Left main bifurcation treated with Biomatrix Alpha.

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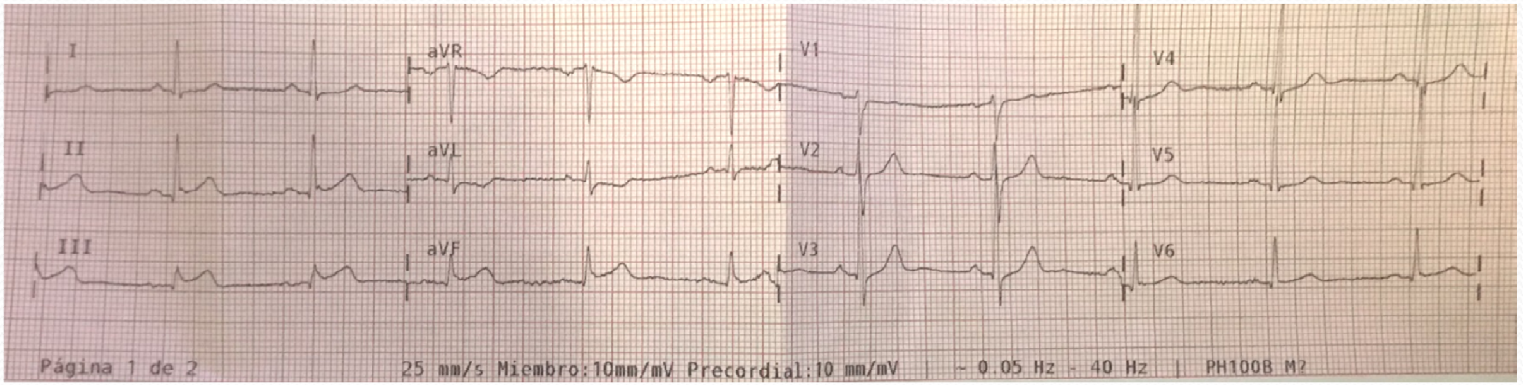
Left main bifurcation treated with Biomatrix Alpha.

- **Clinical data:**
  - 74 y.o. lady.
  - CVRF: Hypertension, hyperlipidemia.

  - Referred to ER for a 2 hours chest pain.
  - EKG compatible with posterolateral STEMI.



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- Clinical data (II)
  - Right Angiogram:
    - No significant stenosis.
  - Left Angiogram (right radial artery):
    - Acute occlusion of proximal circunflex (CX).
    - Severe stenosis in distal left main, affecting the ostium of LAD & CX.

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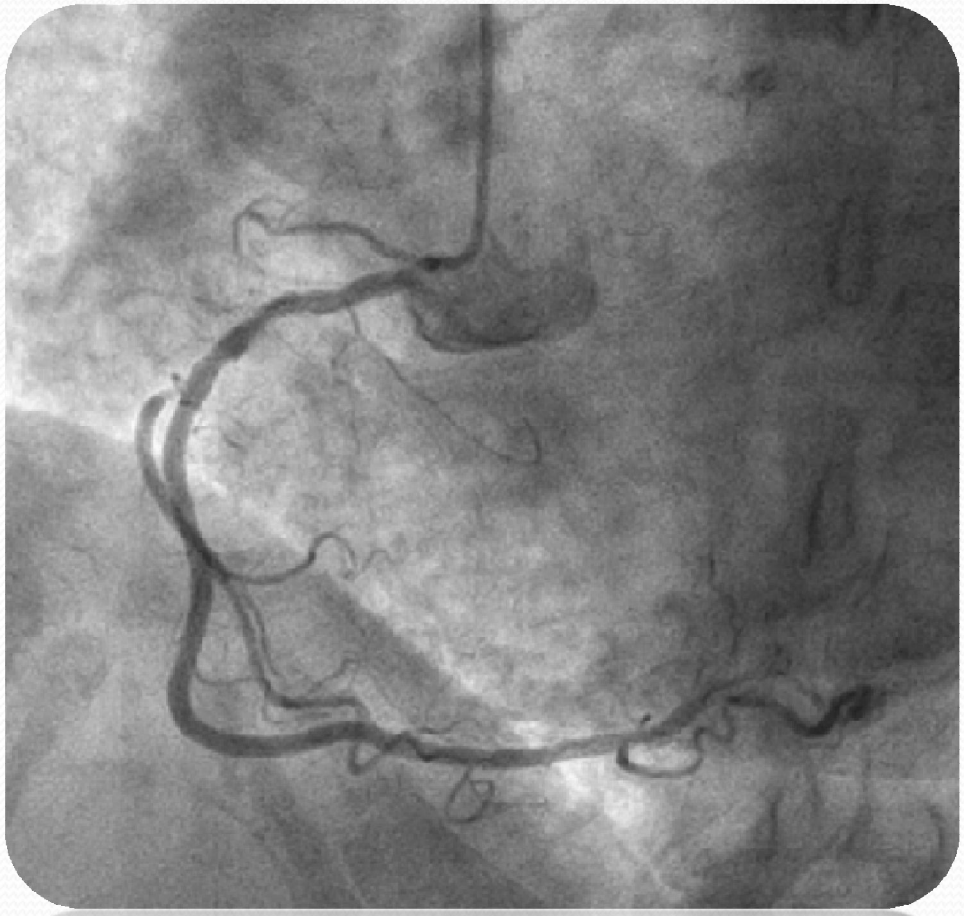

- Diffuse disease in RCA.

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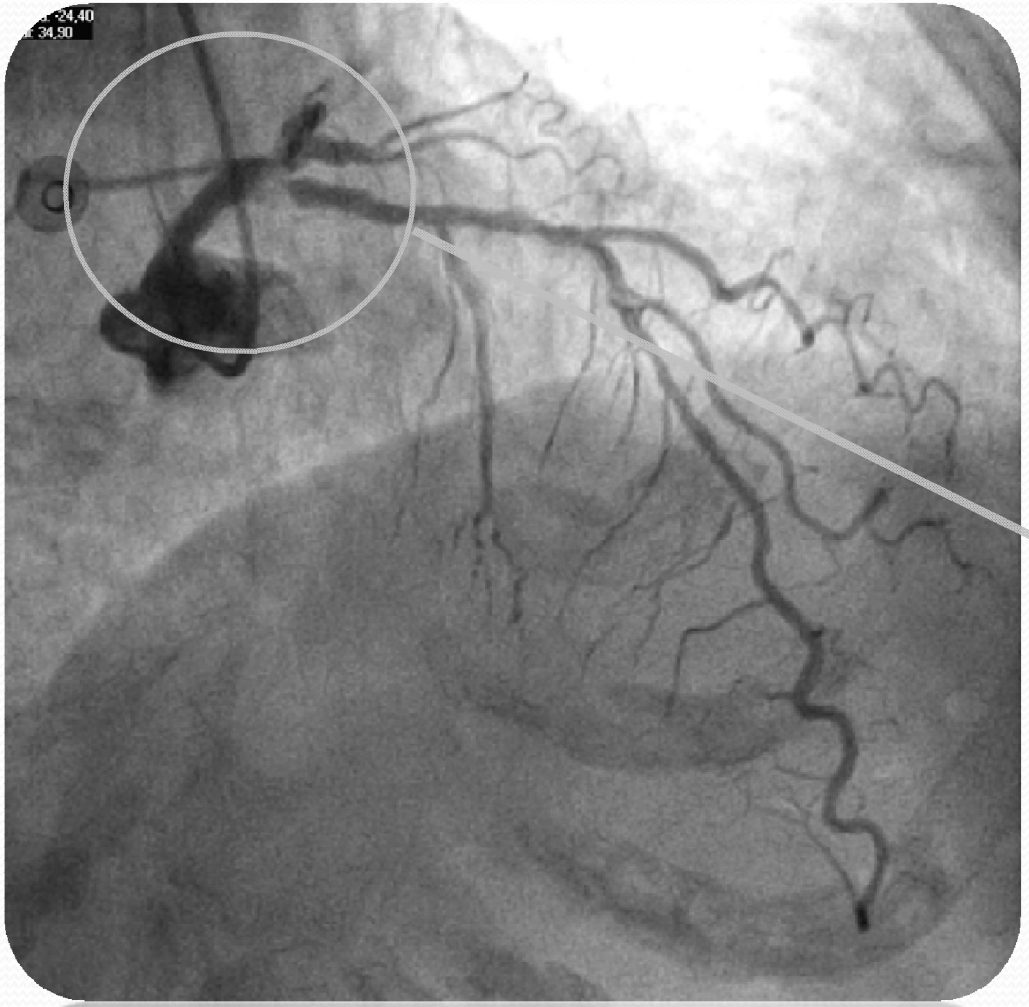
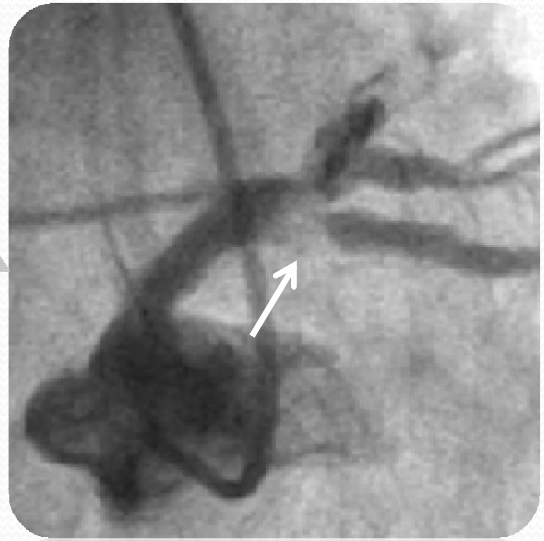


- Critical calcified lesion in ostial LAD.
- Diffuse disease in prox-mid LAD.



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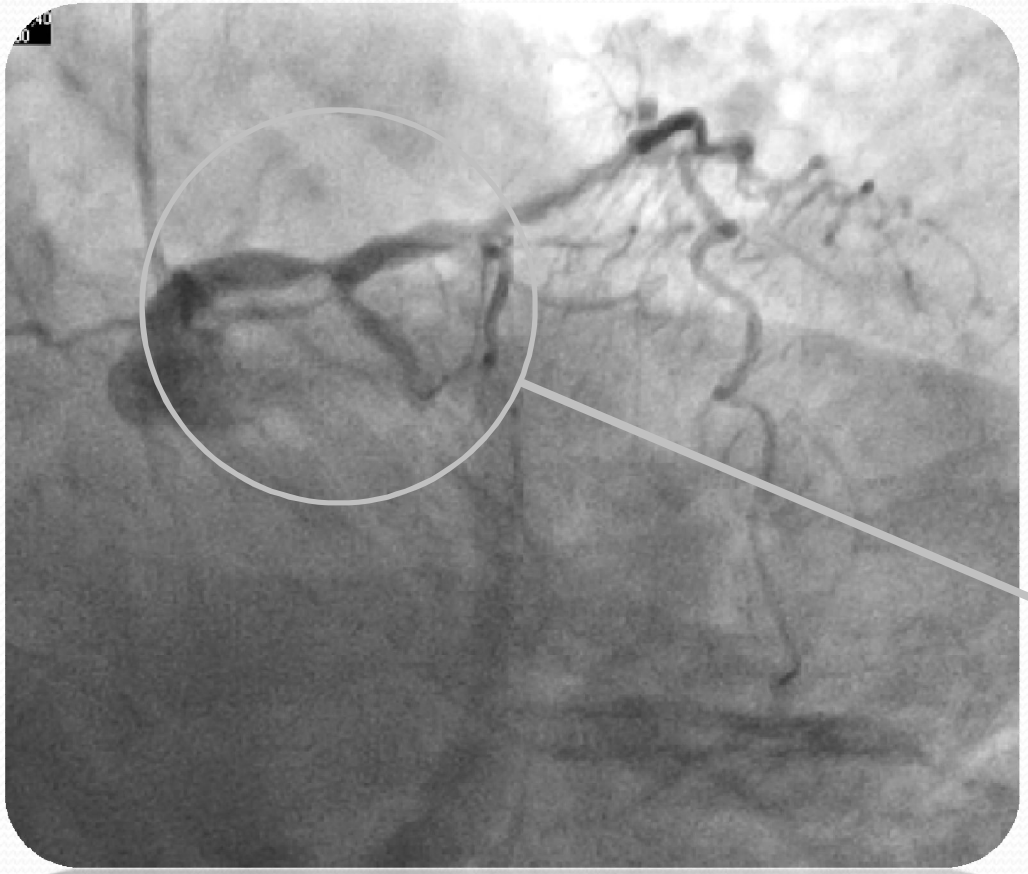
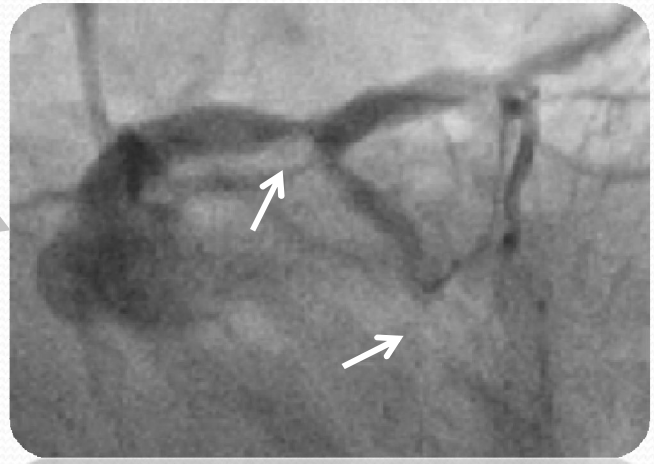


- Severe calcified lesion in distal LM.
- Acute occlusion of proximal CX.
- Severe lesion in ostial CX .



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- Initial strategy:
  1. Restore flow in proximal CX.
  2. LM treatment
     1. Double stent strategy due to the severe stenosis in both ostium (LAD & CX).

- Change to 7French femoral approach

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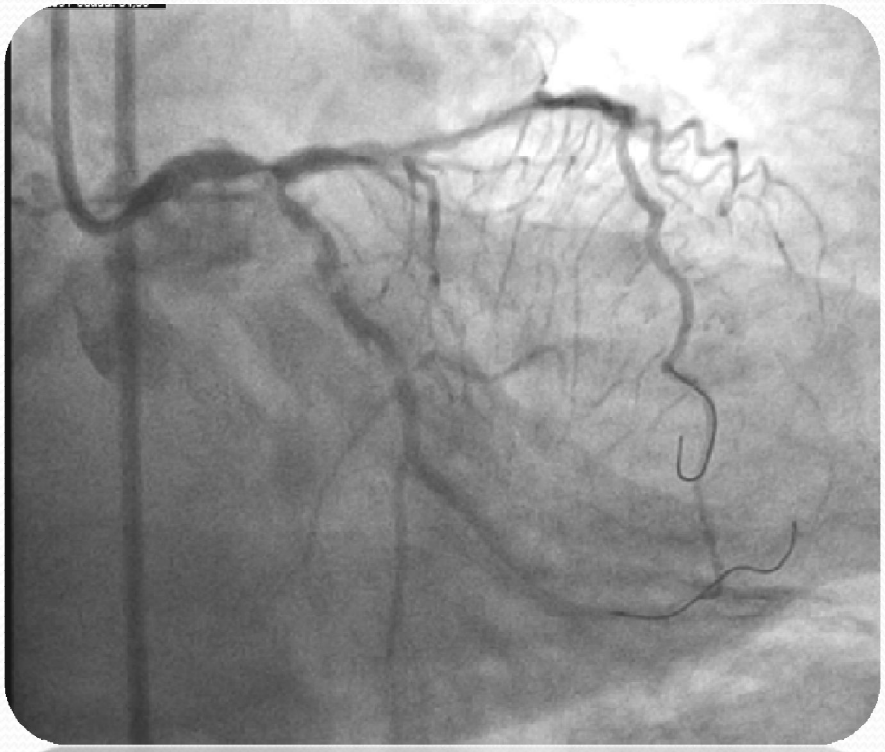
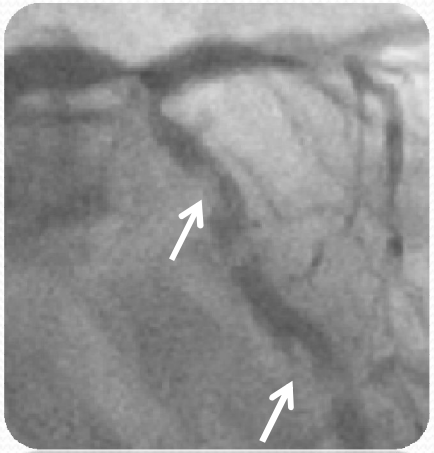
- PCI in the CX lesion.
  - EBU 3.5 7F. 2 Sion guidewire to LAD & CX.



➢ CX opens with the pass of the wideguire.

➢ High burden of thrombus inside the artery. Reopro infusion started.



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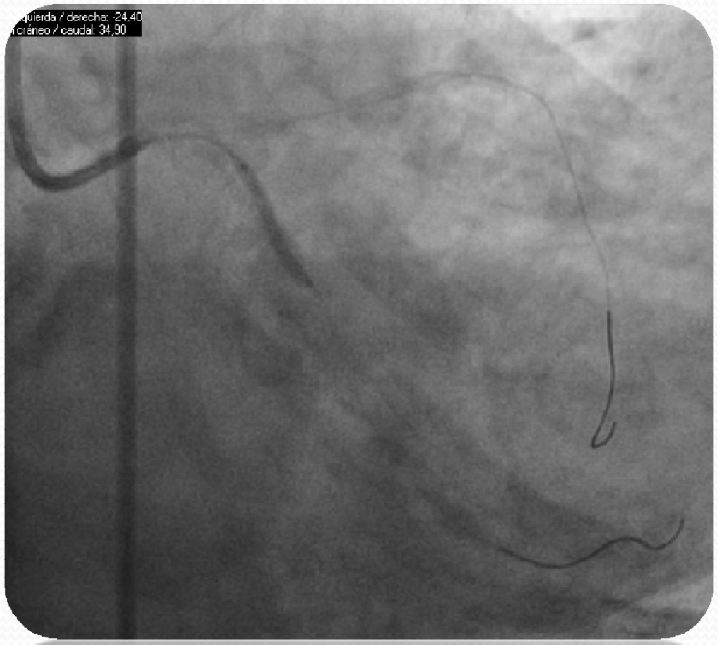
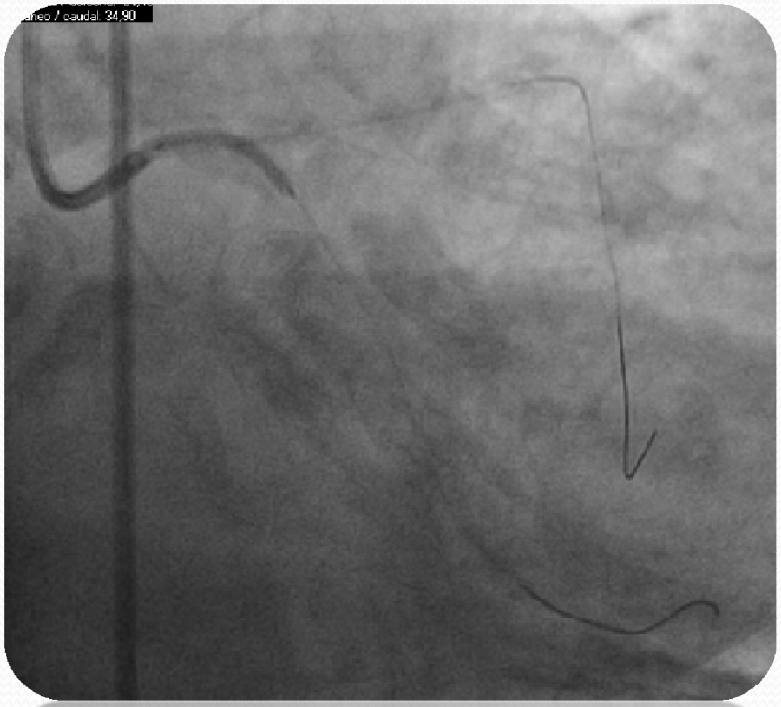
- Predilatation of CX lesion and ostial CX with 2.0 & 2.5 mm balloon.





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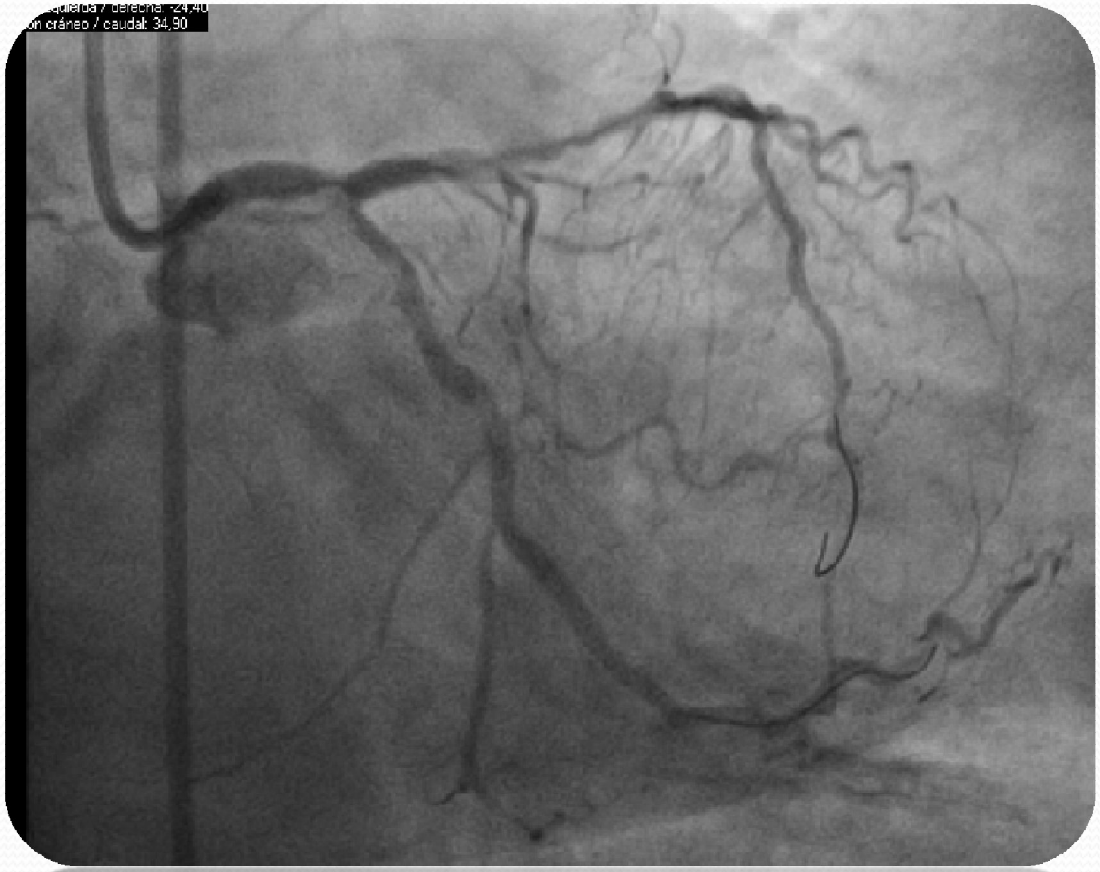
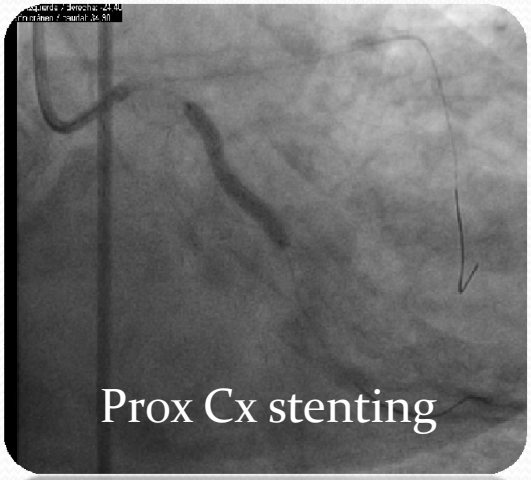


- TIMI 3 flow in distal CX.
- Good expansion of the ostial ballon.
- Next step: Stent to proximal CX.



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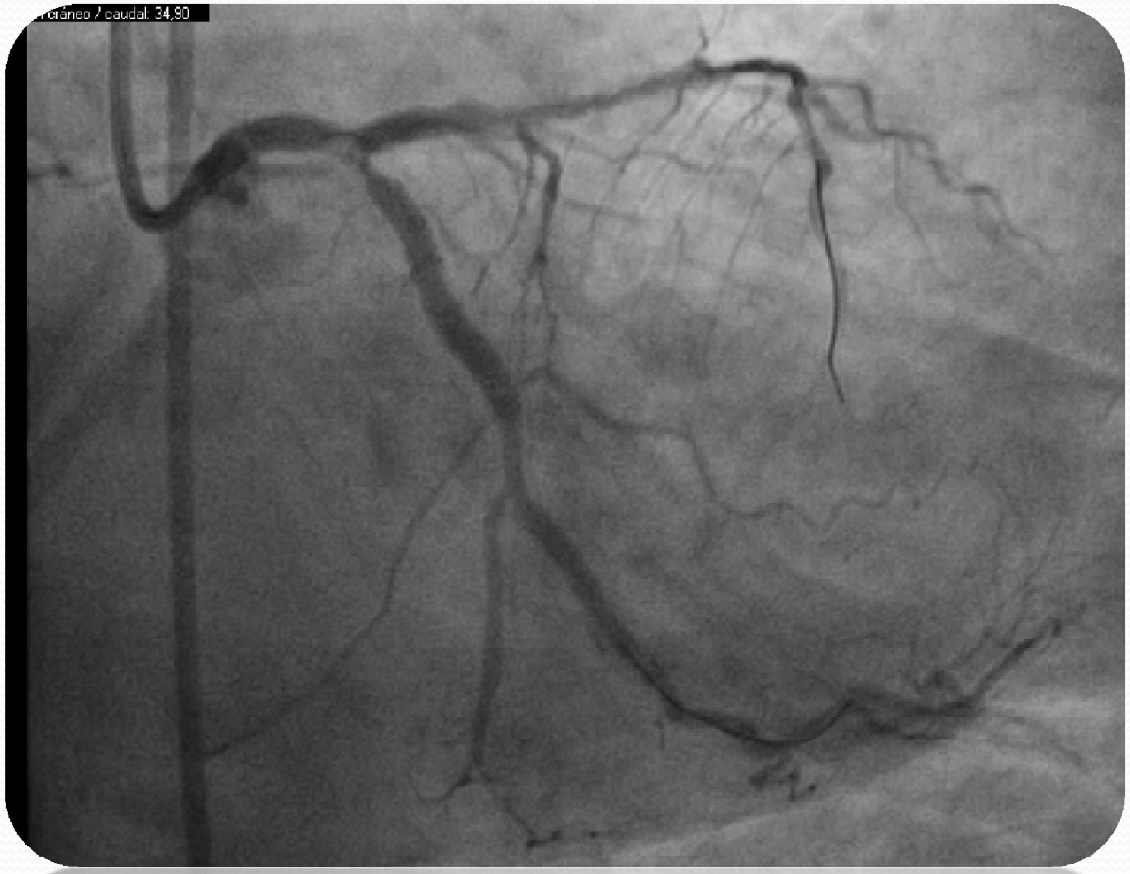

- Result after a 3.0 x 29 mm *Biomatrix Alpha* stent implanted in prox CX.
- Good expansion of the stent. Distal TIMI 3 flow.
- Next step: Stent to LM with "Crushing stent" technique.

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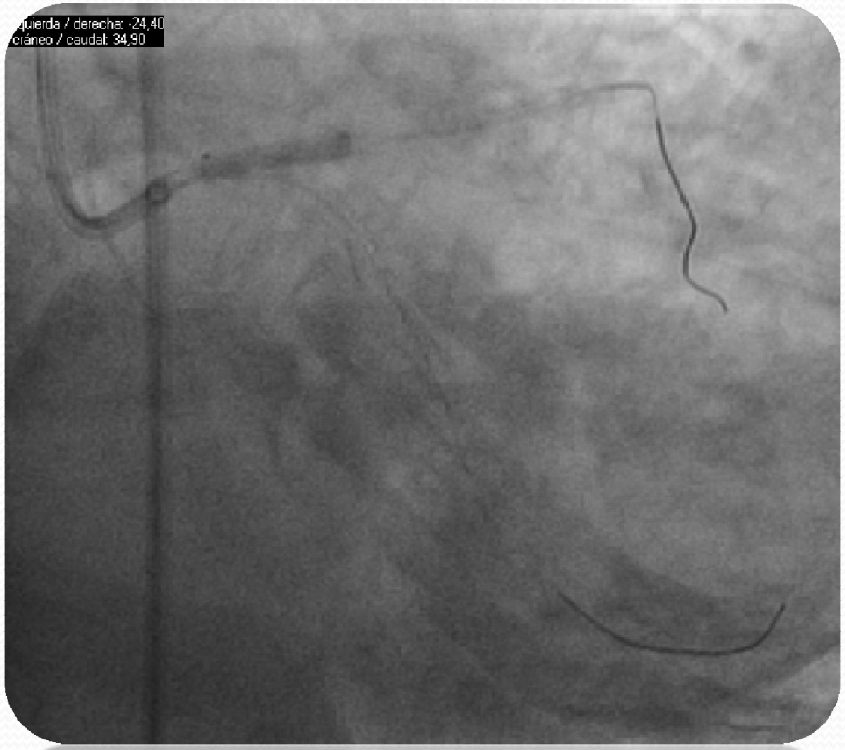
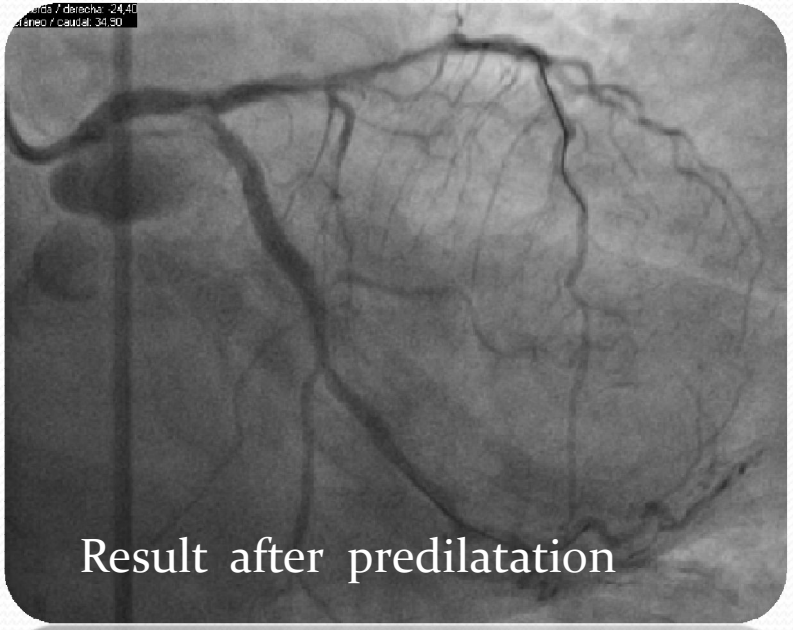


- "Crushing stent" technique:
- Predilatation of ostial LAD with 3.0 mm NC ballon. Good expansion.



Result after predilatation

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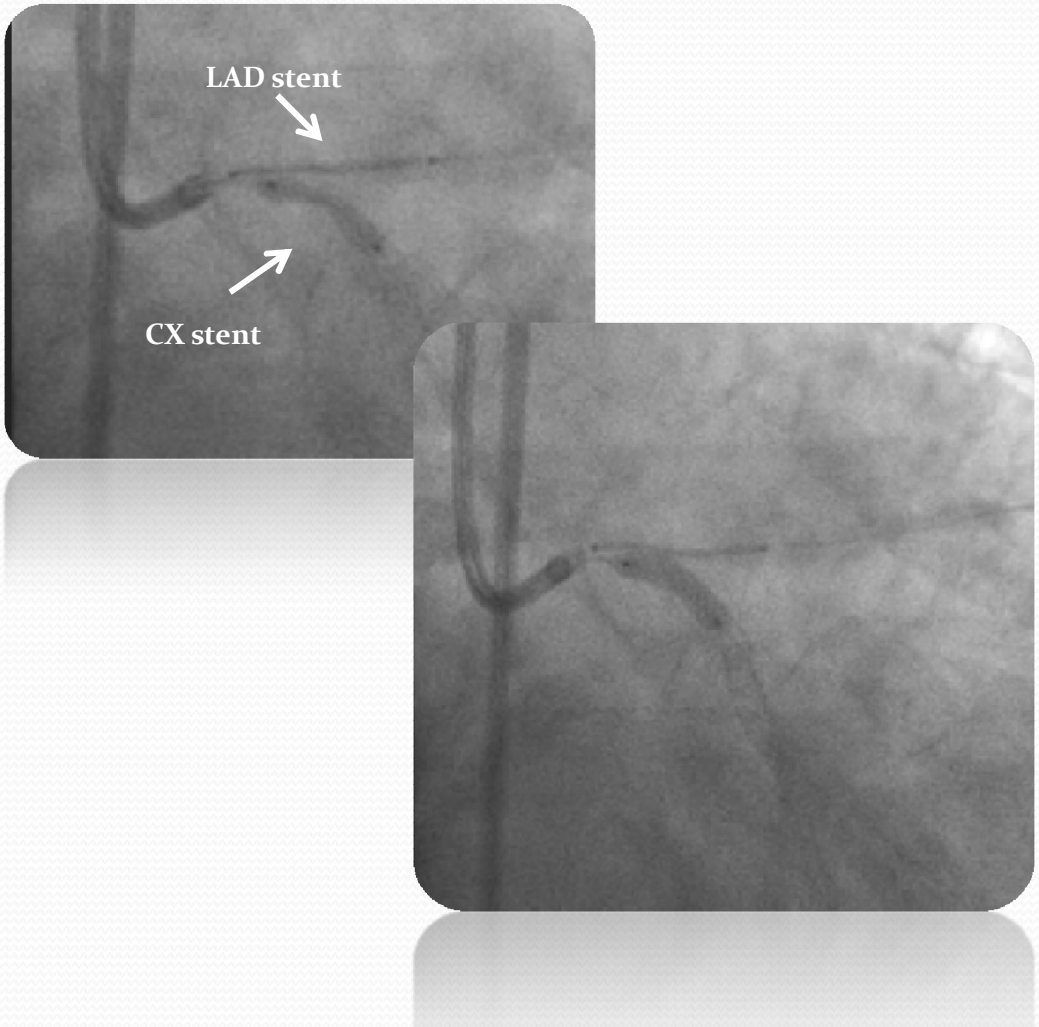

- "Crushing stent" technique:

- Stent position:
CX stent (*Biomatrix Alpha* 3.0 x 12mm) overlapped with the previous stent and minimally prolapsing into LM.
LAD stent (*Biomatrix Alpha* 3.0 x 19 mm) from proximal LM to proximal LAD.

- Initial inflation of the CX stent.

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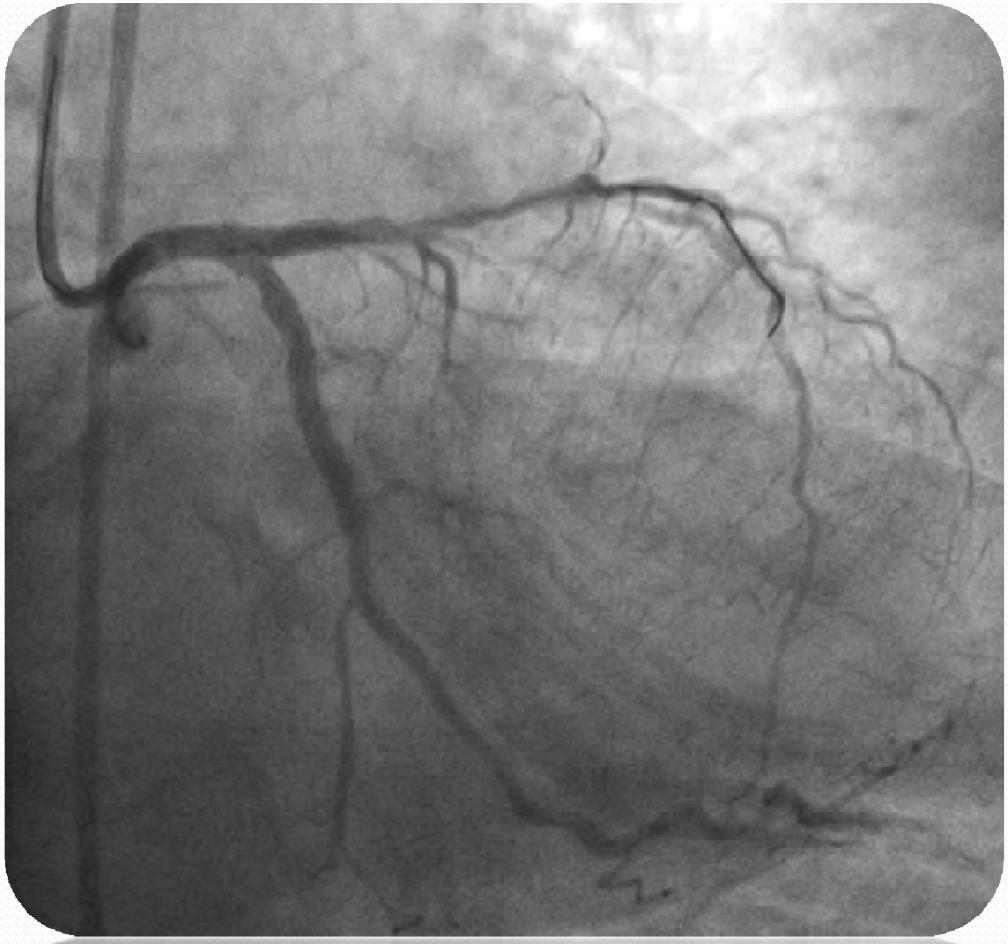

- "Crushing stent" technique:

- Initial result after the implant of both stents:

TIMI 3 flow in both arteries with minimal residual stenosis.

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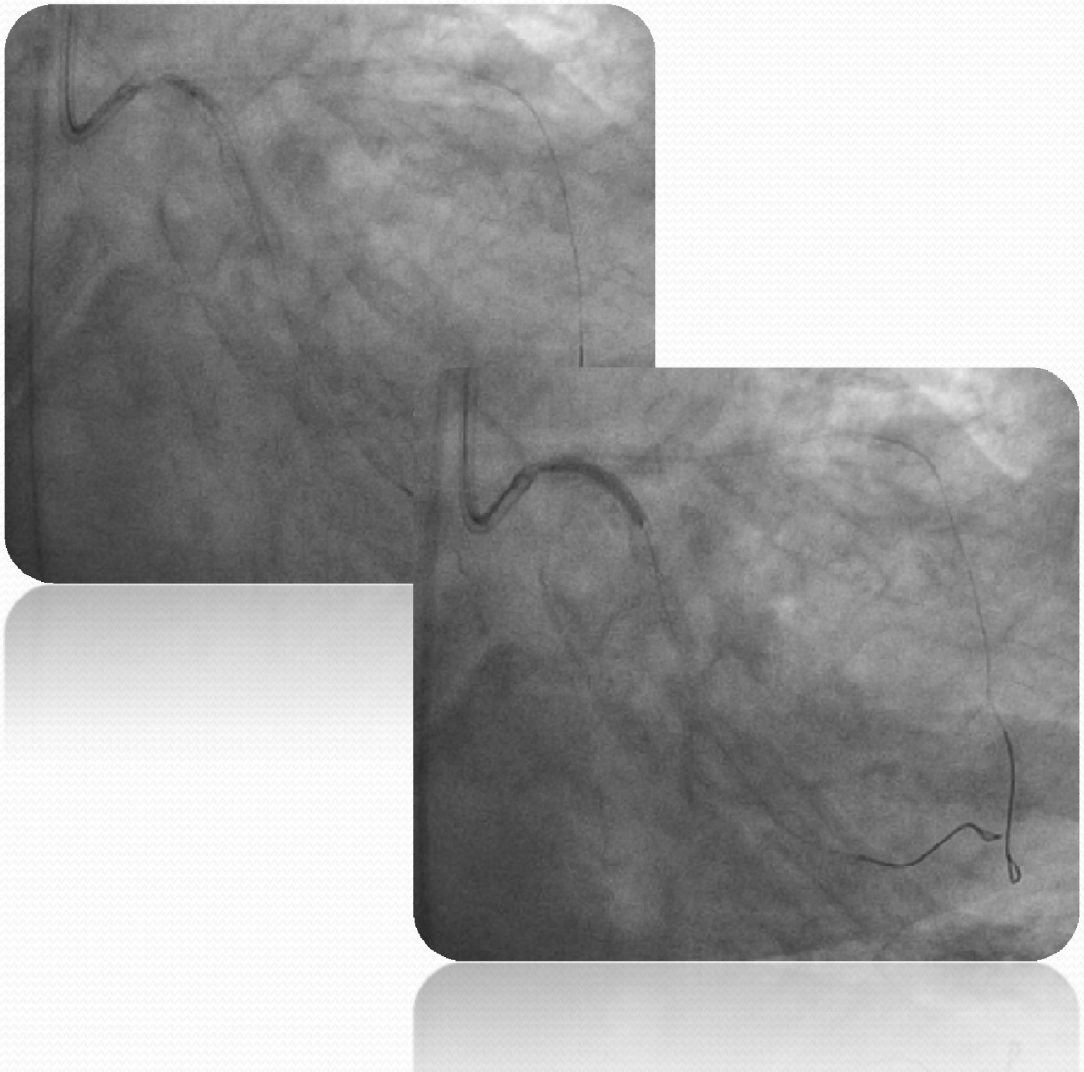

- "Crushing stent" technique:
- Optimization of the results:

Recrossing towards CX and dilatation of the struts of the stent with 1.5 and 2.0 mm NC balloon.

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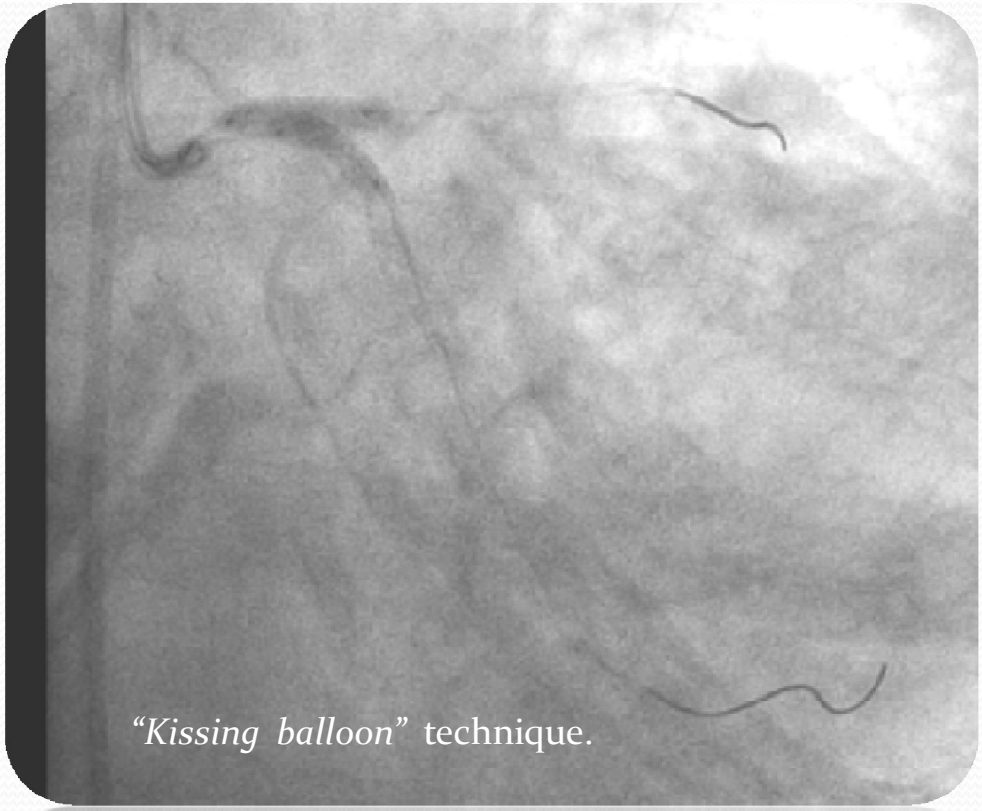

"Kissing balloon" technique.

- "Crushing stent" technique:
- Optimization of the results:

"Kissing ballon" with two 3.0 NC balloon.

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- "Crushing stent" technique:

- Result after "Kissing ballon":

TIMI 3 flow in both arteries with opening of the struts of the stent towards CX.

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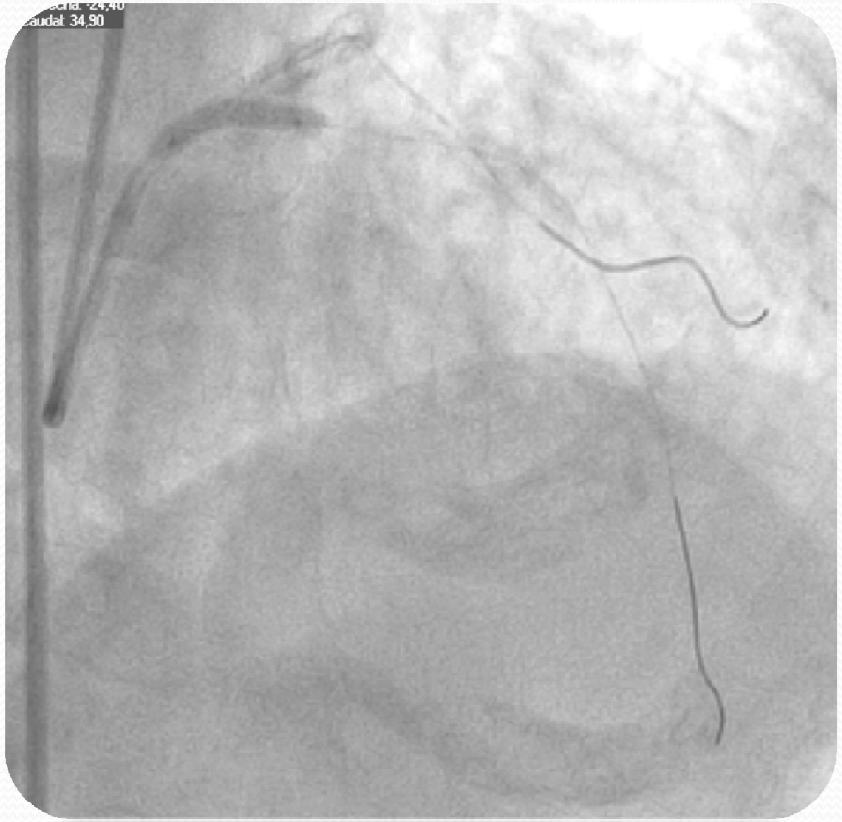

- "Crushing stent" technique:
- Optimization of the results:

"POTS" with two 3.0 NC balloon towards distal LM and prox LAD.

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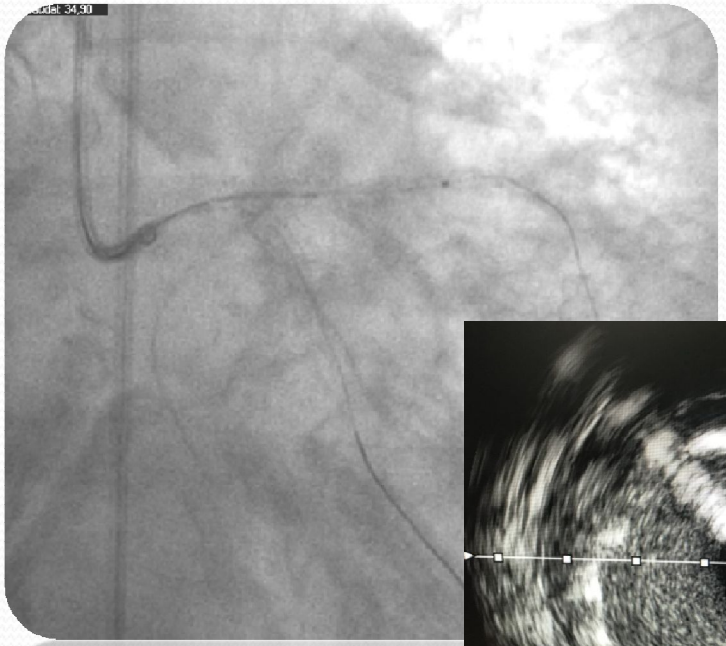

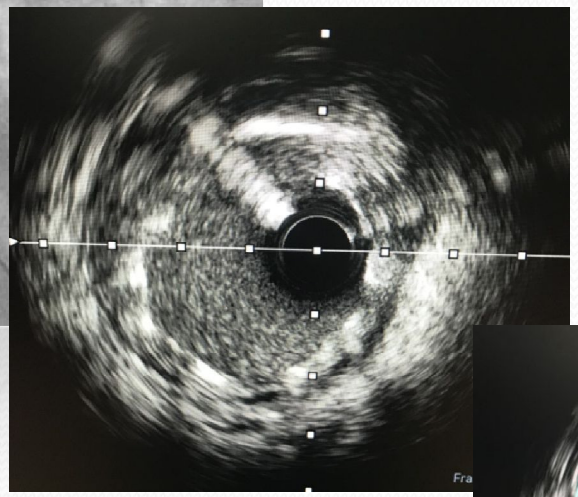

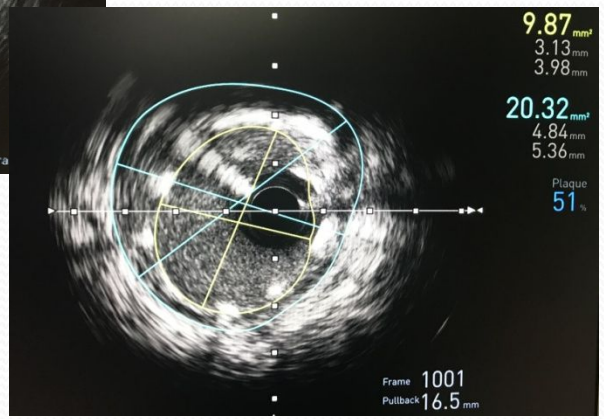

- "Crushing stent" technique:
- Optimization of the results:

IVUS to distal LM and prox LAD

Good aposition of the stent but underexpansion in LM.

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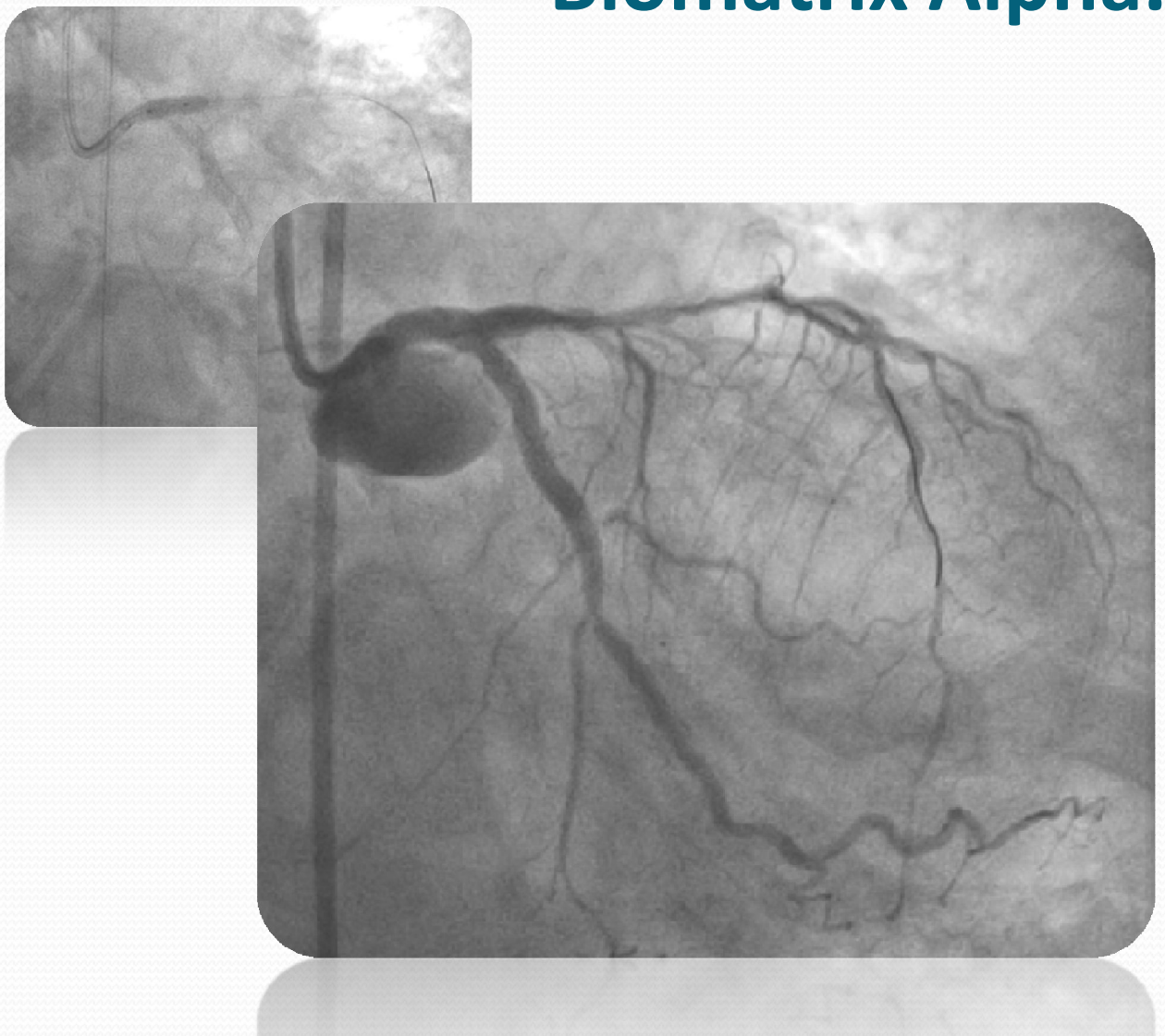

- "Crushing stent" technique:
- Optimization of the results:

Final POTS with 4.0 NC ballon to LM.

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- Myocardial infarction represents a challenging scenario in PCI due to:

  - Clinical unstability of patients.

  &

  - Complex lesion: thrombus, invisible distal vessels..

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- The presence of LM stenosis in a patient with STEMI always introduce a plus of complexity in the management of the case.

- The strategy in these cases is always related to clinical stability and operator skills.

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- Percutaneous treatment of LM lesion has proven to be an effective strategy in elective patients (NOBLE trial, EXCEL Trial..).

- However, in the context of STEMI involving LM, the percutaneous treatment is probably the only chance.

Mäkikallio et al. Lancet. 2016 Dec 3;388(10061):2743-2752
Stone et al. N Engl J Med. 2016 Dec 8;375(23):2223-2235

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- The present case is a challenging case due to the combination of STEMI plus LM involvement.

- *Biomatrix Alpha* has proven to be an excellent option in treating difficult lesion with complex techniques.

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- Some of the remarkable characteristics of the stent demonstrated in this case are:

- Excellent deployment capability in calcified and tortuous scenarios.

- Strut structure that allows easy re-crossing after expansion.

- Excellent overexpansion in big vessels.

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- In conclusion, Biomatrix Alpha has demonstrated its adaptation to complex lesion, complex techniques, with excelent results.

- The drug and the polymer have demonstrated a safe profile in all scenarios where a DES is needed.