# Transradial access postgraduate course: Clinical case



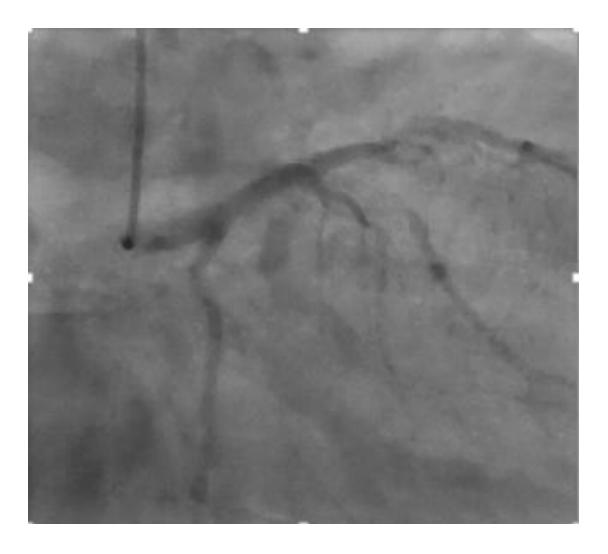
16th Annual SA Heart Congress Sun City 26-28 October, 2015 R. Birkemeyer, MD Herzklinik Ulm

#### Patient history

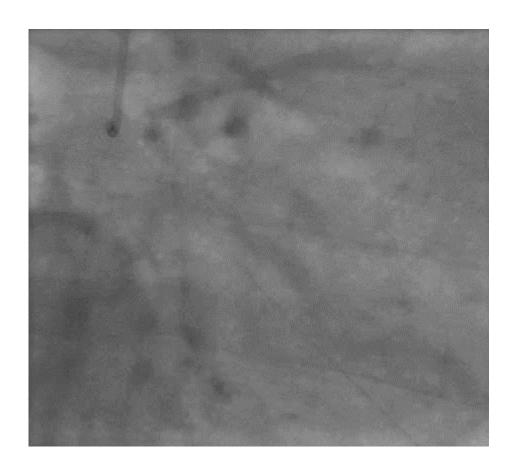
- Male, 65 years
- Ap CCS III
- Echo: normal systolic LV-function
- PAD, Y-prothesis 1998
- Chronic myeloic leukaemia
- Cardiovascular risk factors: hypercholesterinaemie, arterial hypertension, diabetes mellitus type II, excessive obesity

#### Choice of access?

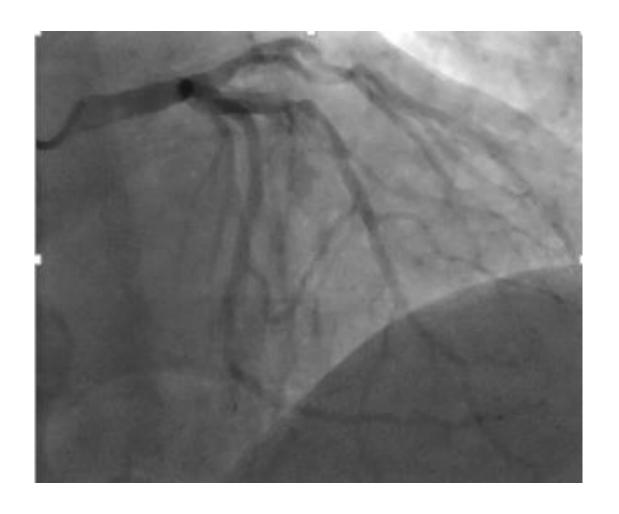
- Transradial access due to PAD with Y-prothesis
- Right radial access due to excessive obesity



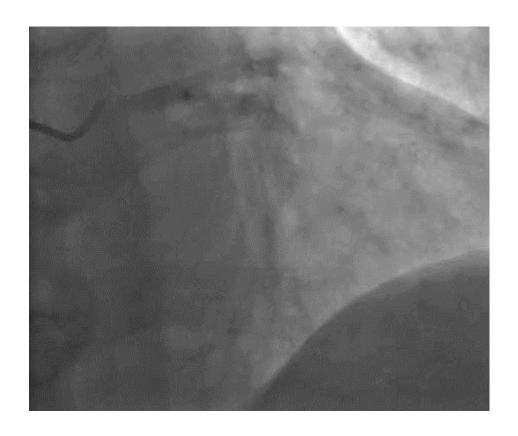
LCA in RAO caudal, JL4



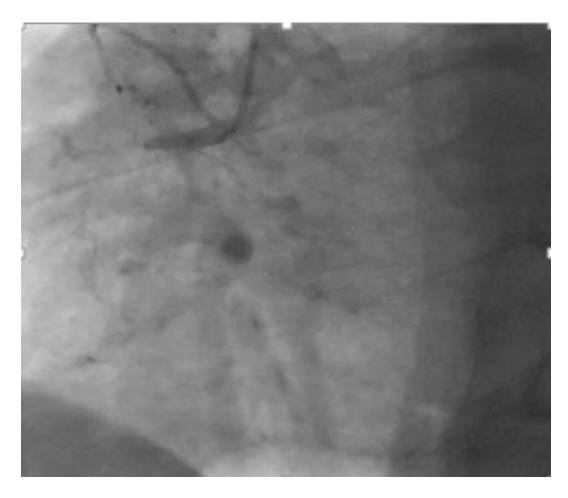
LCA in RAO caudal, JL4



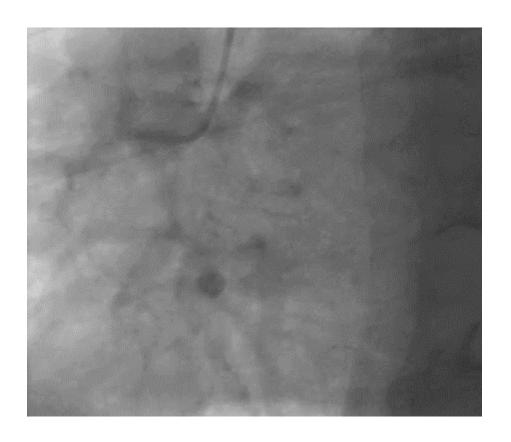
LCA in Ap cranial, JL4



LCA in Ap cranial, JL4



RCA in LAO, JR4

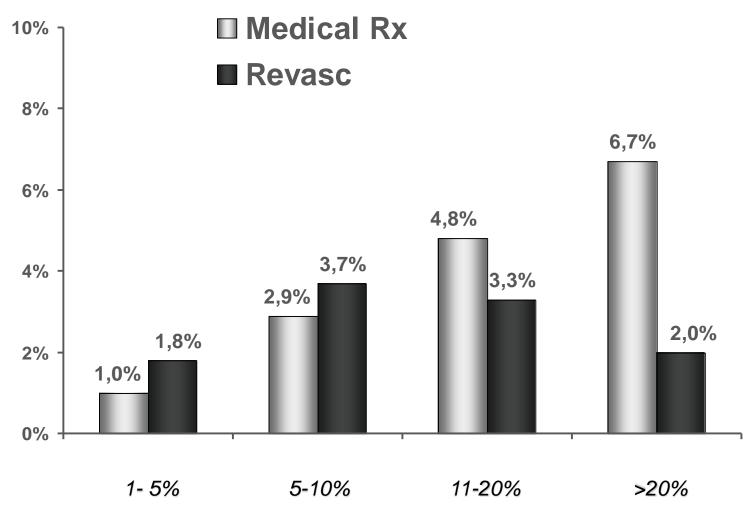


RCA in LAO, JR4

#### Further strategy?

- Due to his comorbidity patient was not willing to undergo bypass surgery
- Decision to start with a CTO recanalisation attempt first and if not successful to reconsider bypass surgery with the patient

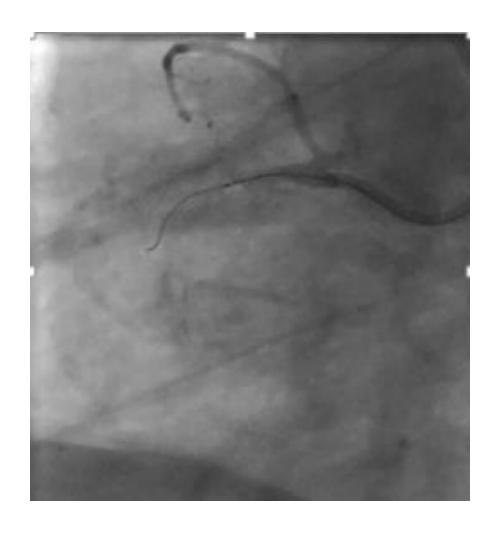
#### Prognosis and extent of ischemia



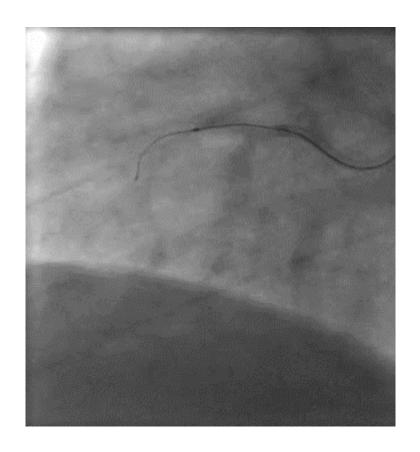
% Total Ischemic Myocardium

# Success of CTO-revascularisation and mortality (Observation on > 7000 patients)

	Success		failure		Odds Ratio			Odds Ratio	
Study or Subgroup	Events	Total	<b>Events</b>	Total	Weight	M-H, Random, 95% CI		M-H, Random, 9	95% CI
Angioi et al.	3	93	9	108	3.4%	0.37 [0.10, 1.40]			
Aziz et al.	9	377	12	166	6.7%	0.31 [0.13, 0.76]			
Drozd et al.	7	280	5	149	4.3%	0.74 [0.23, 2.37]			-
Finci et al.	5	100	3	100	2.9%	1.70 [0.40, 7.32]		-	
Hoye et al.	37	567	36	304	14.4%	0.52 [0.32, 0.84]			
Ivanhoe et al.	3	317	7	163	3.2%	0.21 [0.05, 0.83]			
Labriolle et al.	7	127	2	45	2.4%	1.25 [0.25, 6.27]			
Noguchi et al.	7	134	15	92	6.1%	0.28 [0.11, 0.72]			
Olivari et al.	2	286	3	83	1.9%	0.19 [0.03, 1.14]			
Prasad et al.	229	914	101	348	21.6%	0.82 [0.62, 1.08]			
Suero et al.	395	1491	180	514	23.8%	0.67 [0.54, 0.83]		-	
Valenti et al.	17	344	17	142	9.3%	0.38 [0.19, 0.77]			
Warren et al.	0	26	0	18		Not estimable			
Total (95% CI)		5056		2232	100.0%	0.56 [0.43, 0.72]		•	
Total events	721		390						
Heterogeneity: Tau <sup>2</sup> =	= 0.06; Ch	i <sup>2</sup> = 18.1	74, df = 1	1 (P = 0)	0.07); l <sup>2</sup> =	41%	0.04	0.1	40 400
Test for overall effect: Z = 4.39 (P < 0.0001)						0.01	0.1 1	10 100	
		-	,					<b>Favors Success</b>	<b>Favors Failure</b>



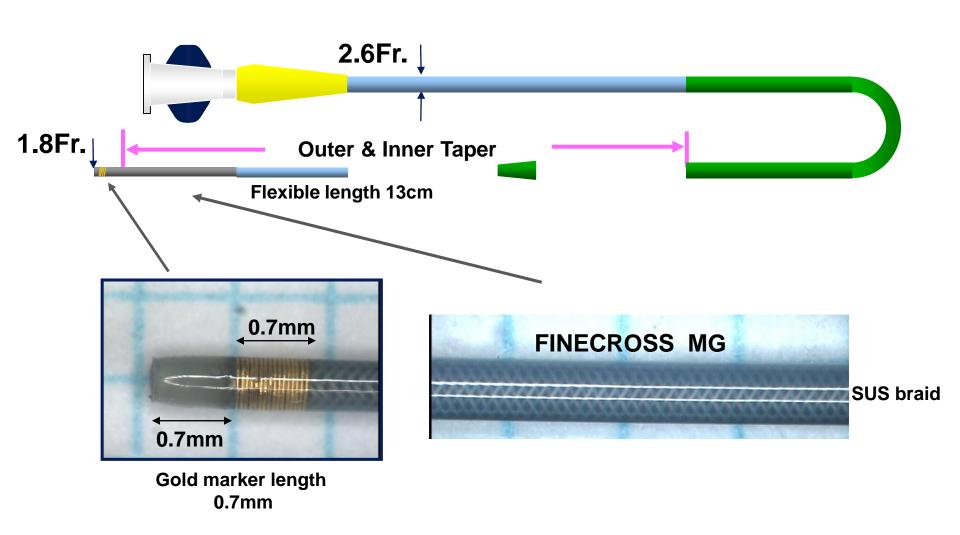
Antegrade recanalisation of RCA; 6F AL1; Finecross 130 cm, Fielder XT-Wire (right radial access)



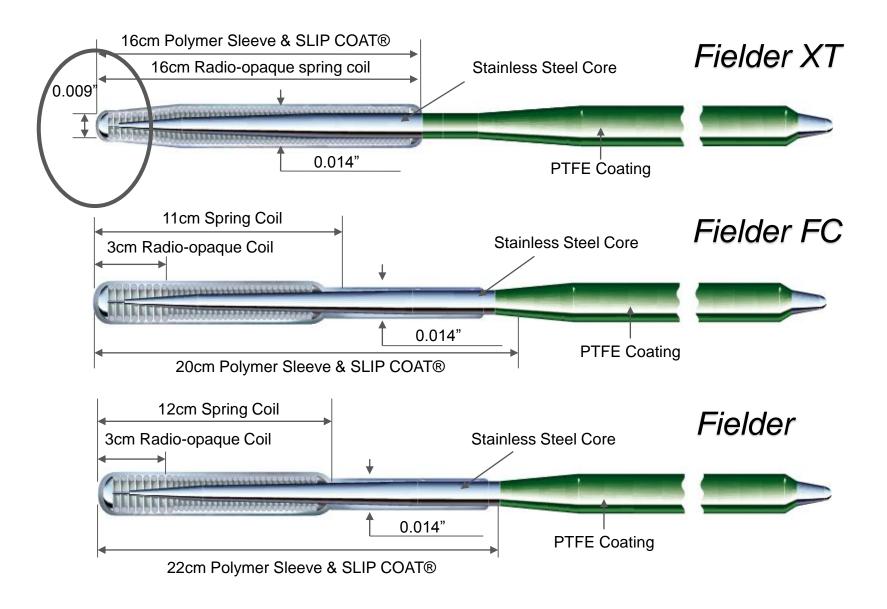
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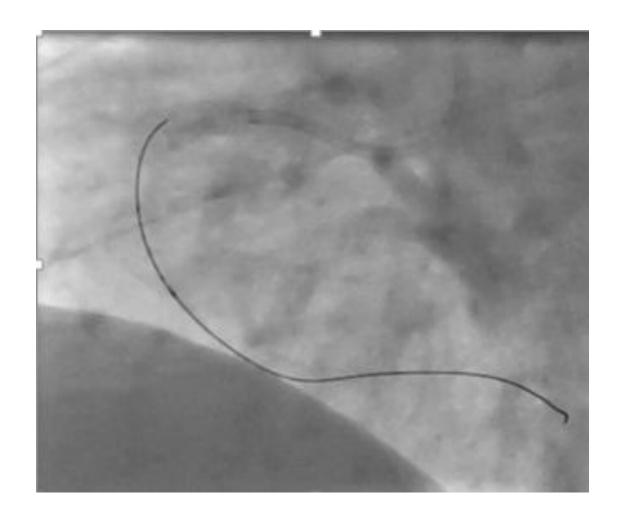
#### **TERUMO Finecross MG**

Microcatheter 130/150 cm

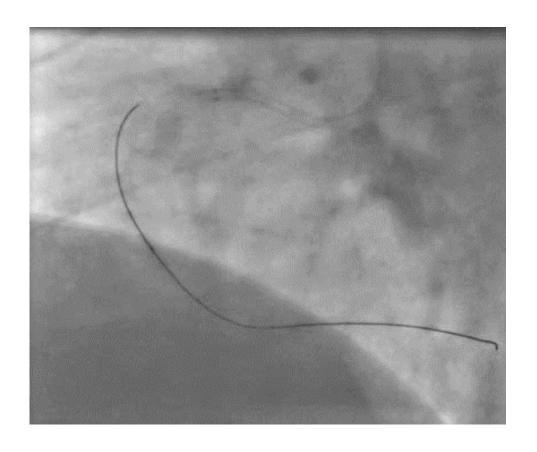


### **ASAHI Fielder guidewires**

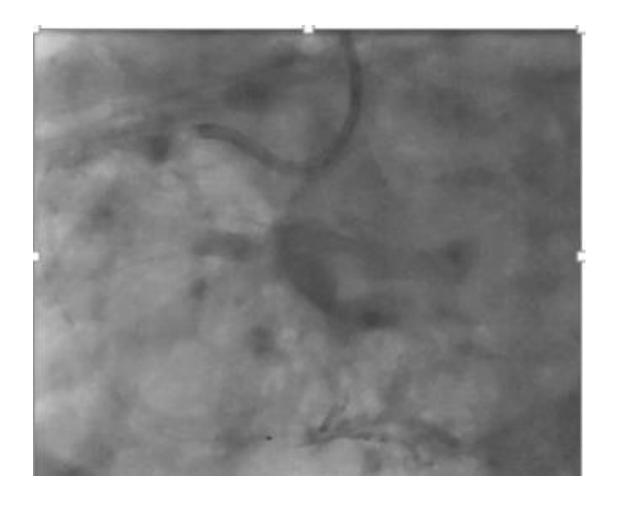




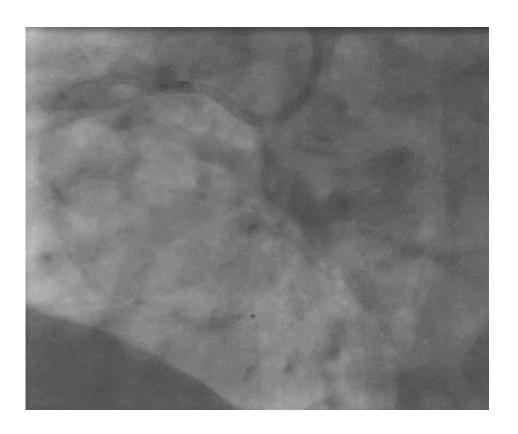
Exchange of Fielder XT to Miracl 6-wire



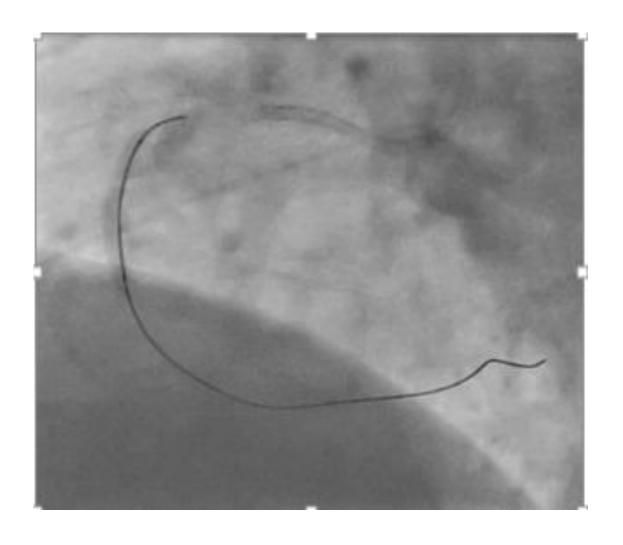
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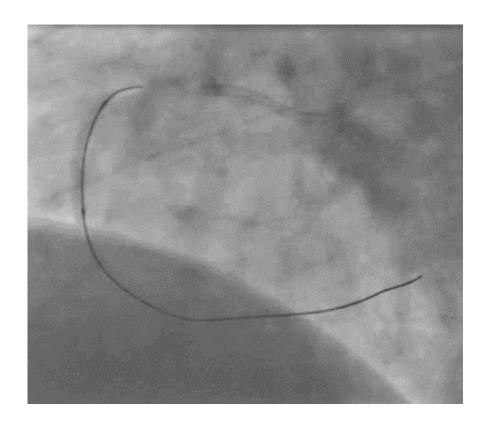
Angiography via Finecross (no contralateral catheter)



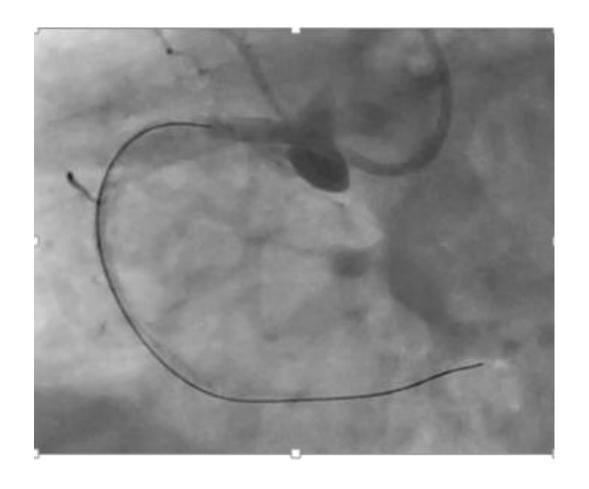
Angiography via Finecross (no contralateral catheter)



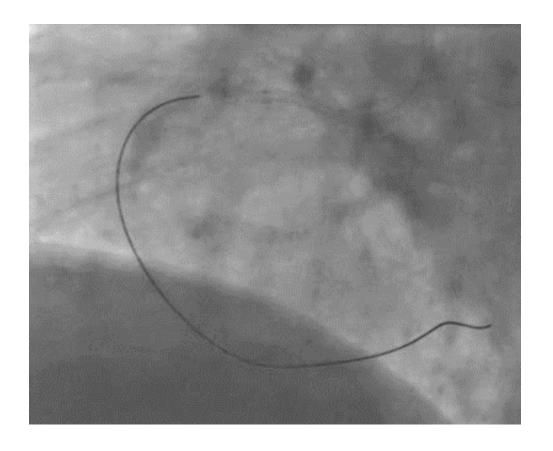
Balloon dilation of the CTO segment (Sequent 2,5/20 mm after Finecross removal in trapping technique



Balloon dilation of the CTO segment (Sequent 2,5/20 mm after Finecross removal in trapping technique



Retrograde aortic dissection after inection of contrast media via the AL 1 guide



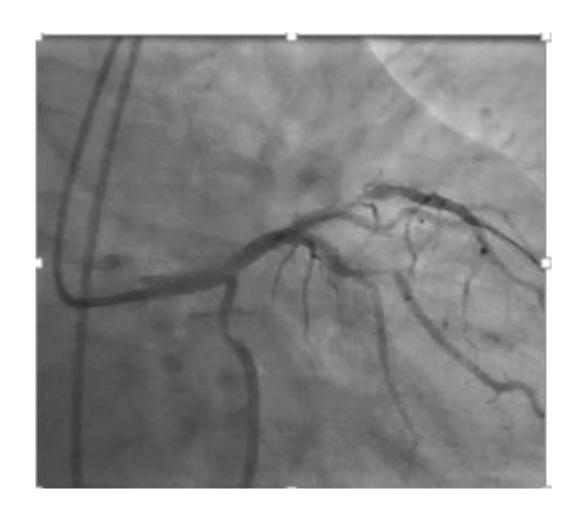
Retrograde aortic dissection after inection of contrast media via the AL 1 guide

#### Further strategy?

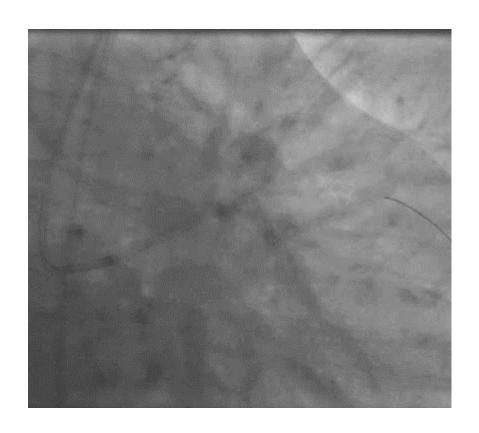
- After some observation iatrogenic type A dissection not progressive. Therefore conservative management.
- Confidence that RCA recanalization would be possible after healing of the iatrogenic dissection
- Staged procedure on intermediate branch and LAD planned

#### Which access?

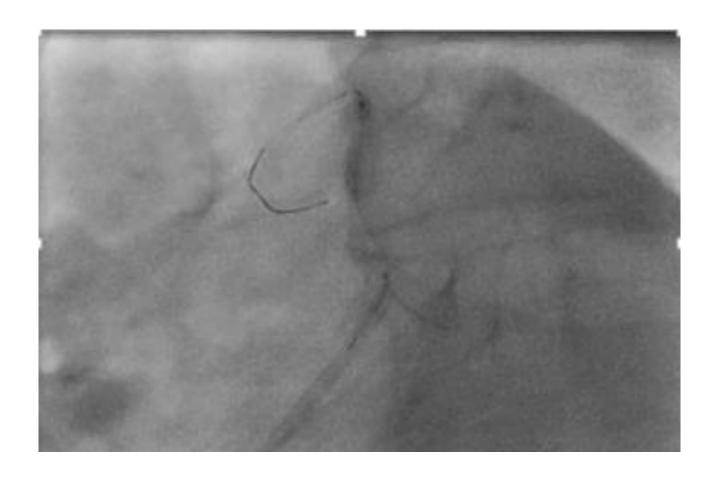
- Patient again scheduled for right radial access but right radial artery occluded
- Due to excessive obesity decision for right femoral puncture of the prothesis and not for left radial puncture



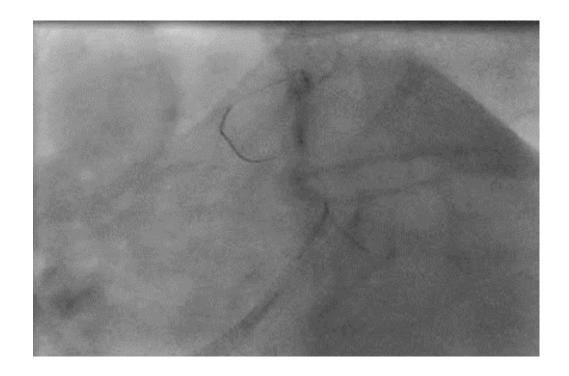
Galeo Pro ES wite in LAD



Galeo Pro ES wite in LAD



Quantum 2,5 mm NC balloon not expandable with 25 bar



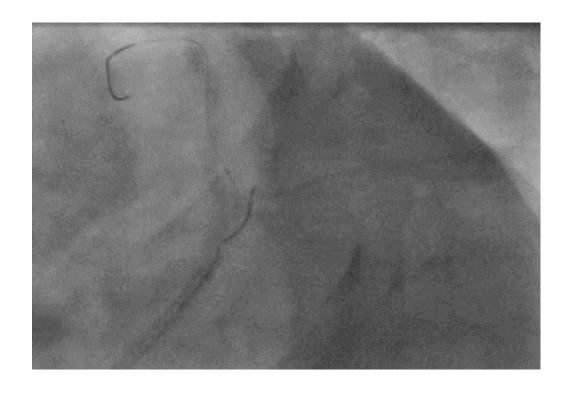
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#### Further strategy?

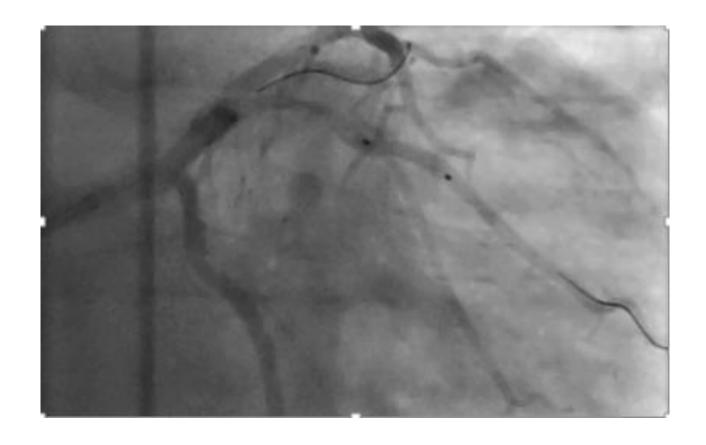
- Rotablation of LAD.stenosis after intervention on the intermediate branch
- Rationale for intermediate branch intervention before rotablation: to find out if this lesion also needed rotablator treatment



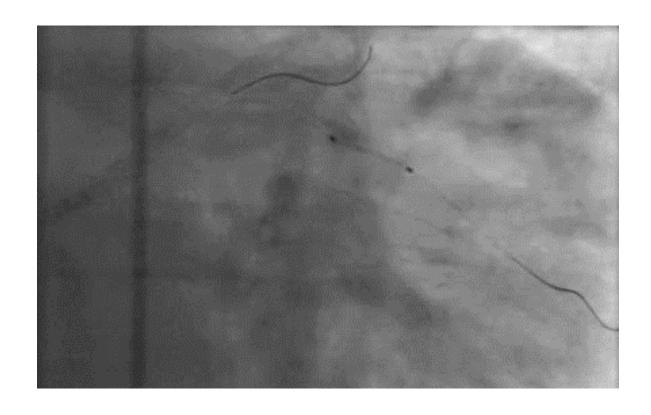
Whisper MS wire im the intermediate branch



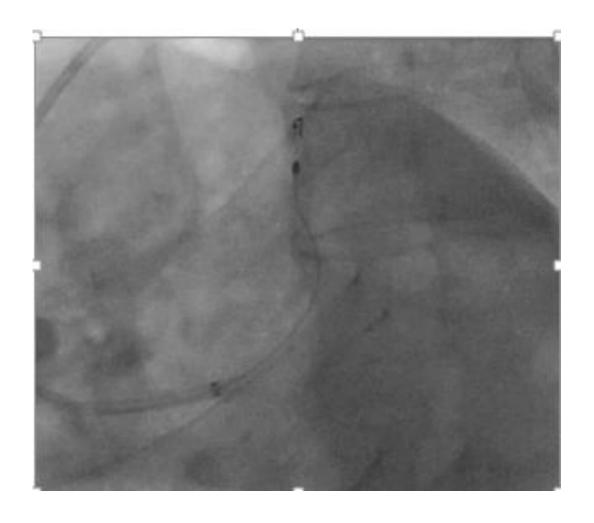
Whisper MS wire im the intermediate branch



3,0/13 mm Orsiro DES in the intermediate branch



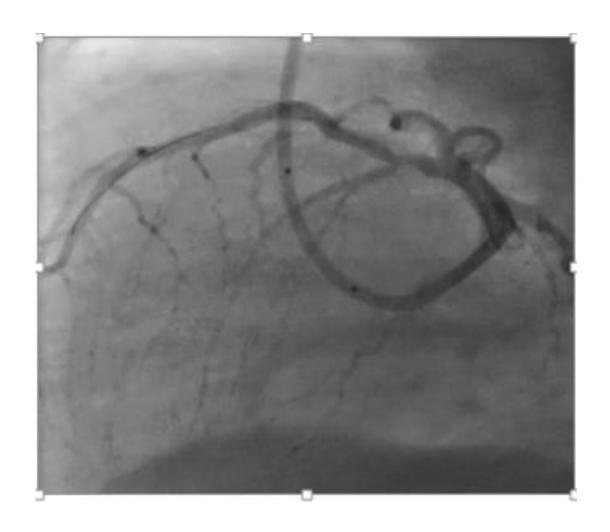
3,0/13 mm Orsiro DES in the intermediate branch



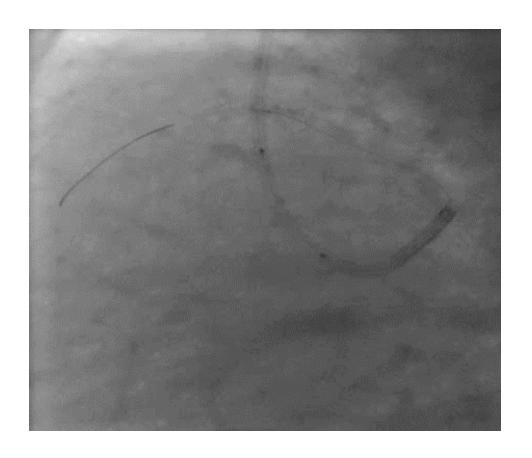
Exchange of LAD wire with OTW balloon against a floppy rotawire; rotabalation with 1,5 mm burr with 160.000 rpm



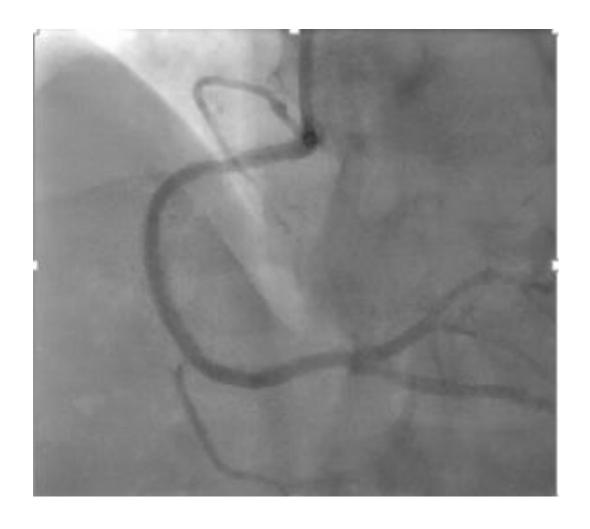
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LAD after 3,0/22 mm Orsiro DES



LAD after 3,0/22 mm Orsiro DES



Uneventful second recanaliszation attempt of RCA (JR4 guide)



Uneventful second recanaliszation attempt of RCA (JR4 guide)

