



Catastrophic Left Main Occlusion: *Doing the best we can with restricted resources.*

Rodrigo Modolo, MD, PhD, FESC
Diego Q. Antoniassi, MD

University of Campinas (UNICAMP) - Brazil

*..., Augusto V. Lages, Pedro H. A. Matos, Renata M. Couto, Matheus Ynada, Mariana R. Pioli,
Andrei C. Sposito, Otavio R. Coelho, Silvio Gioppato, ...*

IDENTIFICATION:

- Female, 45 years old.
- Without known comorbidities or use of medications.

OBSTETRIC HISTORY:

- 3 pregnancies (2 normal labors / 1 abortion in first trimester)

FAMILY HISTORY:

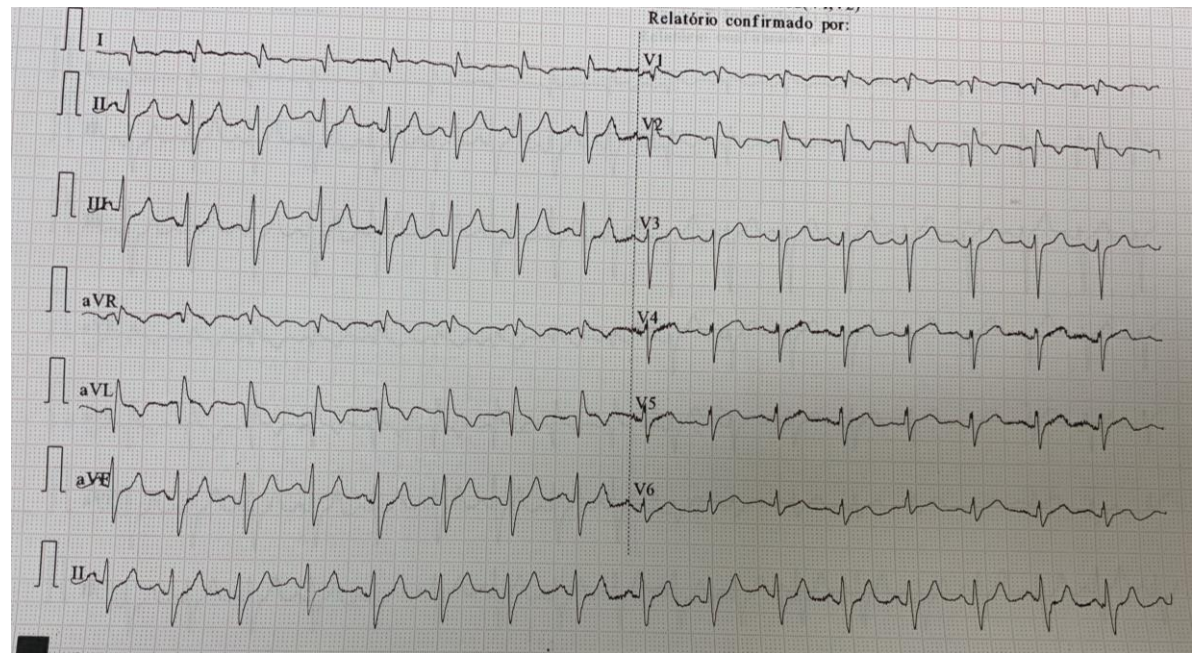
- Father died of AMI (65y).

Admission in medical service

Subit **chest pain** and syncope **during exercise**.
At admission in primary medical service:
ECG with RBBB (presumably new).

AMI
(new RBBB?)

Recived: DAPT +
Anticoagulation



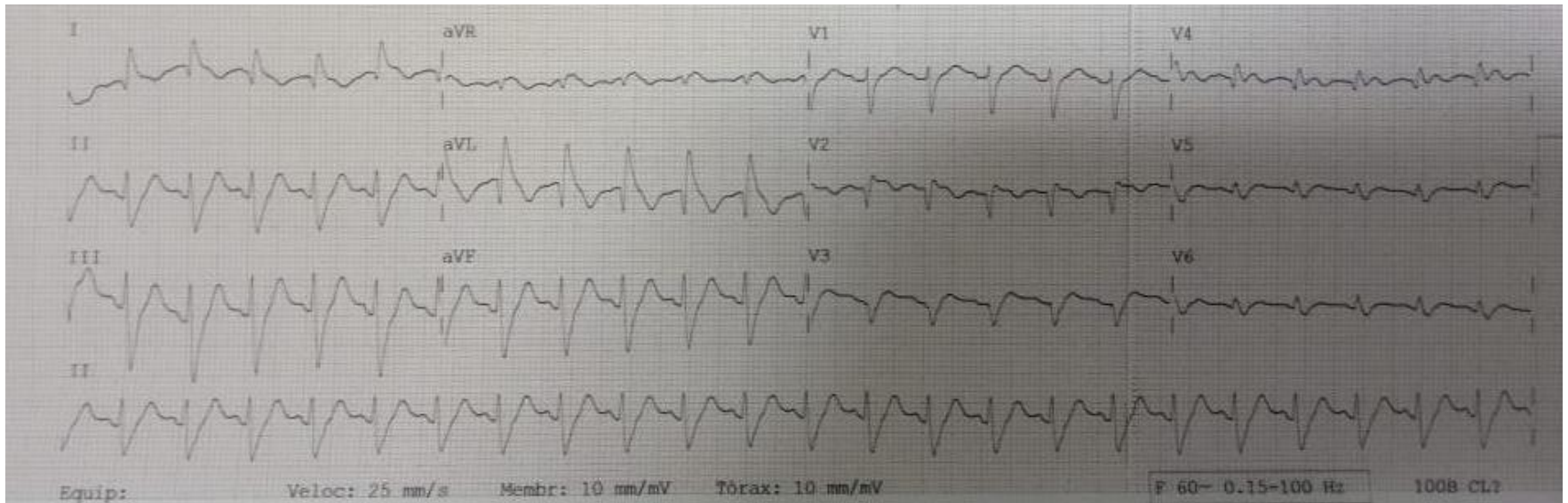
Electrocardiogram 1

Trasfered to a secondary hospital and chemical
trombolysis was performed (**alteplasis**) **after 6h of pain**.

Admission in reference hospital

Evolution: Hipotension and use of vasopressor + inotropic (**cardiogenic shock**).
Requested transfer to our center

Admission after 36h: **Signs of hypoperfusion and shock**. In use of norepinefrin (0.7mcg/kg/min) and dobutamin (20mcg/kg/min).



Troponin: 4197ng/dL

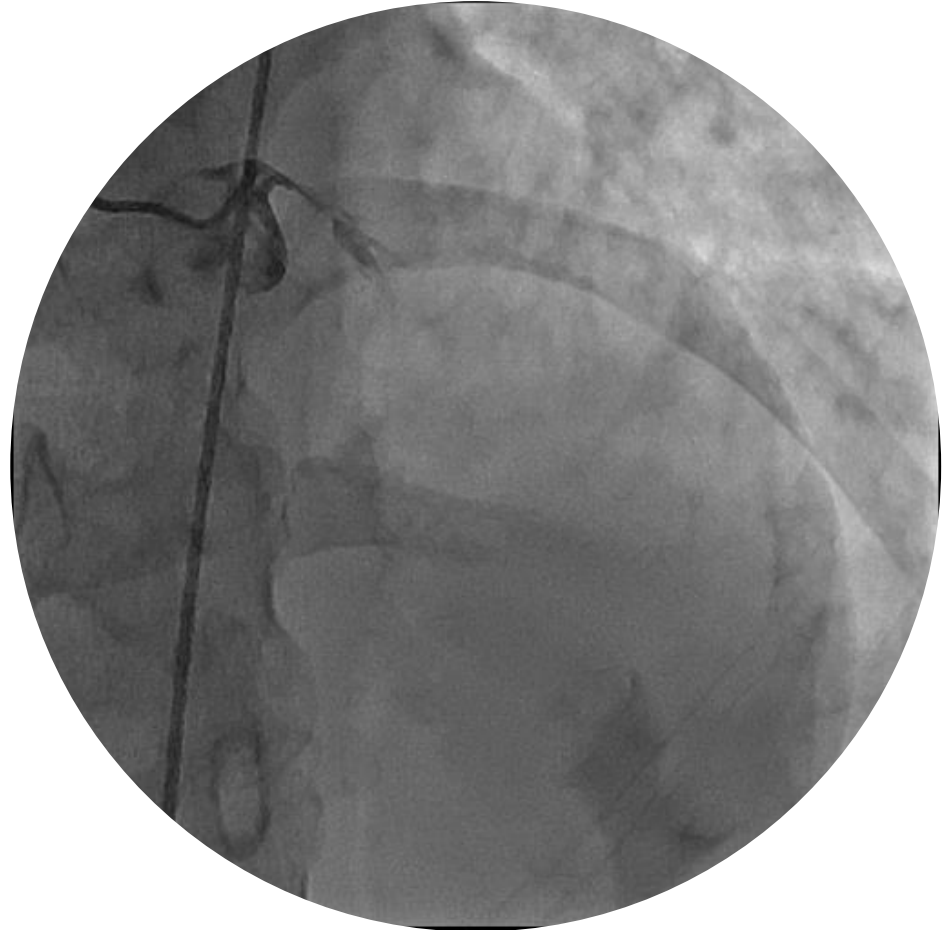
SpO2 98% - O2 6L/min

BP: 100x60 mmHg
HR: 140bpm

RT-PCR SARS-coV-2: negative

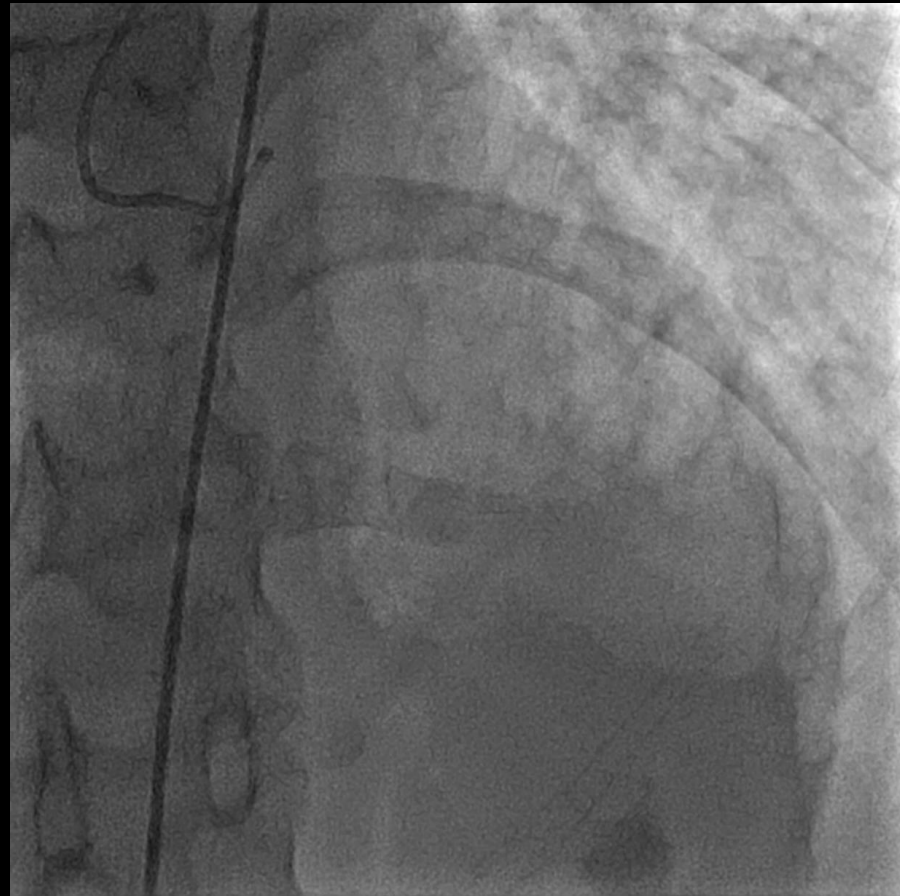
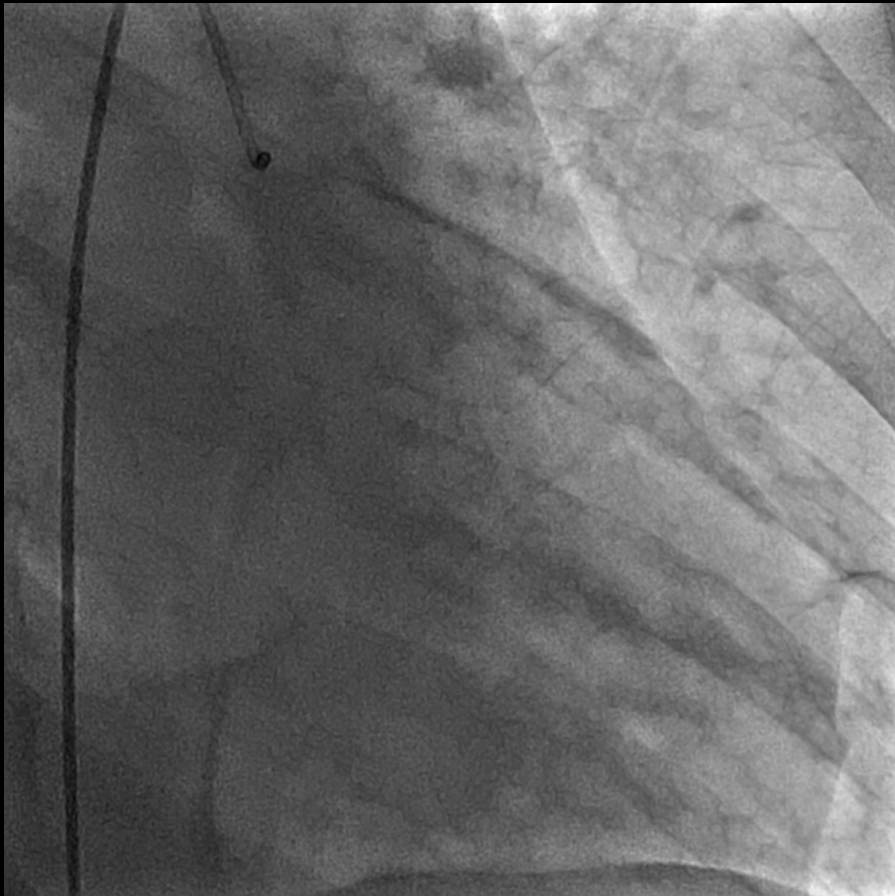
Initial Approach

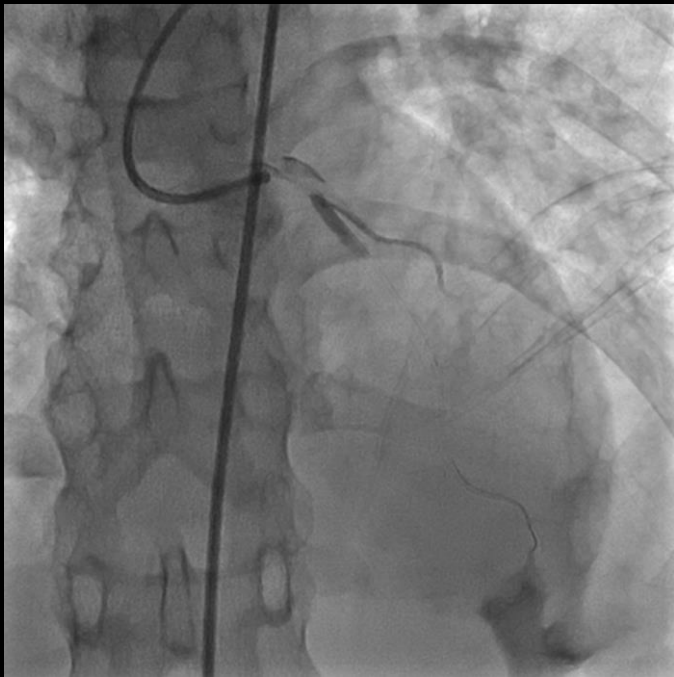
- Urgent Coronary angiography



Right coronary artery without significant obstructions.

Left coronary artery with significant and suboccluded lesion in the left main.





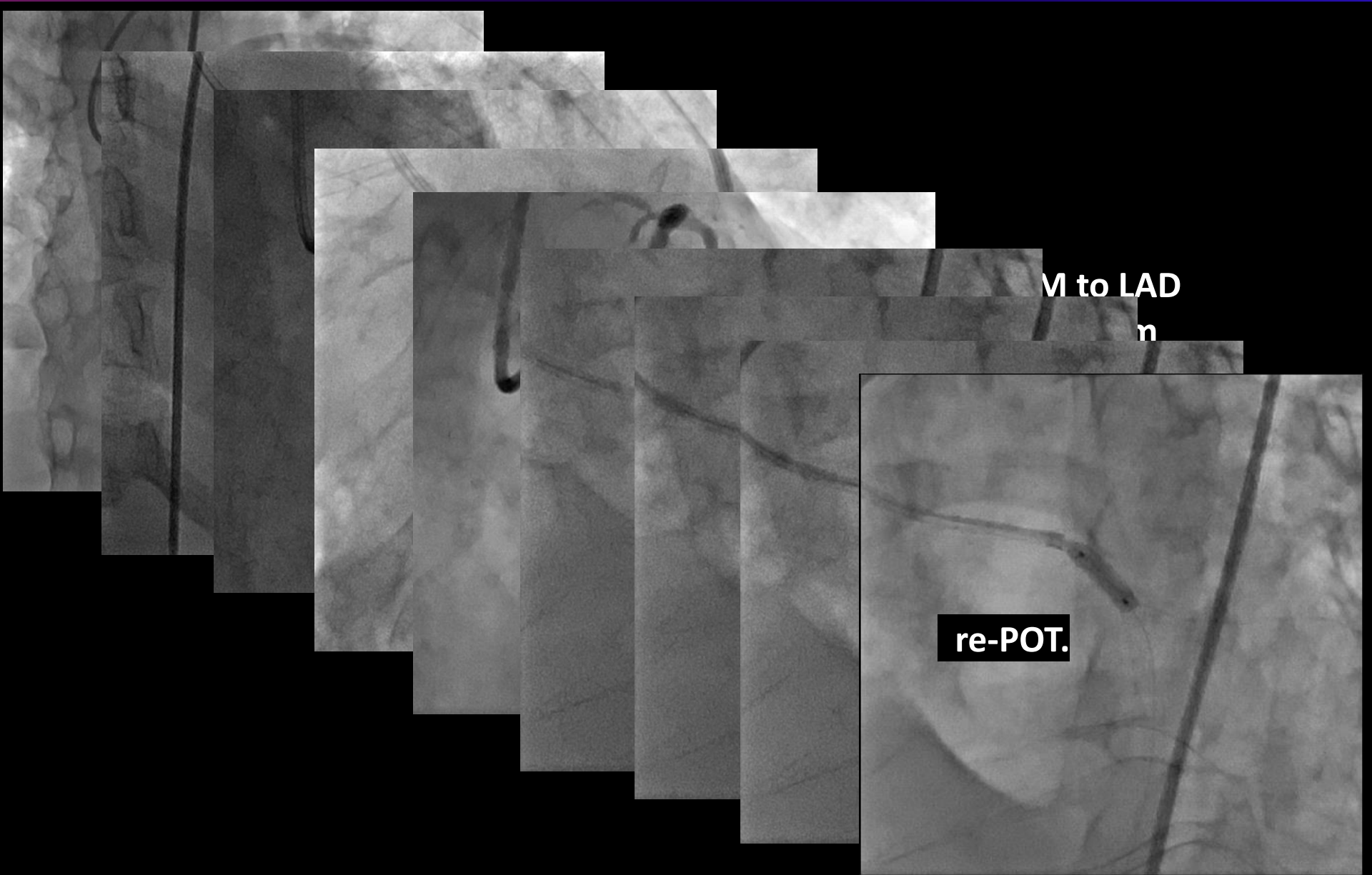
Initial aspect
Femoral - 7F EBU
IABP placed
TIMI flow 1 – LAD
and 0 – Circ

Procedure:

- Our option was to place an intraortic balloon pump (IABP), due to the complexity of the coronary lesion and cardiogenic shock.
- Orotracheal intubation **was not performed** at first, due to the patient's ventilatory stability and the risk of cardiodepression with sedative drugs.

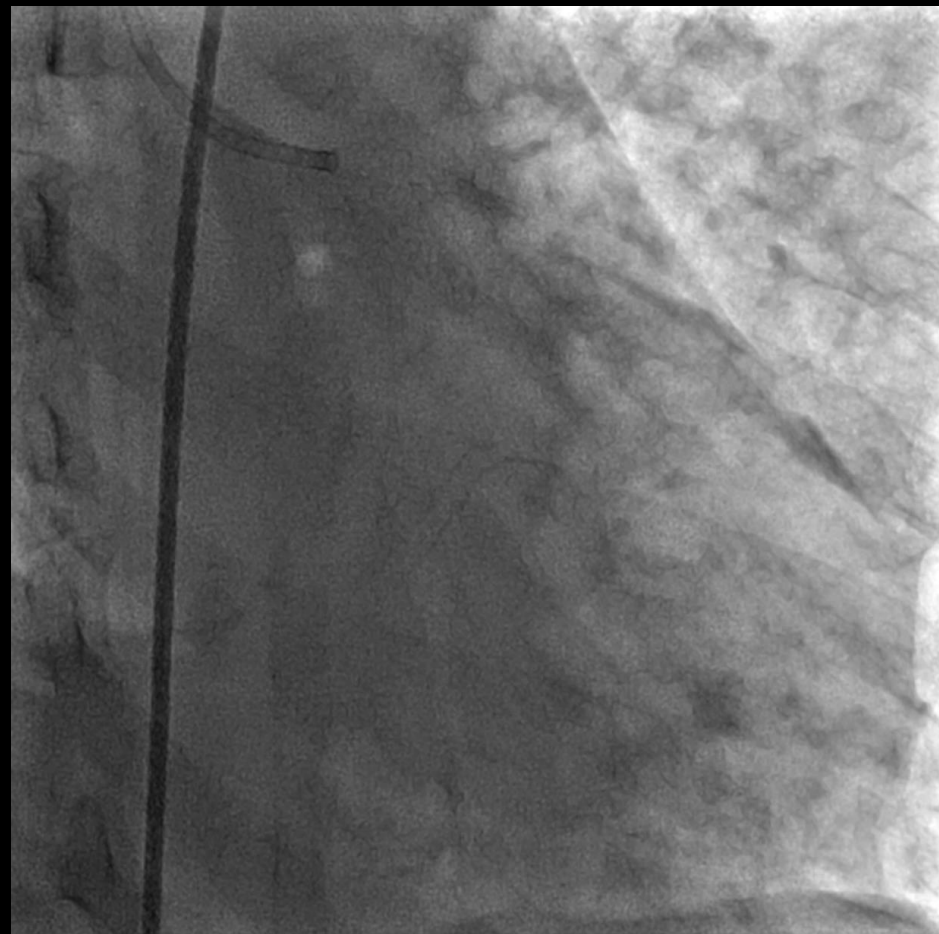


**Two Whisper LS 0.014" placed
on the LAD and Circ**



M to LAD
n

re-POT.



First Echocardiogram (Day 1)

LVEF 37% (Simpson) – with dobutamine

LV:

- akinesia of the anterior mid-apical, apical and apical septal segments
- hypokinesia of the anterior basal and antero-septal segmentss of the LV

Laboratory	
TSH	0,74 uUI/mL
T4	1,23ng/dL
HbA1c	5,6%
Chol Total	150mg/dL
LDL	86mg/dL
HDL	35mg/dL
Trig	143mg/dL

The patient remained hospitalized for 35 days, with a long period of intubation due to clinical complications such as ventilator-associated pneumonia and tracheal stenosis.

Last Echocardiogram (discharge day)

LVEF 52% (Simpson)// Longitudinal Strain: -8.7%

LV: akinesia of the apical, medium-anterior basal, medium anteroseptal walls.

After adequate optimization of clinical treatment and rehabilitation, the patient was discharged asymptomatic and with NYHA II functional class.

This is an extreme and life-threatening case in a very young person.

We wanted to bring this to discussion because in Brazilian's public health system we do not have:

- *Impella for example (ventricular assist device)*
- *Intravascular Imaging (IVUS or OCT)*
- *DES on the shelf.*

Even though we may be sometimes restricted in material, we should always do the best we can with what is given to us. And this saved a young woman's life.