

FFR in Bifurcation lesions

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CC: Exertional chest pain for 2 months

Risk factor: Smoking

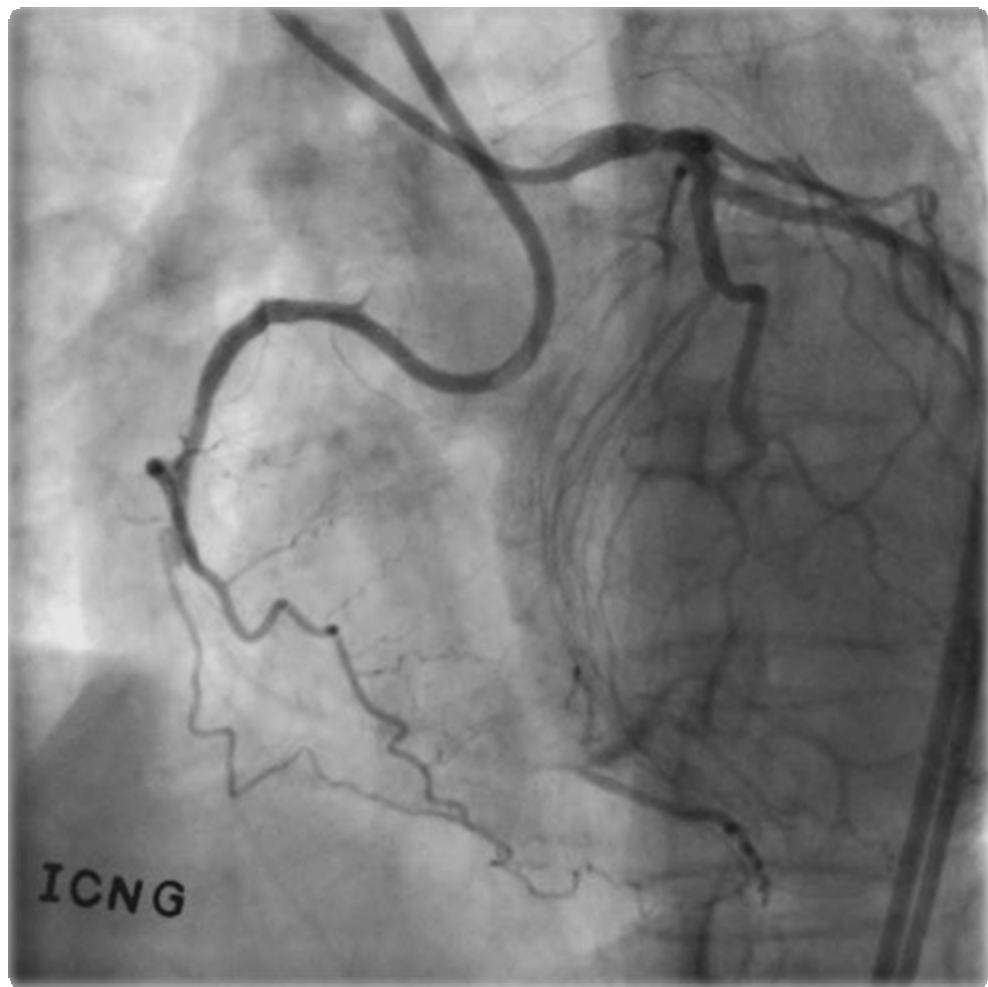
Diagnosed as 3VD with left main disease → CABG recommended →
Refused

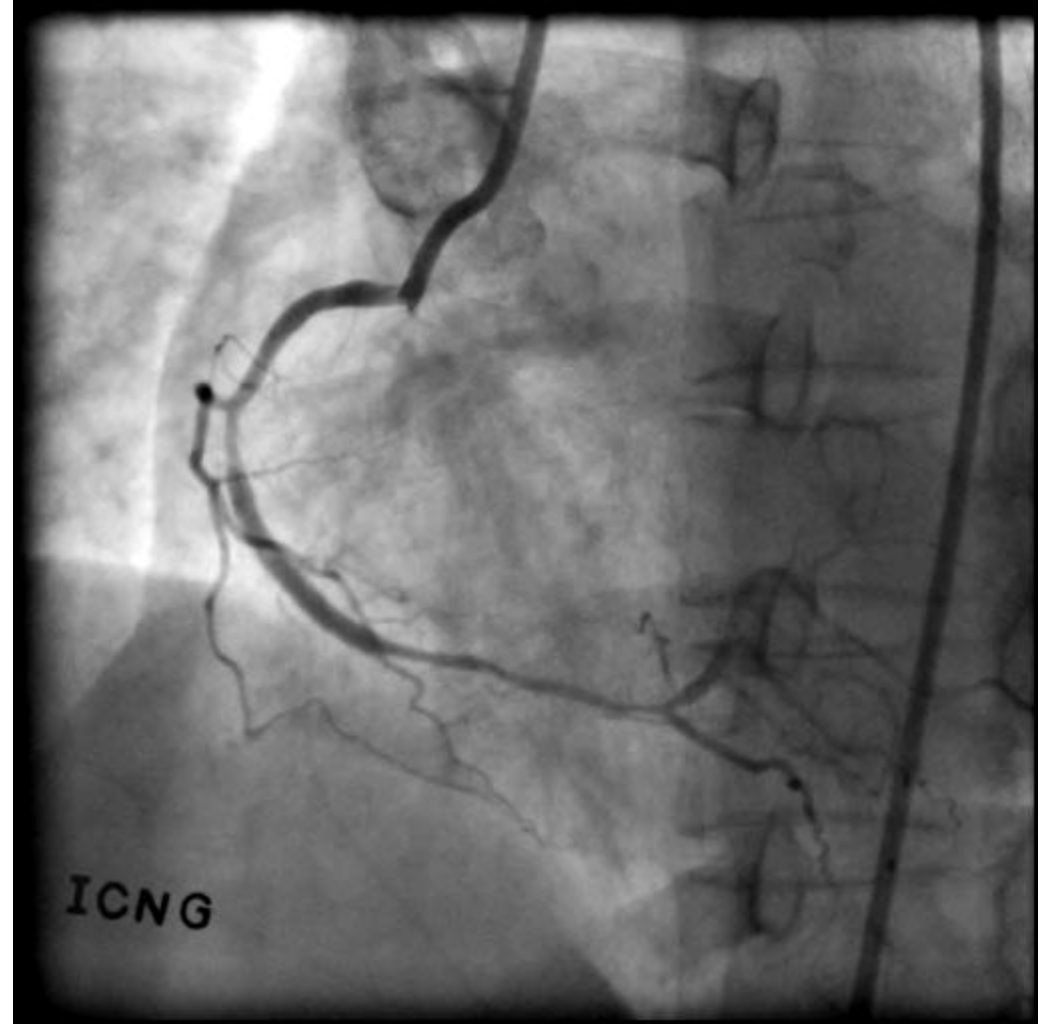
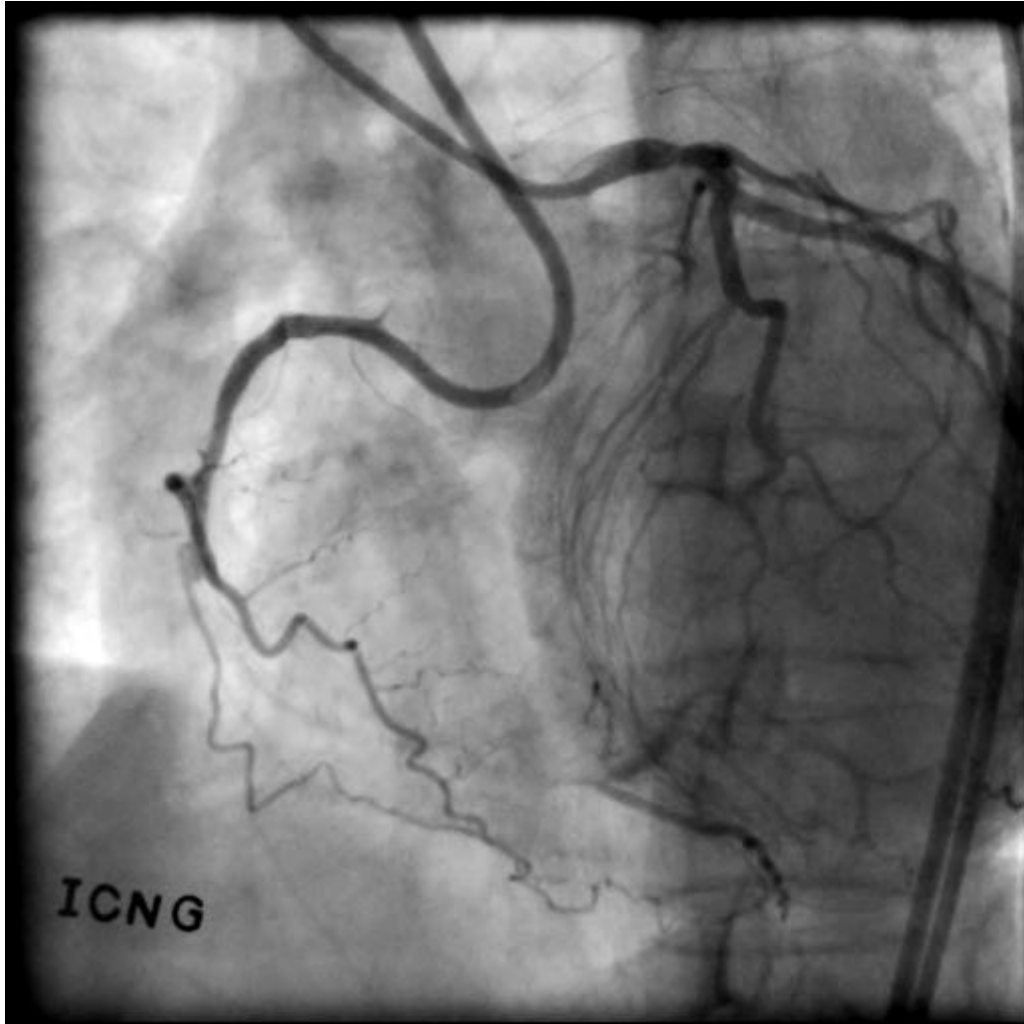
EKG, Chest X-ray: normal

Echocardiography

: LVEF=60%

Inferior wall hypokinesia



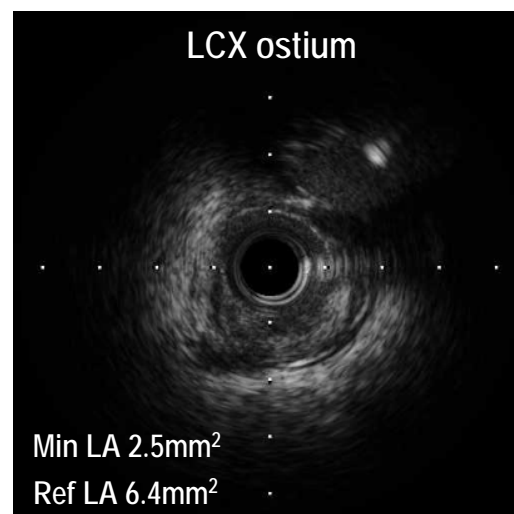
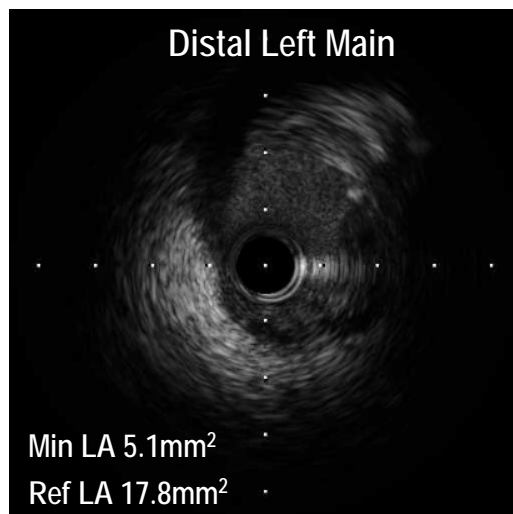


Taxus 2.75x24mm

Medina Classification?

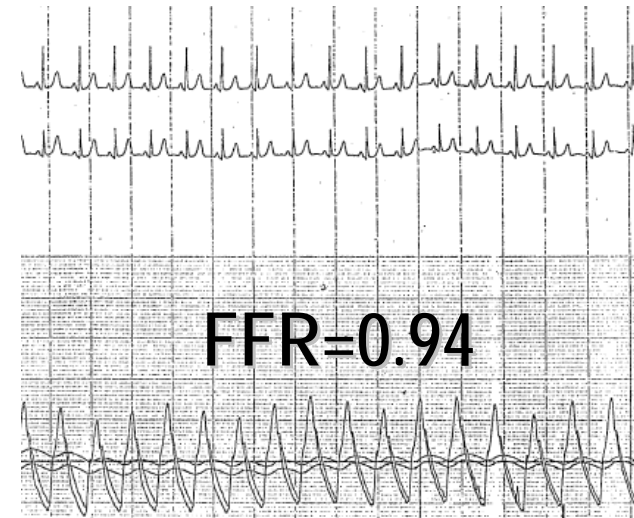


	Minimal Dm	Reference Dm	% diameter stenosis
Left Main	2.0	4.1	53%
LAD	0.63	3.28	81%
RI	0.6	2.16	72%
LCX	1.18	2.85	58%



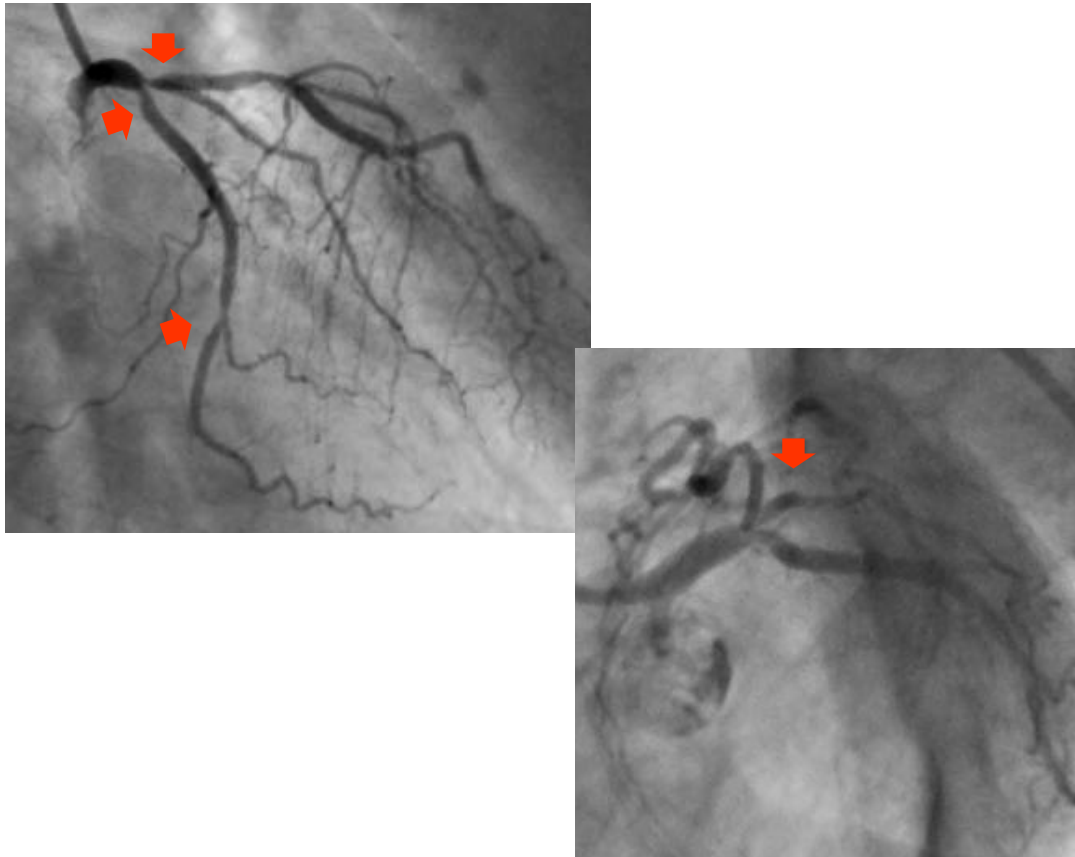
1, 1, 1, 1

Angiographic severity vs. Functional significance

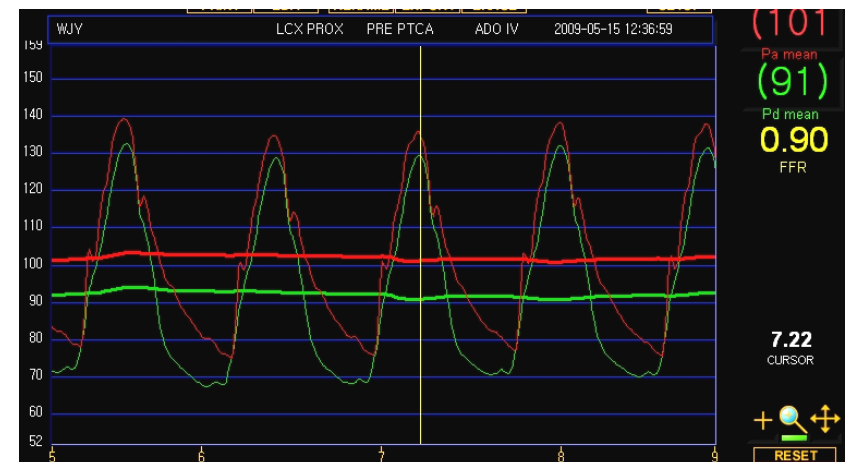
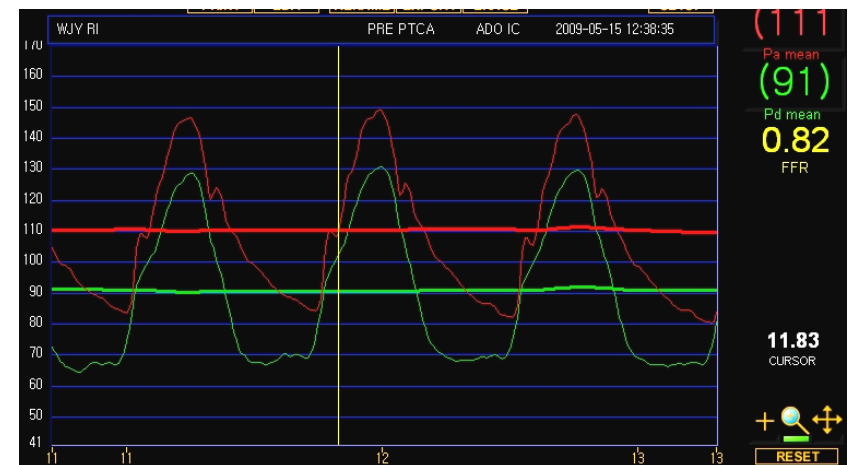
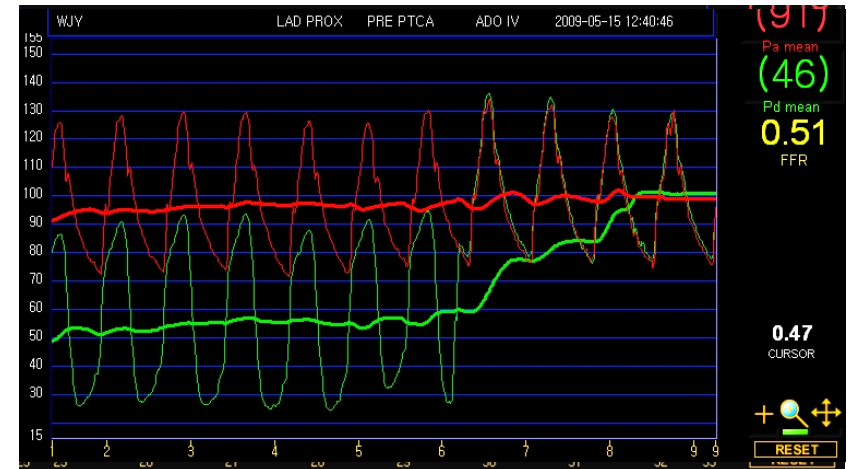


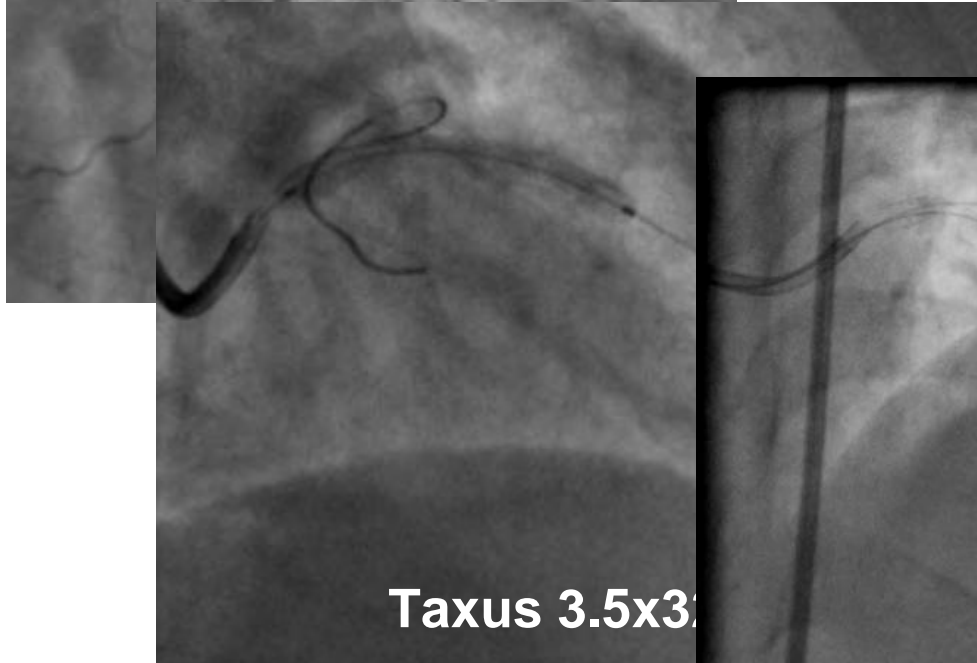
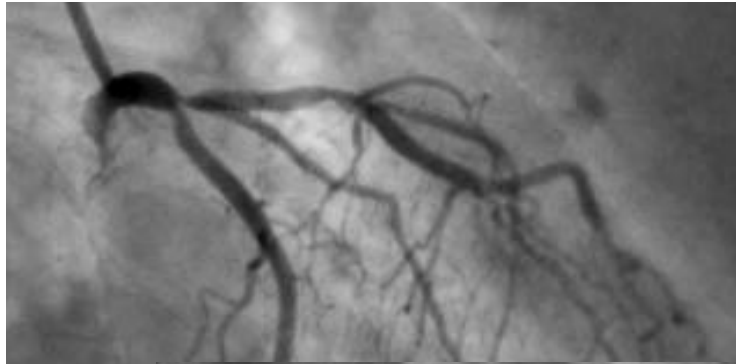
FFR	$\geq 70\%$ Angiographic Stenosis	50%–70% Angiographic Stenosis
≥ 0.75	20	30
< 0.75	5	0
Sensitivity 100%, specificity 55%, and test accuracy 60%.		

Functional Medina Classification?

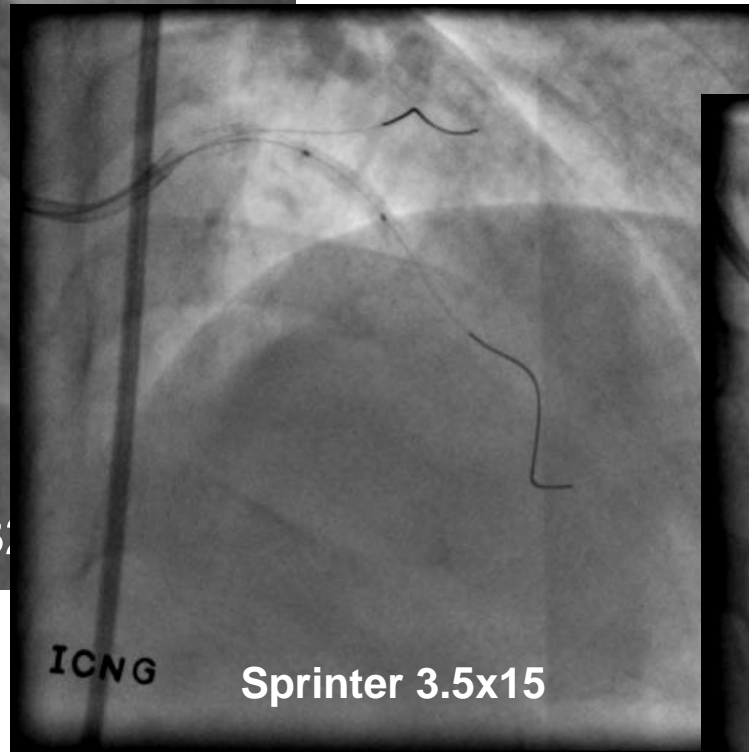


0, 1, 0, 0



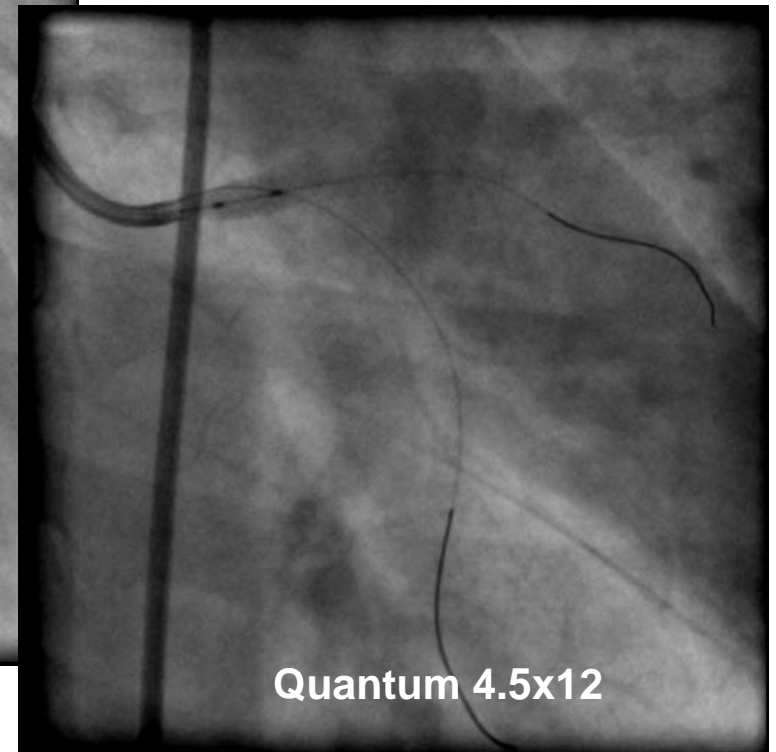


Taxus 3.5x35



ICNG

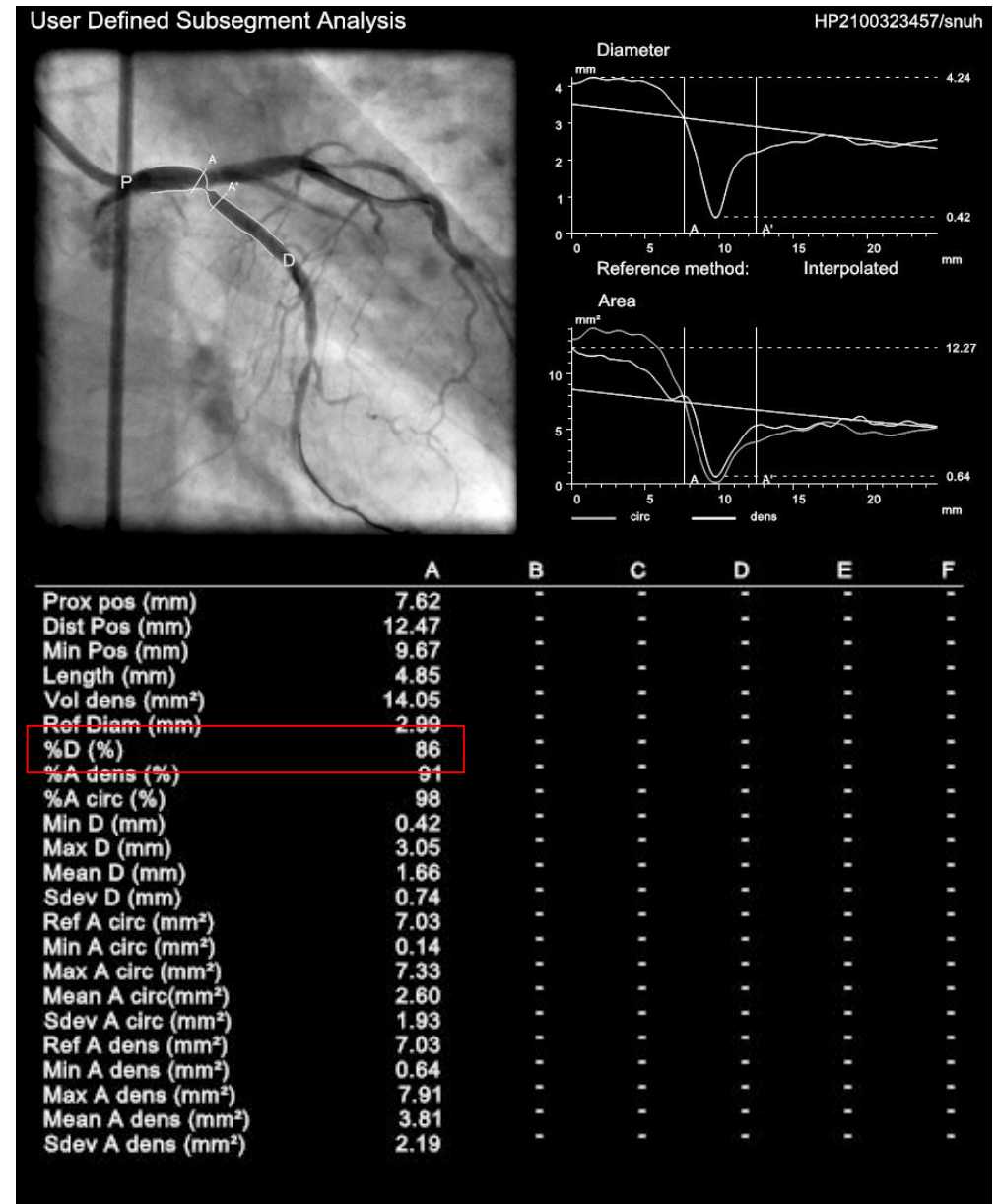
Sprinter 3.5x15



Quantum 4.5x12

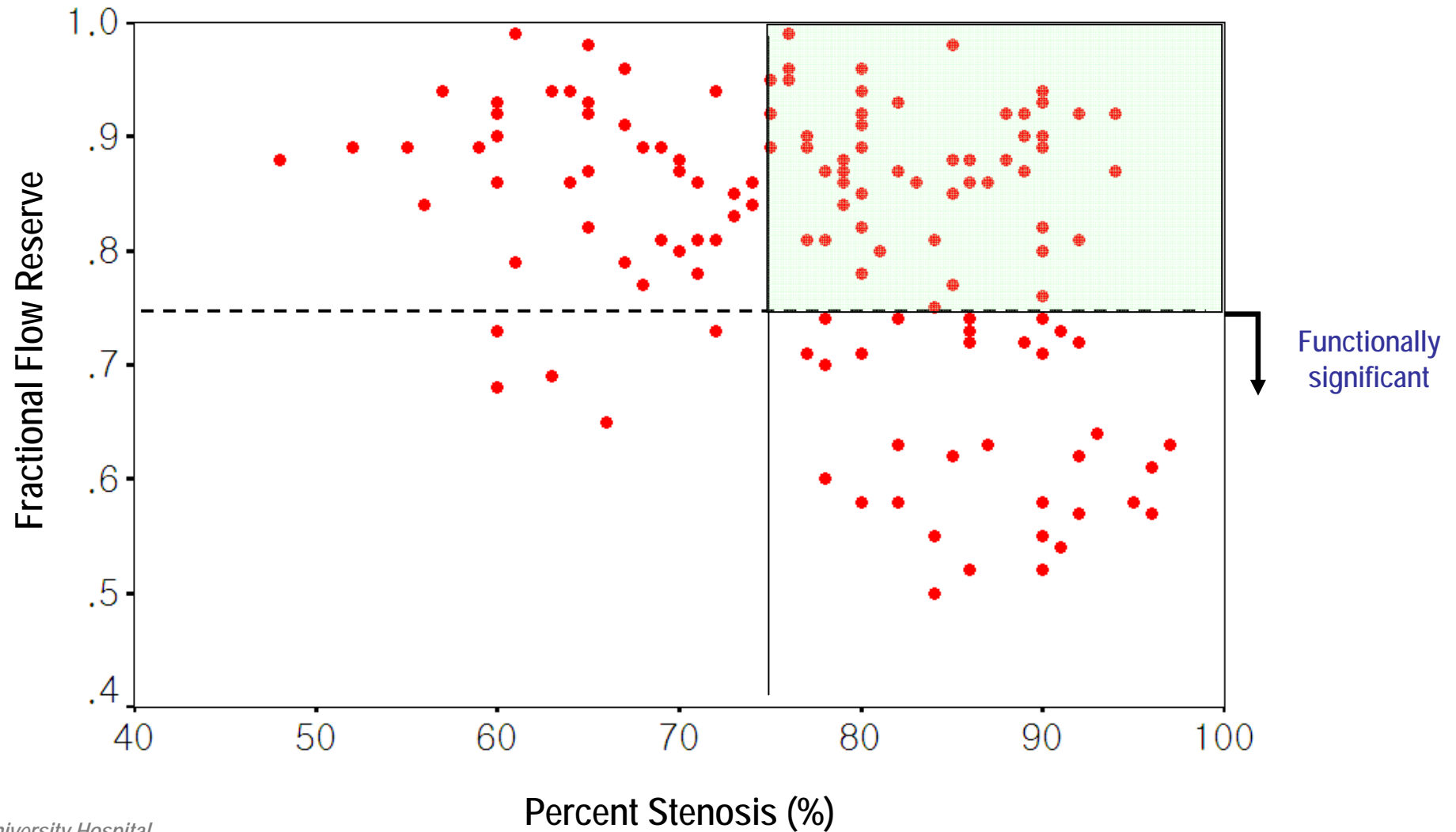


Is FFR needed?

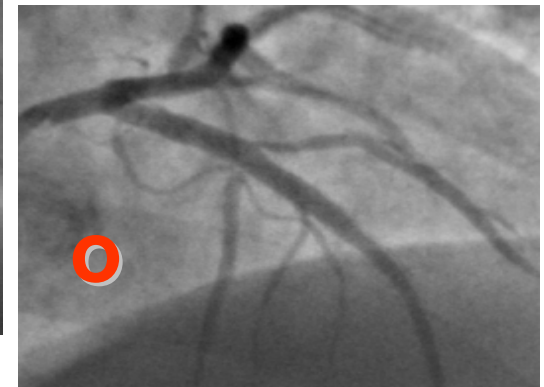
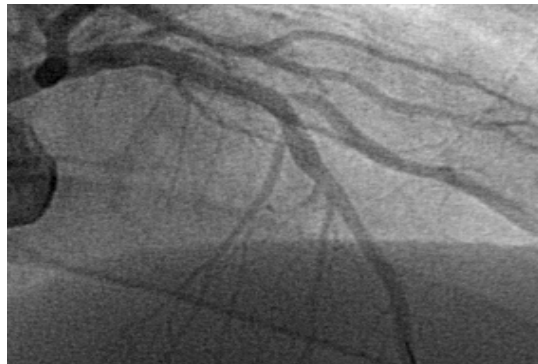
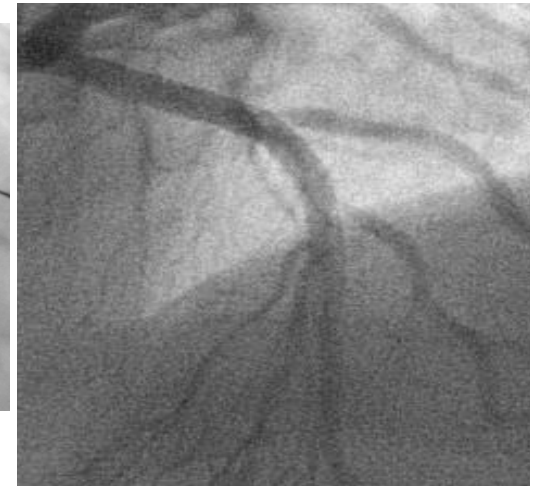
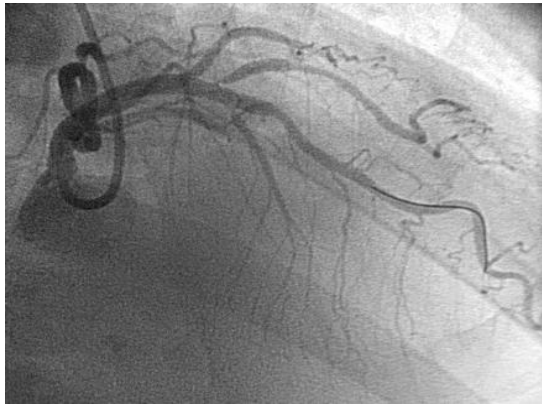


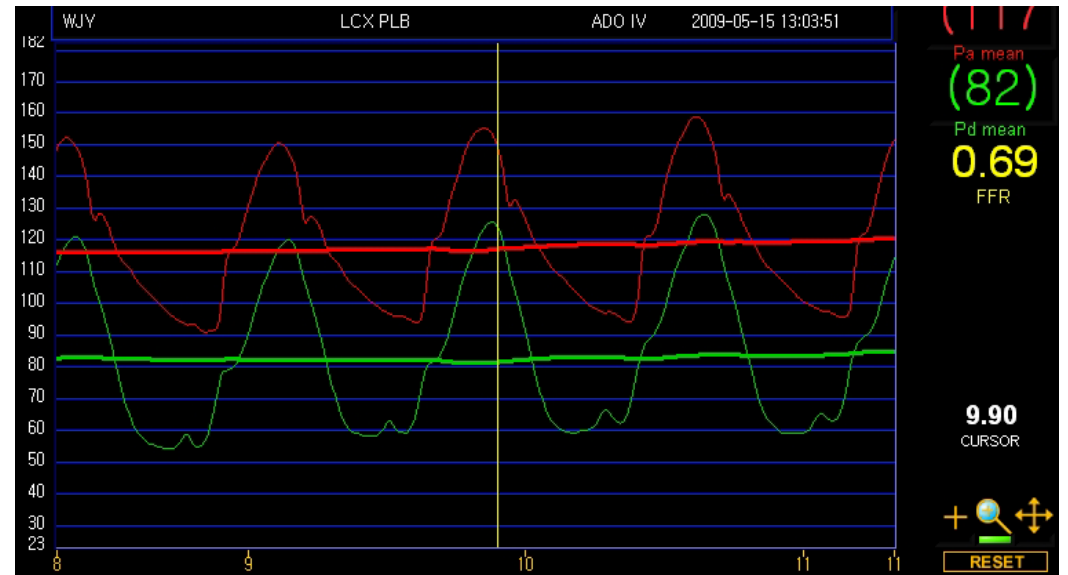
FFR vs % stenosis in Jailed side branches

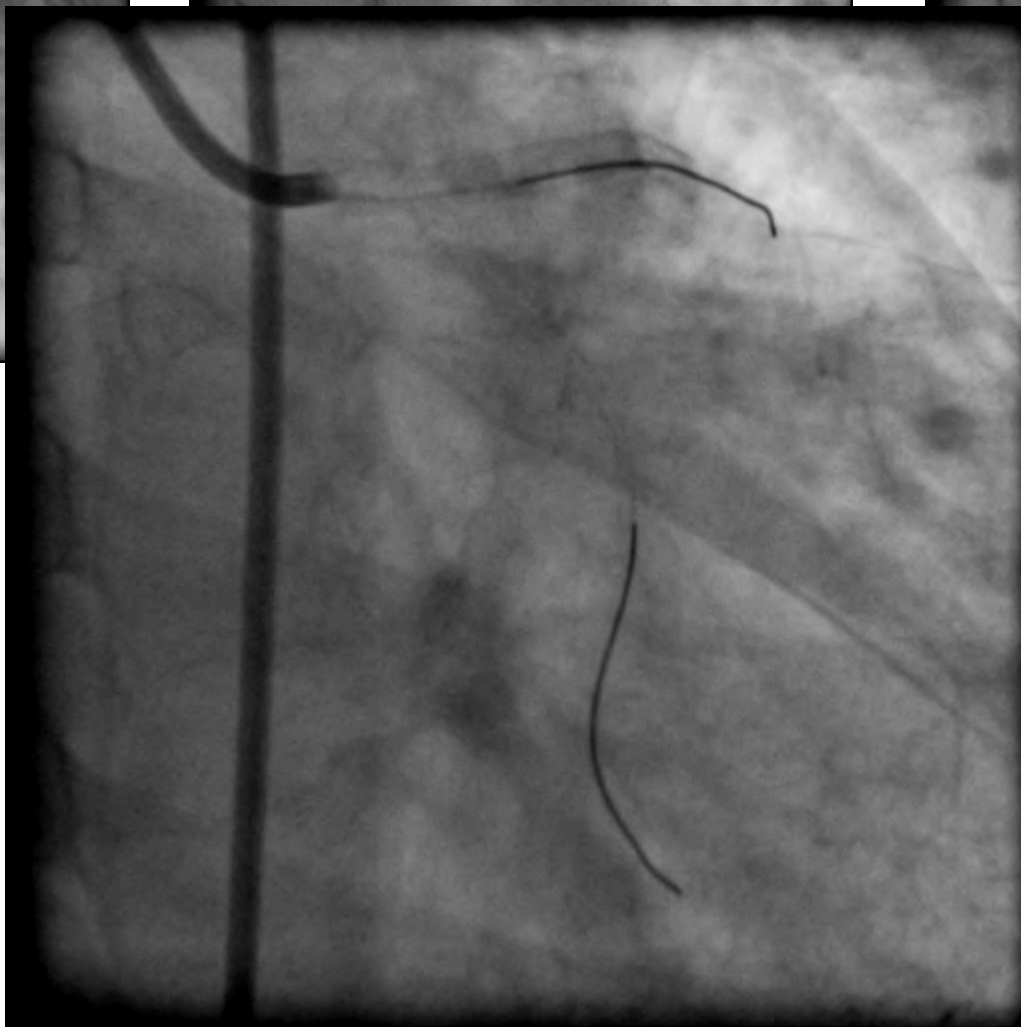
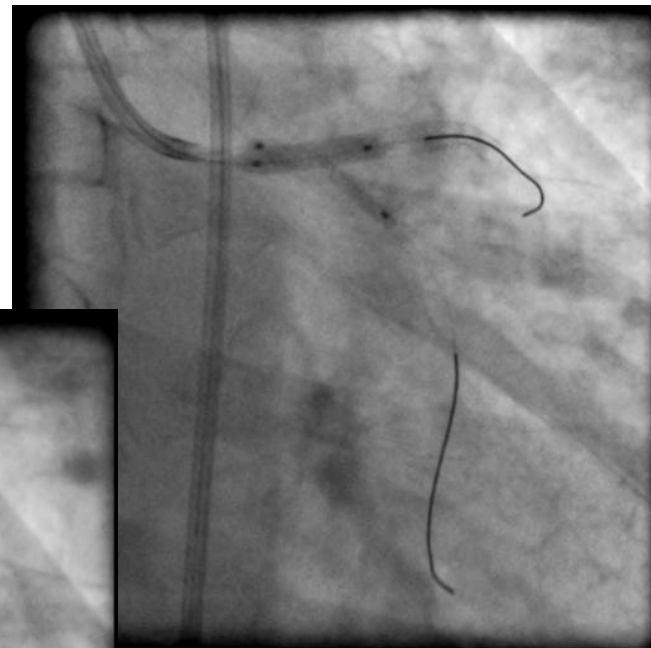
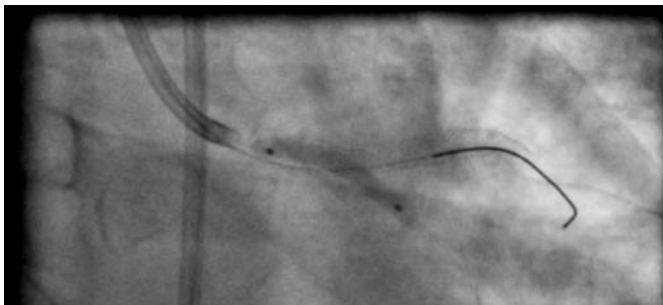
SNUH SB-FFR registry, N=153

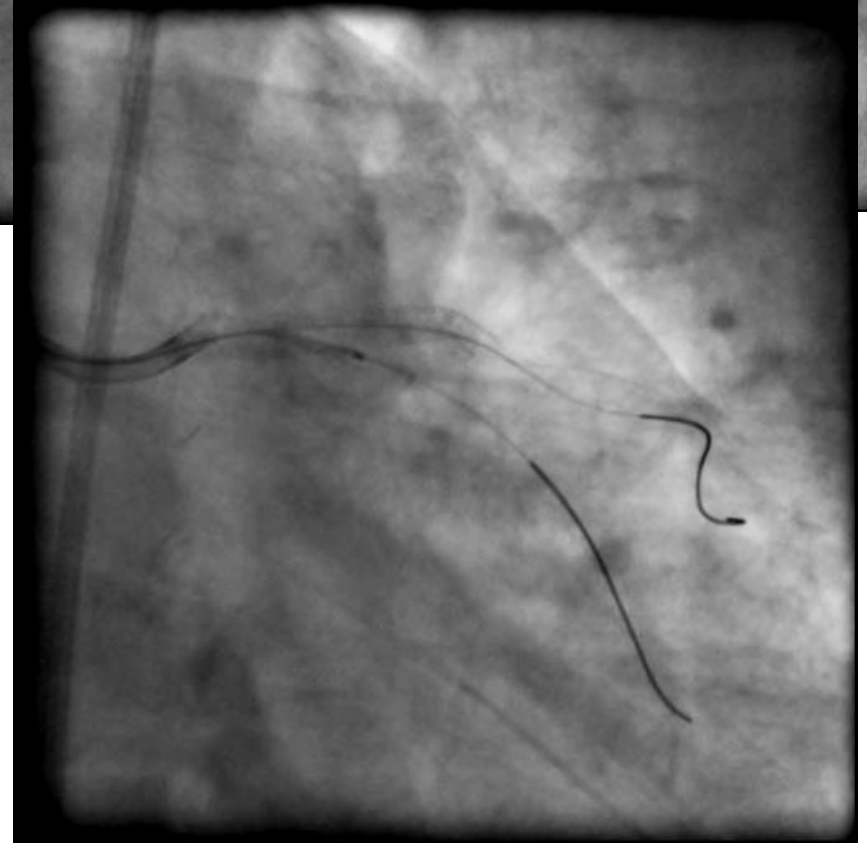
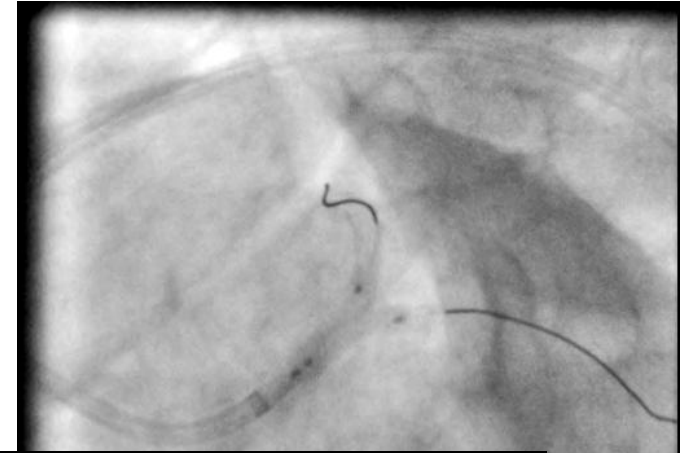
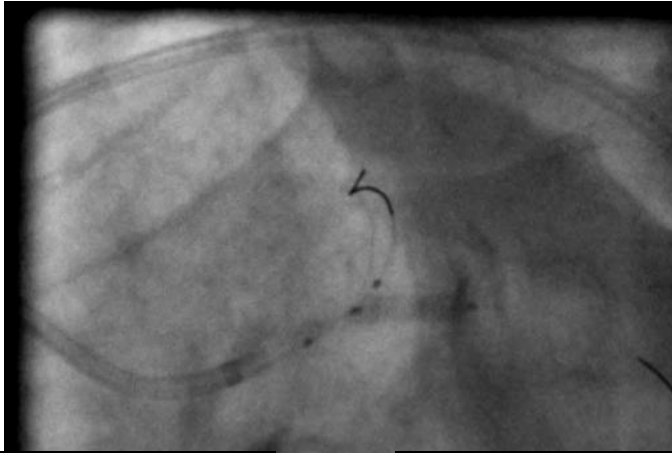
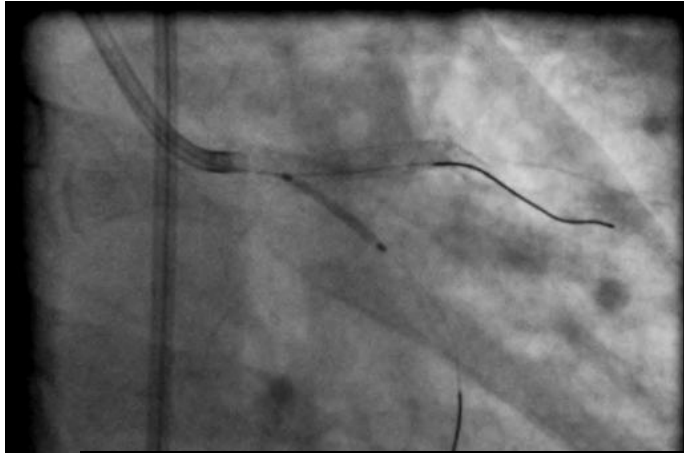


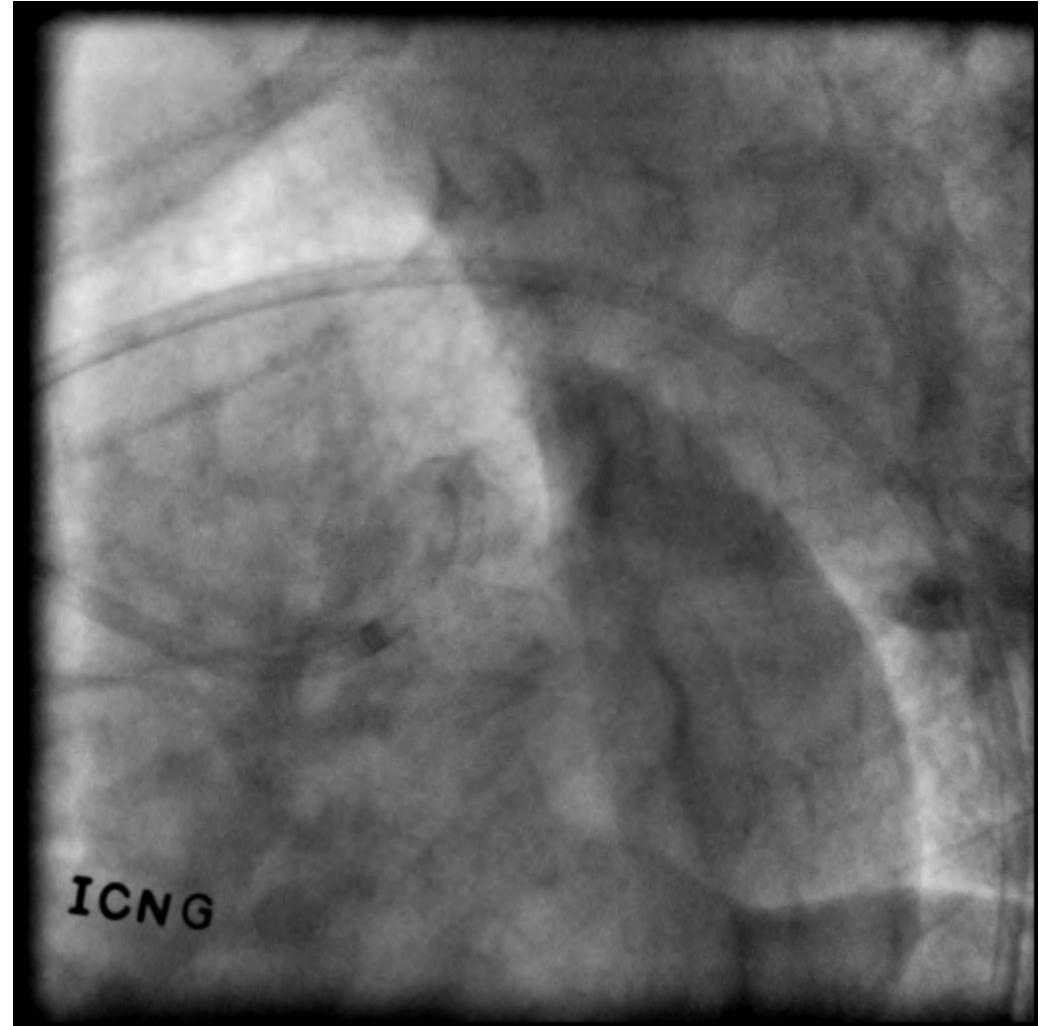
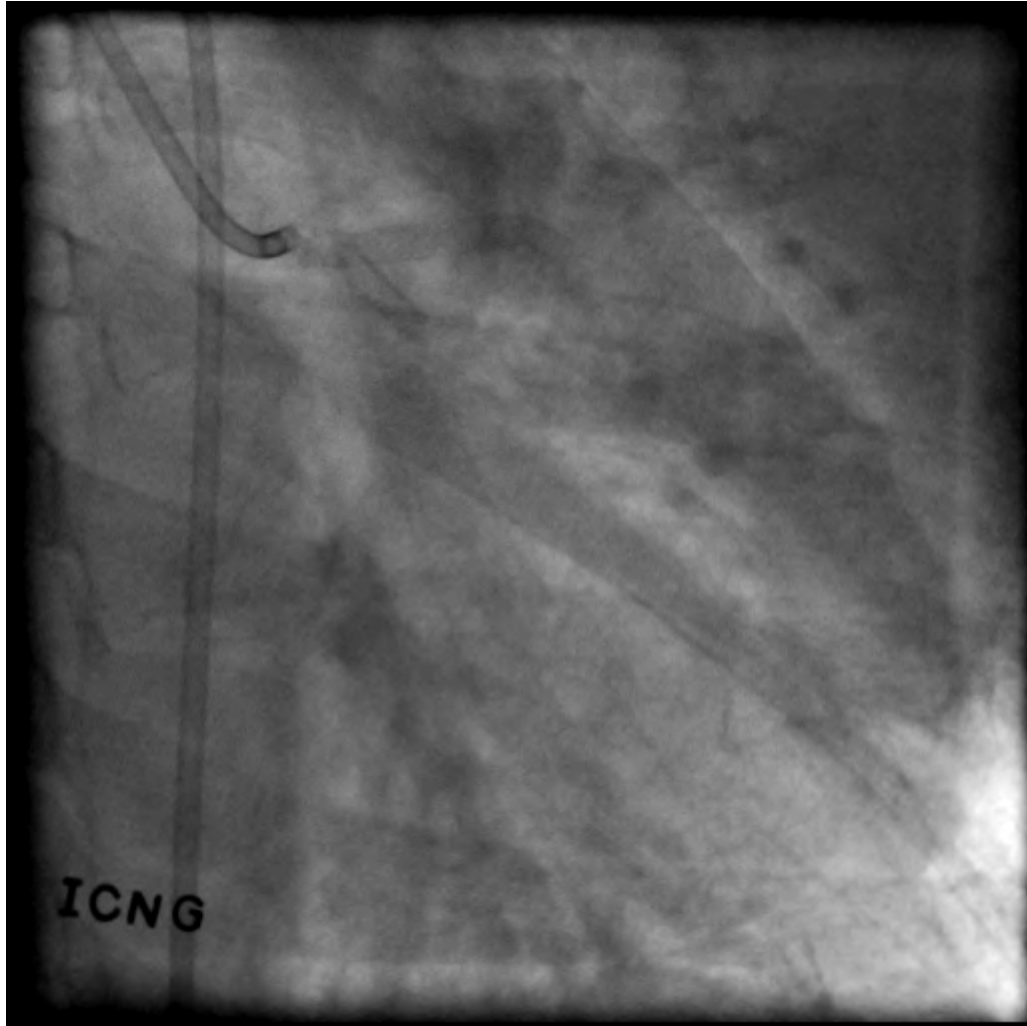
Which one is functionally significant?

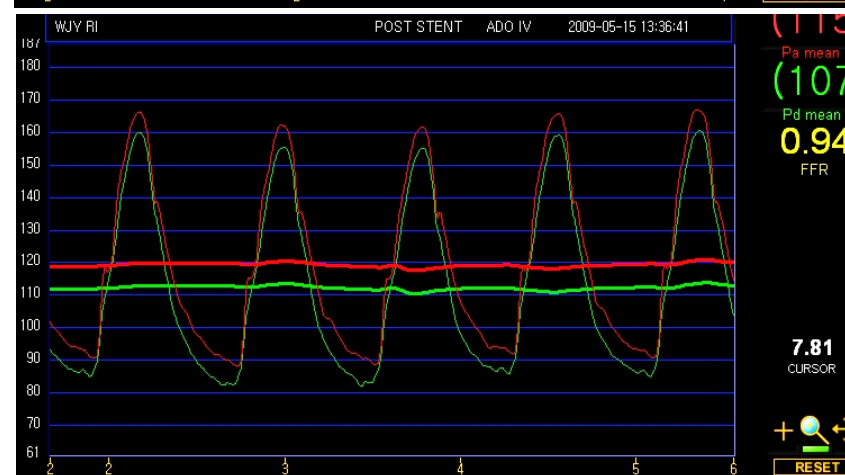
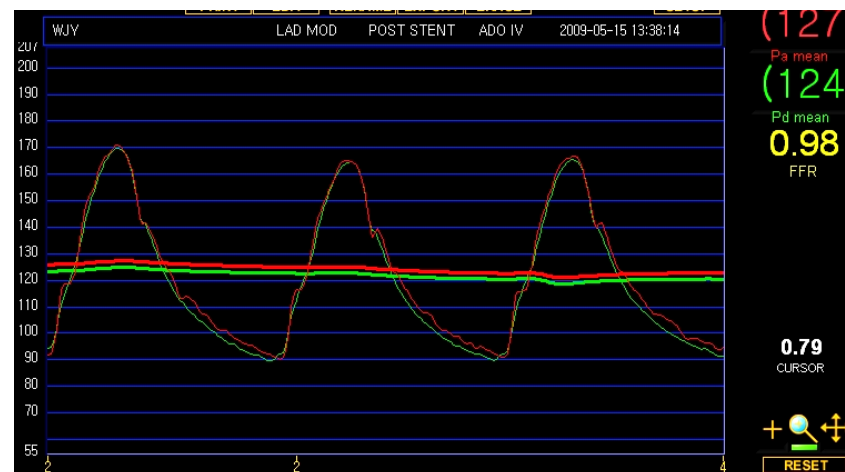
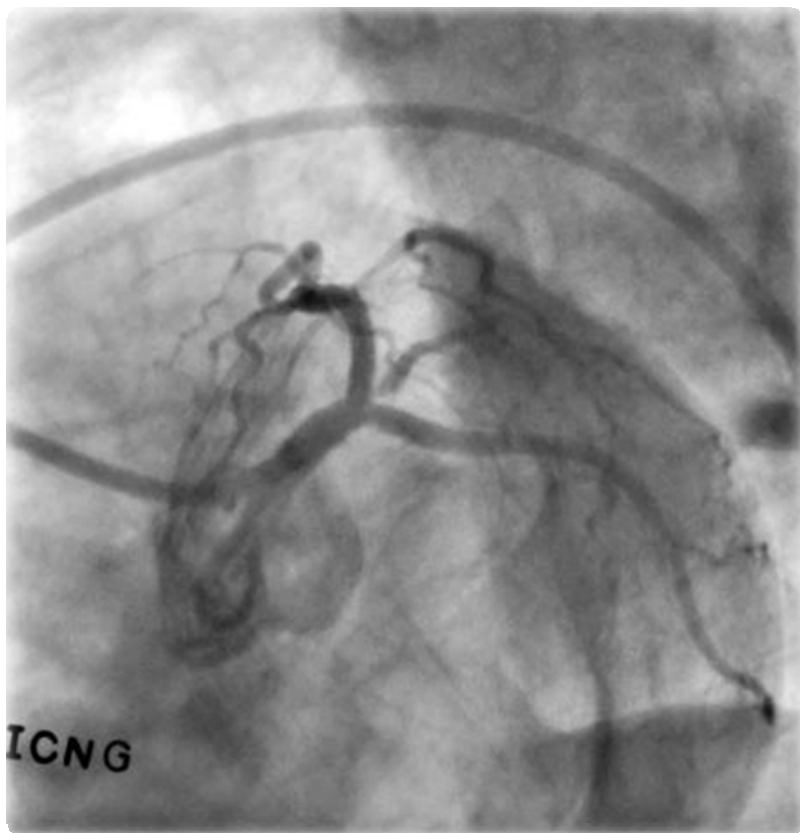












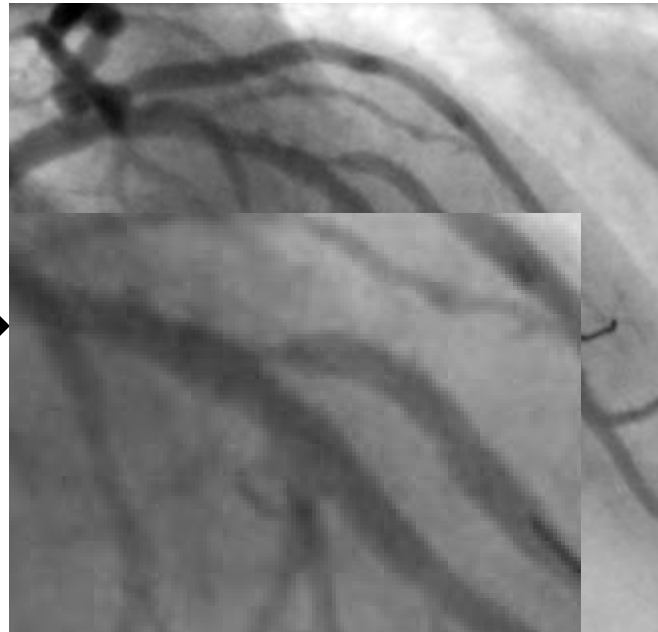
Functional Medina Classification?

0, 0, 0, 0

FFR in Bifurcation intervention



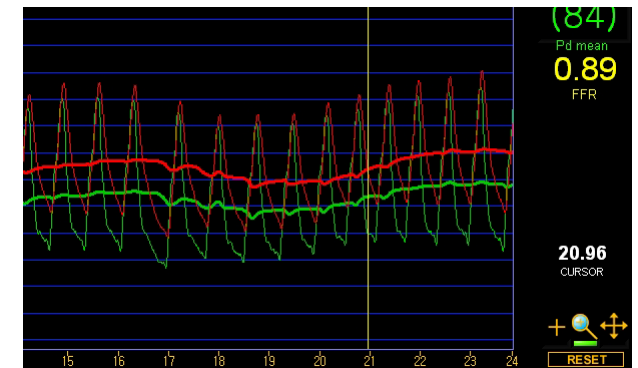
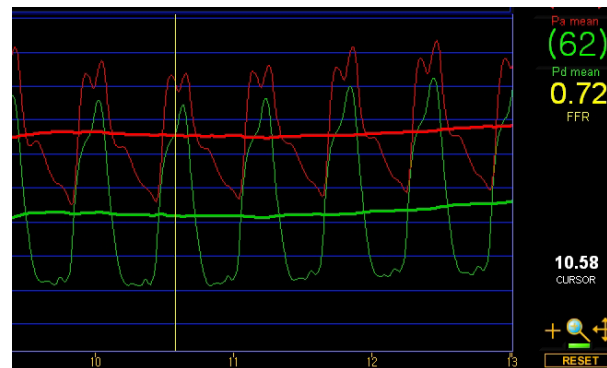
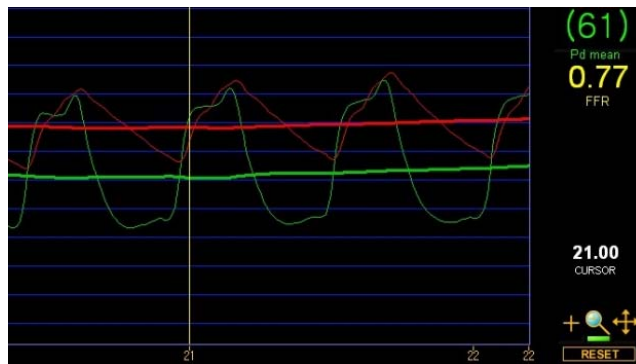
Before PCI



After MB stenting

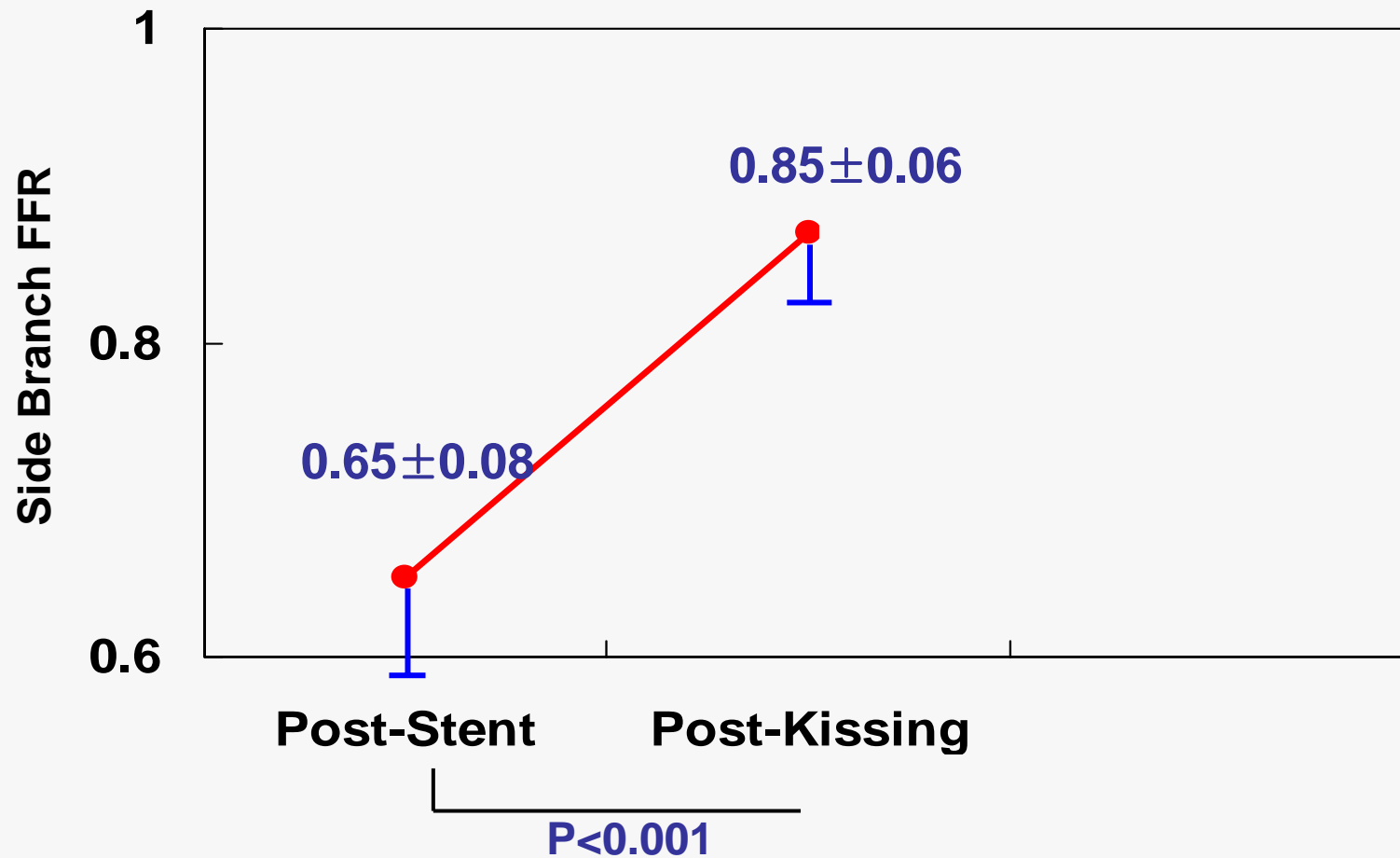


After kissing balloon



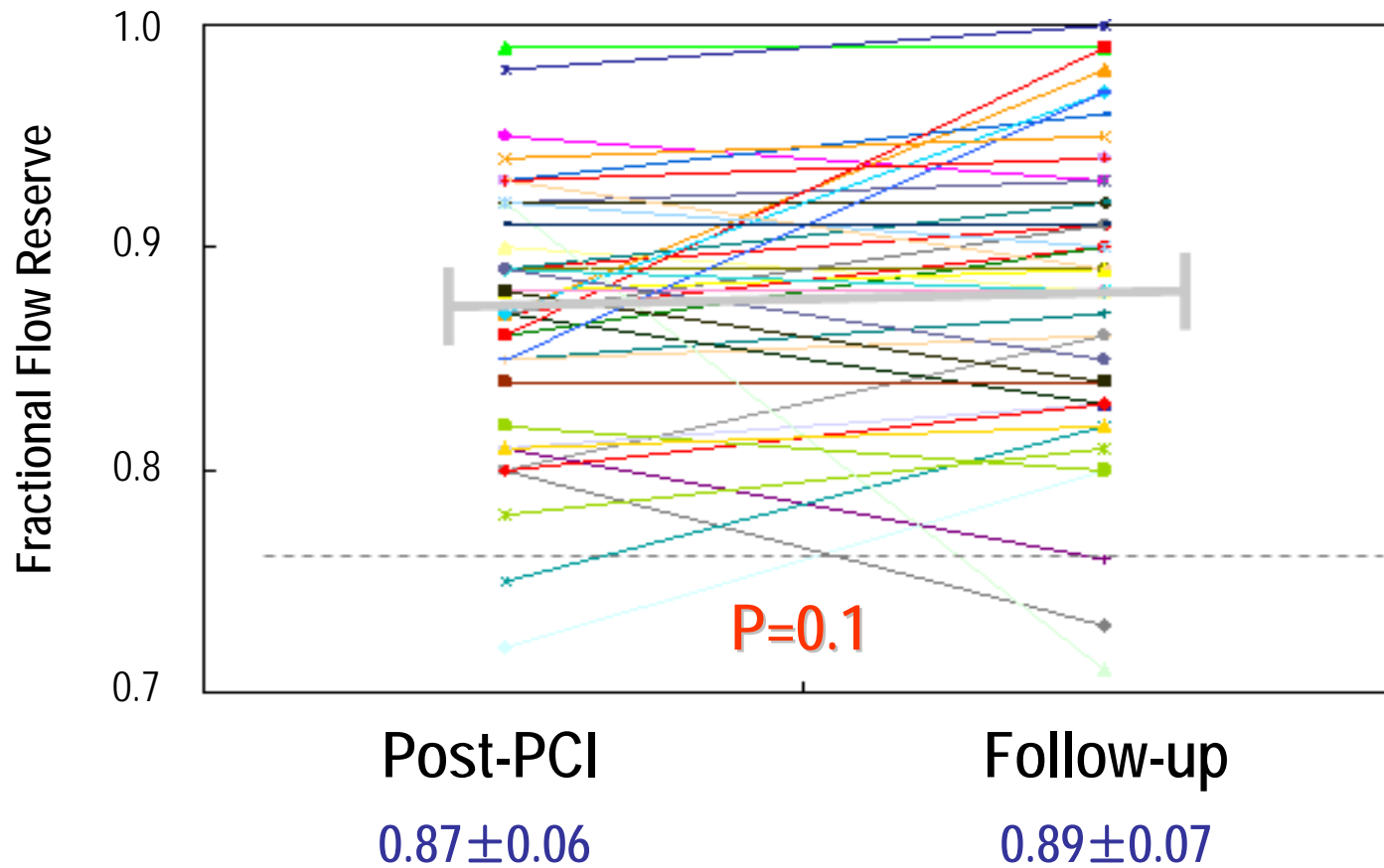
Changes of side branch FFR after kissing ballooning

(Side branch balloon/artery ratio: 0.85 ± 0.14)



Functional outcome of Jailed side branches

Not-treated jailed side branches



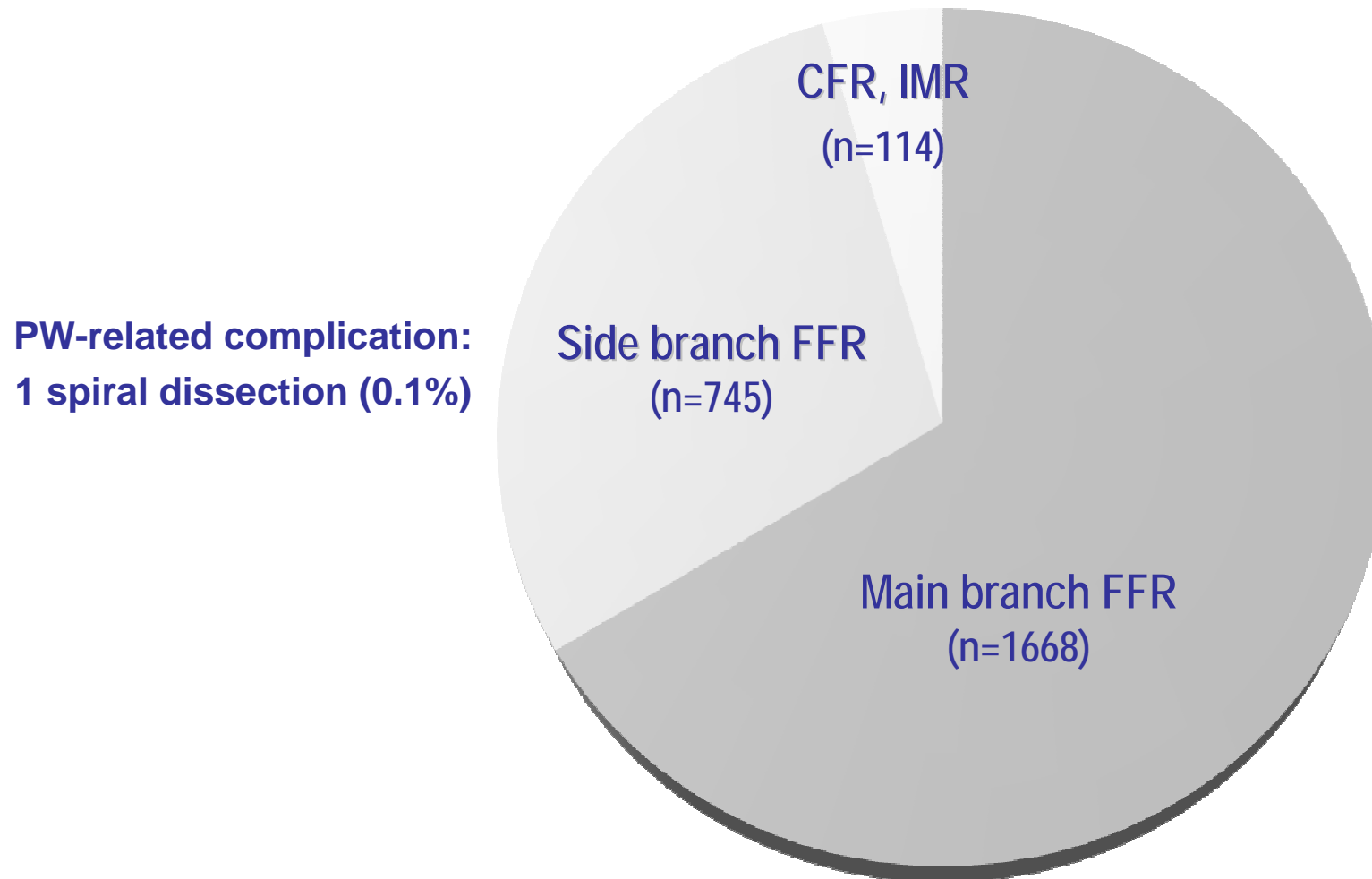
Koo BK, et al. Eur Heart J 2008

FFR in Bifurcation lesion

- Safe?
- Feasible?

Pressure wire in SNUH

Total measurement: 2,527 (2003-2009 Sep)



FFR in Bifurcation lesion

- FFR-guided PCI for bifurcation lesion is safe and feasible.
- FFR is helpful from the beginning to the “fine tuning” of PCI procedures in bifurcation lesions.