euro PCR

"COMPLICATION" SESSION

EAPCI

EUROPEAN SOCIETY OF CARDIOLOGY

CASE 3

When a left main stenosis angioplasty begins easily and becomes complicated…

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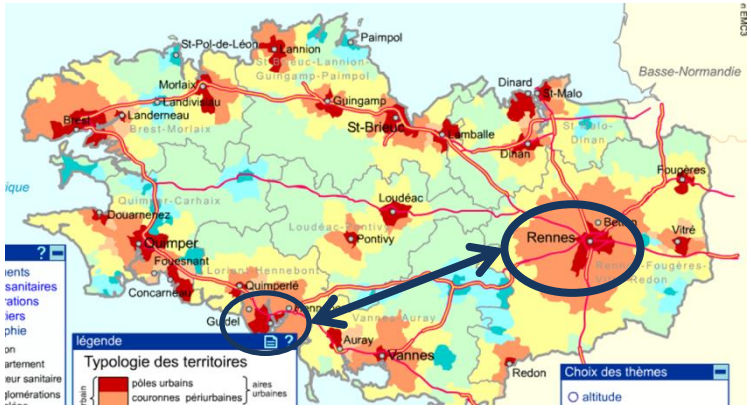
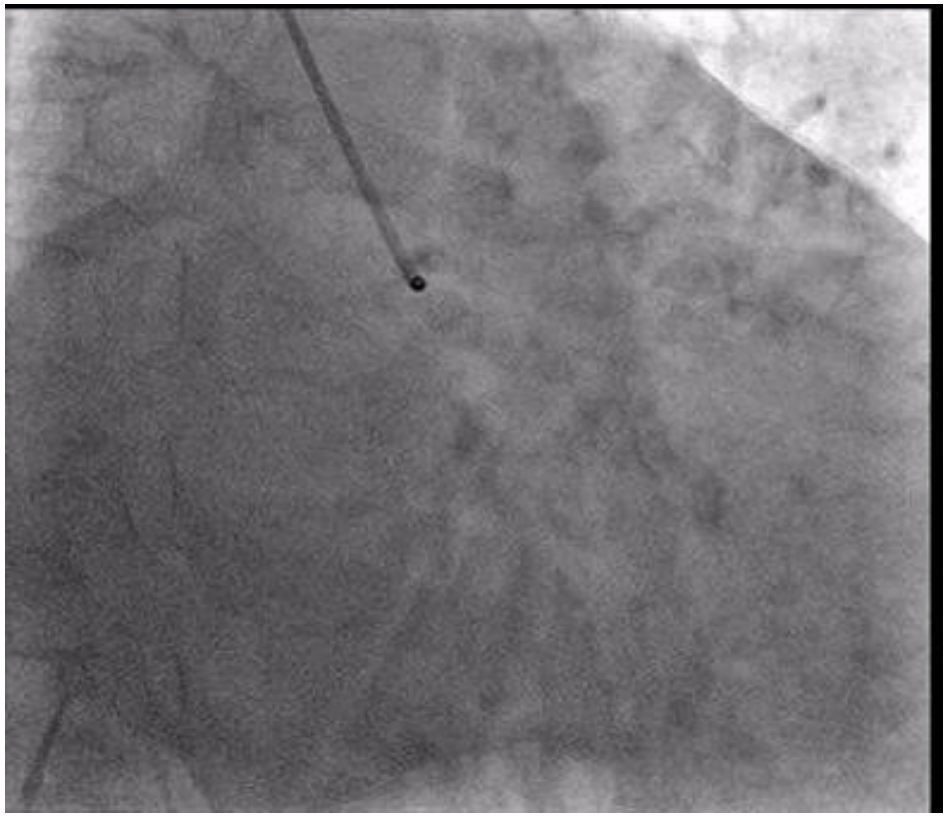
GACI
Groupe Athérome et Cardiologie Interventionnelle de la Société Française de Cardiologie

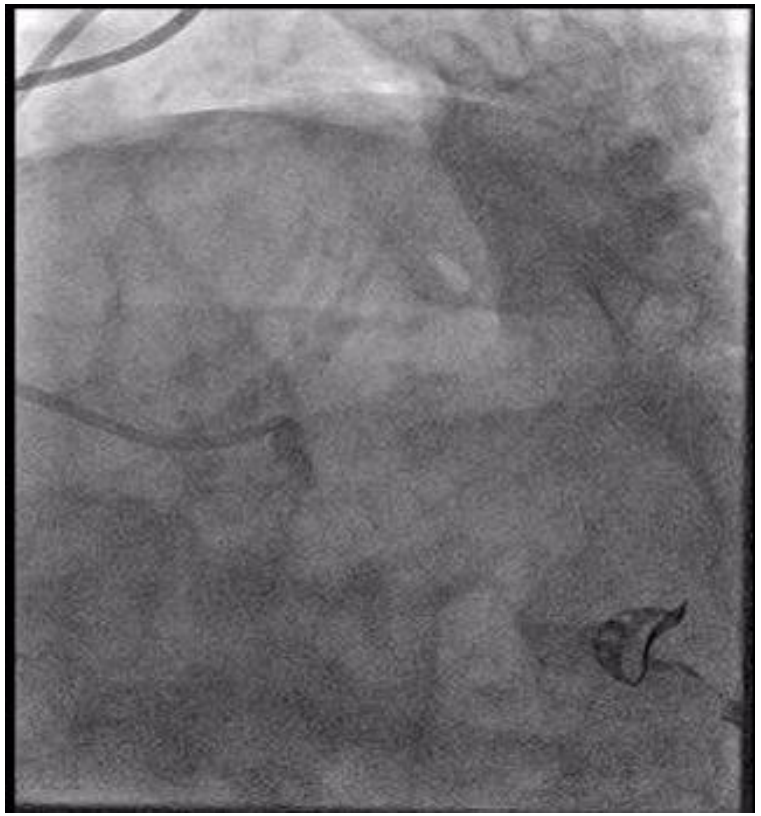
G Maryvonne

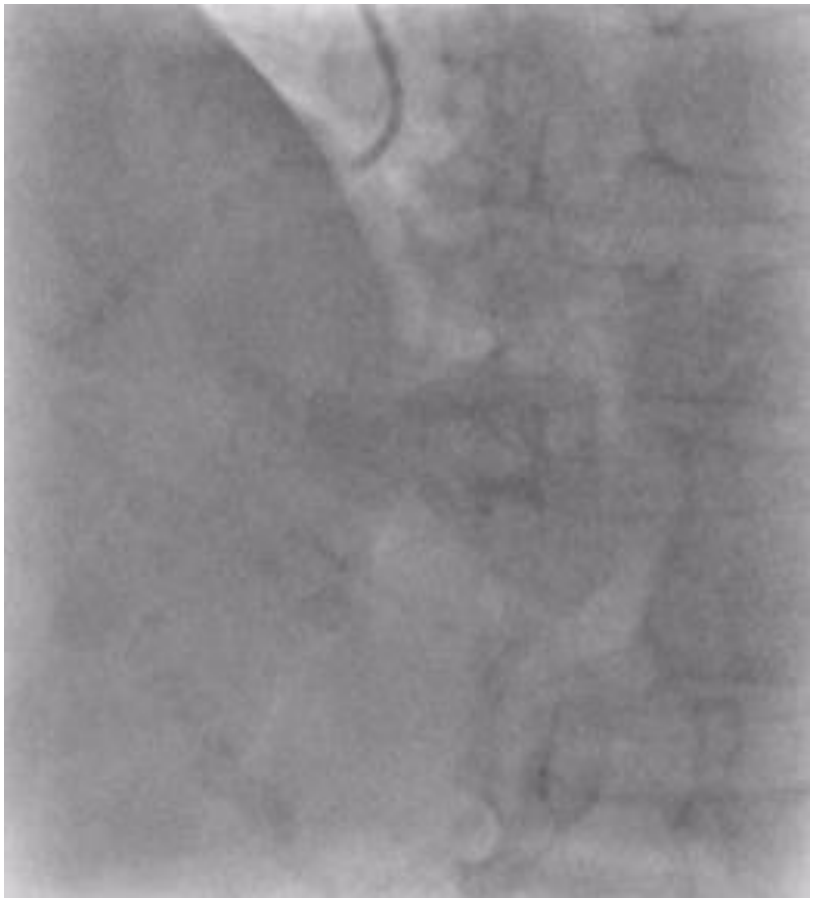


- 77 y/o woman, arterial hypertension, no major illness.
- She was admitted on the first of November, 2015, Lorient hospital, for a spontaneous chest pain reported to a NSTE-ACS (troponin elevation).
- The antithrombotic treatment associated enoxaparine subcutaneously and aspirin without pretreatment with antiP2Y12.
- The coronary angiography documented a complex distal and calcified lesion of the left main coronary artery associated to a tight proximal stenosis of the right coronary artery (small artery).

Coronary angiography (Lorient Hospital)

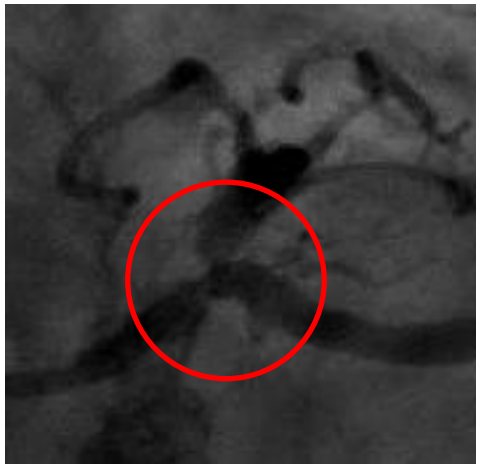






After heart team discussion, PTCA was decided and the patient transferred to the Rennes hospital (November 12th). The procedure was scheduled via a radial approach (November 13th)

Question 1



Antiplatelet treatment on admission day, the day before scheduled PTCA?

1- Prasugrel 60 mg followed by 10 mg /day

2- Ticagrelor 180 mg followed by 90 mg twice a day

3- Clopidogrel 600 mg followed by 75 mg / day

4 – No P2Y12 inhibitor before cath lab

Question 2

The patient received Enoxaparin SC 100 u / Kg at 7 am
The PTCA was scheduled at 10 am
Which anticoagulant protocol in the cath lab ?

1- No additional anticoagulant

2- additional IV bolus Unfractionated Heparin (UFH)

3- additional IV bolus enoxaparin

4 – bivalirudin

5 – UFH + systematic antiGPIIbIIIa

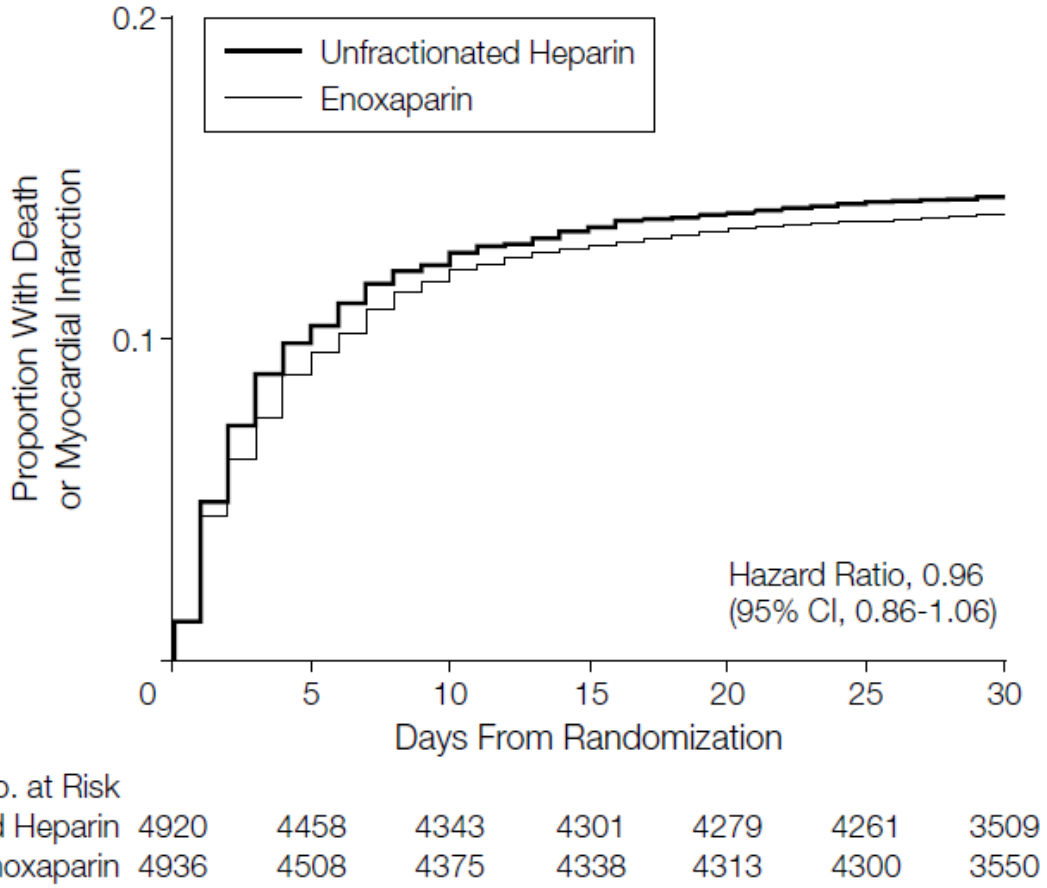
Recommendations for antithrombotic treatment in patients with NSTE-ACS undergoing PCI

Recommendations	Class[a]	Level[b]
Antiplatelet therapy		
ASA is recommended for all patients without contraindications at an initial oral loading dose of 150–300 mg (or 80–150 mg i.v.), and at a maintenance dose of 75–100 mg daily long-term regardless of treatment strategy.	I	A
A $P2Y_{12}$ inhibitor is recommended in addition to ASA, and maintained over 12 months unless there are contraindications such as excessive risk of bleeding. Options are:	I	A
• Prasugrel (60 mg loading dose, 10 mg daily dose) in patients in whom coronary anatomy is known and who are proceeding to PCI if no contraindication.	I	B
• Ticagrelor (180 mg loading dose, 90 mg twice daily) for patients at moderate-to-high risk of ischaemic events, regardless of initial treatment strategy including those pre-treated with clopidogrel if no contraindication.	I	B
• Clopidogrel (600 mg loading dose, 75 mg daily dose), only when prasugrel or ticagrelor are not available or are contraindicated.	I	B
GP IIb/IIIa antagonists should be considered for bail-out situation or thrombotic complications.	IIa	C
Pre-treatment with prasugrel in patients in whom coronary anatomy not known, is not recommended.	III	B
Pre-treatment with GP IIb/IIIa antagonists in patients in not known, is not recommended.	III	A
Anticoagulant therapy		
Anticoagulation is recommended for all patients in addition to antiplatelet therapy during PCI.	I	A
The anticoagulation is selected according to both ischaemic and bleeding risks, and according to the efficacy–safety profile of the chosen agent.	I	C
Bivalirudin (0.75 mg/kg bolus, followed by 1.75 mg/kg/hour for up to 4 hours after the procedure) is recommended as alternative to UFH plus GP IIb/IIIa receptor inhibitor during PCI.	I	A
UFH is recommended as anticoagulant for PCI if patients cannot receive bivalirudin.	I	C
Enoxaparin should be considered as anticoagulant for PCI in patients pre-treated with subcutaneous enoxaparin.	IIa	B
Discontinuation of anticoagulation should be considered after an invasive procedure unless otherwise indicated.	IIa	C
Crossover of UFH and LMWH is not recommended.	III	B

Enoxaparin should be considered as anticoagulant for PCI in patients pre-treated with subcutaneous enoxaparin.

JAMA. 2004;292:45-54

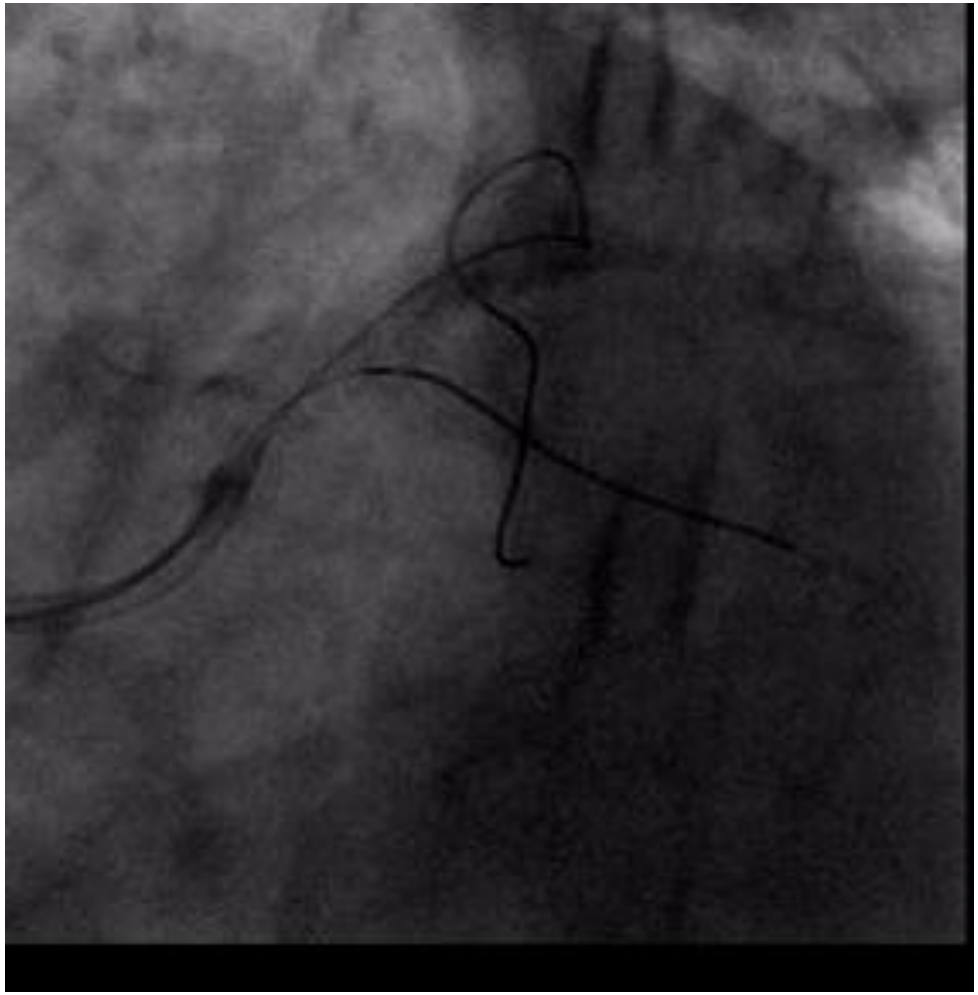
SYNERGY Trial Investigators



During PCI, if the last enoxaparin dose was given less than 8 hours before balloon inflation, no additional enoxaparin was to be given. If the last enoxaparin dose was given 8 or more hours before balloon inflation, 0.3 mg/kg of enoxaparin was to be given intravenously before proceeding with PCI.

- Ticagrelor 180 mg the day before, then 90 mg the procedure day
- Radial approach.
- Subcutaneous injection of enoxaparin (100u/kg) the day of the procedure. No additional anticoagulant.
- Two wires was placed, one in the LAD, the second in the Circ.
- Balloon predilatation.
  (monorail Balloon Catheter 15 mm X 3.0)
- A biolimus DES was placed without any technical problem.

Angiography following stent implantation BioMatrix Flex 3.50 x 14 mm (BIOSENSORS)

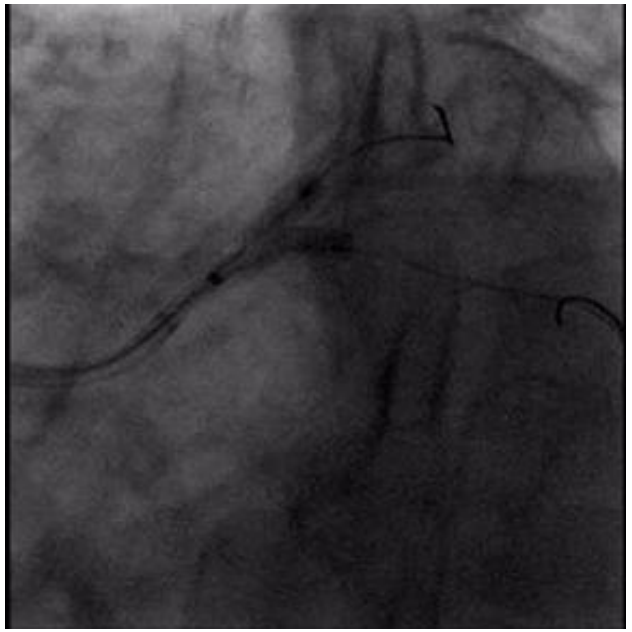


Question 3

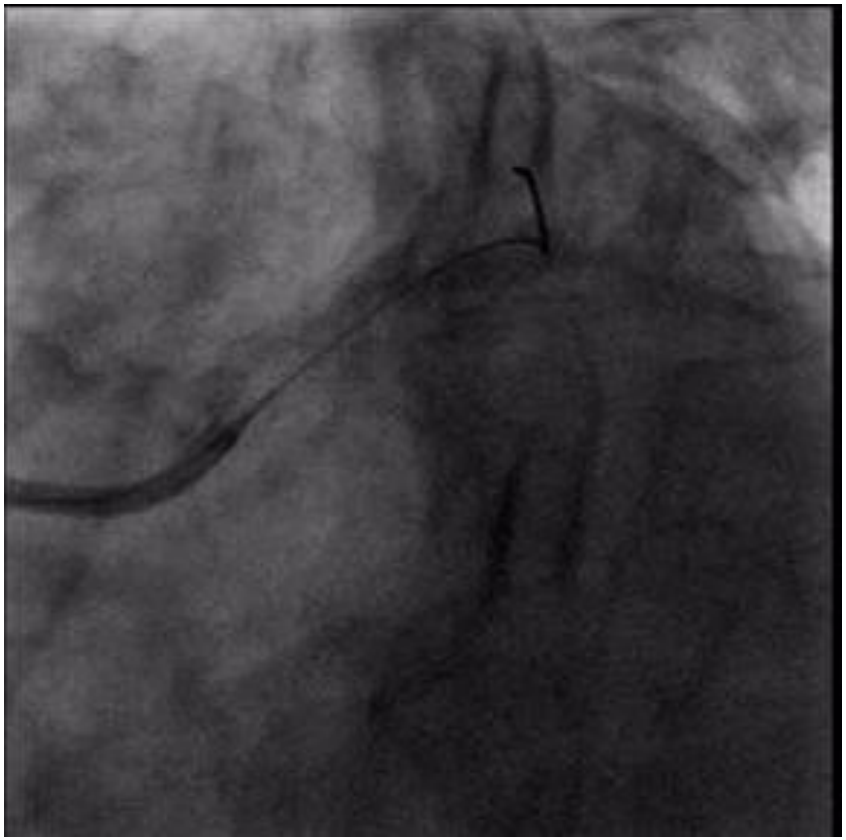
Would you do a systematic kissing balloon ?

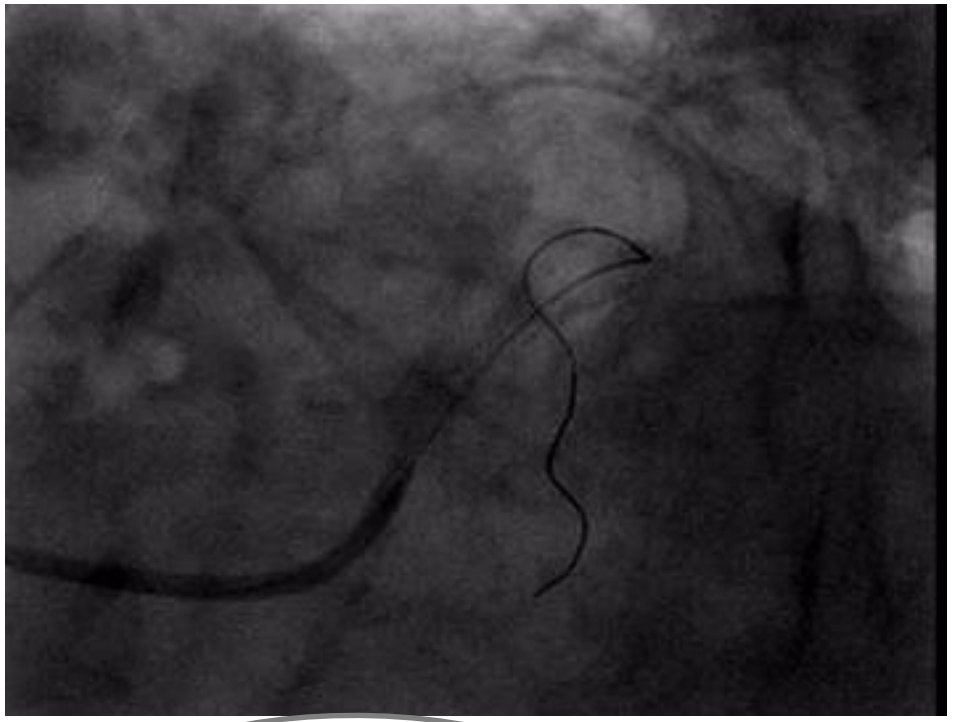
1- Yes

2- No



Angiography following kissing balloon …





Question 5

What would be your stategy ?

1- Emergency circulatory assistance then surgery

2- Thromboaspiration

3- AntiGPIIbIIIa, UFH bolus and thromboaspiration

4 – Direct stenting LAD and Circonflex arteries

5 – Call argentinian colleague to know what to do ?

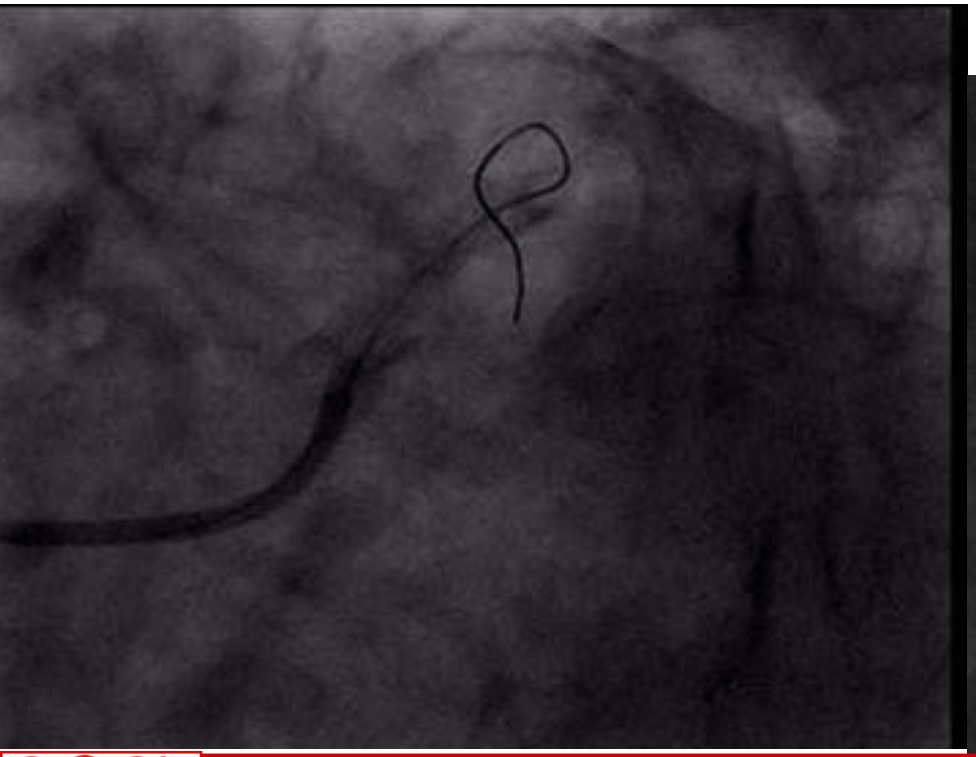
6 – Other ?

Unfractionated Heparin : 50 u/kg

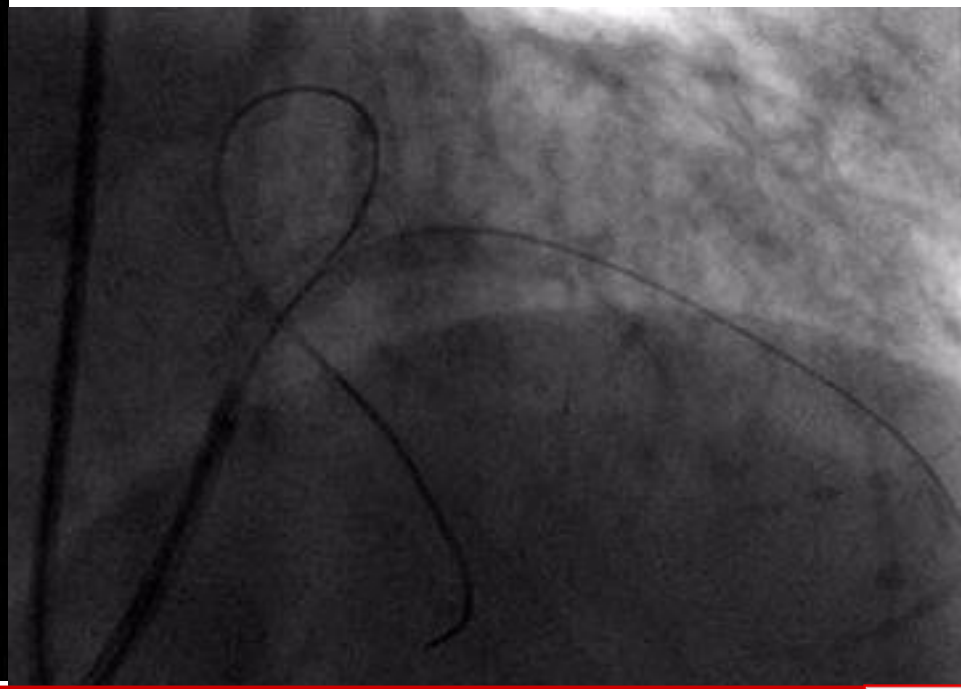
Abciximab (Réopro) : IV bolus + perfusion

Thromboaspiration

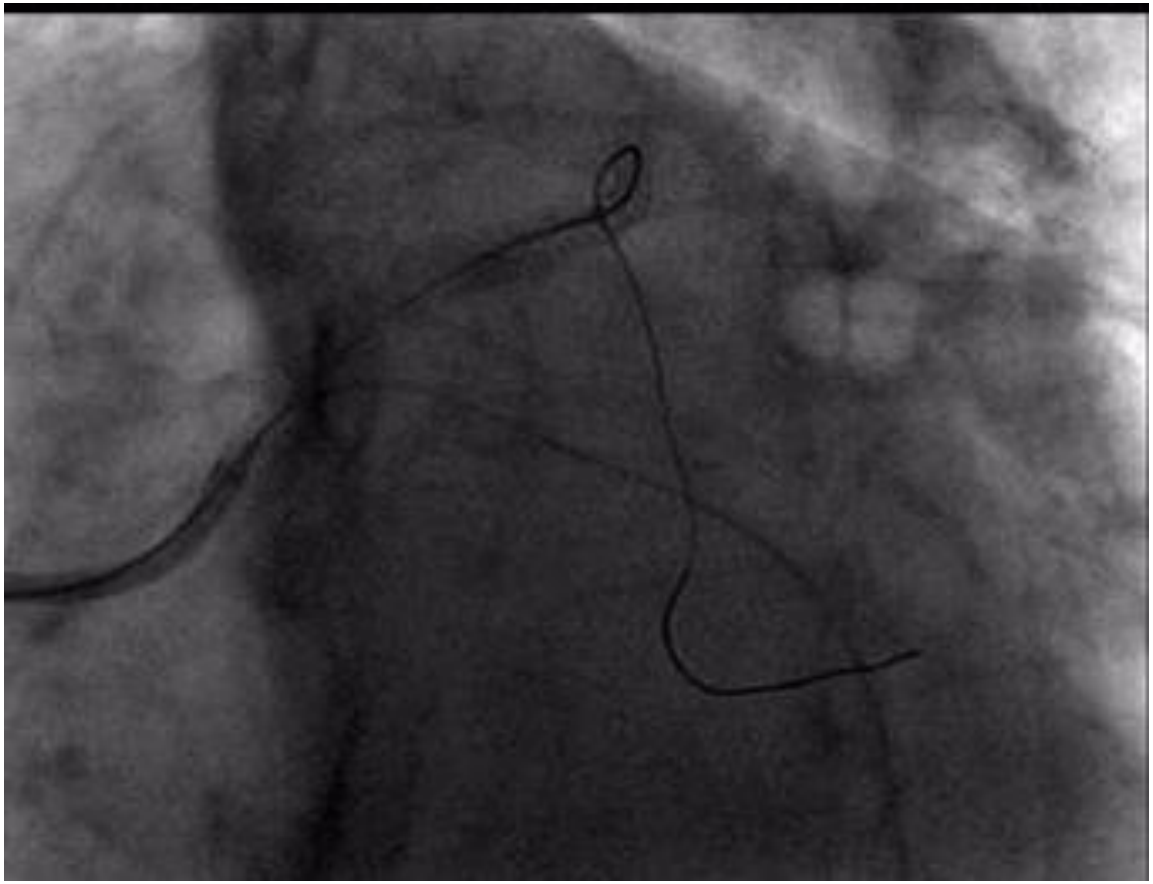
Post thromboaspiration



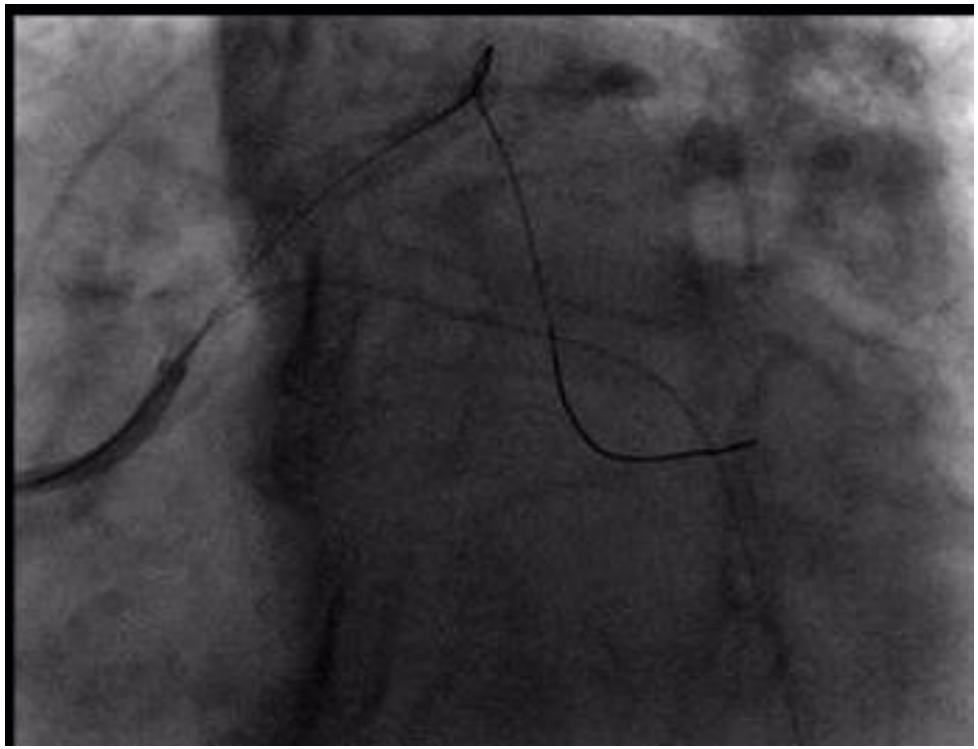
Post balloon inflations

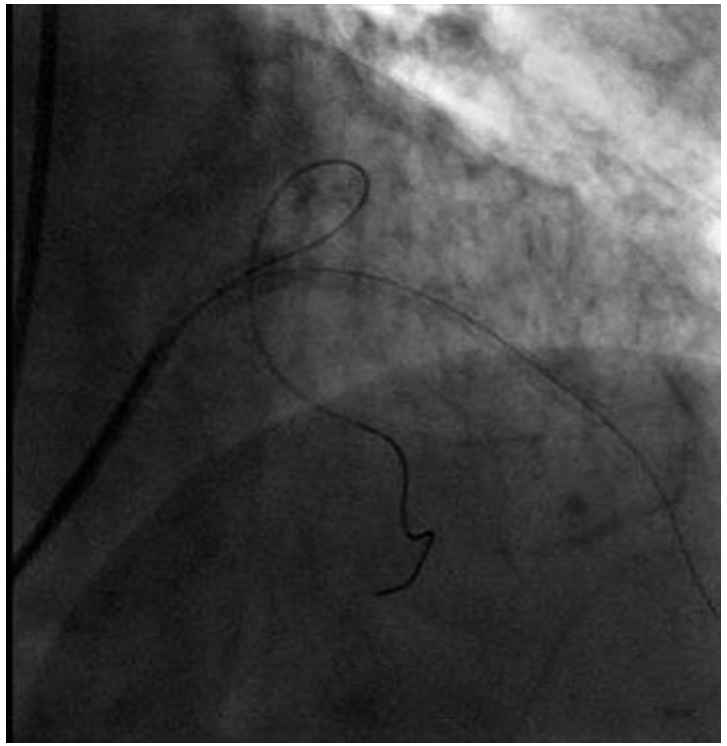


Post long DES LAD (BioMatrix Flex 2.50 x 33 mm (BIOSENSORS))



Final angiographic result (long DES LAD, DES ostial Circ)





Occlusion diagonal artery

End of the story

- TnUS elevation to 3434 pg/ml (<14)
- Echocardiography (Day 3): LVEF : 60%, anterolateral hypokinesia

- 5 months follow up (May 11th 2015)

  No chest pain
  No breathlessness
  Normal LV function
  No ischemia on exercice test