Coronary Angiography



INOCA: défi de demain



Consensus



Consensus: évaluation non invasive

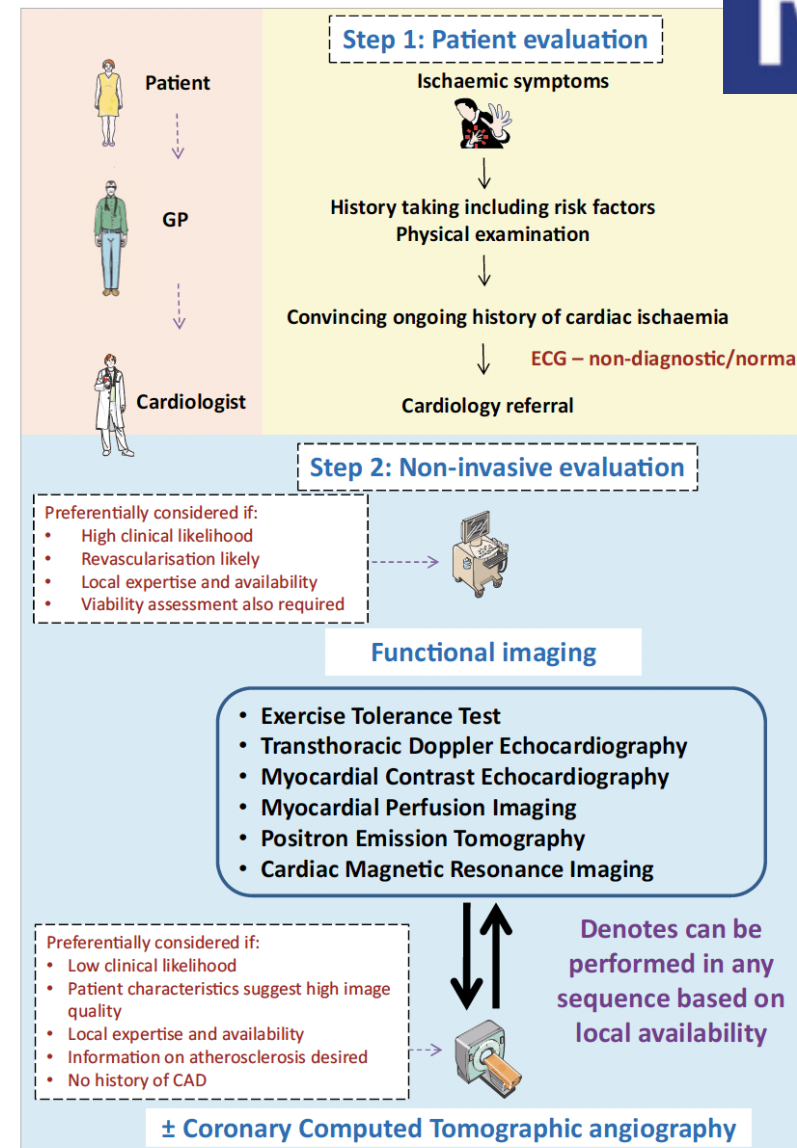
Ischaemia with non obstructive coronary arteries (INOCA)

Coronary Microvascular dysfunction (CMD)/Vasospastic angina (VSA)

Non-invasive
evaluation

Step 1: Patient evaluation

Step 2: Non-invasive evaluation
Functional Imaging
± Coronary CT Angiography



Ischaemia with non obstructive coronary arteries (INOCA)

Coronary Microvascular dysfunction (CMD)/Vasospastic angina (VSA)

Non-invasive
evaluation

Step 1: Patient evaluation

Step 2: Non-invasive evaluation
Functional Imaging
± Coronary CT Angiography

Invasive
evaluation

Step 1: Invasive Coronary angiography

Step 2: FCA guidewire and Adenosine test

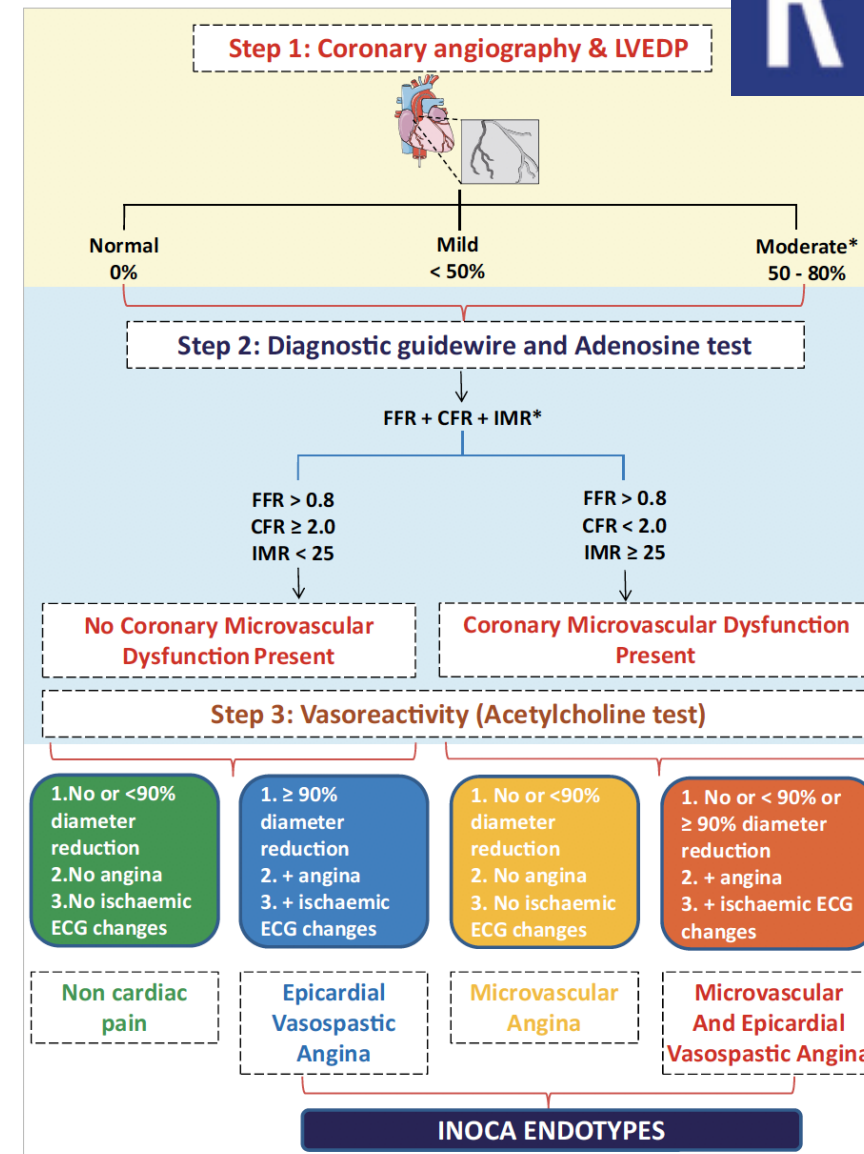
Step 3: FCA Vasoreactivity (ACH test)

Epicardial
Vasospastic
Angina

Microvascular
Angina

Microvascular
And Epicardial
Vasospastic Angina

INOCA ENDOTYPES



Ischaemia with non obstructive coronary arteries (INOCA)

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Step 1: Patient evaluation

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Invasive
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Step 3: FCA Vasoreactivity (ACH test)

Epicardial
Vasospastic
Angina

Microvascular
Angina

Microvascular
And Epicardial
Vasospastic Angina

INOCA ENDOTYPES

Management of INOCA

1. Lifestyle factors

2. Risk factor management

3. Antianginal medications

Management of INOCA

1. Lifestyle factors



Nutrition



Exercise



Weight management



Smoking cessation



Coping with stress

2. Risk factor management



Hypertension



Dyslipidaemia



Diabetes mellitus

3. Antianginal medication



Microvascular angina

Consider statins and
ACEI/ARB



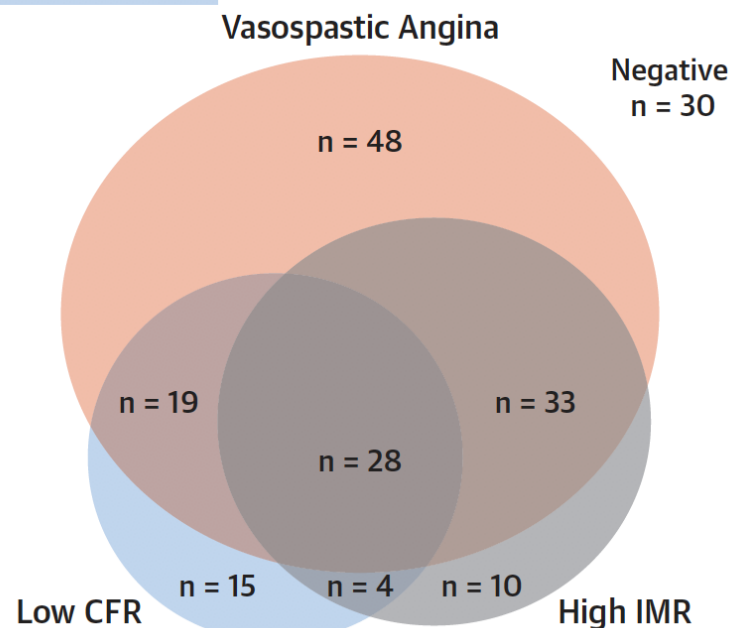
Vasospastic angina

1. Betablocker
2. Calcium channel blocker
3. Nicorandil
4. Ranolazine
5. Ivabradine
6. Trimetazidine

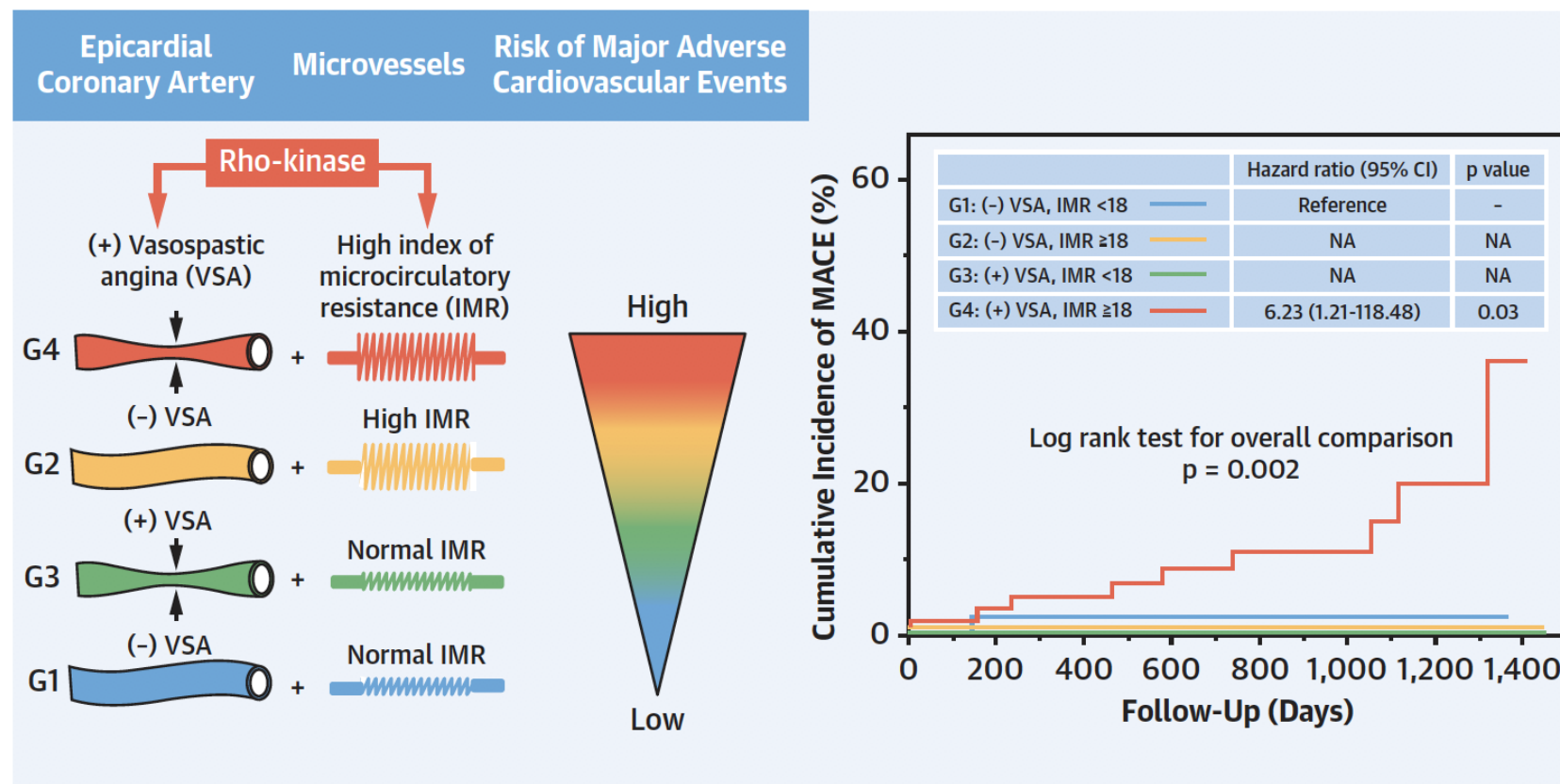
1. Calcium channel blocker
2. Long-acting nitrate
3. Nicorandil

FIGURE 4 Coexistence of Coronary Functional Abnormalities

Overall n = 187



CENTRAL ILLUSTRATION Vasospastic Angina and High Index of Microcirculatory Resistance: Prognostic Impact of Coexistence



Thérapeutique

**Randomized
151 Patients**



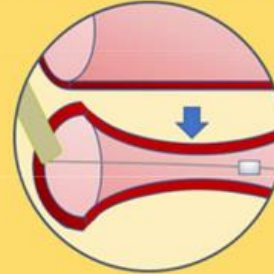
**Angina & No
Obstructive CAD**

Intervention
Invasive Coronary
Function Guided
Care (n=75)



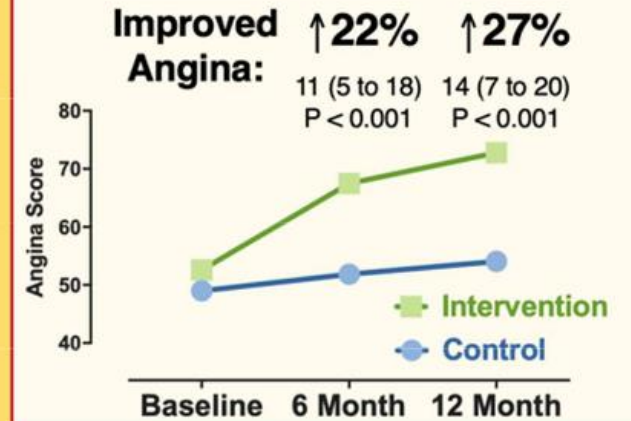
Control
Angiography guided
Care (n=76)

Linked Diagnosis:
Microvascular angina
Vasospastic angina
Non-cardiac



Therapy:
Stratify Antianginals
Non-pharmacological

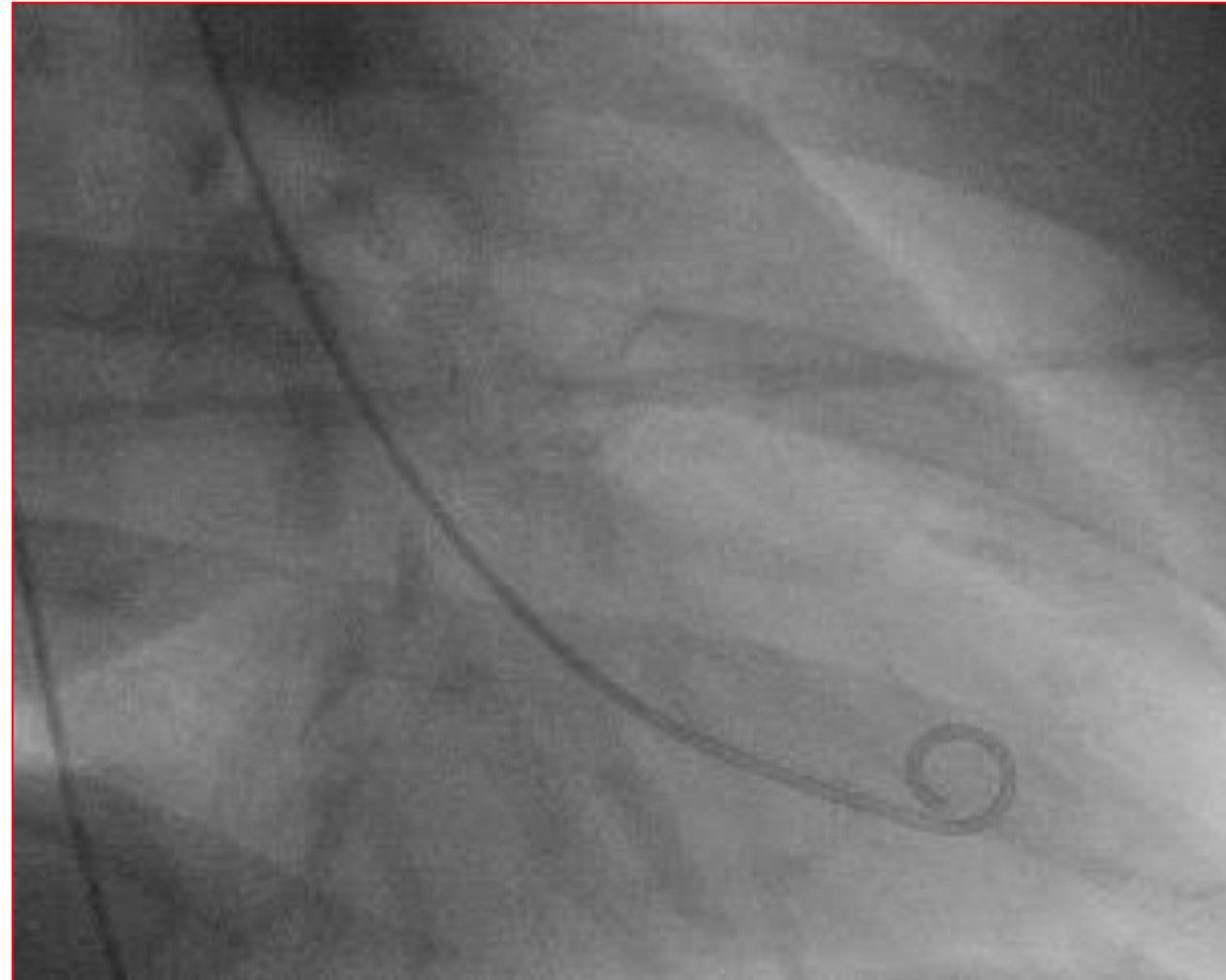
Main Results:



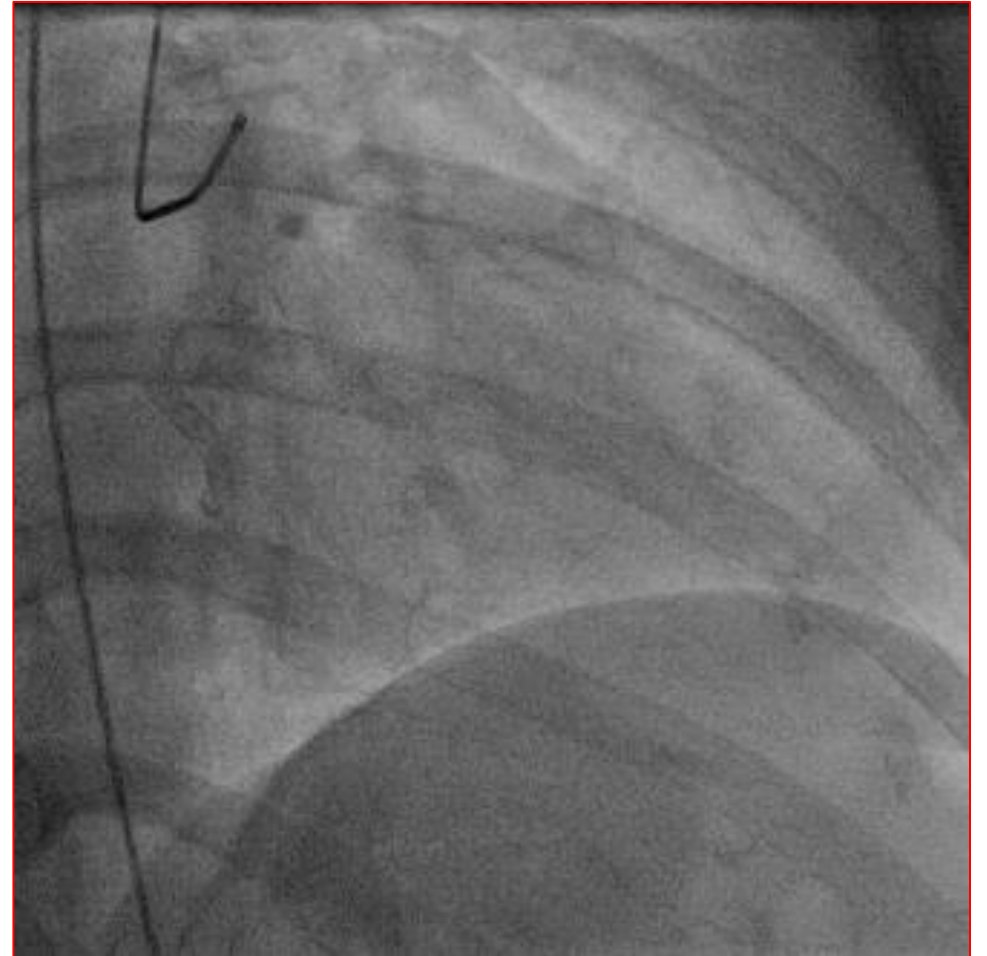
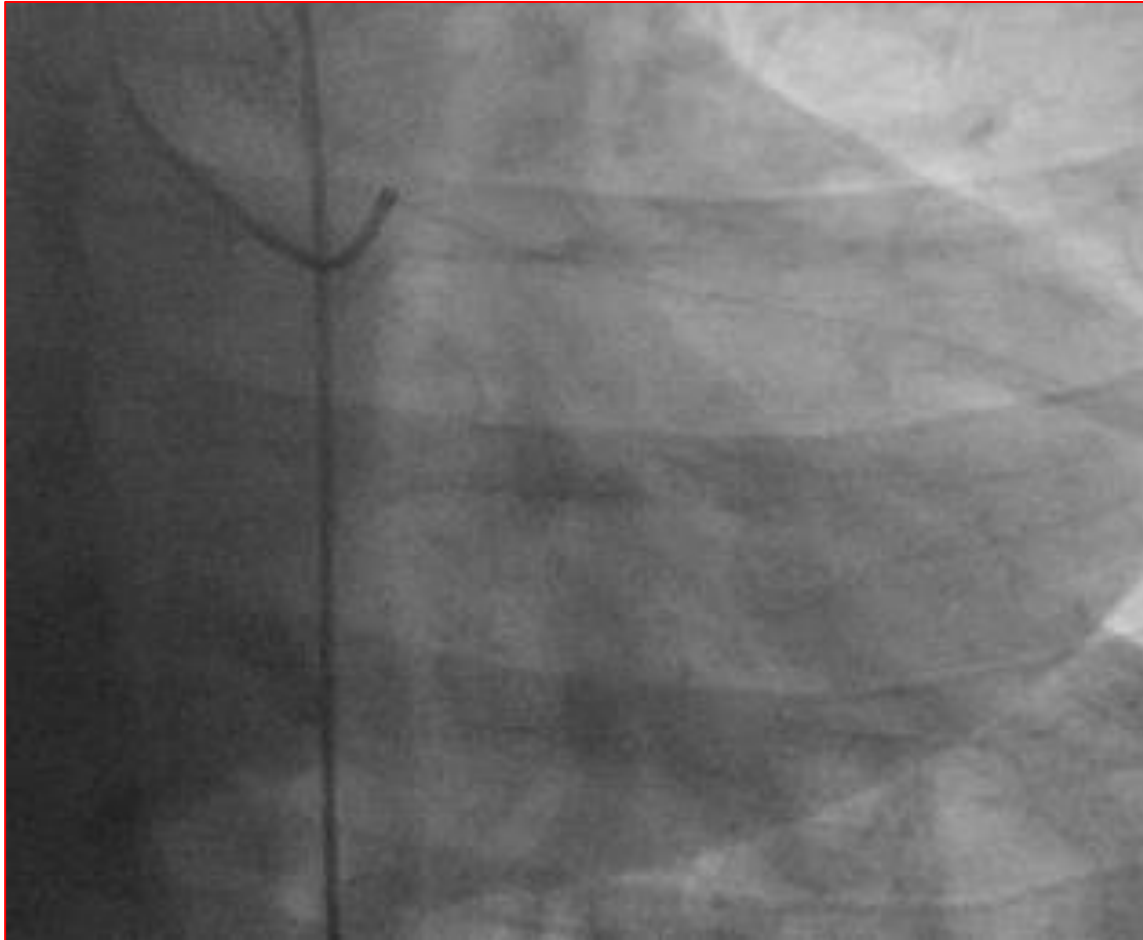
**Sustained Benefits:
Improved Angina and
Quality of Life**

Cas clinique: Patiente de 42 ans

- Angor stable depuis 3 ans
- Hérité et tabac sevré
- Coro angioplastie de la CD x 2
- Coro x 5
- ECG repos normal test non invasif -



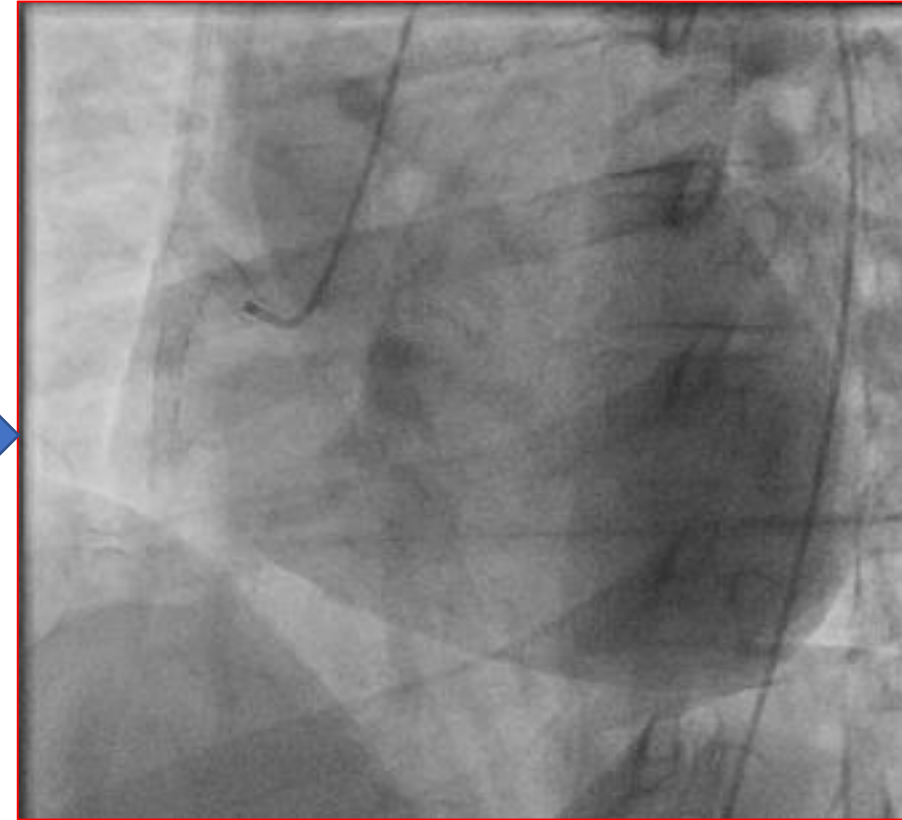
Cas clinique: Patiente de 42 ans



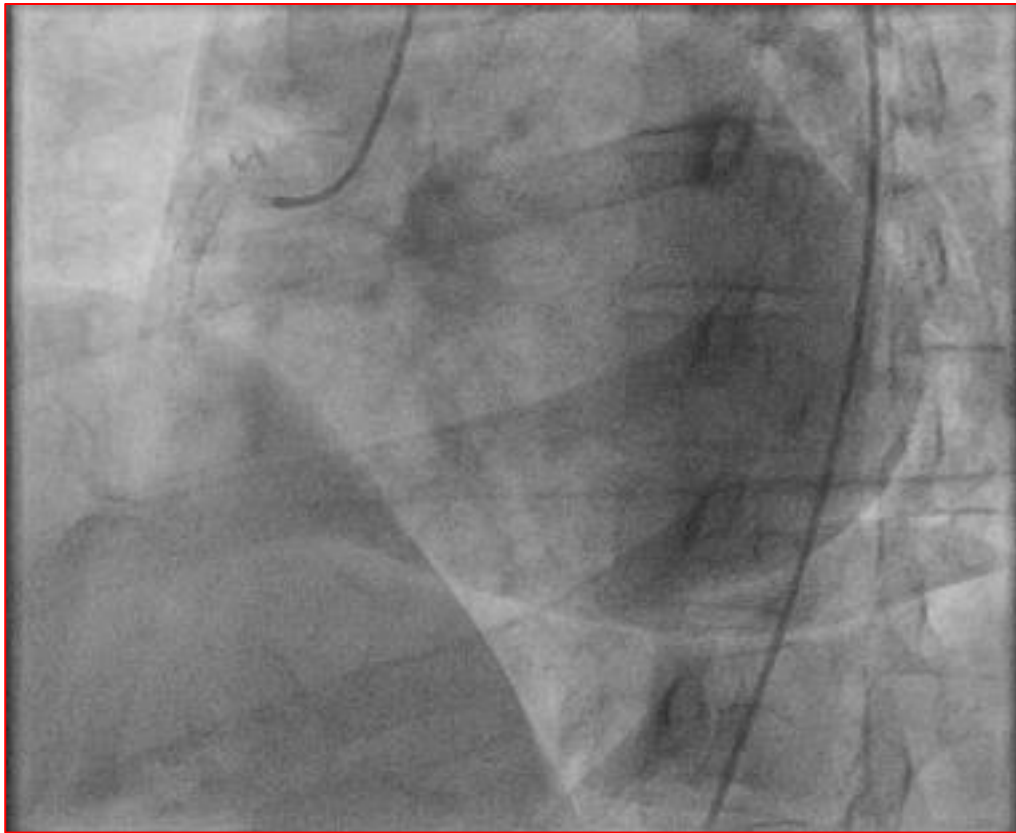
Cas clinique: Patiente de 42 ans



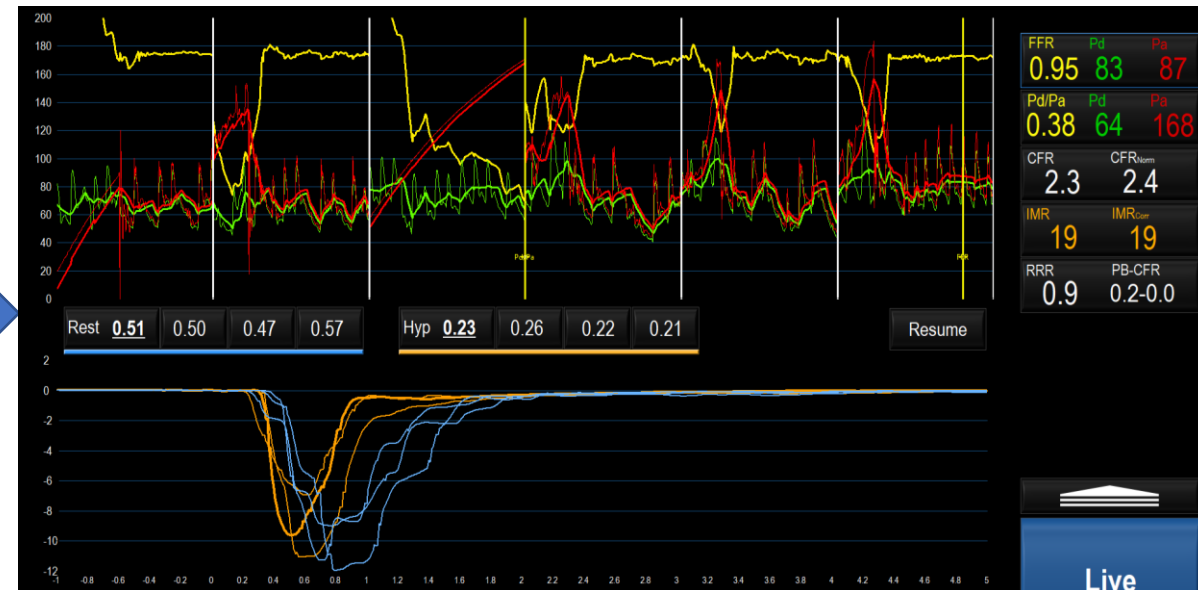
Acetylcholine 50 mcg



Cas clinique: Patiente de 42 ans

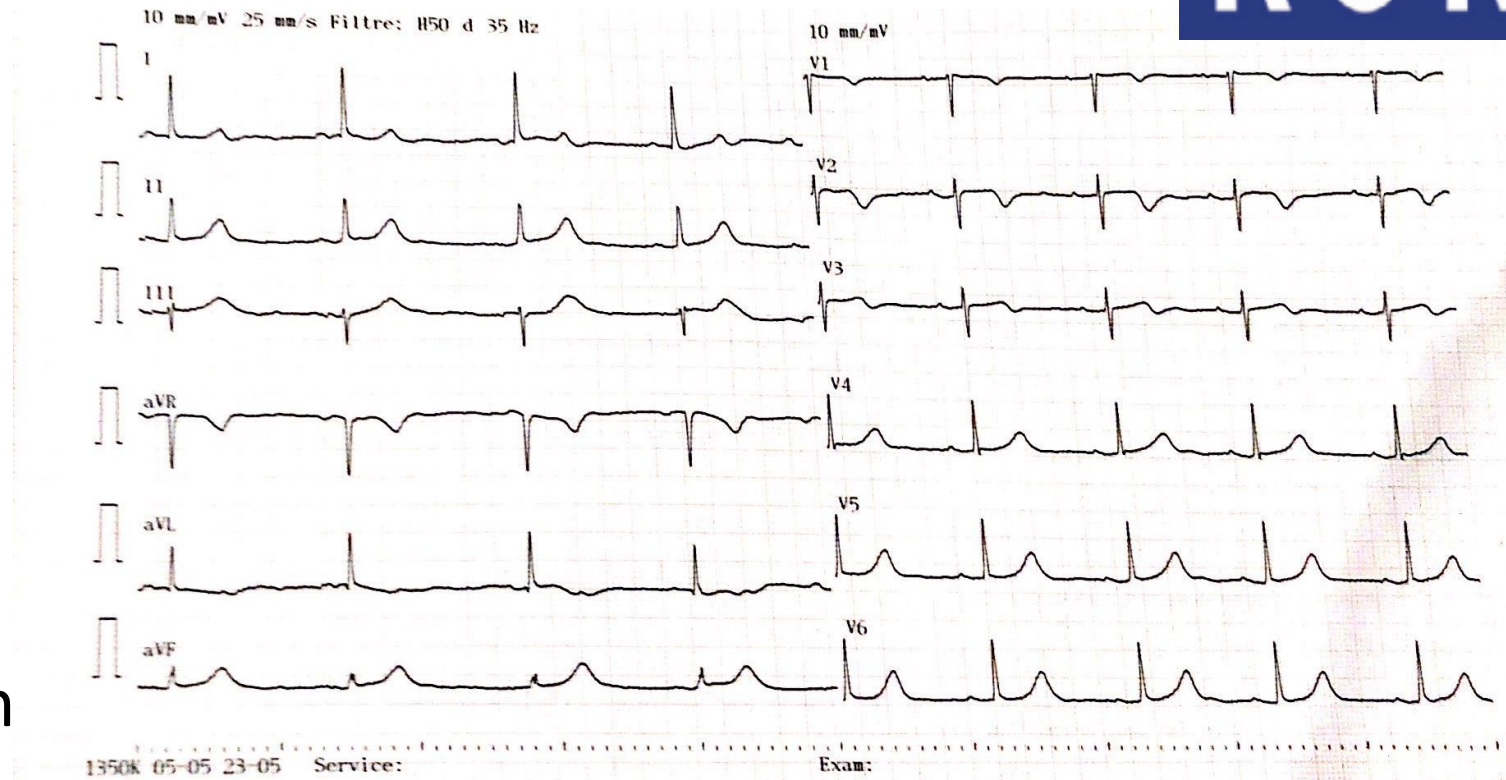


IMR

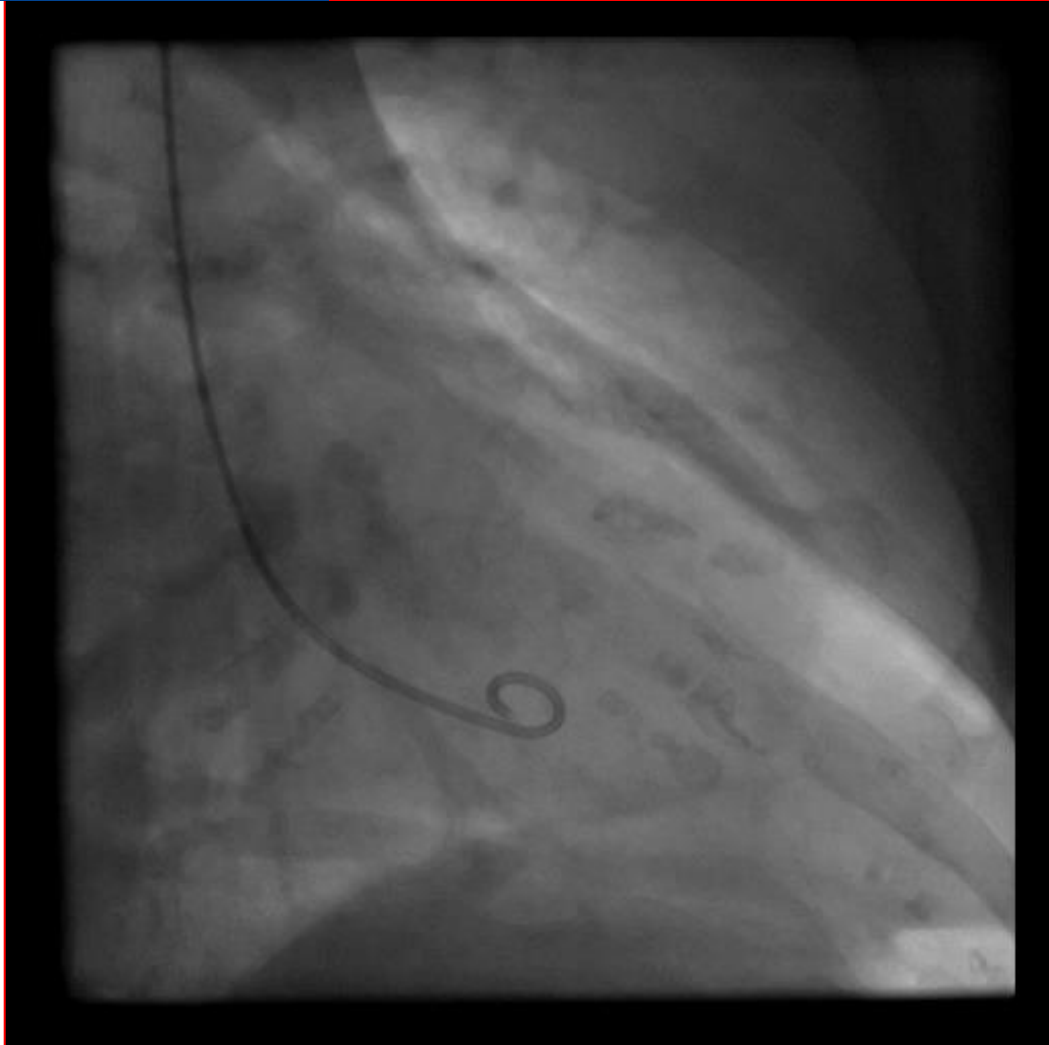


Cas clinique: Patiente de 78 ans évolution

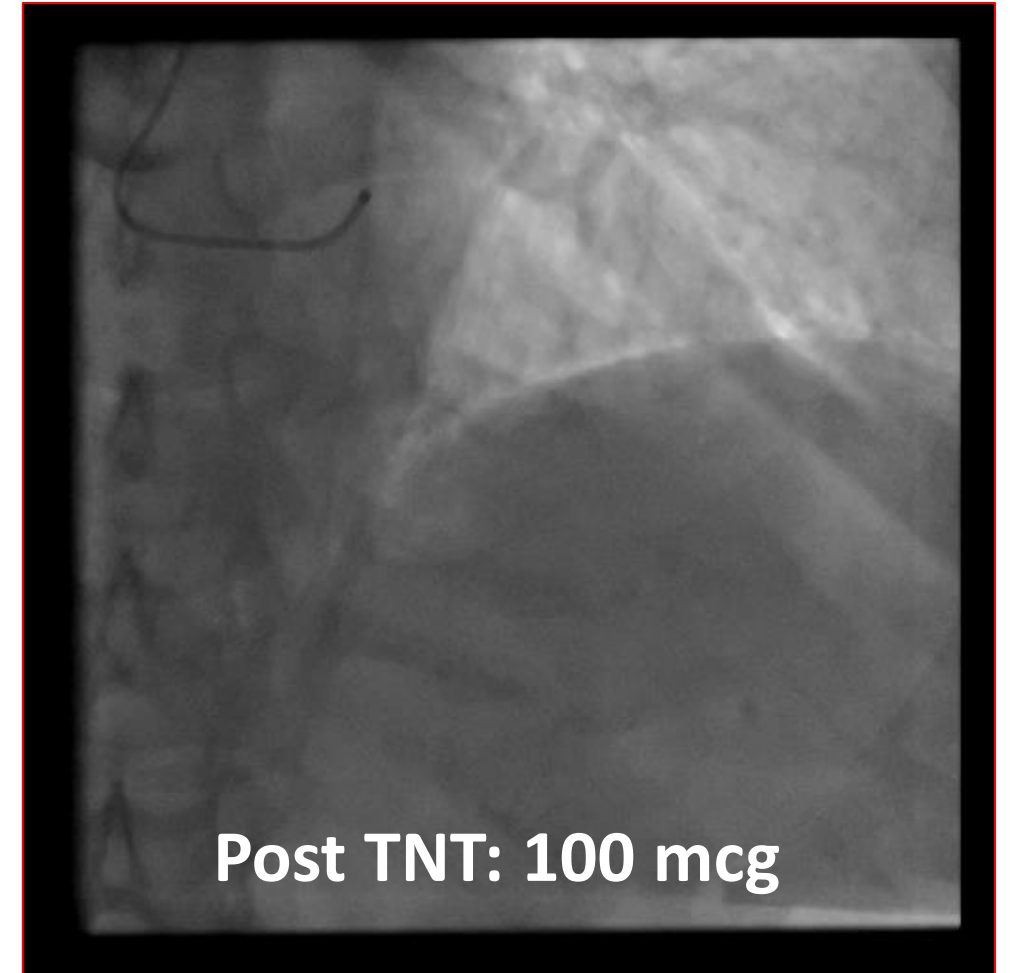
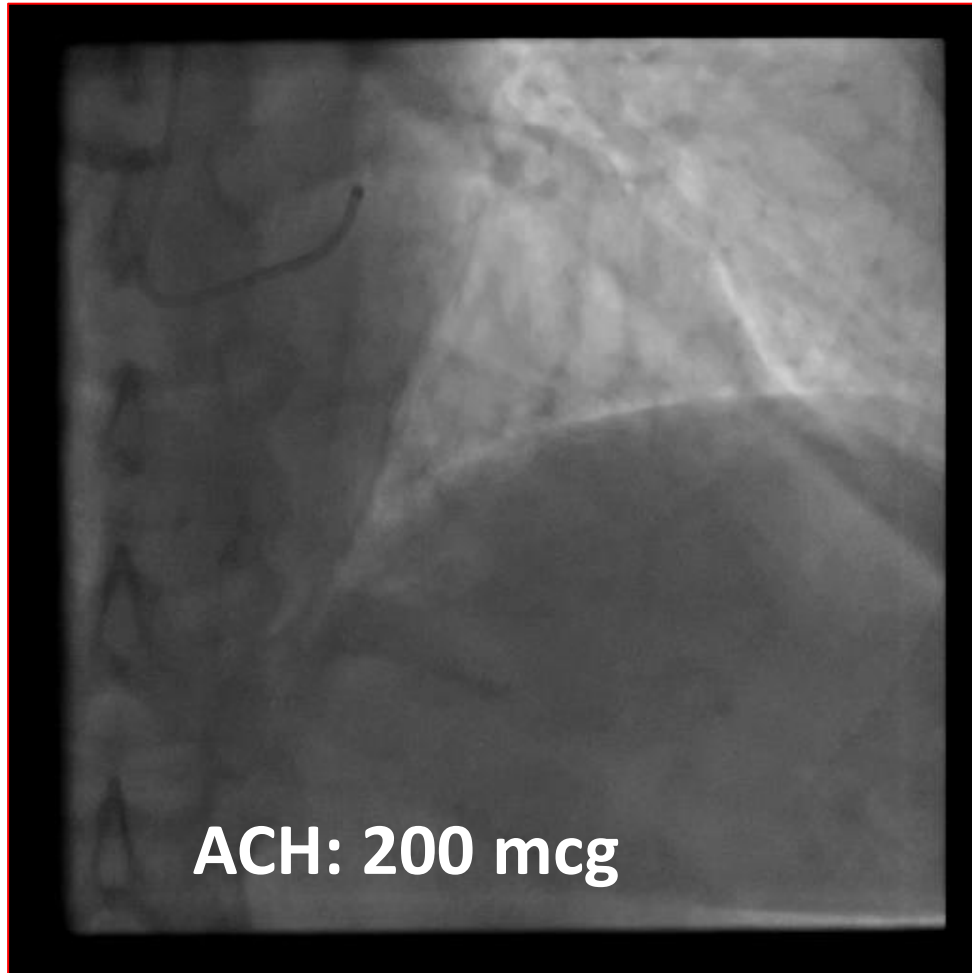
- Troponine à 500 pg/mL
- Coro « normale »
- Pic de troponine à 700 pg/mL
- Modification ECG le lendemain
- IRM en attente



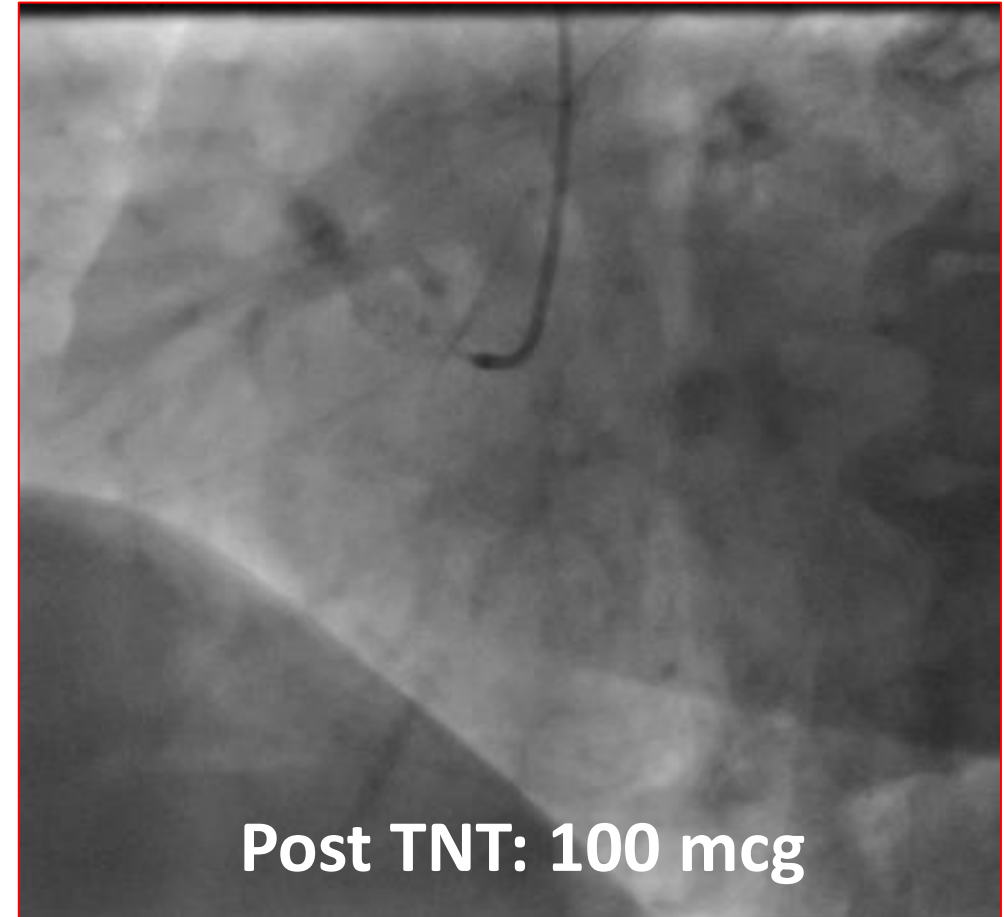
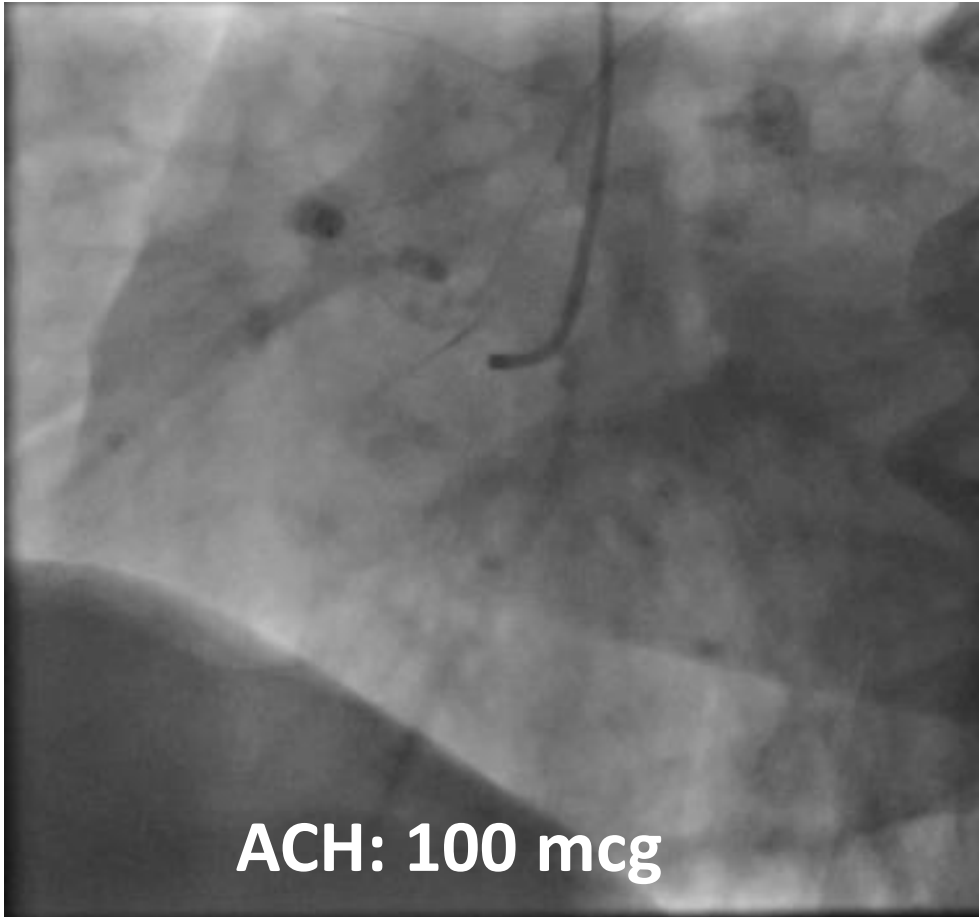
clinique: Patiente de 78 ans seconde procéd à J10



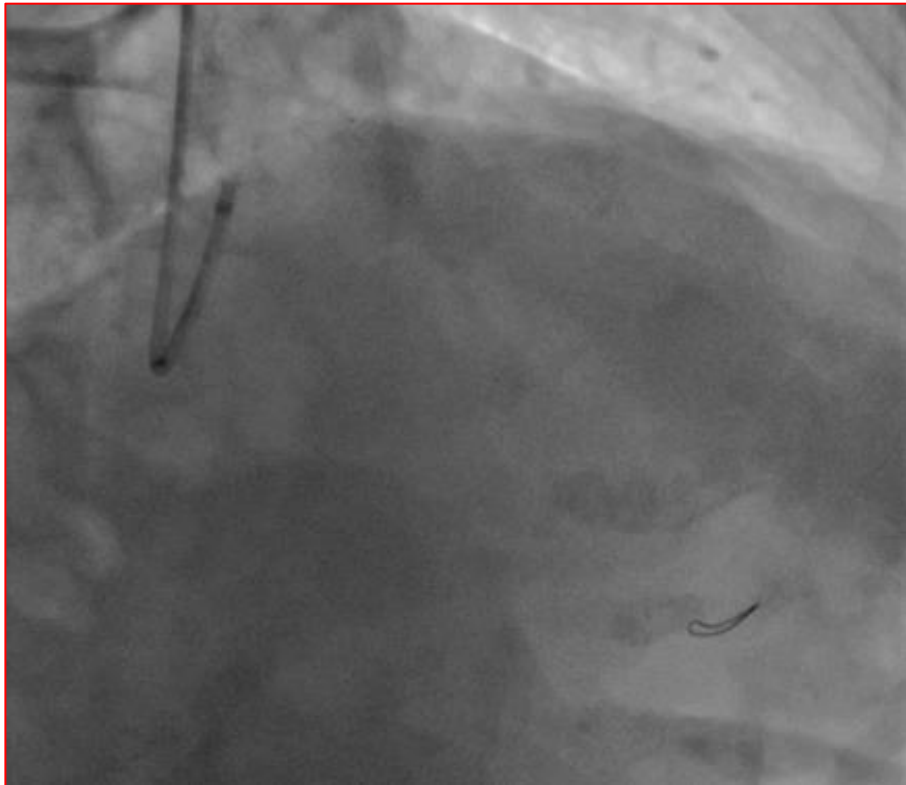
Cas clinique: Patiente de 78 ans seconde procédure à J10



Test de vasoréactivité à l'acétylcholine -



Test de vasoréactivité à l'acétylcholine -



CFR= 2, IMR 72

Evaluation de la microcirculation

