

Assessment with physiology and intracoronary images of a suspect dysfunctional left mammary graft: a case

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Clinical overview

- We report the experience of multimodal assessment with intracoronary images (*OFDI*) and physiology (*FFR/dPR*) of a LIMA to LAD, with angiographic suspicion of dysfunction.
- Patient: 81 y.o. male with refractory angina, and a background of myocardial revascularization surgery (2006) with chronically occluded venous graft (SVG to PDA and SVG to OM) and non-revascularizable native coronary anatomy.

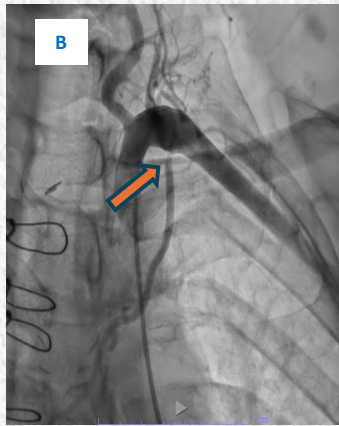
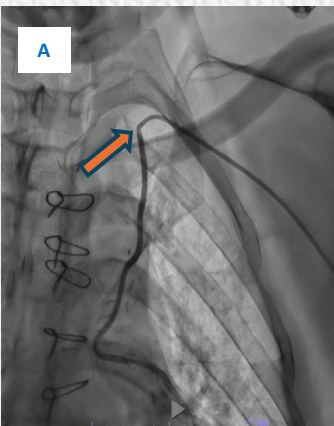
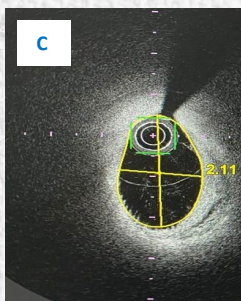
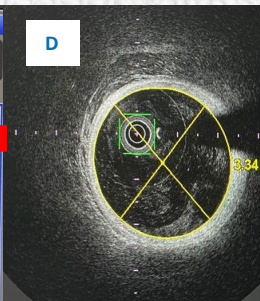


Figure A. Via left radial access, LIMA cannulation (JR-4), with wedge phenomenon. Upon withdrawal of catheter, an image of an ostial lesion was observed (vasospasm? dissection?), which does not reverse with nitroglycerin boluses

Figure B. To eliminate the possibility of vasospasm, it was decided to change to femoral access and non-selective injection of LIMA with a pigtail, showing the persistence of the ostial lesion



Result	Annotation	Measure
Axial		
Lumen		
Area		3.5 mm ²
Auto		1.86 mm
Vessel		2.72 mm
Stent		
Auto		
Other		
Done		(0/30)
Distance		(0/6)



Result	Annotation	Measure
Axial		
Lumen		
Area		8.8 mm ²
Auto		3.44 mm
Vessel		3.44 mm
Stent		
Auto		
Other		
Done		(0/30)
Distance		(0/6)

OFDI of the LIMA graft at the ostium (Figure C) and normal distal segment (15 mm from the ostium) (Figure D). OFDI confirmed a ostial fibro-lipid plaque with a MLA of 3.5 mm² and a distal reference area ("healthy segment") of 8.8 mm² (62% area reduction).

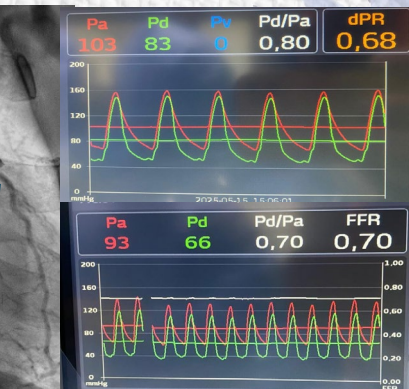
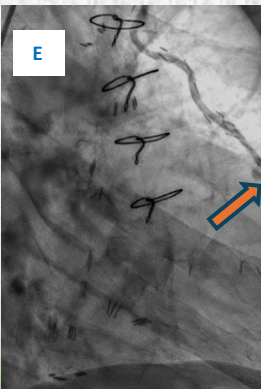


Figure E. Angiographic view (AP 0°/RAO 30°) with suspicion of significant lesion at the LIMA-LAD anastomosis. The intracoronary physiology at this level confirmed severity (dPR 0.68 / FF 0.7)

Conclusion

Assessment with intracoronary imaging and pressure guidewires of CABG is safe, feasible, and helps to guide major therapeutic decisions (Redo of LIMA in this case).