Fco. Javier Lacunza Ruiz. Interventional Cardiology Department. Hospital Universitario Virgen de la Arrixaca. Murcia. Spain.

• Clinical data:

- 65 y.o. man.
- CVRF: Hypertension, diabetes, smoker.
- Previous history of ischemic cardiac disease, with 3 vessel disease, treated with IMA to LAD (2002).
- Referred for effort angina with positive stress test.

- Clinical data (II)
 - Right Angiogram:
 - Chronic total occlusion in proximal RCA (small vessel).
 - Left Angiogram (left radial artery):
 - Chronic total occlusion in middle LAD. Patent by-pass from LIMA to distal LAD.
 - Severe stenosis in proximal CX and first marginal (small calcified vessel).



Chronic total occlusion in RCA.





- Severe calcified lesion in first marginal, severely angulated.
- Severe lesion in proximal CX.





Patent LIMA to distal LAD, without flow to the circunflex system.

- Initial strategy:
 - 1) Treatment of the first marginal.
 - 2) CX treatment

High support 6French catheter with left radial approach



≻AL₂ 6French catheter

► BHW wire to 1st marginal.

Sion wire to distal CX.



- A) 1.5 ballon to 1st marginal.
- B) 2.0 ballon to 1st marginal







 2.25 Biomatrix Alpha to 1st marginal.





Pre-dilatation of CX with 3.5 noncompliant ballon.



Withdrawal of the wire of 1st marginal.
>Implant of Biomatrix Alpha 4x19 mm.
>The previous stent is clearly visible with fluoroscopy.





➢ Final result.

Small vessel treatment represents a challenging scenario in PCI due to:

Difficulties in the access to the vessel

&

Poor long term evolution (higher risk of stent restenosis).

• The present case is a challenging case due to the combination tortuosity and calcification of the vessel, besides the small size, that always increases dificulty of the procedure.

• *Biomatrix Alpha* has proven to be an excellent option in treating difficult lesion.

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

Excellent deployment capability in calcified and tortuous scenarios.

> Excellent visibility within the "empty" vessel.

- In conclusion, Biomatrix Alpha has demonstrated its adaptation to complex lesion with excellent results.
- The drug and the polymer have demonstrated a safe profile in all scenarios where a DES is needed.