

Rotational Atherectomy plus drug-eluting dedicated bifurcation stent to treat a severely calcified bifurcation lesion

Claudio Cigalini, MD

Servicio de Diagnóstico y Tratamiento Endovascular

Sanatorio Los Arroyos

Rosario, Argentina

Potential conflicts of interest

Speaker's name: Claudio Cigalini

I do not have any potential conflict of interest

CLINICAL HISTORY

Male, 75 y.o.

Risk Factors: hypertension, dyslipidemia

No cardiac past history

Clinical Presentation: NSTEMI-ACS - Tnl: 0.87 ng/ml

EKG: negative T waves in anterior leads

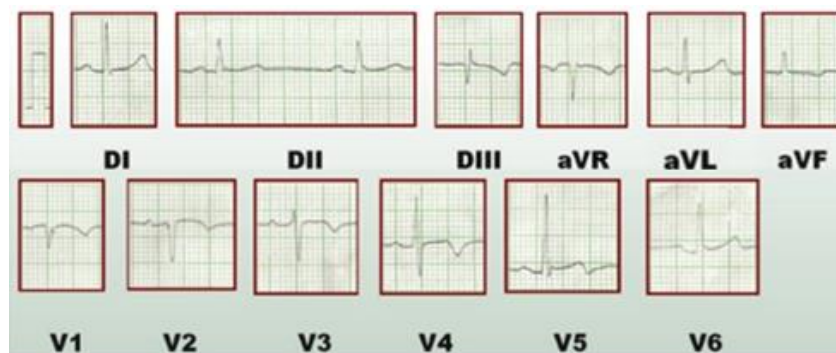
eGFR: 74 ml/MIN

Hb: 13.9 g/dl

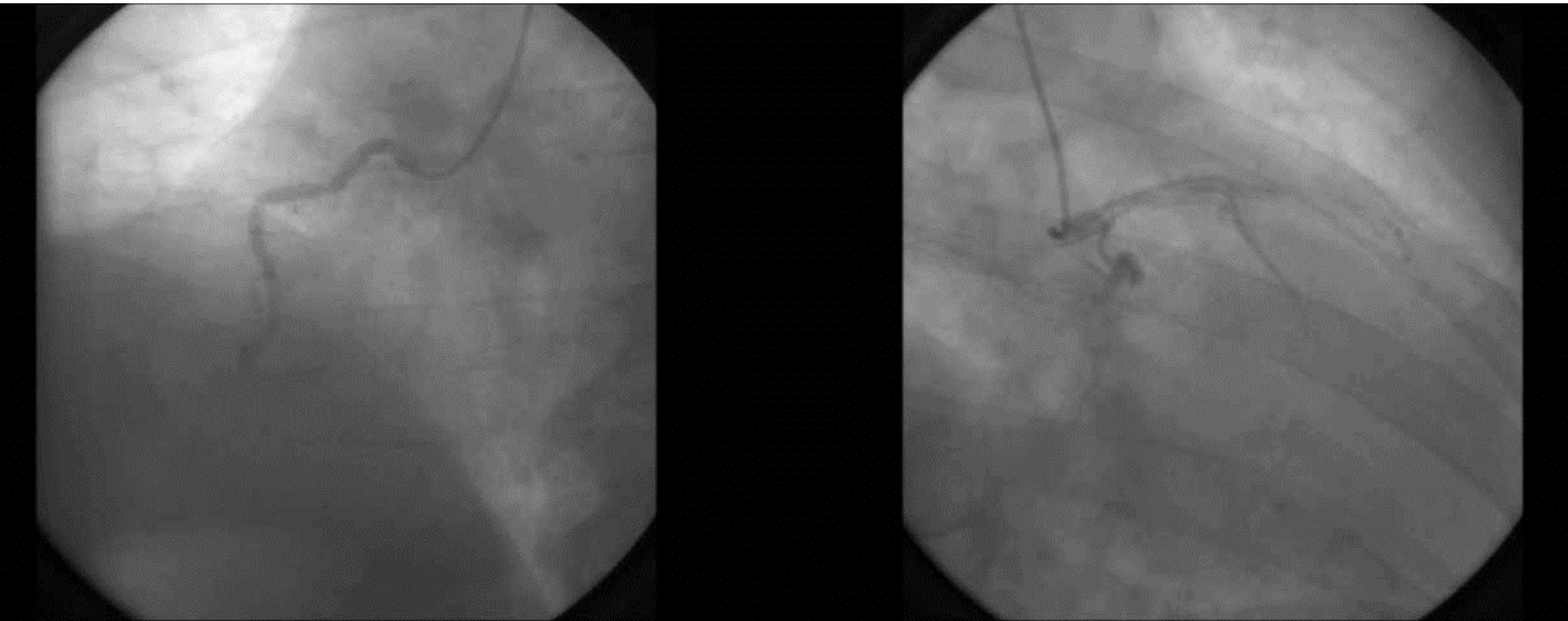
TIMI Risk Score: 4

Euroscore II: 1.75%

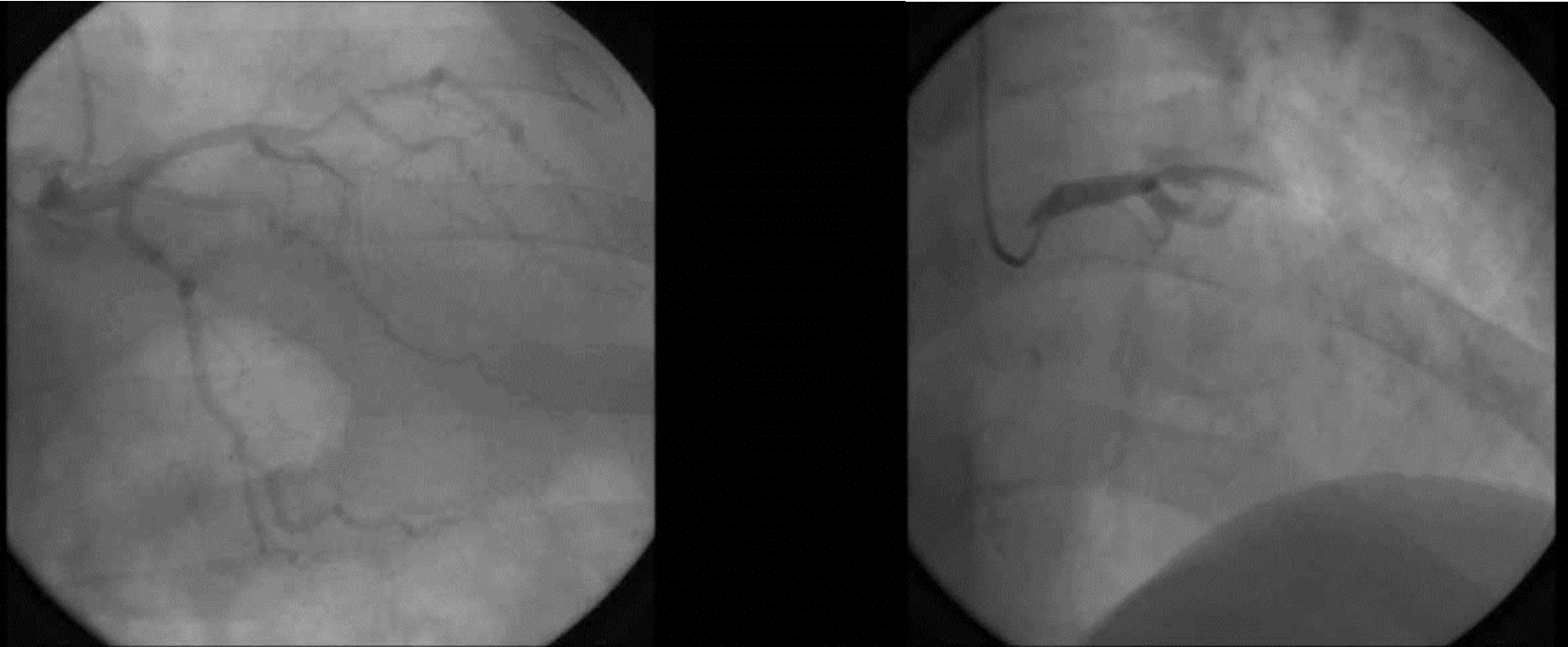
Medication: atenolol, aspirin, clopidogrel, atorvastatin, LMW Heparin



Angiography

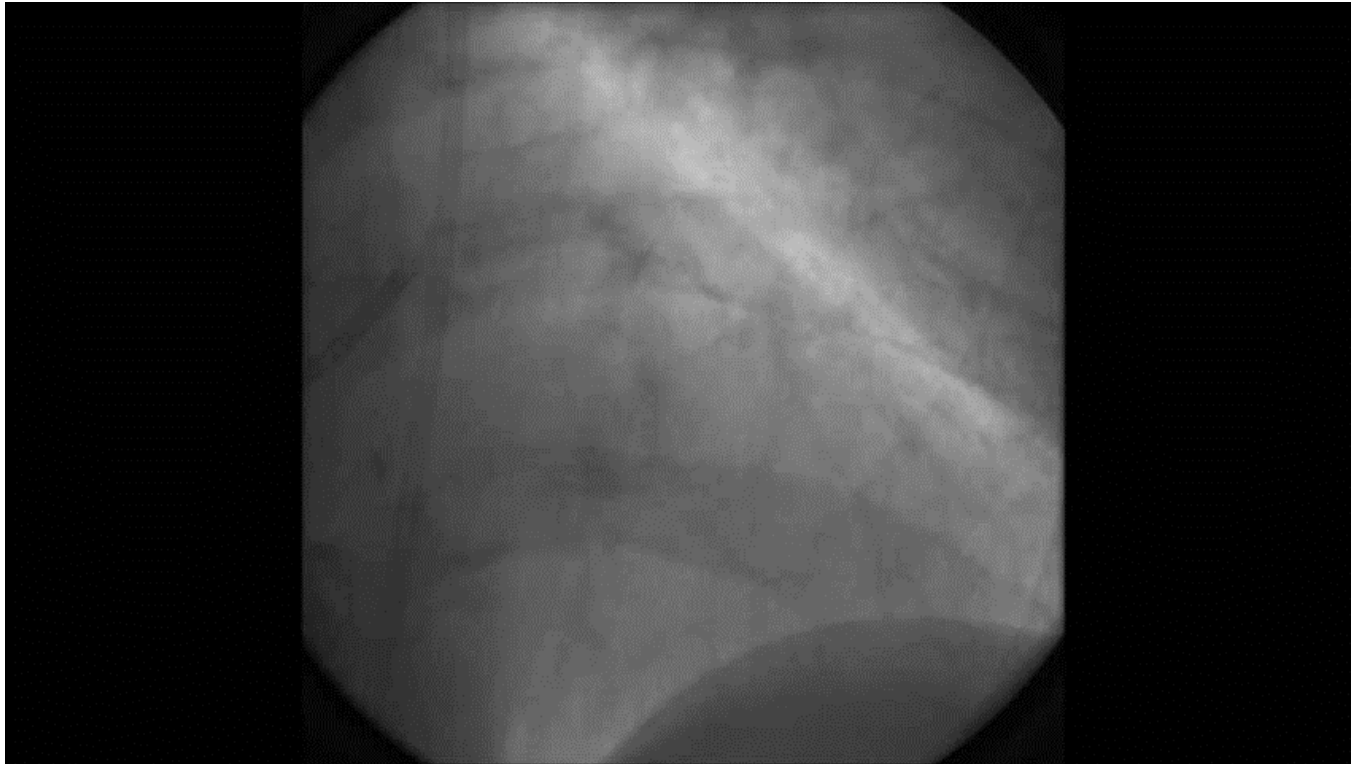


Angiography



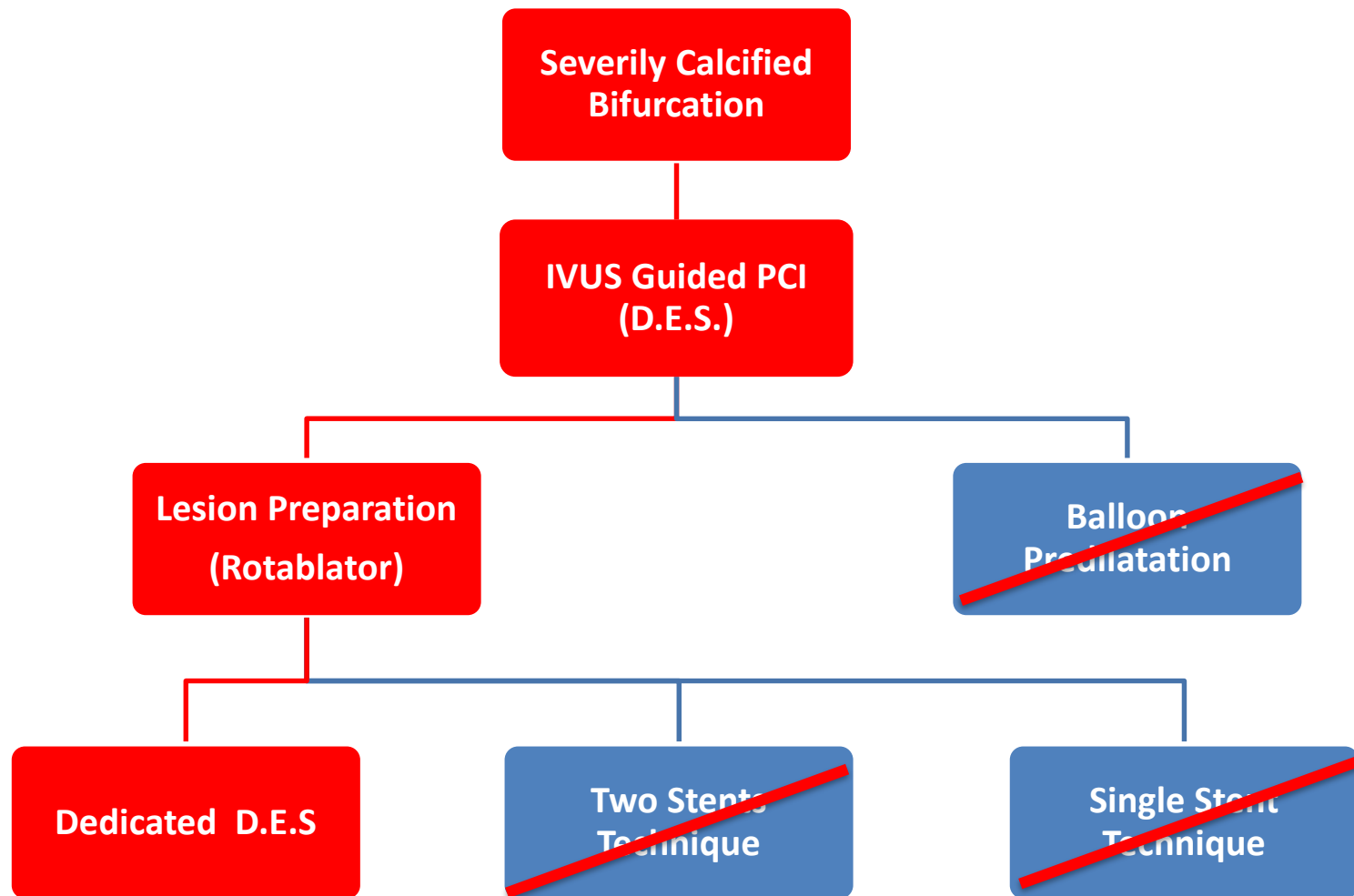
Normal Ventricular Function
Syntax Score: 10

LAD/D1 Bifurcation



Medina 1.1.1 bifurcation lesion Severe calcification – Length 26 mm

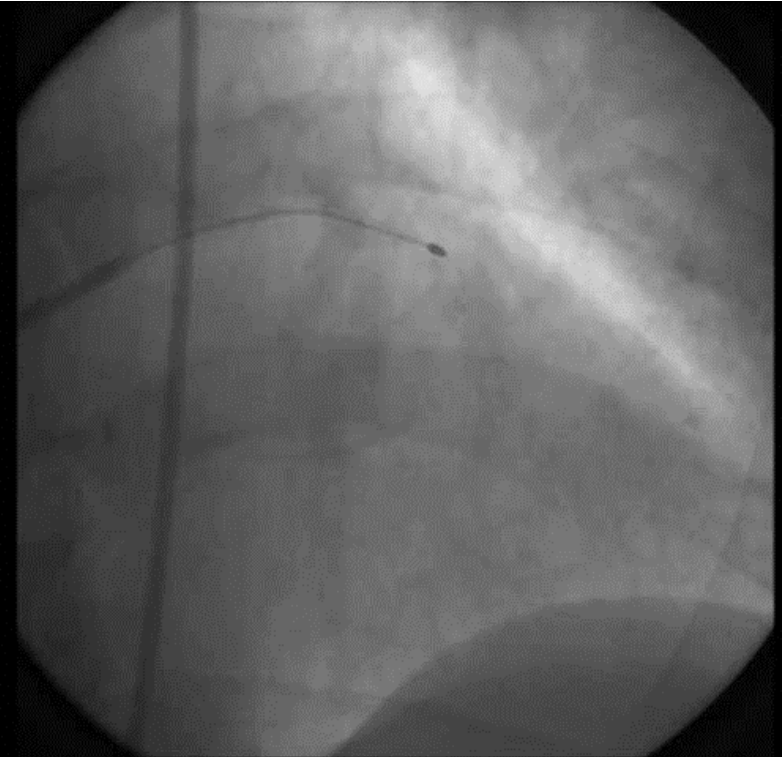
Strategy



Rotational Atherectomy



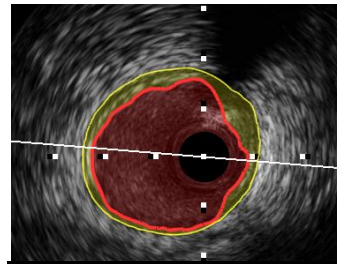
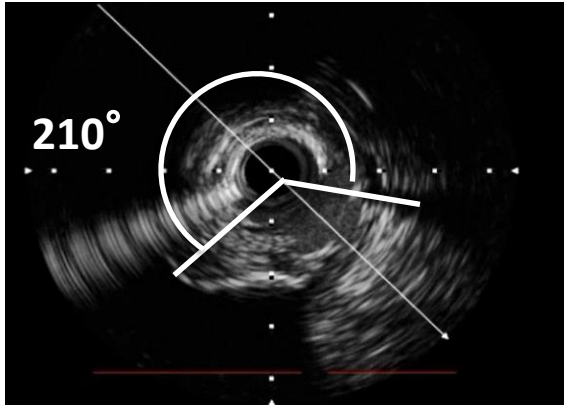
Quick Cross Catheter – Rotawire



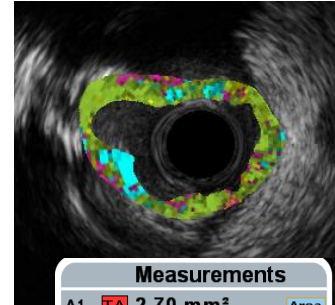
**Rotablator 1.75mm Burr
Boston Scientific®**

Post Atherectomy IVUS

iLab – Boston Scientific®

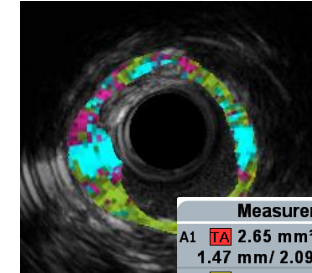


Trace Assist™	
A1	TA 6.76 mm ² 2.76 mm / 3.09 mm
A2	TA 9.12 mm ² 3.26 mm / 3.66 mm



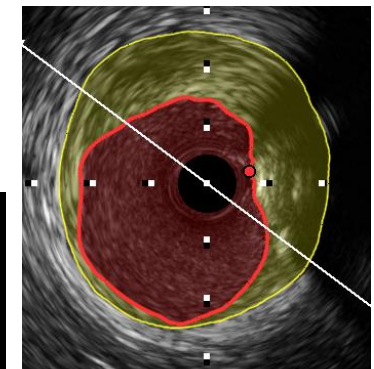
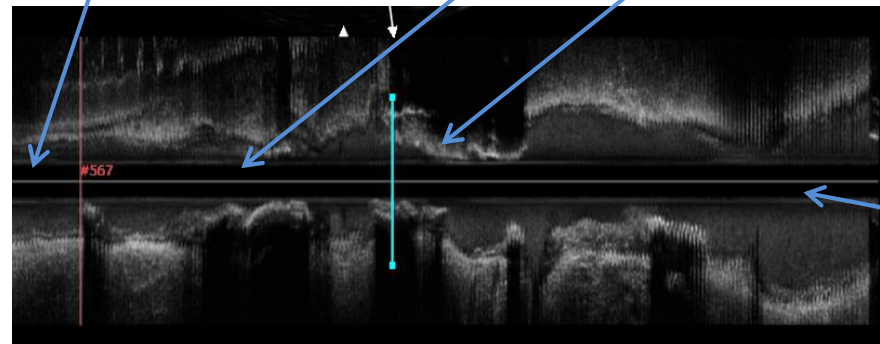
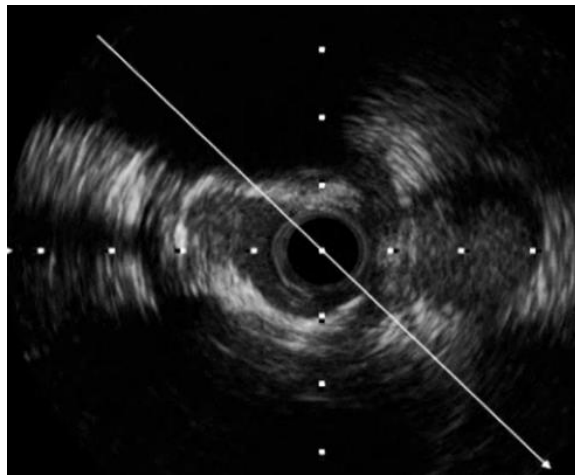
Measurements		Area
A1	TA 2.70 mm ² 1.31 mm / 2.41 mm	47%
A2	TA 5.11 mm ² 2.06 mm / 3.02 mm	

Frame	Segment
Fibrotic:	65% CL:74%
Lipidic:	6% CL:56%
Necrotic:	13% CL:60%
Calcified:	16% CL:80%



Measurements		Area
A1	TA 2.65 mm ² 1.47 mm / 2.09 mm	41%
A2	TA 4.49 mm ² 2.25 mm / 2.52 mm	

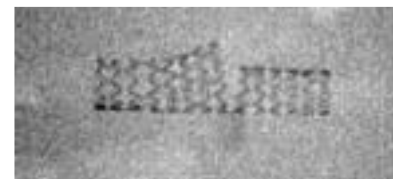
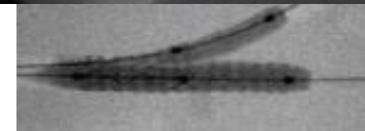
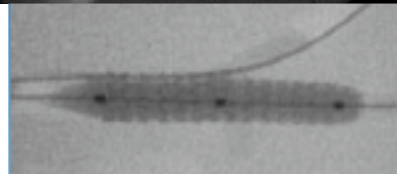
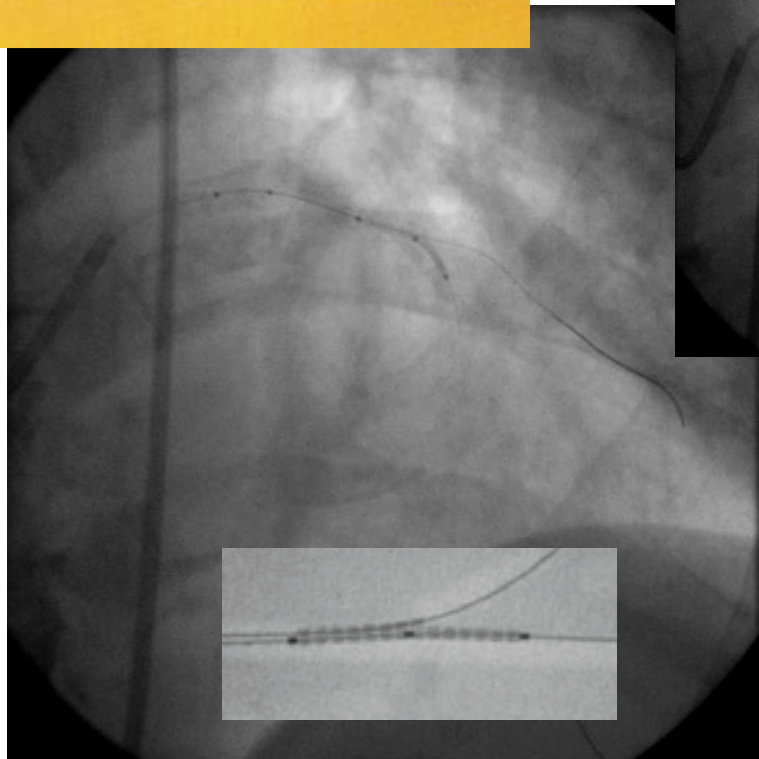
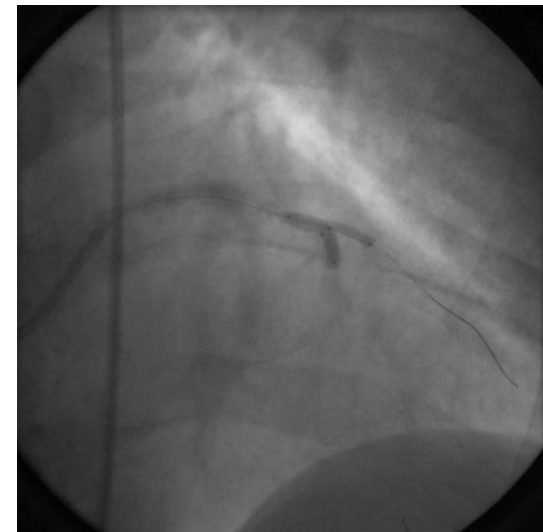
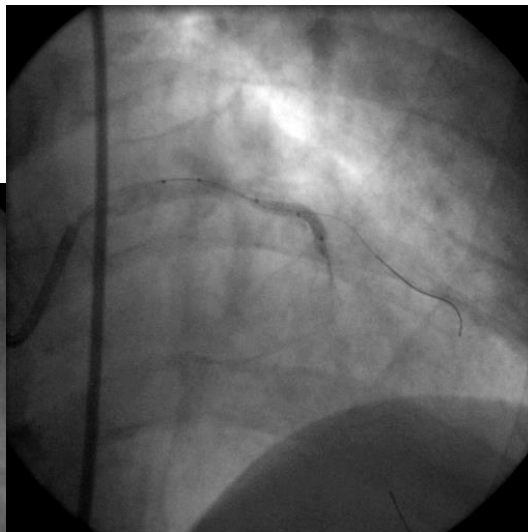
Frame	Segment
Fibrotic:	46% CL:72%
Lipidic:	3% CL:63%
Necrotic:	19% CL:60%
Calcified:	33% CL:84%



Trace Assist™	
A1	TA 9.52 mm ² 3.02 mm / 3.82 mm
A2	TA 18.74 mm ² 4.59 mm / 5.13 mm

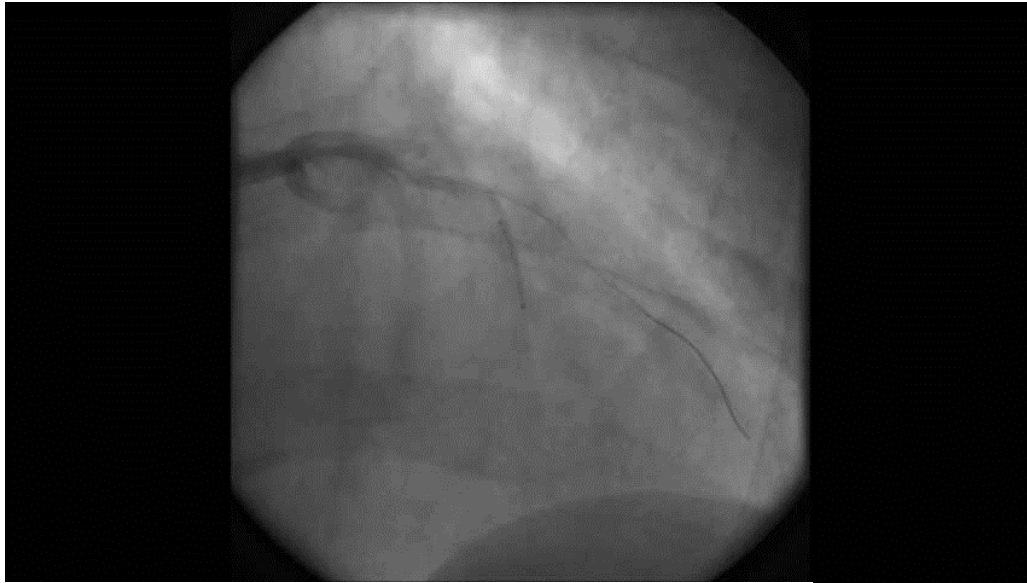
Superficial calcification – Arc of 210°

Drug-eluting dedicated bifurcation stent (Paclitaxel - chromium cobalt - polymer free)

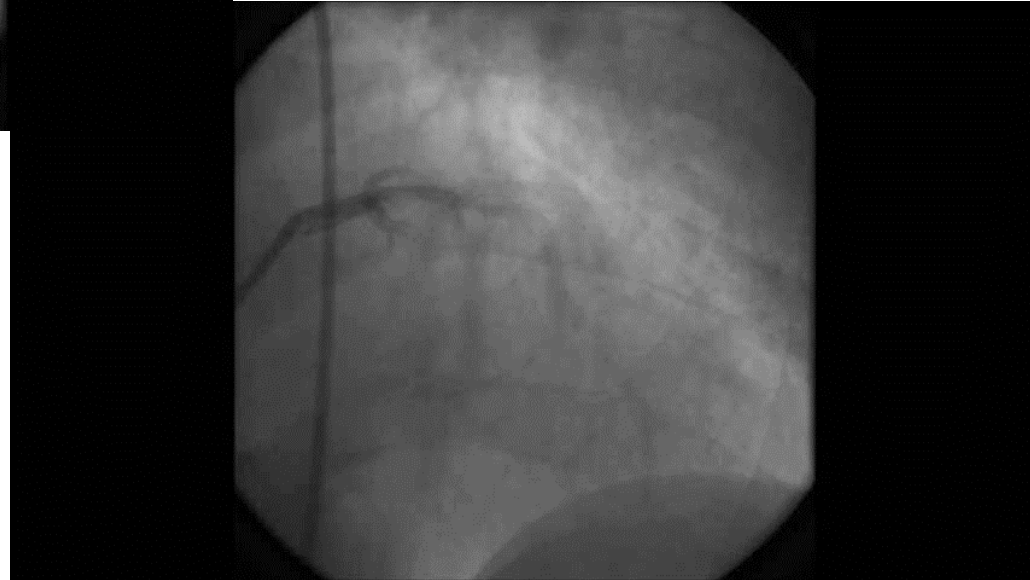
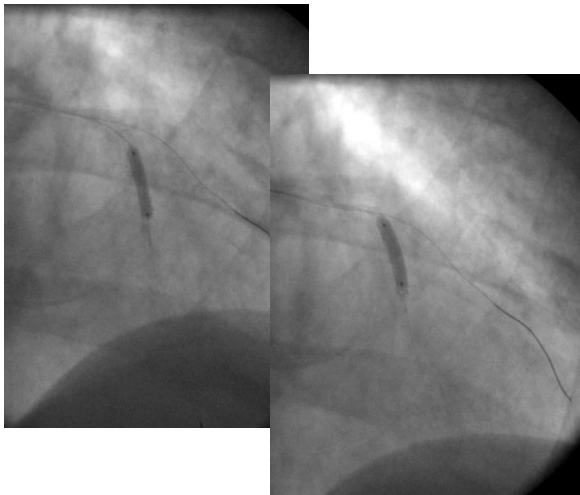


Nile Pax 3.0 - 2.5 x 18mm

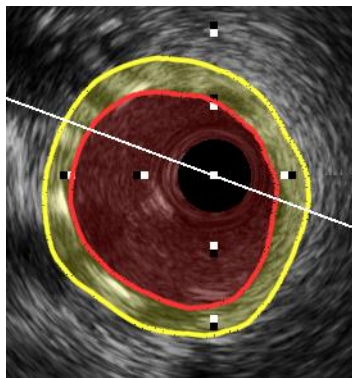
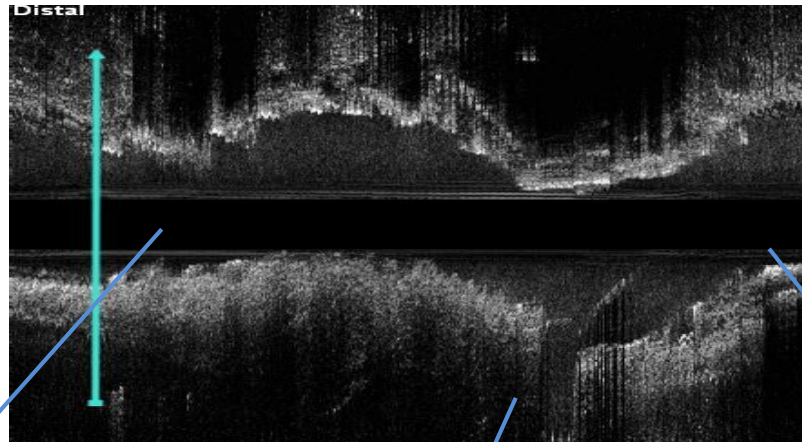
Minvasys®



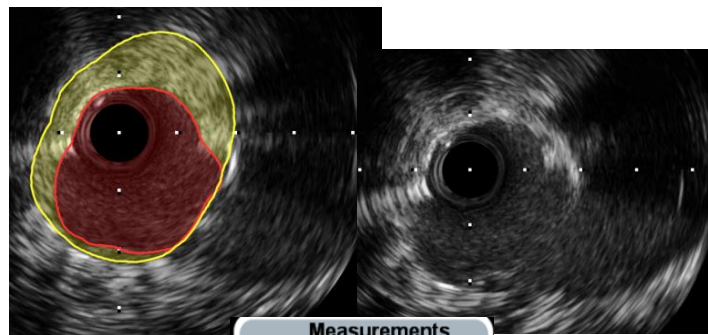
Paclitaxel Eluting Stent 3.0 x 16mm
Amazonia Pax Minvasys®
Postdilatation with NC balloon 3.0 x 12 mm.



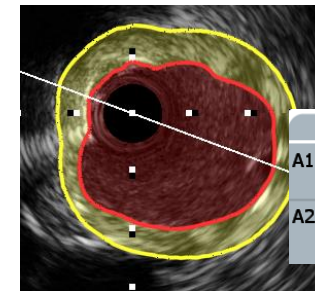
Main branch - IVUS



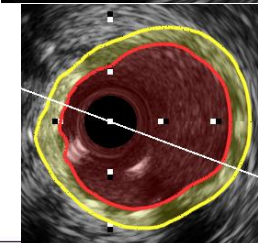
Measurements		
A1	TA	6.45 mm ²
		2.71 mm / 3.10 mm
A2	TA	10.55 mm ²
		3.53 mm / 3.90 mm
	Area	39%



Measurements		
A1	TA	6.02 mm ²
		2.49 mm / 2.91 mm
A2	TA	10.05 mm ²
		3.06 mm / 4.02 mm
	Area	40%

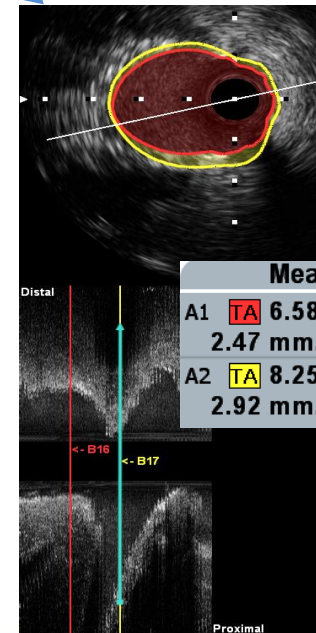
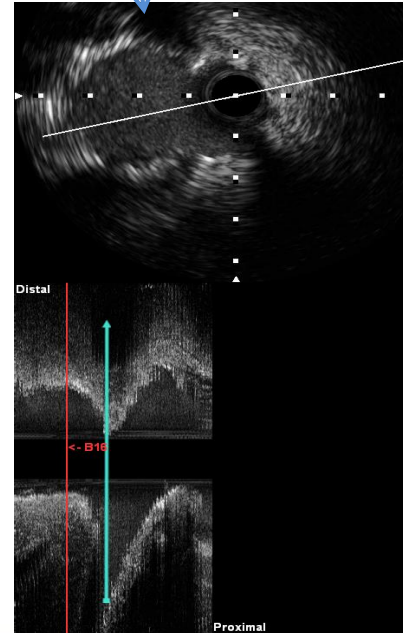
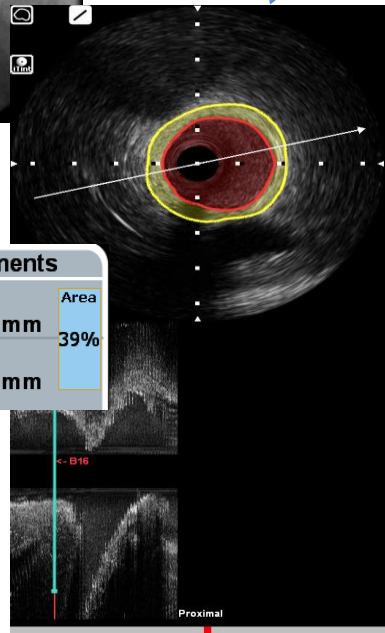
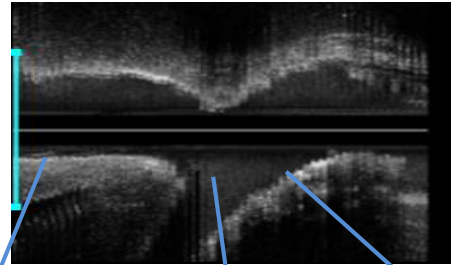
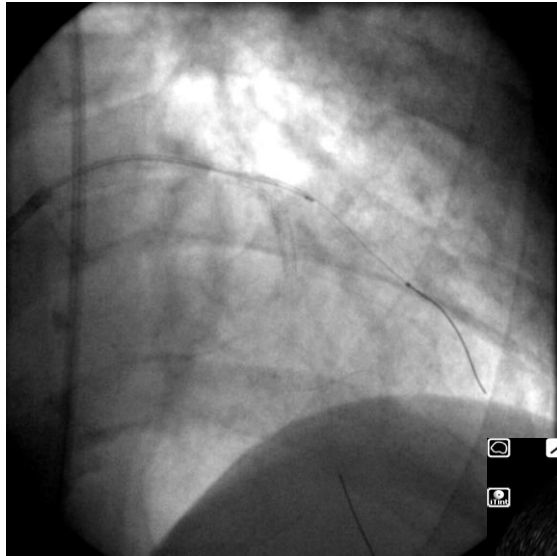


Measurements		
A1	TA	7.64 mm ²
		2.76 mm / 3.47 mm
A2	TA	13.35 mm ²
		3.86 mm / 4.34 mm
	Area	43%

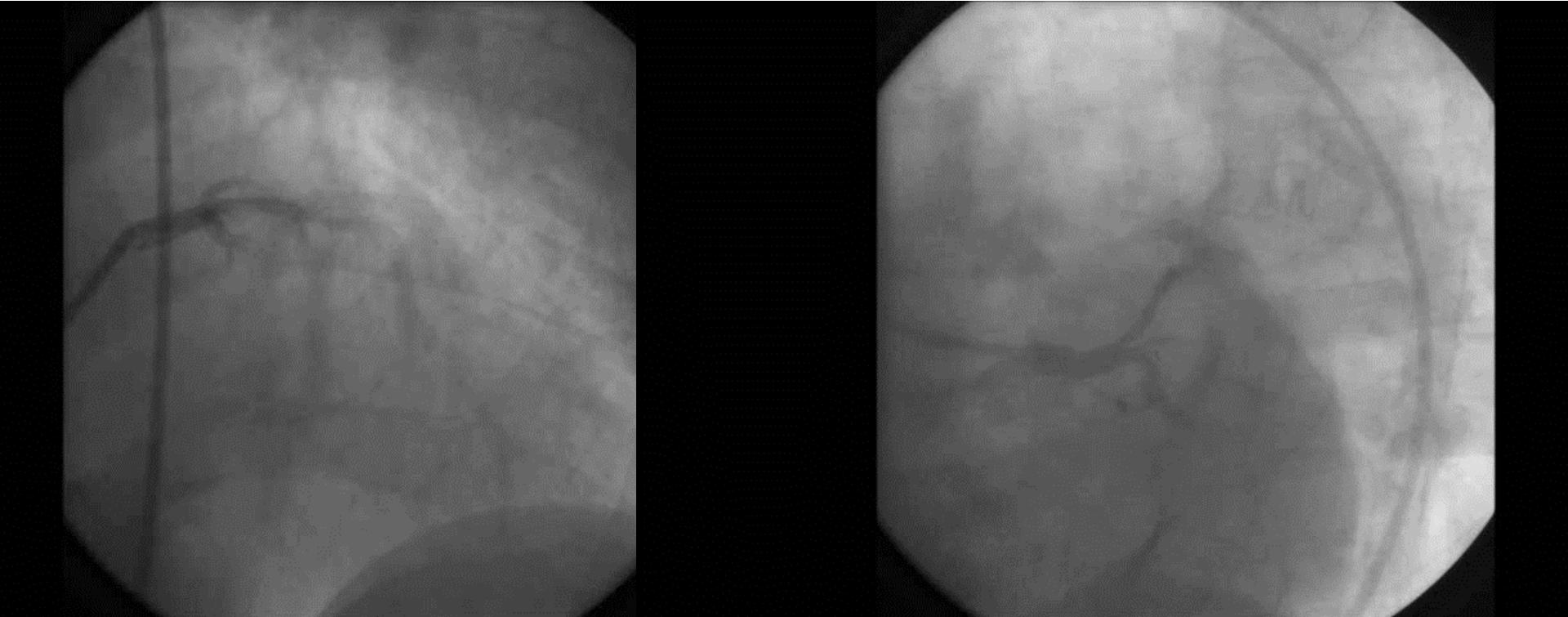


Measurements		
A1	TA	7.74 mm ²
		2.75 mm / 3.32 mm
A2	TA	11.80 mm ²
		3.56 mm / 4.11 mm
	Area	34%

First Diagonal IVUS



Final Angiography



11 month clinical follow-up - Asymptomatic – Normal exercise tests