Jornadas SOLACI
Montevideo, URUGUAY

SOLACI

SOCIEDAD URUGUAYA DE CARDIOLOGIA

CardioSUC 2025
41º Congreso Uruguayo de Cardiología
El paciente en el corazón de cada decisión

51° Jornadas SOLACI

16ª Jornadas Cono Sur

Montevideo, Uruguay

Lesiones intermedias en TCI
¿Cómo valorarlas?

Leandro Lasave

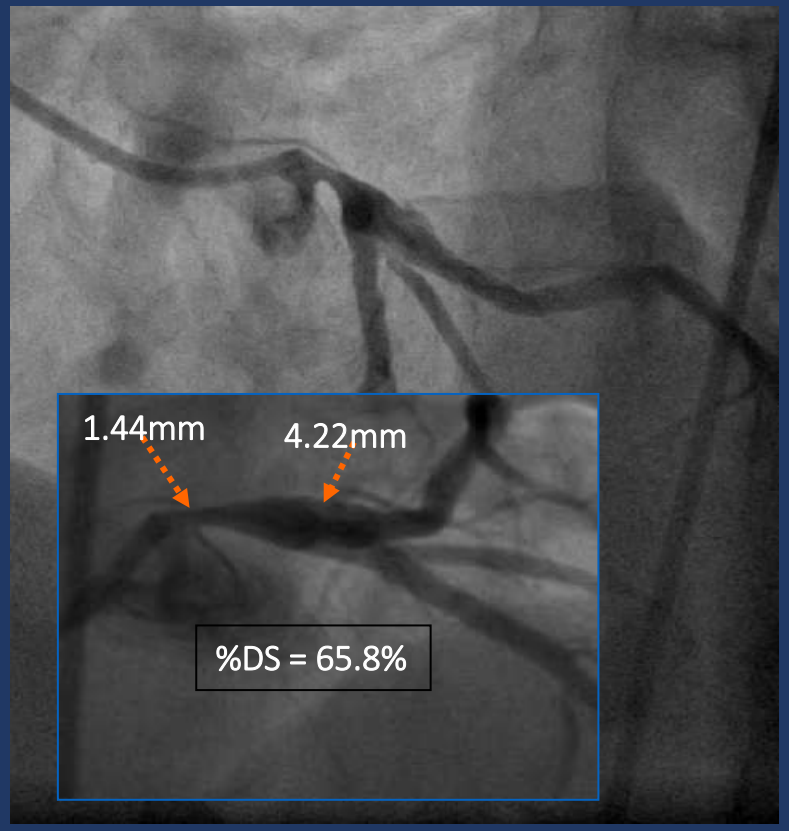
Hemodinamia Grupo Oroño

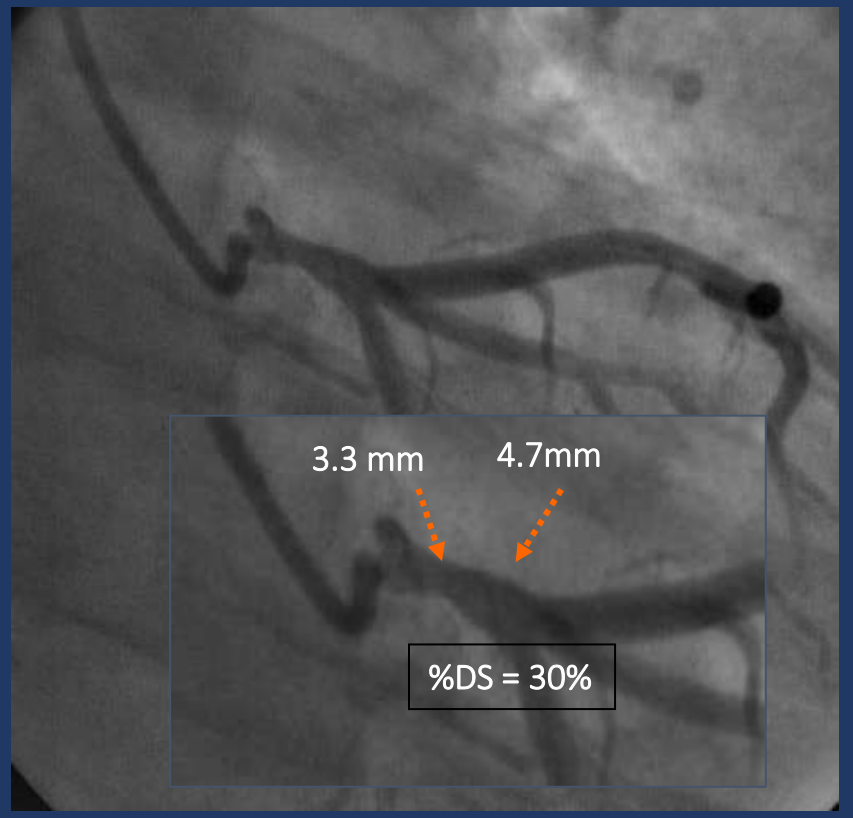
Instituto Cardiovascular de Rosario

Sanatorio Parque Rosario

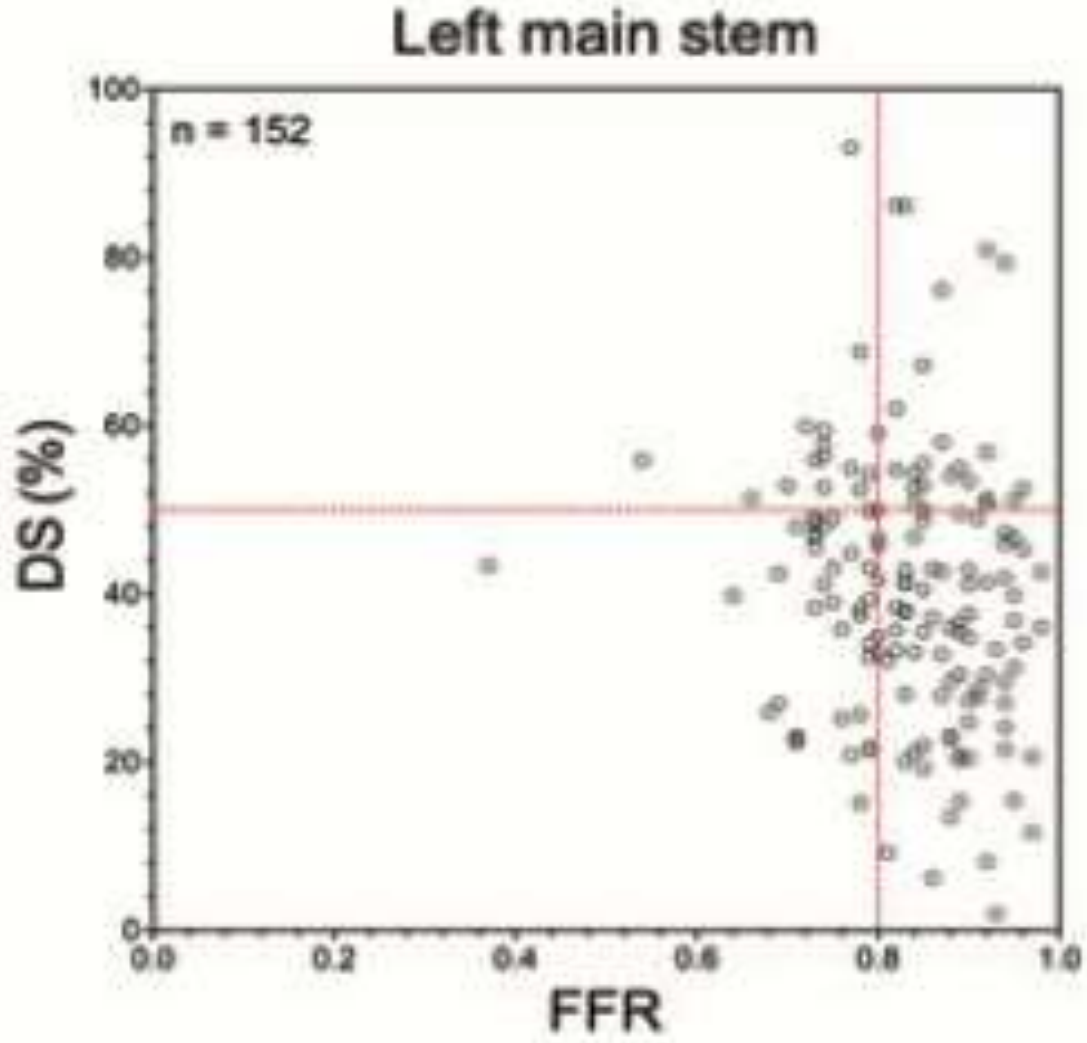
Director Curso Fellows ProEducar-SOLACI

Valoración de Lesiones Intermedias en TCI - Angiografía





Angiografía – Limitaciones: Mismatch



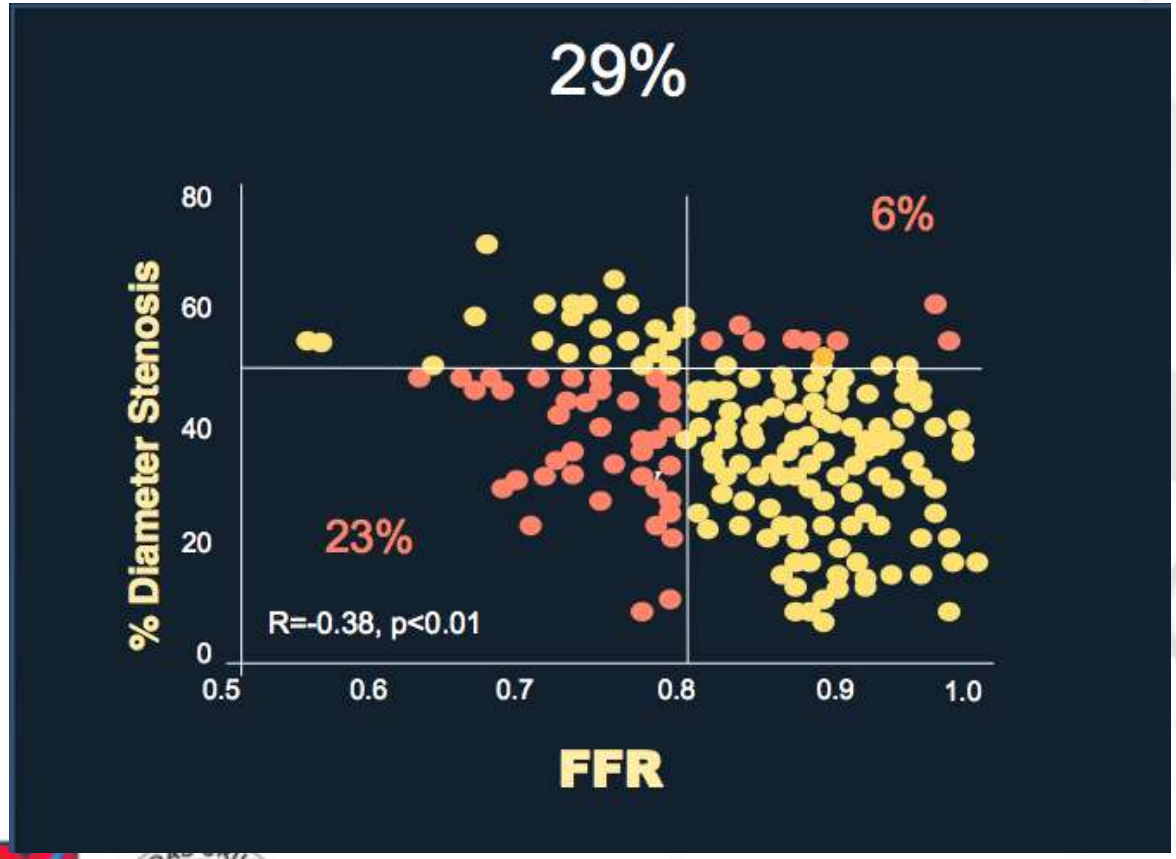
152 Pts. Lesiones TCI

Sensitivity:	35%
Specificity:	75.8%
Accuracy:	55%

Toth G, et al. Eu Heart J. 2014; 35, 2831–2838

Angiografía – Limitaciones: Mismatch

213 Ptes, Lesiones TCI



112 Pts, Ostium/Cuerpo

Hamilos M et al. Circulation. 2009;120:1505-1512

Park SJ et al. JACC Interv, 2014;7(8):868-874

Lesiones intermedias en TCI
¿Cómo valorarlas?

Herramientas intravasculares

Anatómicas: IVUS –OCT

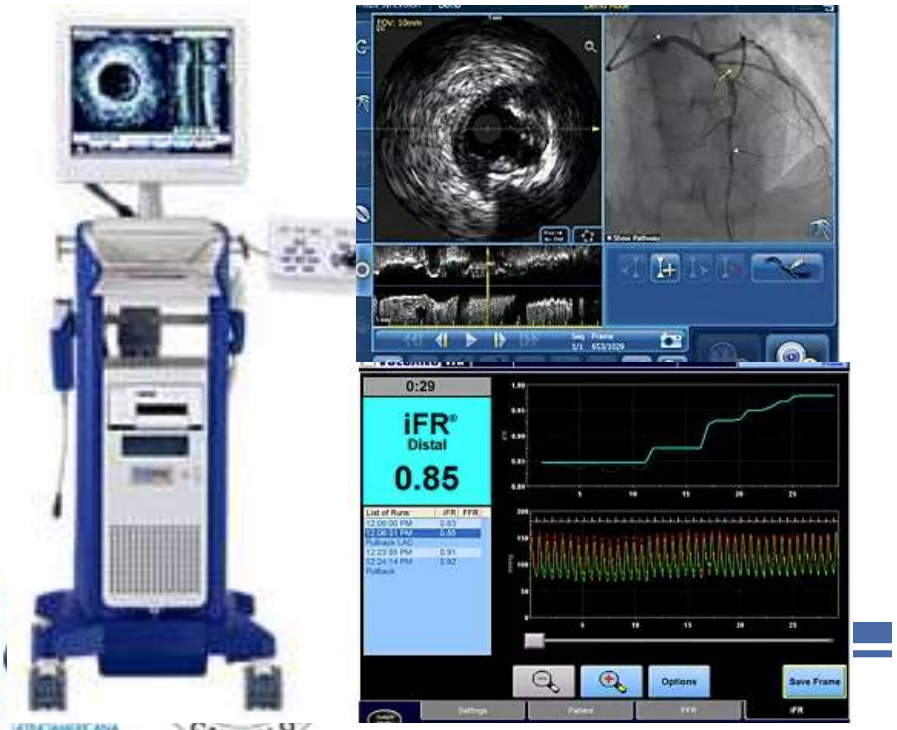
Fisiológicas: FFR- índices no hiperémicos (iFR/DFR/RFR)

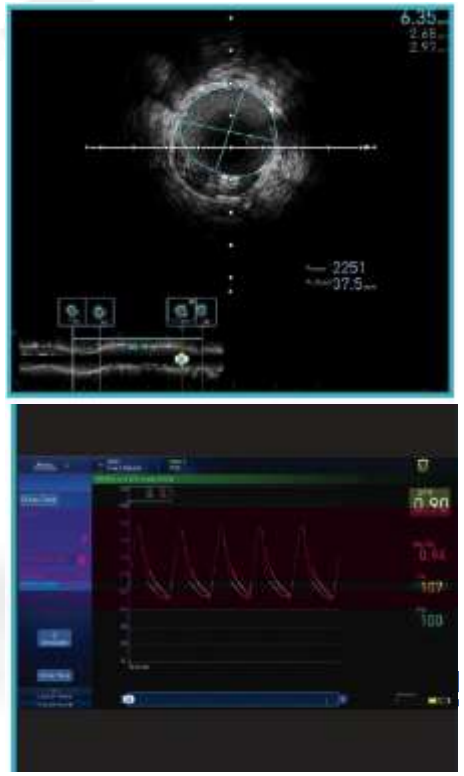
Herramientas Intravasculares – Sala Hemodinamia

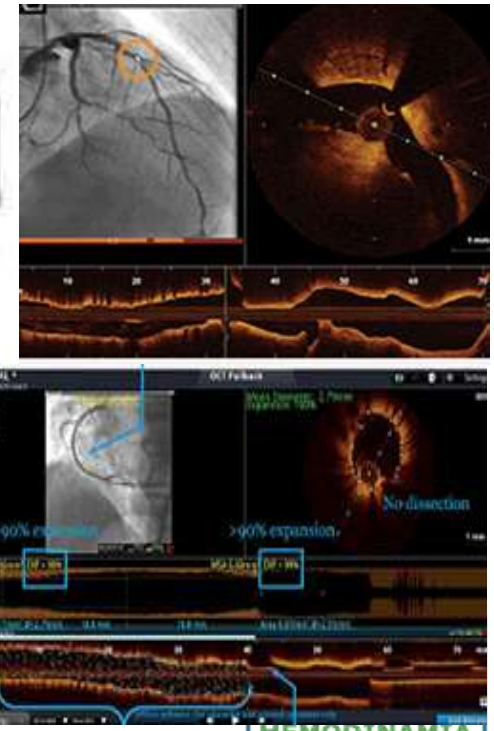
Philips:
Plataforma CORE
SyncVision y Corregistration
Cuerda VERRATA FFR - iFR
Cateter IVUS: Eagle Eye -Refinity

Boston SC:
Plataforma móvil AVVIGO
Sistema smFFR
Cuerda COMET II FFR - DFR
Cateter IVUS Opticross

Abbott:
Plataforma OPTIS
Corregistro OCT-Angio
Cuerda PressureWX FFR - RFR
Cateter OCT DragonFly



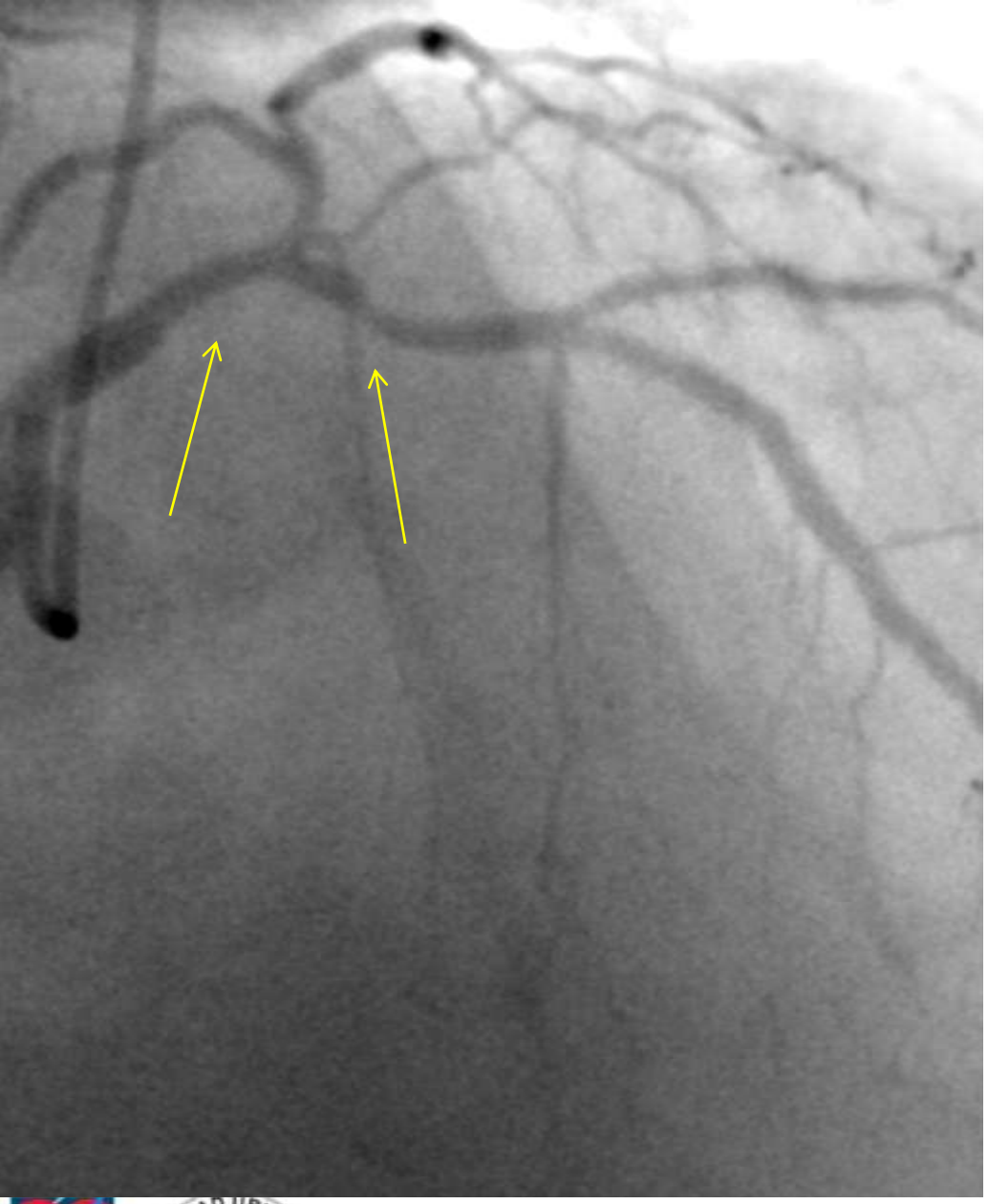




HEMODINAMIA
GRUPO OROÑO

Lesiones intermedias en TCI
¿Cómo valorarlas?

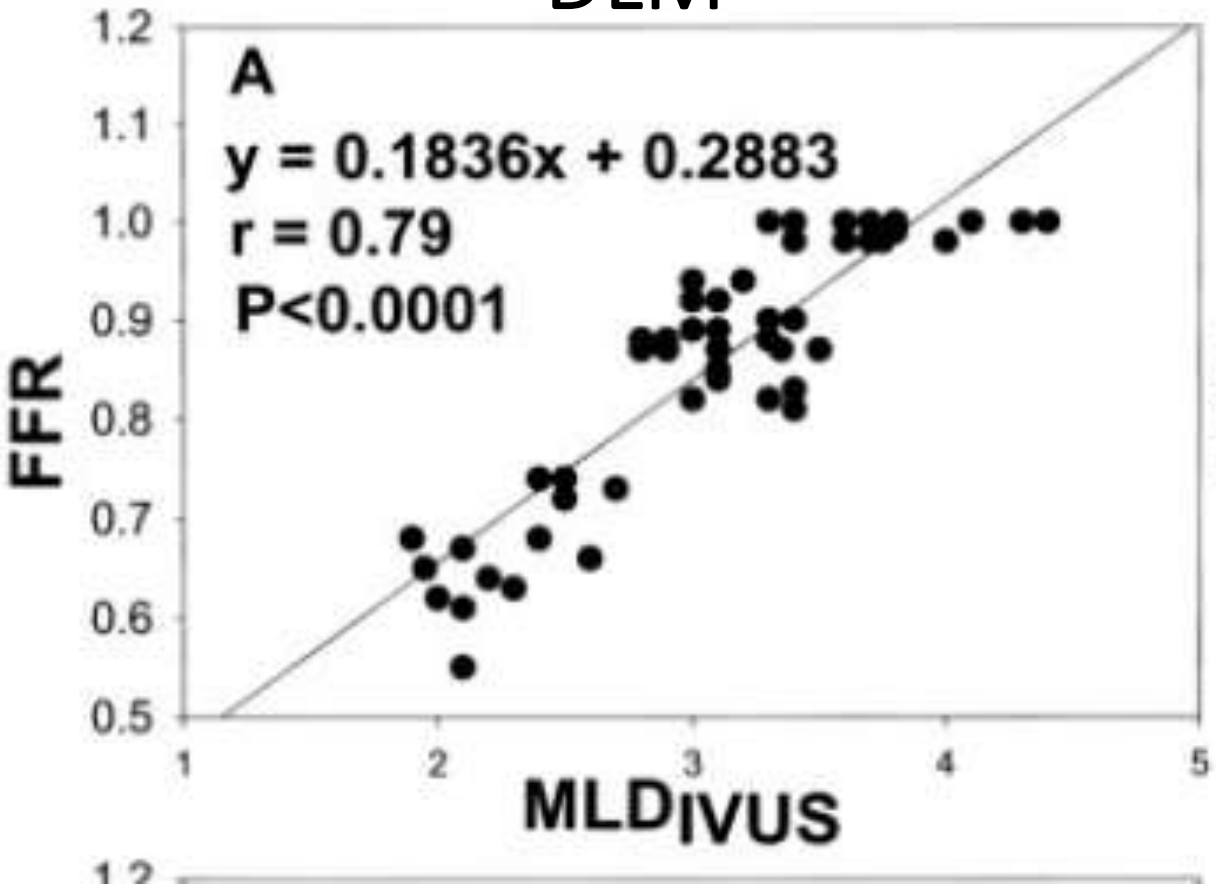
- Valoración anatómica



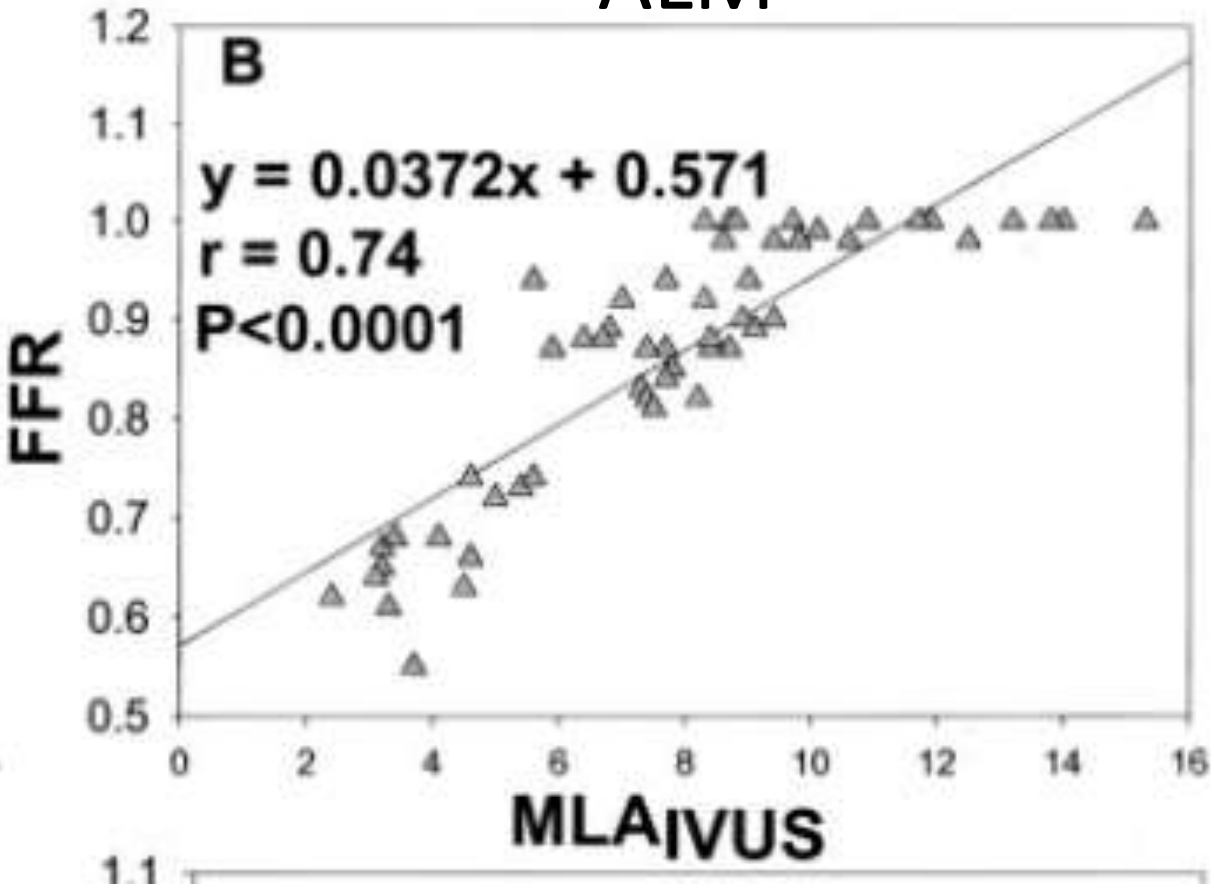
- IVUS
- OCT

Buena correlación entre IVUS y FFR en TCI

DLM



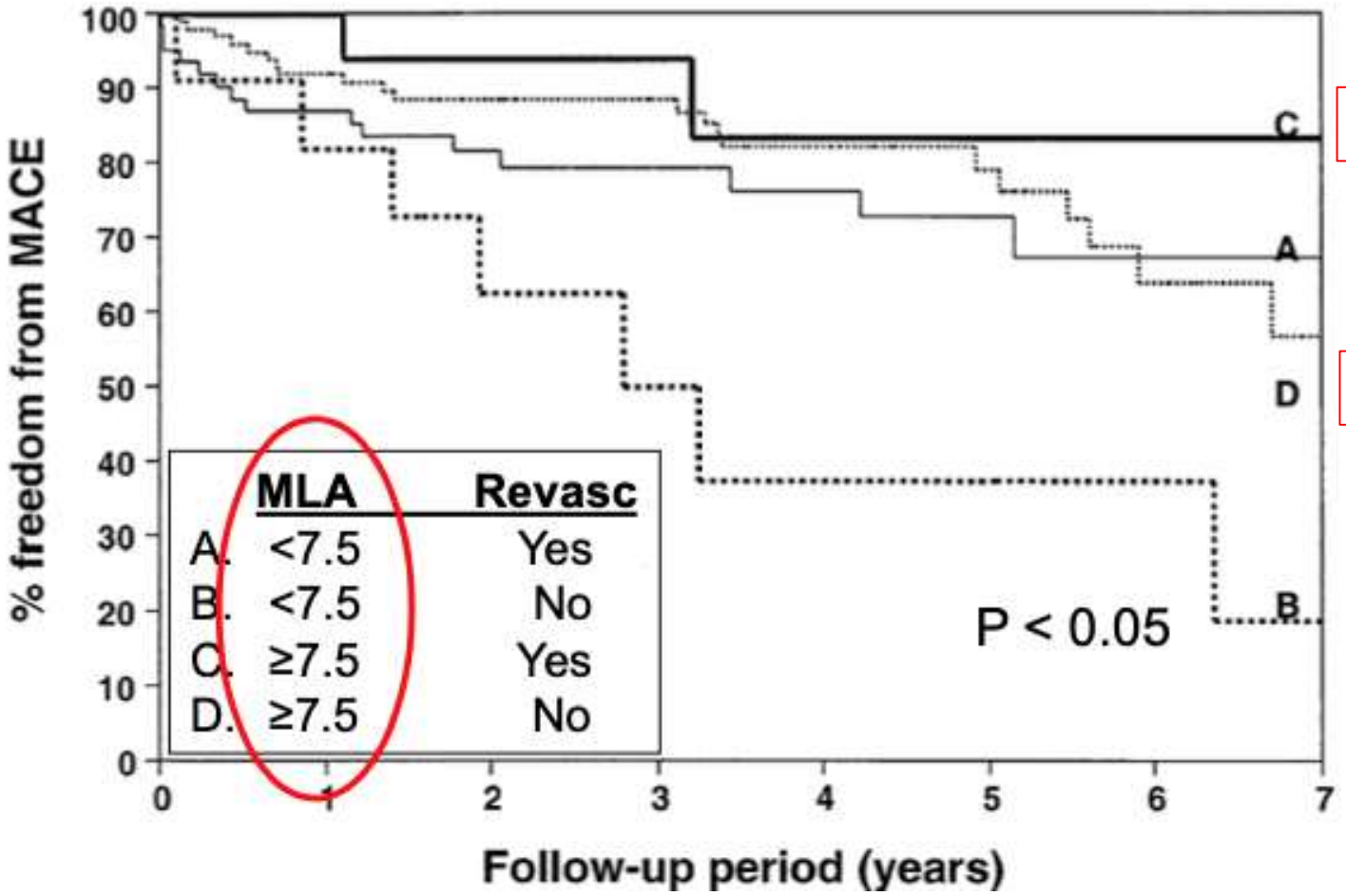
ALM



Venu Jasti et al: Circ 110:2831, 2004

Buena correlación entre IVUS y FFR en TCI

- 214 pacientes con Lesiones intermedias de TCI por IVUS. Punto de corte ALM 7.5 mm^2



>7.5 Revasc

<7.5 Revasc

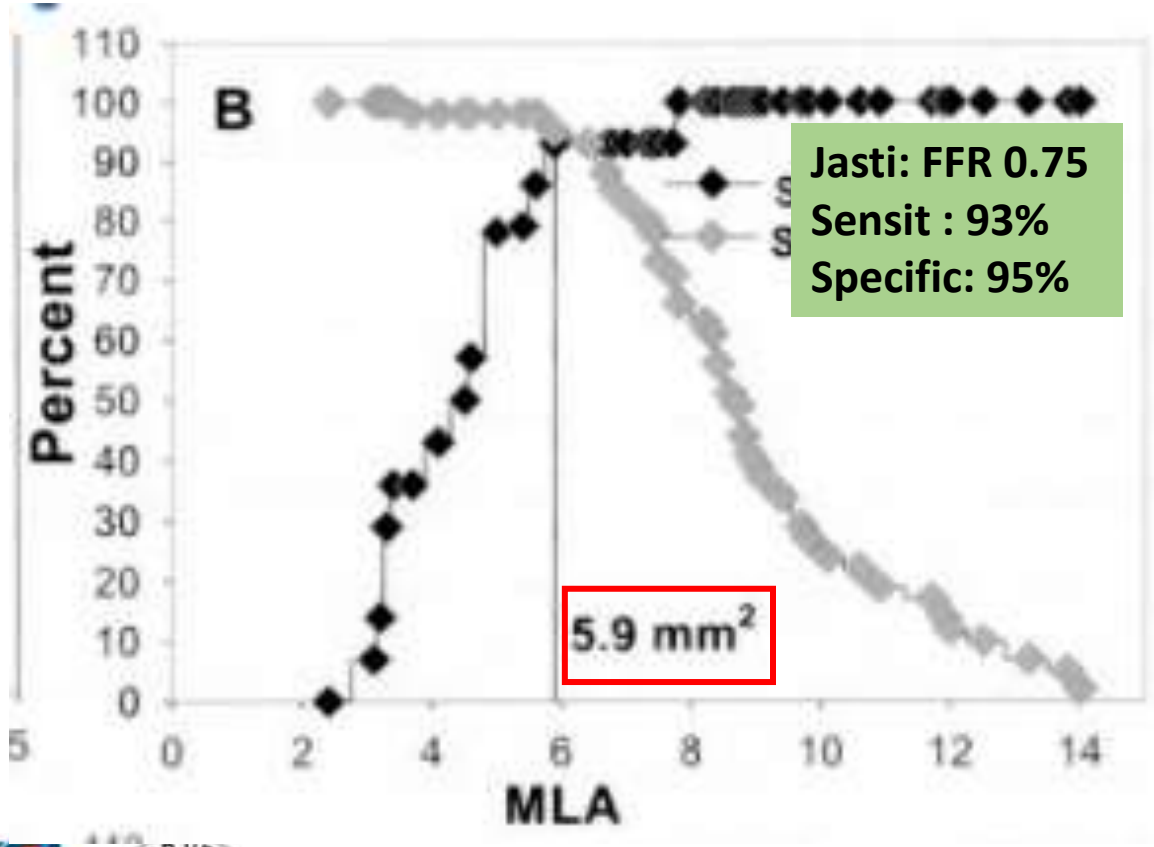
>7.5 NO revasc

<7.5 NO revasc

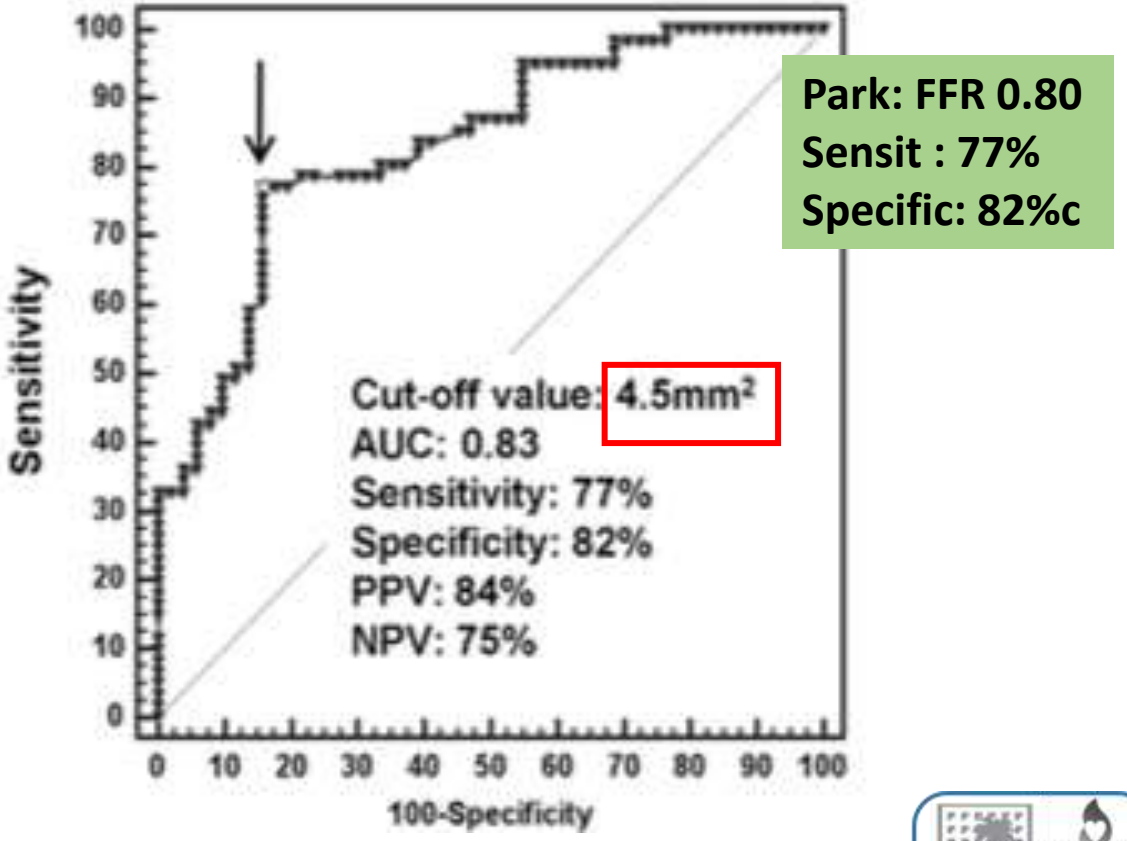
Fassa et al. J Am Coll Cardiol 2005;45:204-211

Puntos de Corte del ALM

MLA IVUS to predict FFR<0.75 in LM



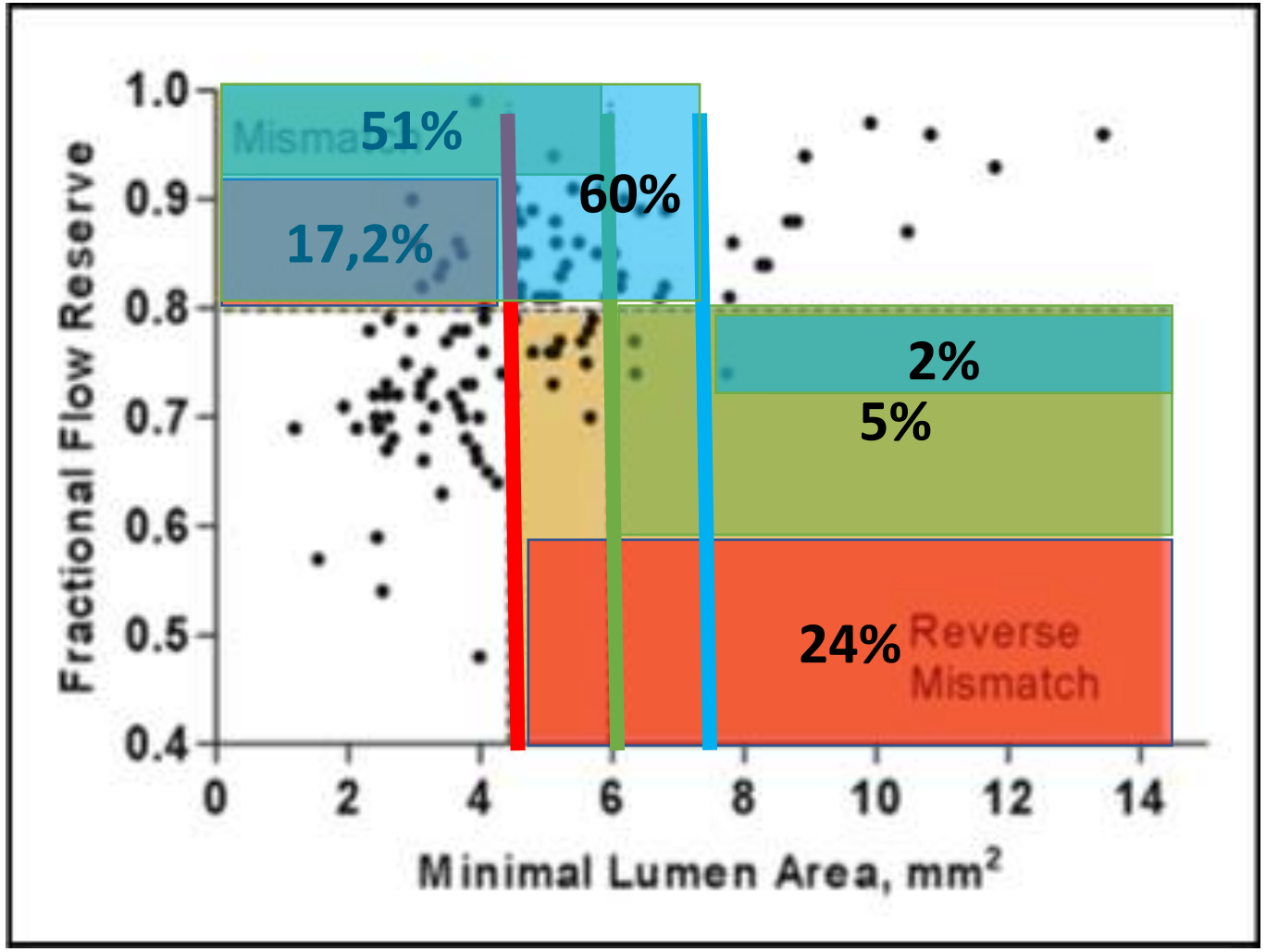
MLA IVUS to predict FFR<0.80 in LM



Jasti V et al: Circ 110:2831, 2004

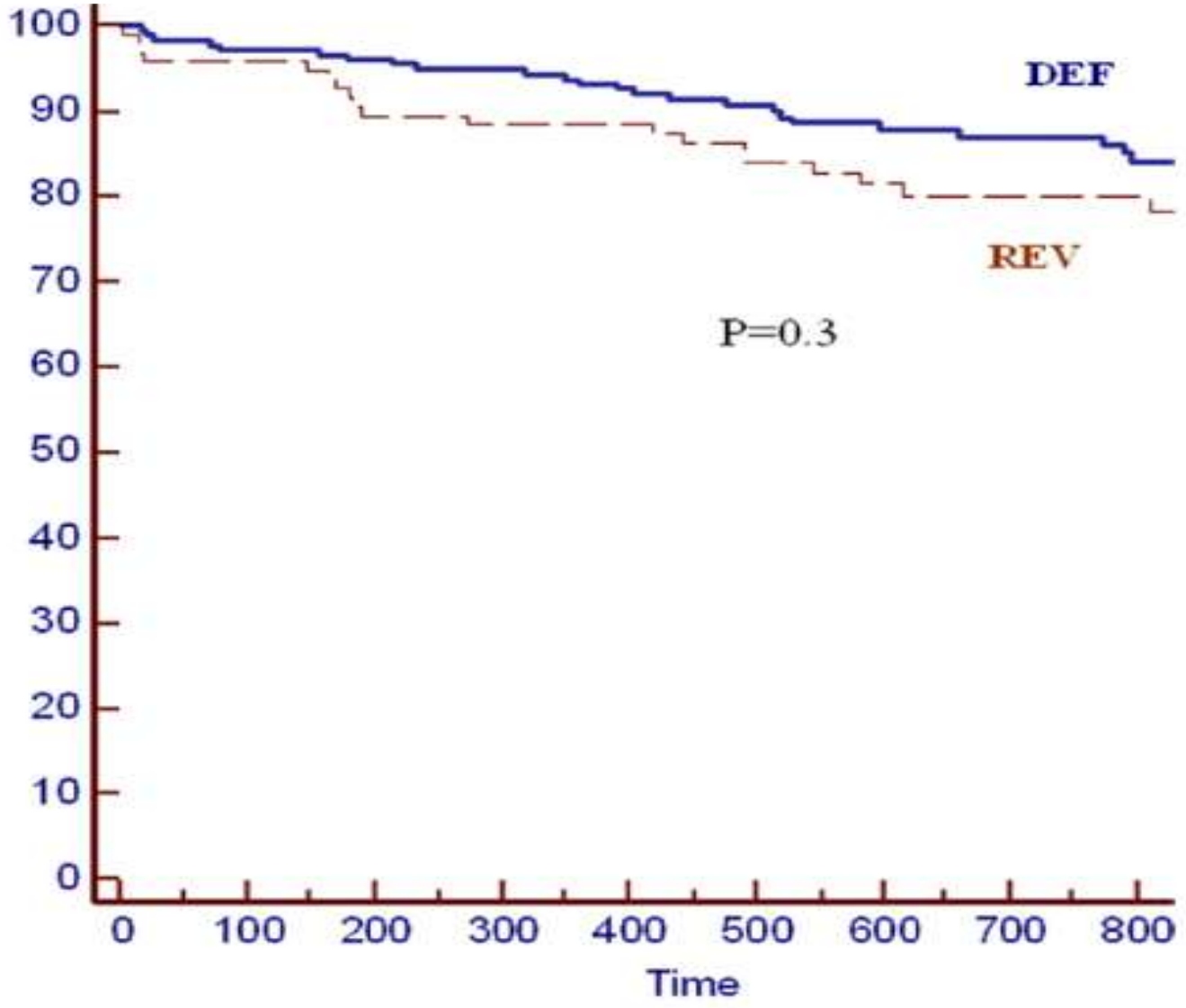
Park SJ et al. J Am Coll Cardiol Intv 2014;7:868–74

Puntos de Corte del ALM



Park SJ et al. J Am Coll Cardiol Intv 2014;7:868–74

Estudio LITRO – ALM 6mm^2

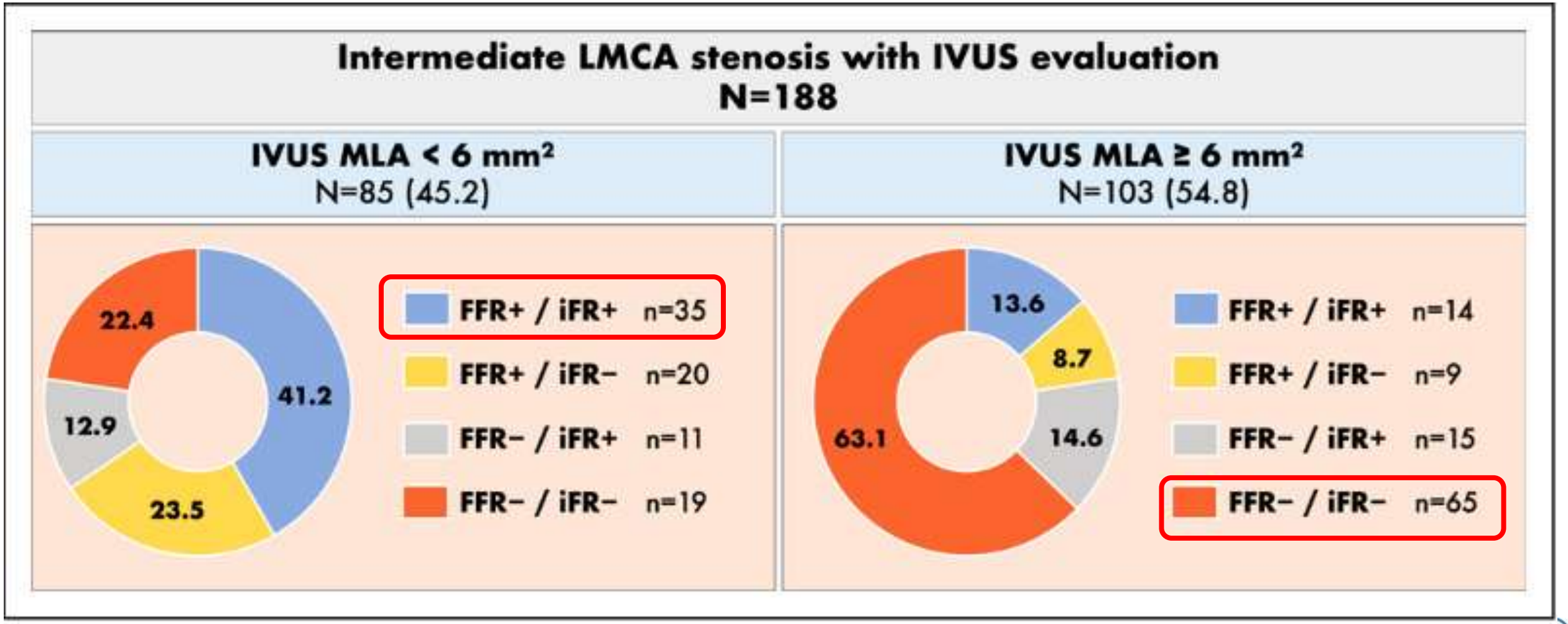


MLA > 6mm^2

MLA < 6mm^2

De La Torre Hernandez et al. JACC 2011; 58:351-8

Estudio iLITRO – iFR/FFR & IVUS en TCI



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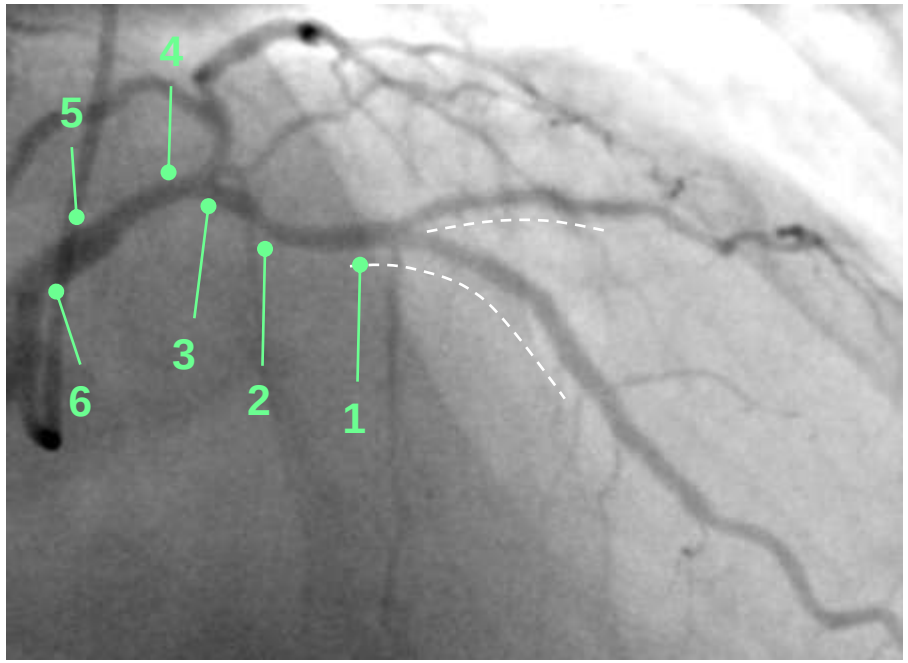
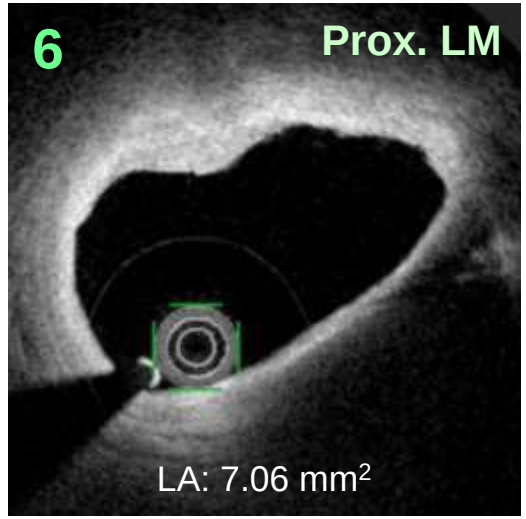
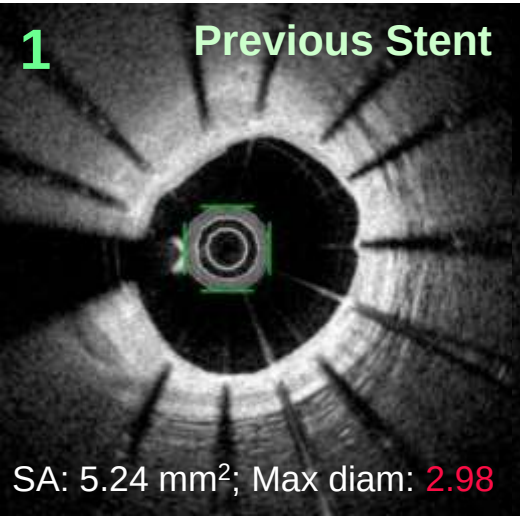
LM – MLA mm^2

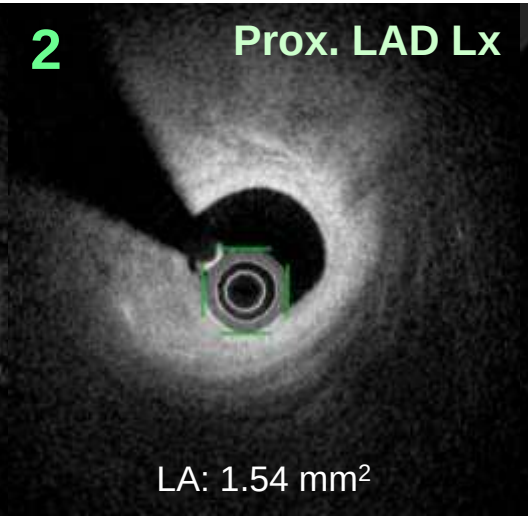
IVUS - OCT

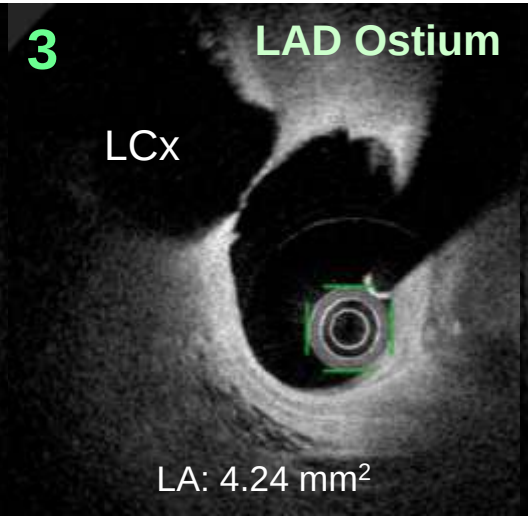
TCI – DA - OFDI Assessment

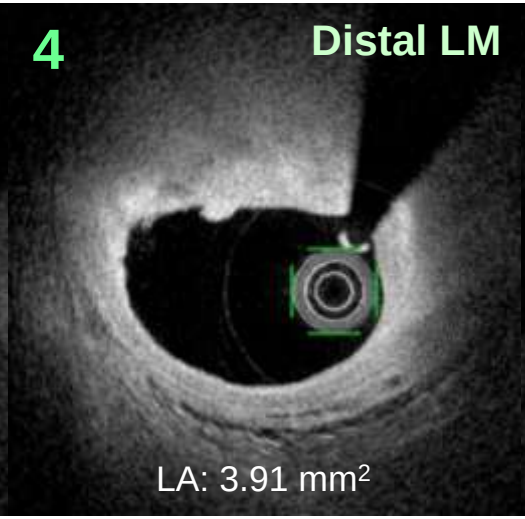


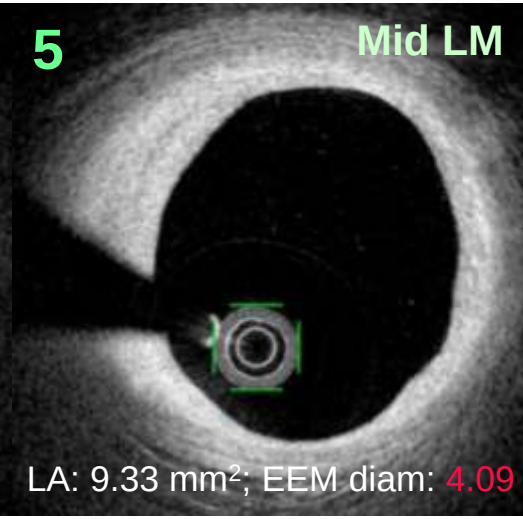




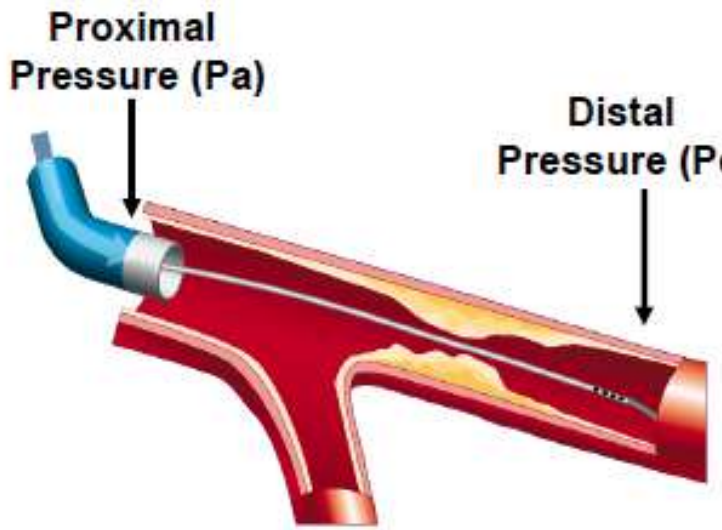




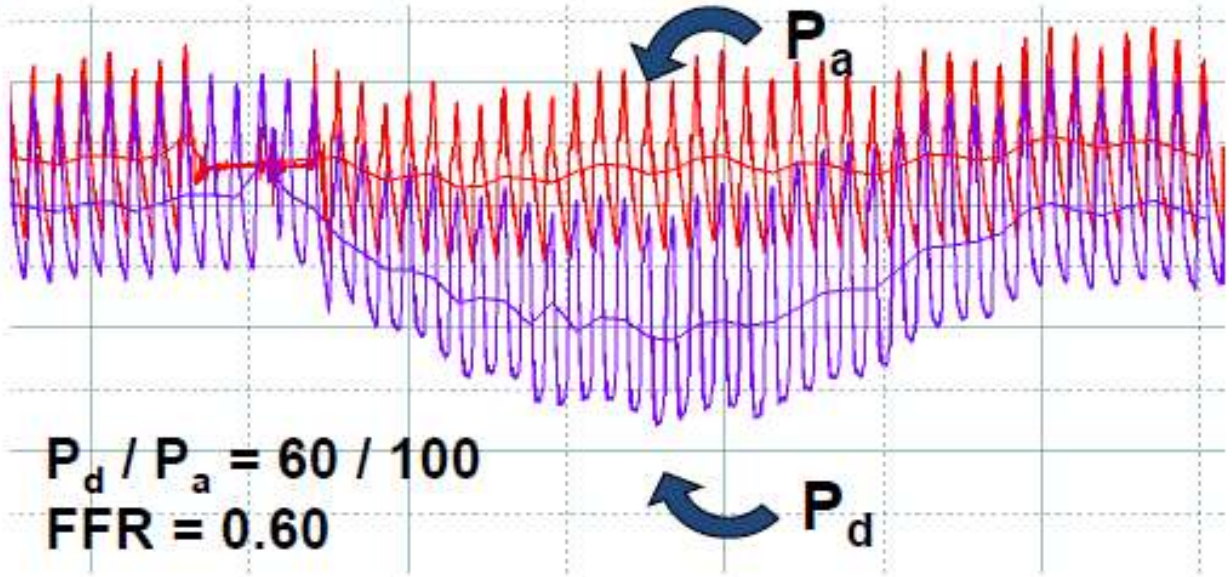




Fisiología: Gold Standard para detectar isquemia



$FFR = P_d / P_a$
during maximal flow



Recomendaciones índices fisiológicos invasivos

Recommendations on functional testing and intravascular imaging for lesion assessment

Recommendations	Class[a]	Level[b]
When evidence of ischaemia is not available, FFR or iwFR are recommended to assess the haemodynamic relevance of intermediate-grade stenosis.[15,17,18,39]	I	A
FFR-guided PCI should be considered in patients with multivessel disease undergoing PCI.[29,31]	IIa	B
IVUS should be considered to assess the severity of unprotected left main lesions.[35–37]	IIa	B

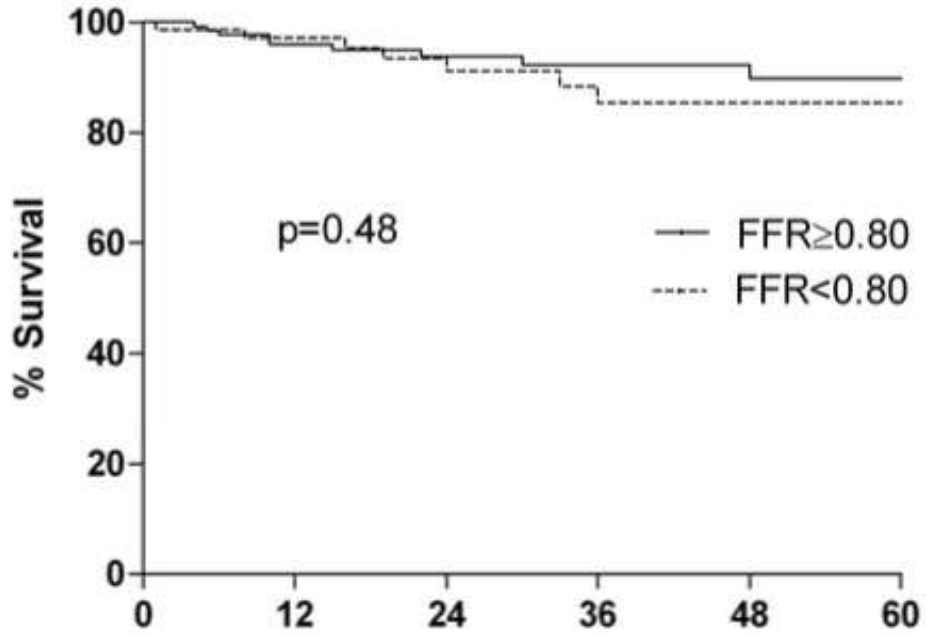
ESC 2018

Recommendations	Class[a]	Level[b]
When ICA is indicated, radial artery access is recommended as the preferred access site.[327–330]	I	A
When ICA is indicated, it is recommended to have coronary pressure assessment available and to use it to evaluate the functional severity of intermediate non-left main stem stenoses[c] prior to revascularization.[49,195,308,313,321,322,325,331–333]	I	A
Invasive coronary angiog… Ir a la página 100 …ded to		
When ICA is indicated, measurement of FFR/iFR should be considered to evaluate the functional severity of intermediate left main stem stenoses[c] prior to revascularization.[331,334,335]	IIa	A
When ICA is indicated, IVUS should be considered to evaluate the severity of intermediate stenoses of left main stem[c] prior to revascularization.[336,337]	IIa	B
should be considered to evaluate the functional severity of intermediate left main stem stenoses[c] prior to revascularization.[331,334,335]	IIa	A
When ICA is indicated, IVUS should be considered to evaluate the severity of intermediate stenoses of left main stem[c] prior to revascularization.[336,337]	IIa	B

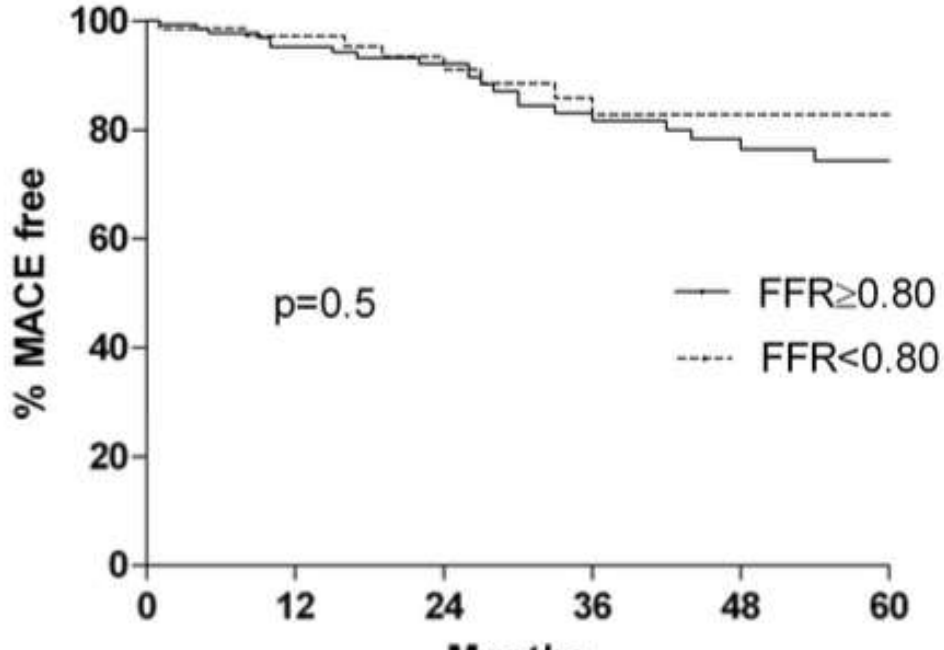
ESC 2024

Lesiones intermedias TCI - FFR

-213 pts. FFR > 0.8 Diferidos – FFR < 0.8 Revascularizados



No at risk						
FFR≥0.80	136	103	72	52	38	26
FFR<0.80	73	56	41	30	14	10

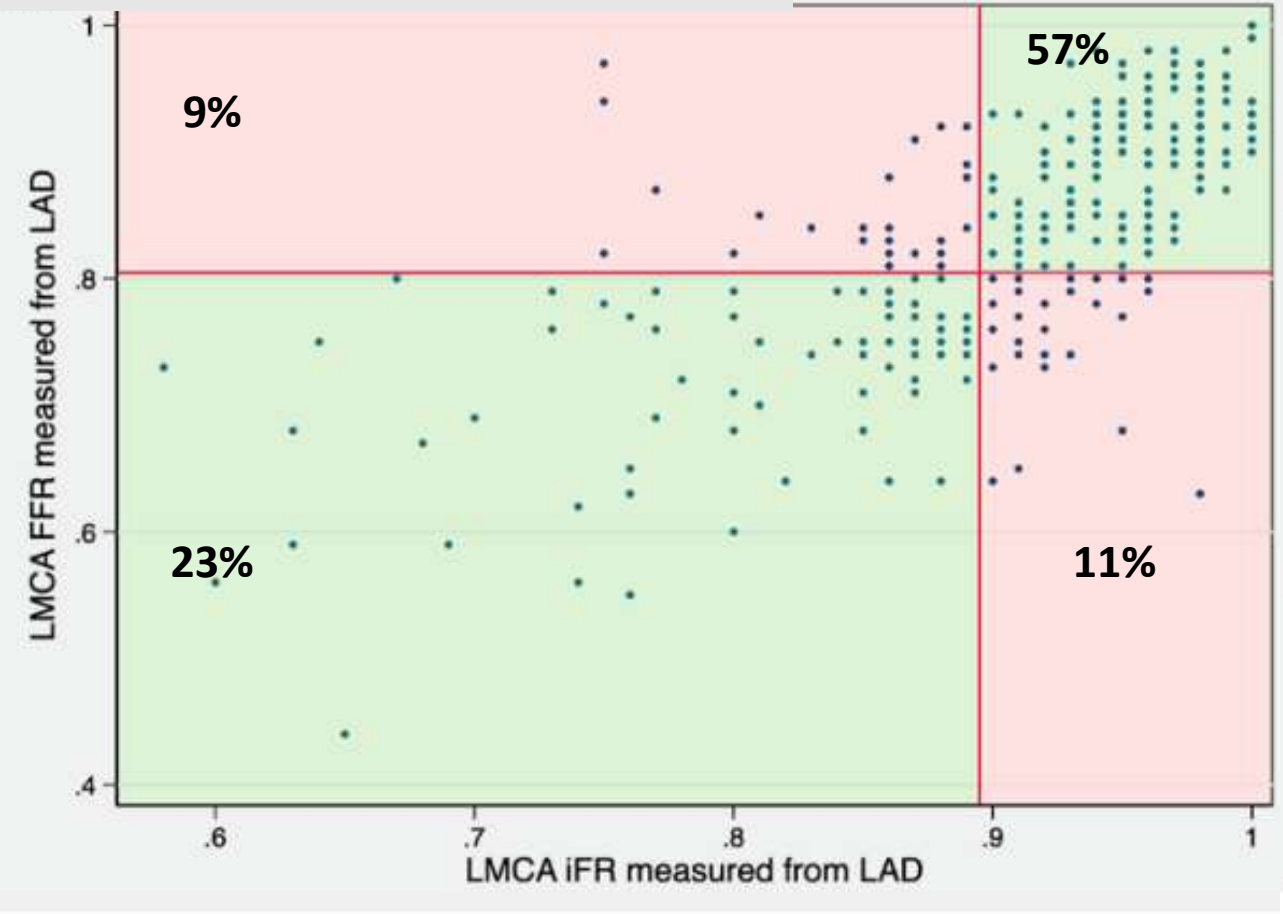


No at risk						
FFR≥0.80	136	106	77	57	42	30
FFR<0.80	73	56	40	29	15	10

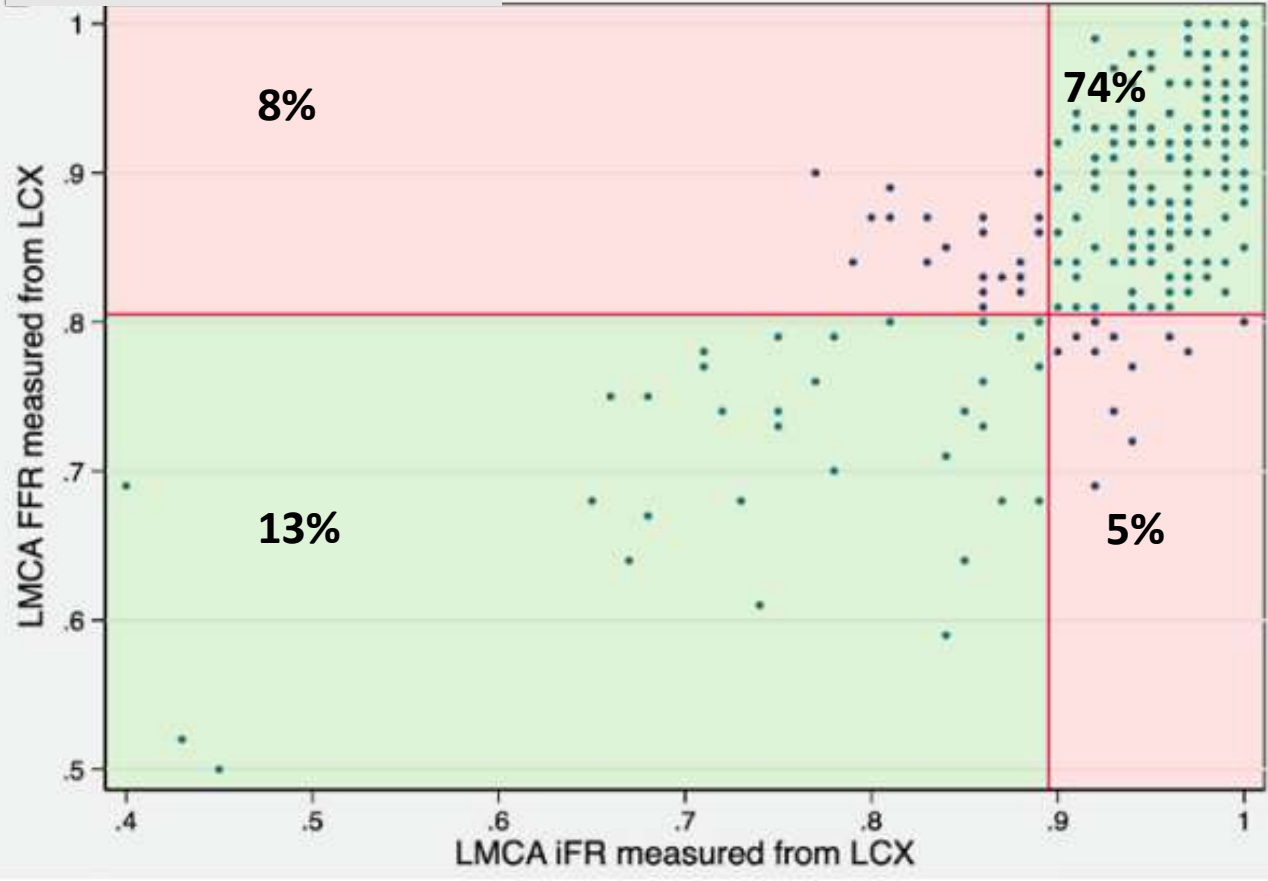
Hamilos, et al. Circulation 2009;120:1505

Estudio iLITRO –Comparación iFR vs FFR en TCI

Desde Descendente Anterior



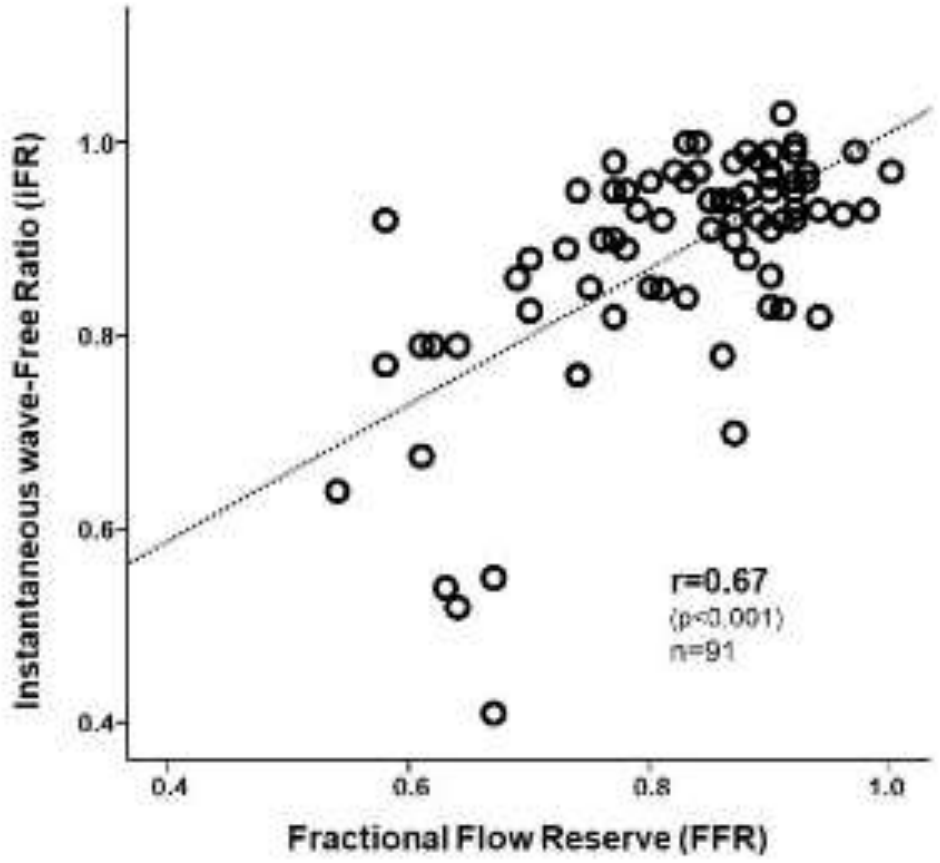
Desde Circunfleja



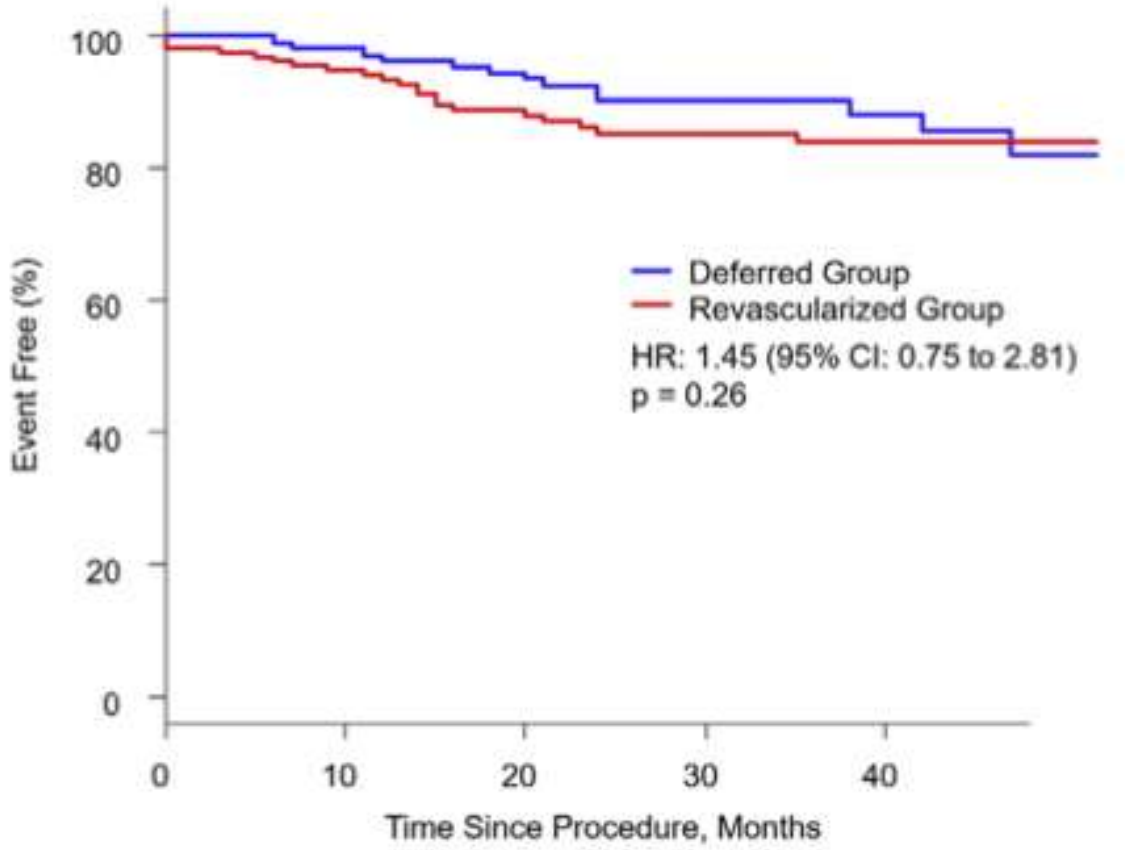
The iLITRO-EPIC07 Study. Circ Cardiovasc Interv. 2022

Evaluación Funcional en TCI – FFR/iFR

Correlación entre FFR y iFR en TCI



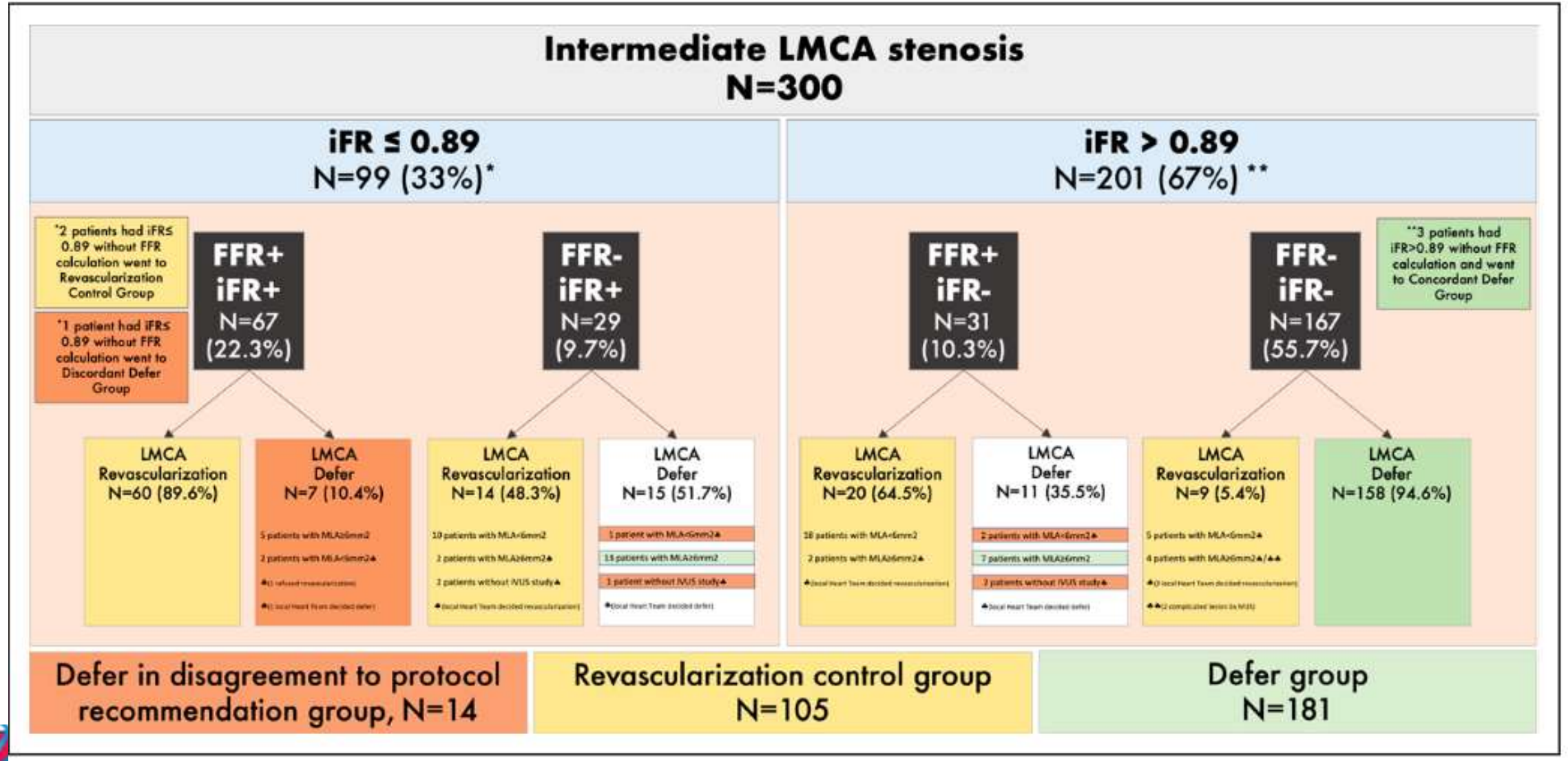
Diferidos por iFR> 0.89



De la Rosa et al. J. Clin. Med. **2019**, *8*, 1143

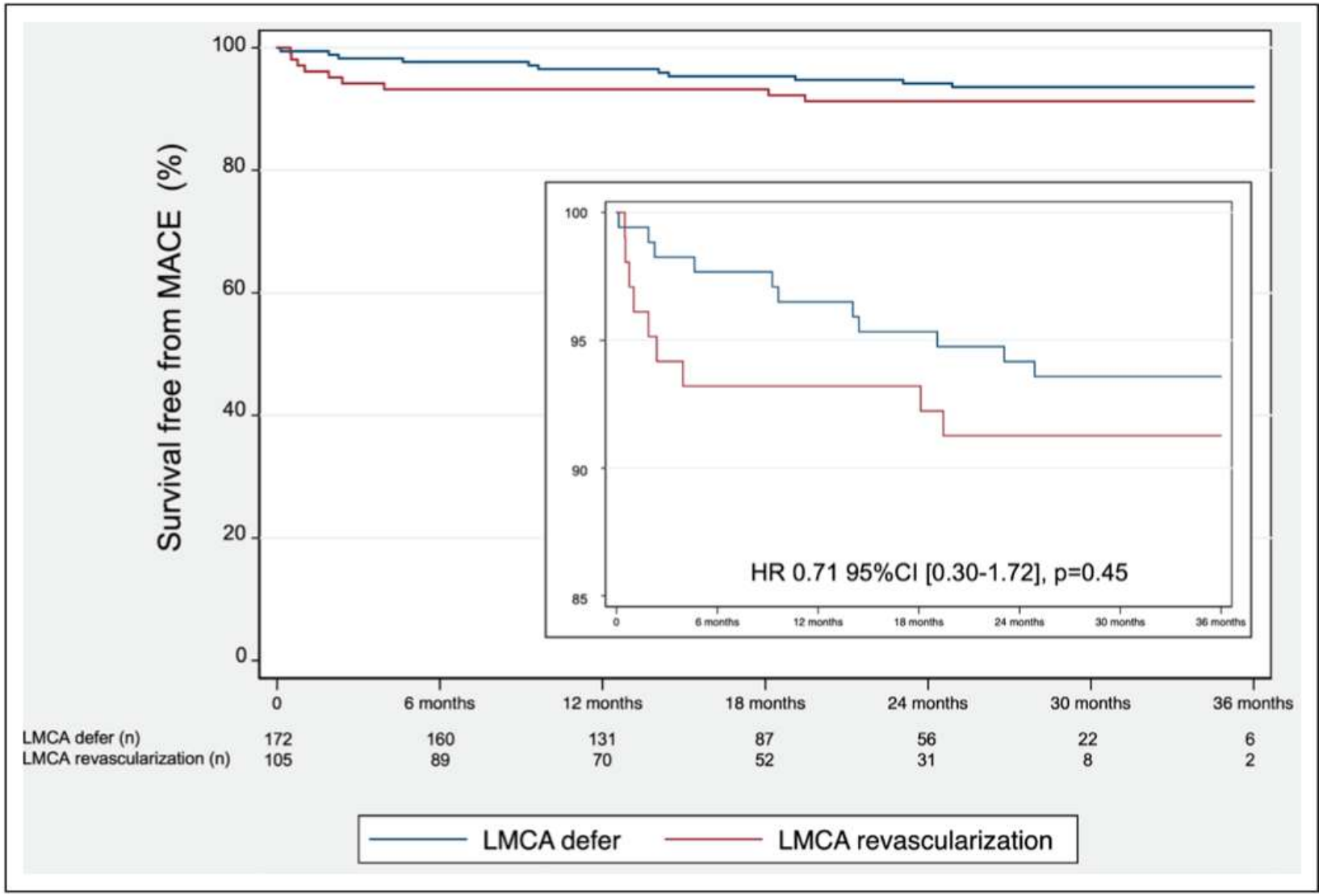
Morikawa T, et alJ Am Coll Cardiol Intv 2020;13:1655–64

Estudio iLITRO – iFR/FFR/IVUS en TCI



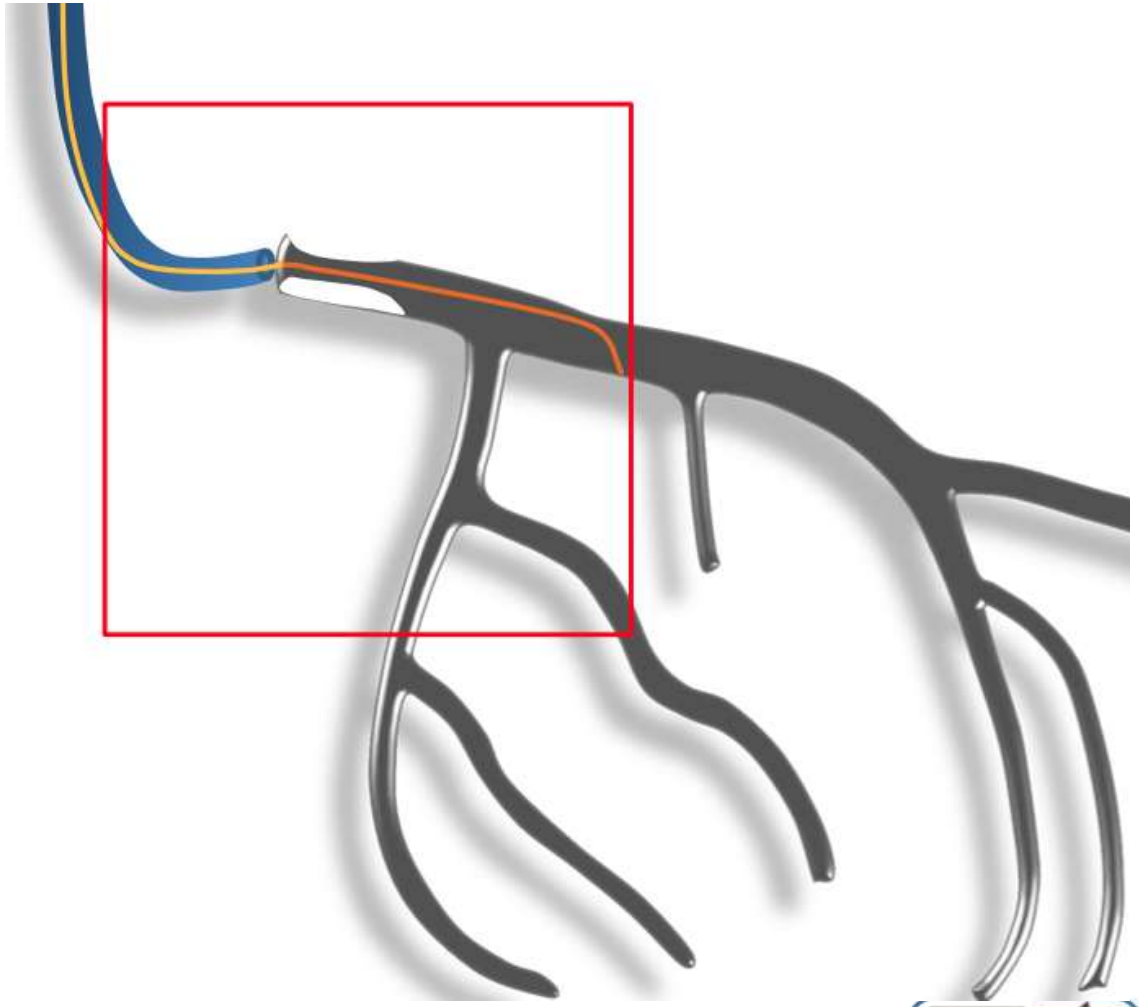
The iLITRO-EPIC07 Study. Circ Cardiovasc Interv. 2022

Estudio iLITRO – Tratamiento guiado por iFR/FFR



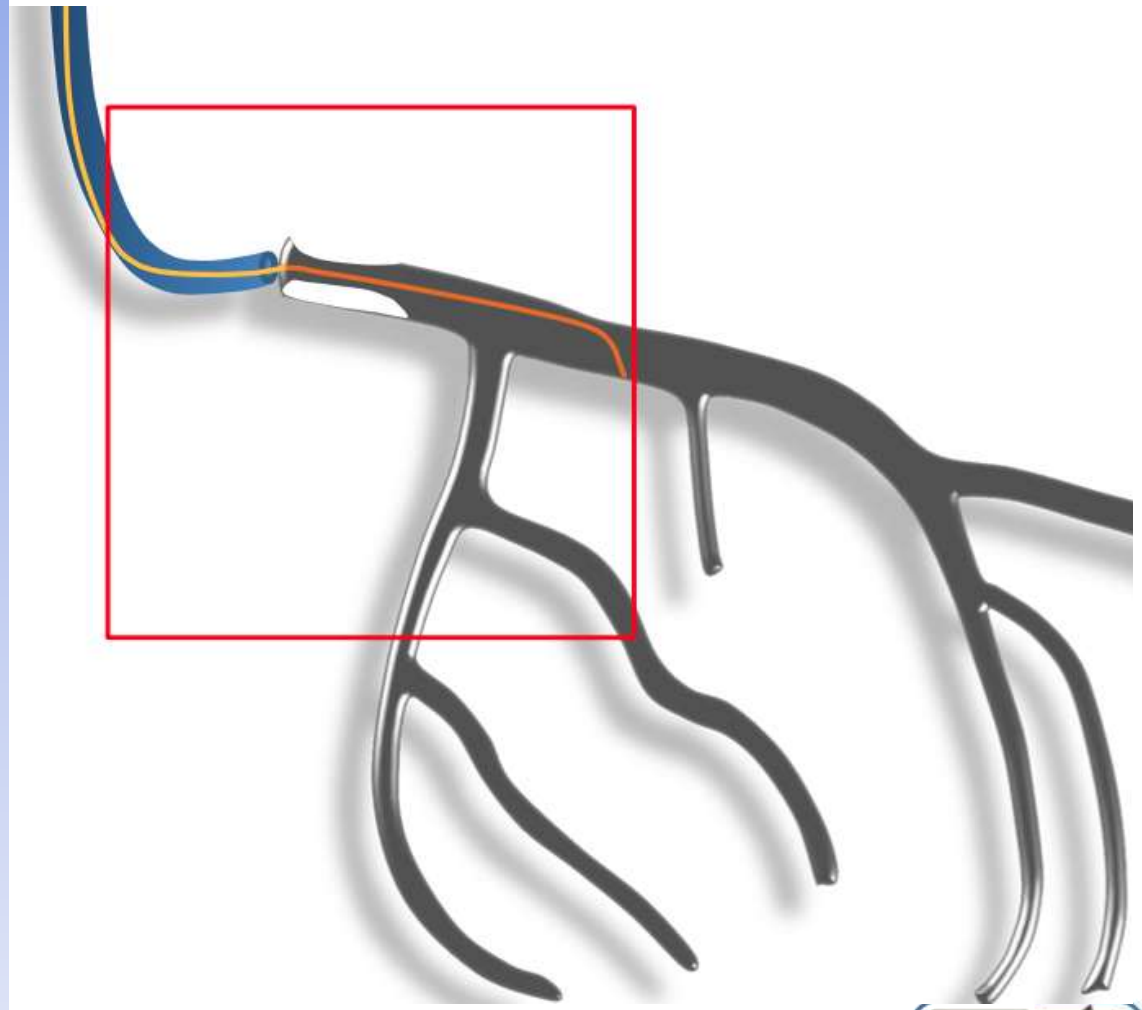
The iLITRO-EPIC07 Study. Circ Cardiovasc Interv. 2022

Consideraciones técnicas– FFR/iFR

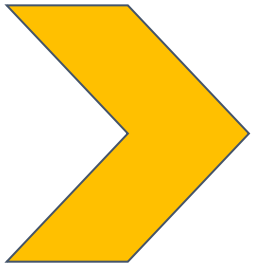


Consideraciones técnicas– FFR/iFR

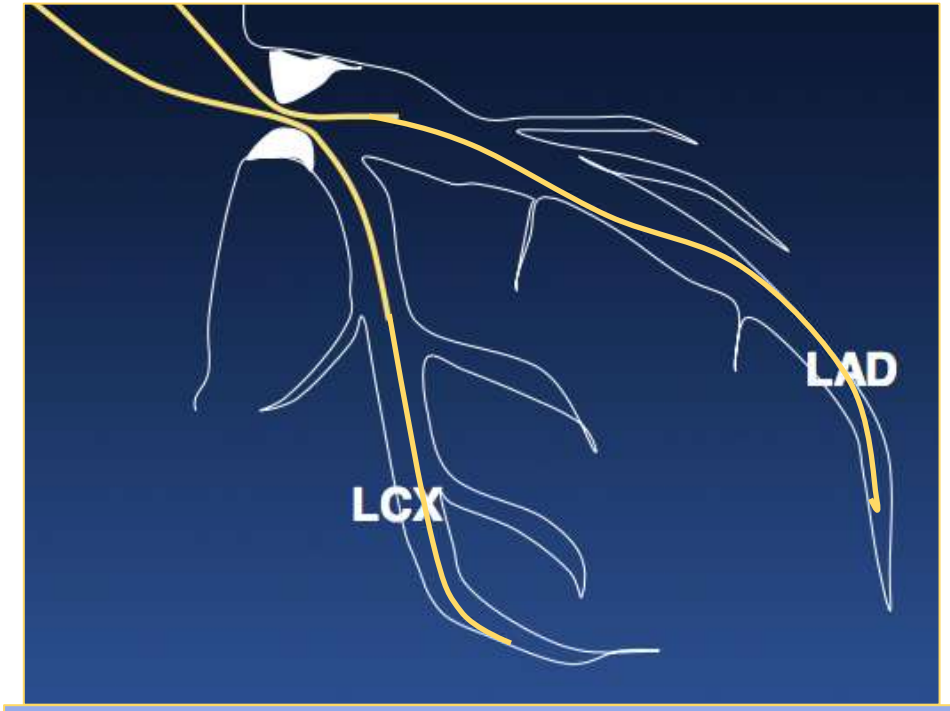
1. Realizar el Cero de la presión aórtica y la ecualización de la guía con el catéter “flotando” en la aorta
2. Se recomiendan los no hiperémicos, pero de usar FFR, la Adenosina debe ser administrada IV y no en bolo IC
3. Desenganchar el catéter del ostium luego de la hiperemia para evitar el “dampeo de presiones”
4. Se recomienda realizar Pullback desde DA y CX

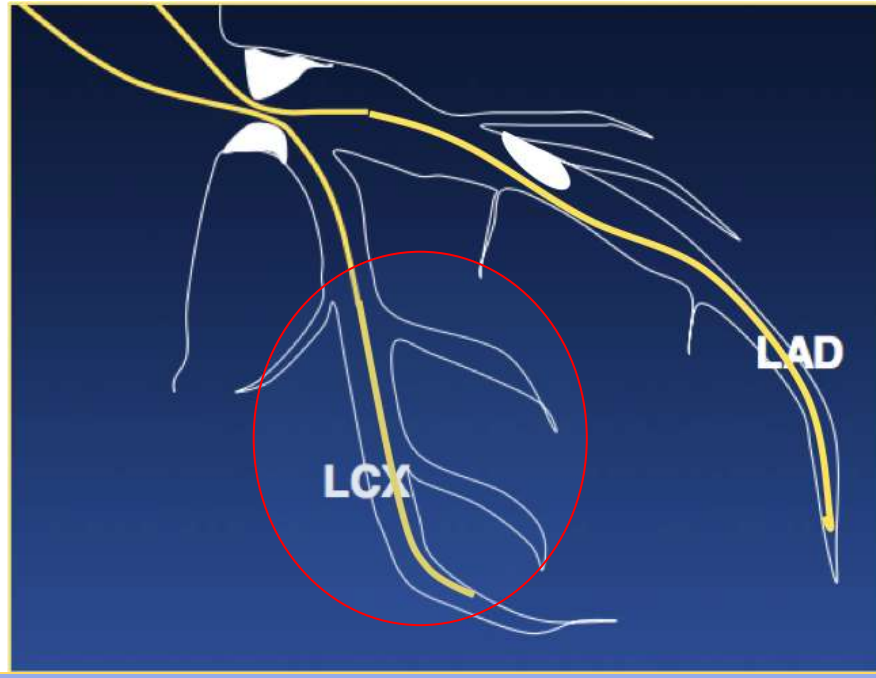


Efecto de dampeo del catéter en la medición de presión



Consideraciones técnicas– FFR/iFR

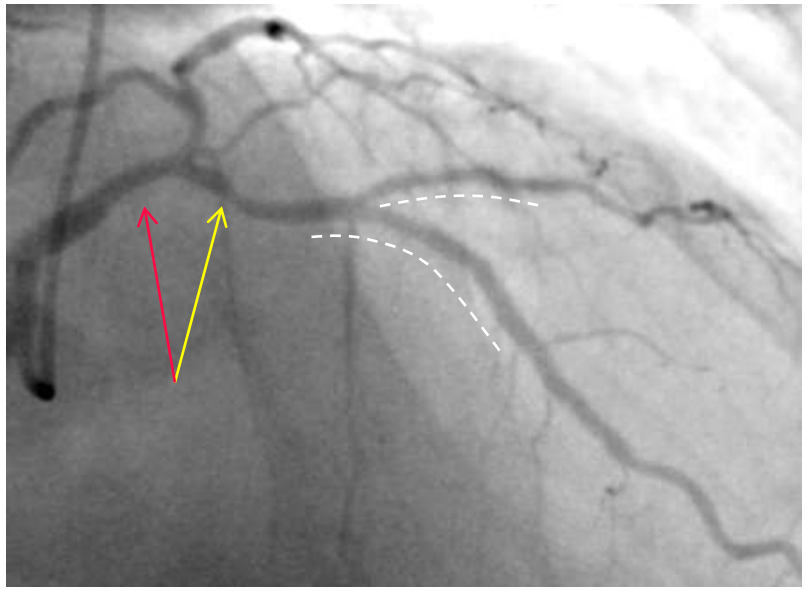




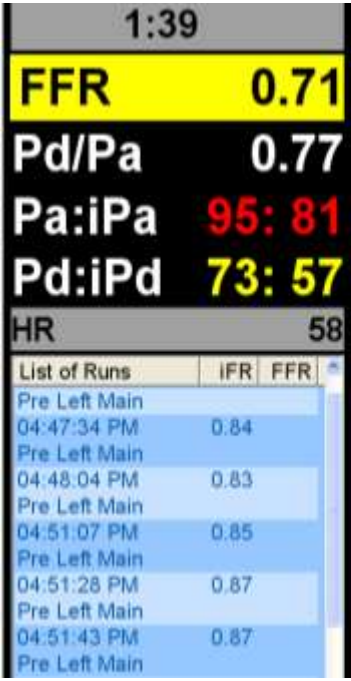
- Teoricamente no habría diferencia de colocar la guía en DA o CX
- Pero se recomienda hacer pullbacj desde ambas

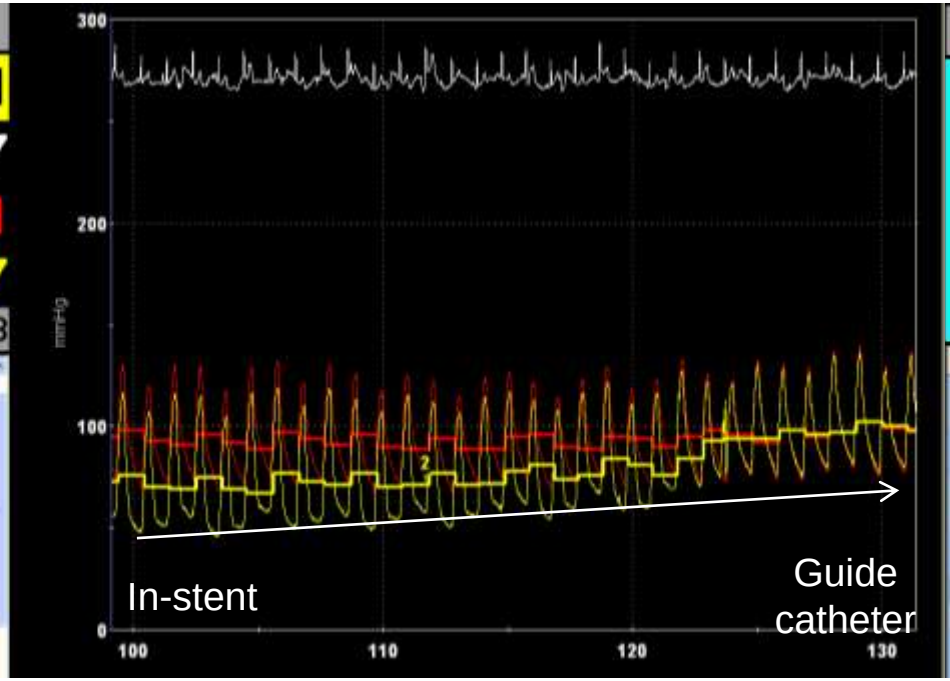
- La enfermedad subyacente puede sobreestimar la medición de FFR. Se recomienda usar el vaso sin lesión
- La presencia de lesión subyacente tiene un poco mayor impacto en FFR (0.14 ± 0.06) que en iFR (0.10 ± 0.05; p = 0.042).

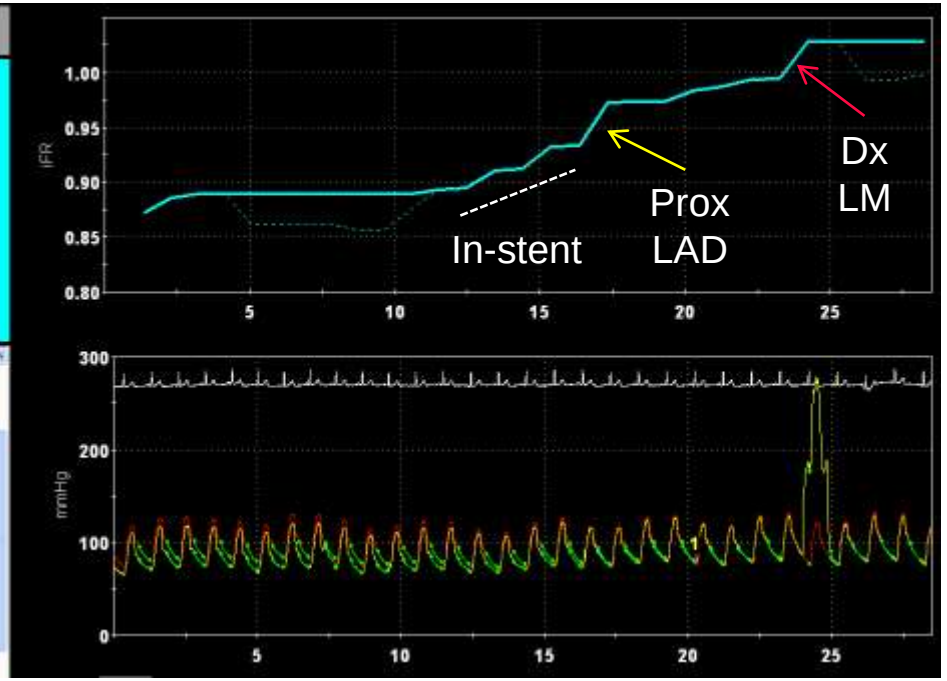
Discriminating Functionally Significant Lx in LAD-LM



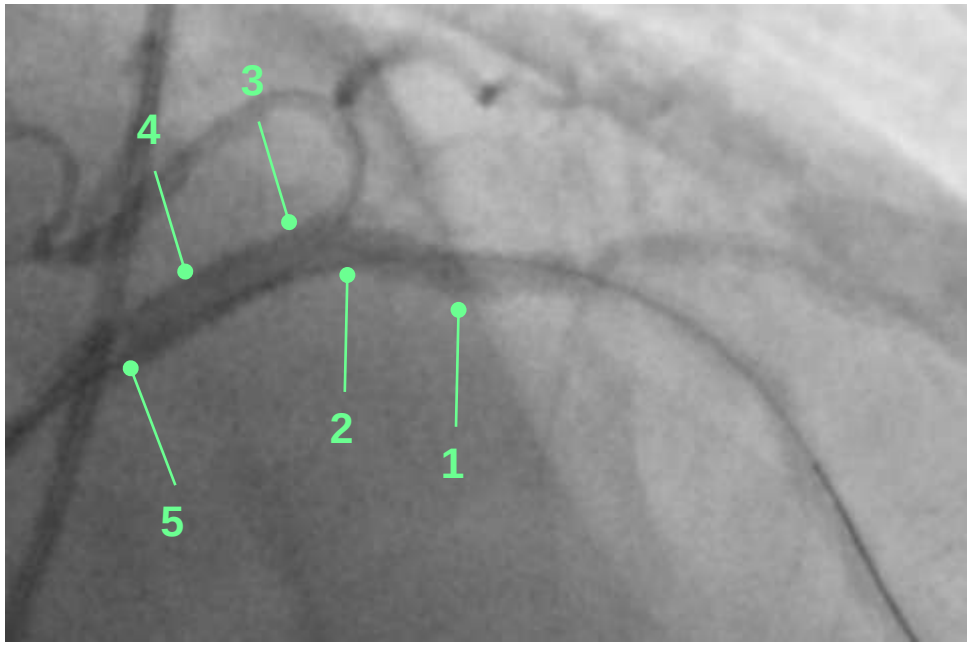
Pressure sensor pullback maneuver

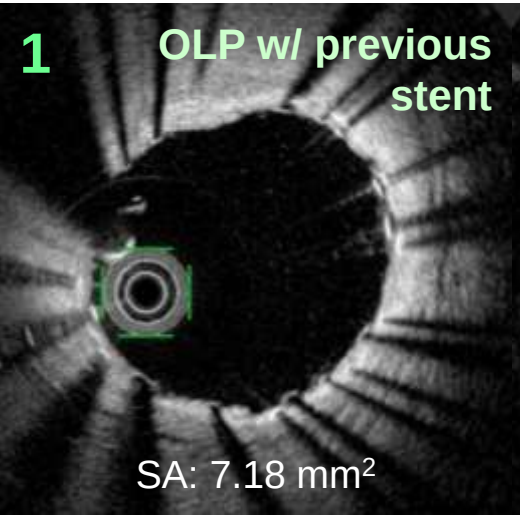


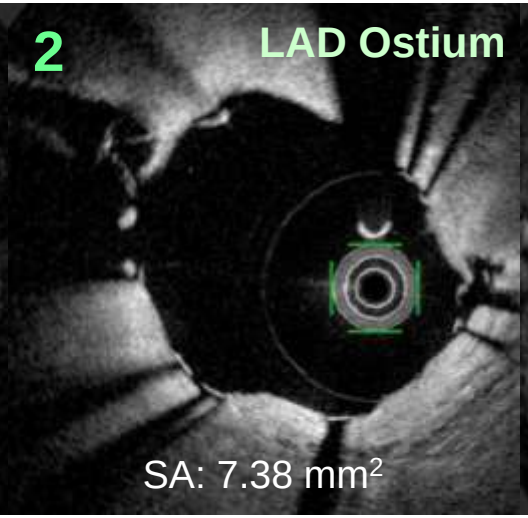


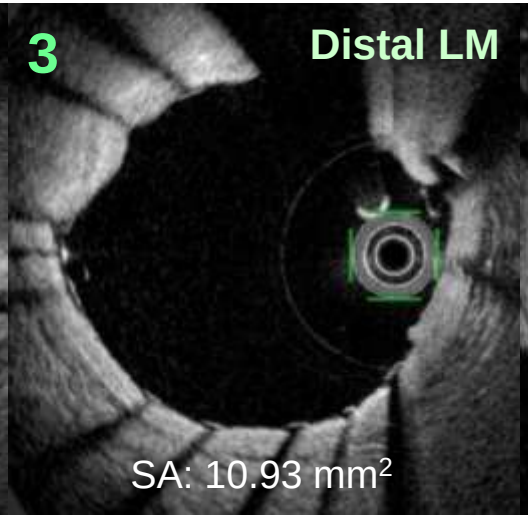


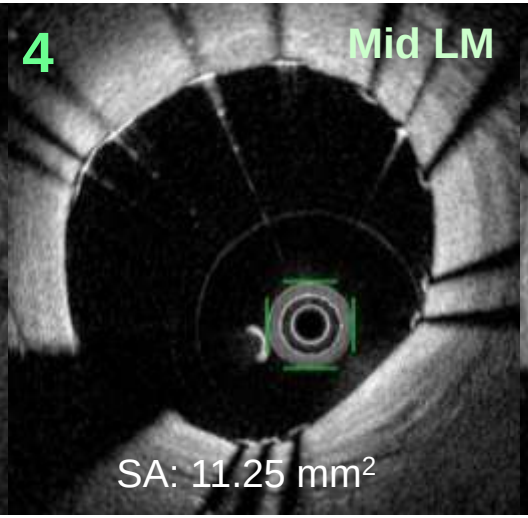
OFDI Assessment Post-Stenting

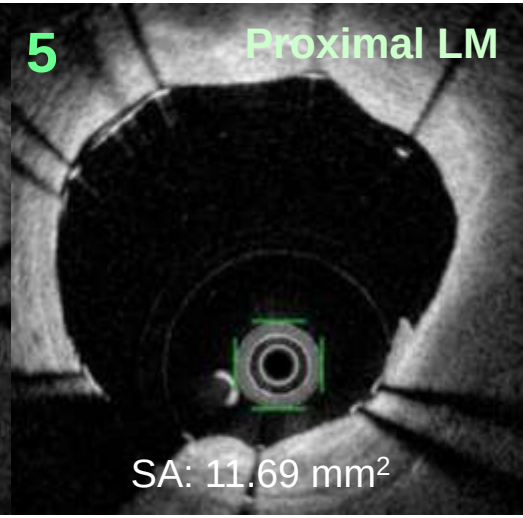










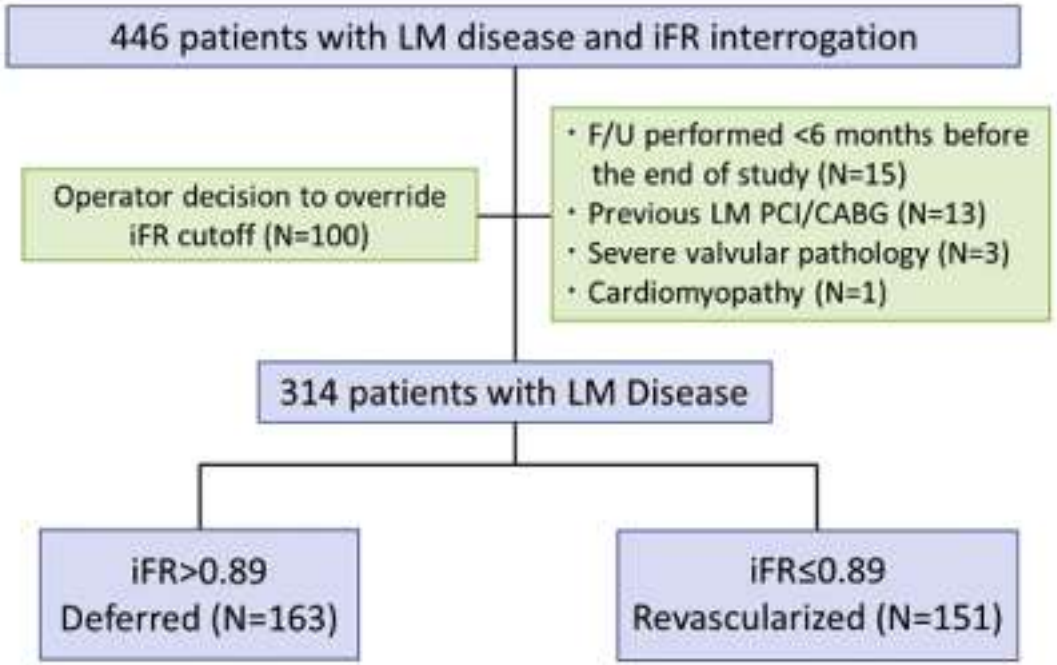


Post-PCI Physiological Evaluation

Safety of Revascularization Deferral of Left Main Stenosis Based on Instantaneous Wave-Free Ratio Evaluation

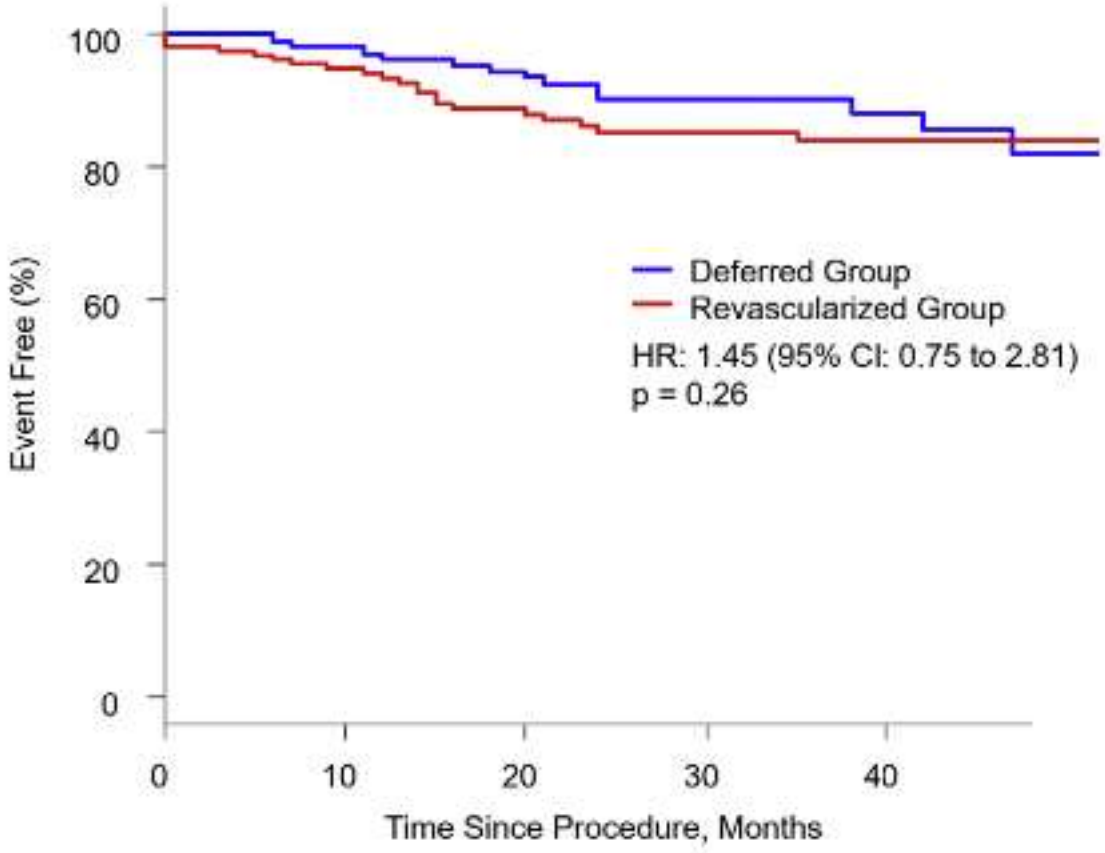
Takayuki Warisawa, MD,[a,b] Christopher M. Cook, MBBS, BSc,[a,c] Christopher Rajkumar, MBBS, BSc,[a,c] James P. Howard, MB BCHIR,[a,c] Henry Seligman, BA, MBBS,[a,c] Yousif Ahmad, BMBS,[a,c] Stephanie El Hajj, MD,[d] Shunichi Doi, MD,[e] Akihiro Nakajima, MD,[f] Masafumi Nakayama, MD, PhD,[g,h] Sonoka Goto, MD,[i,j]

- DEFINE-LM Registry -



Warisawa T, et al. J Am Coll Cardiol Intv 2020;13:1655–64

Major Adverse Cardiac Events in iFR-Guided LM-Treated Patients



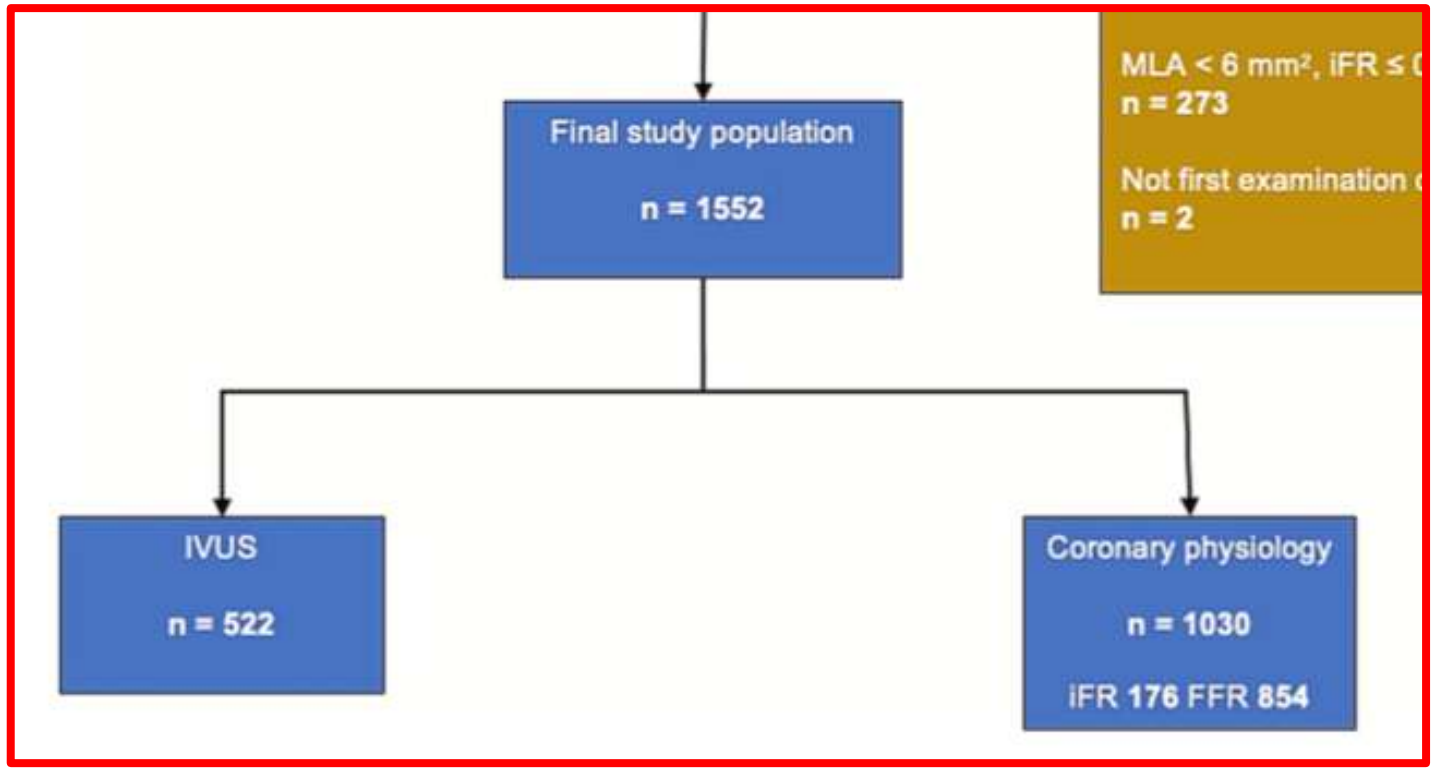
Number at risk

Deferred Group	163	143	99	59	41
Revascularized Group	151	135	102	78	54

Warisawa T, et al. J Am Coll Cardiol Intv 2020;13:1655–64

Deferral of left main coronary artery revascularization via IVUS or coronary physiology - Long-term outcomes from the SWEDEHEART registry

Karolina Berntorp [a,*,1], Moman A. Mohammad [a,1], Sasha Koul [a,1], Troels Yndigegn [a,1],



Berntorp K, et al. International Journal of Cardiology 419 (2025) 132726

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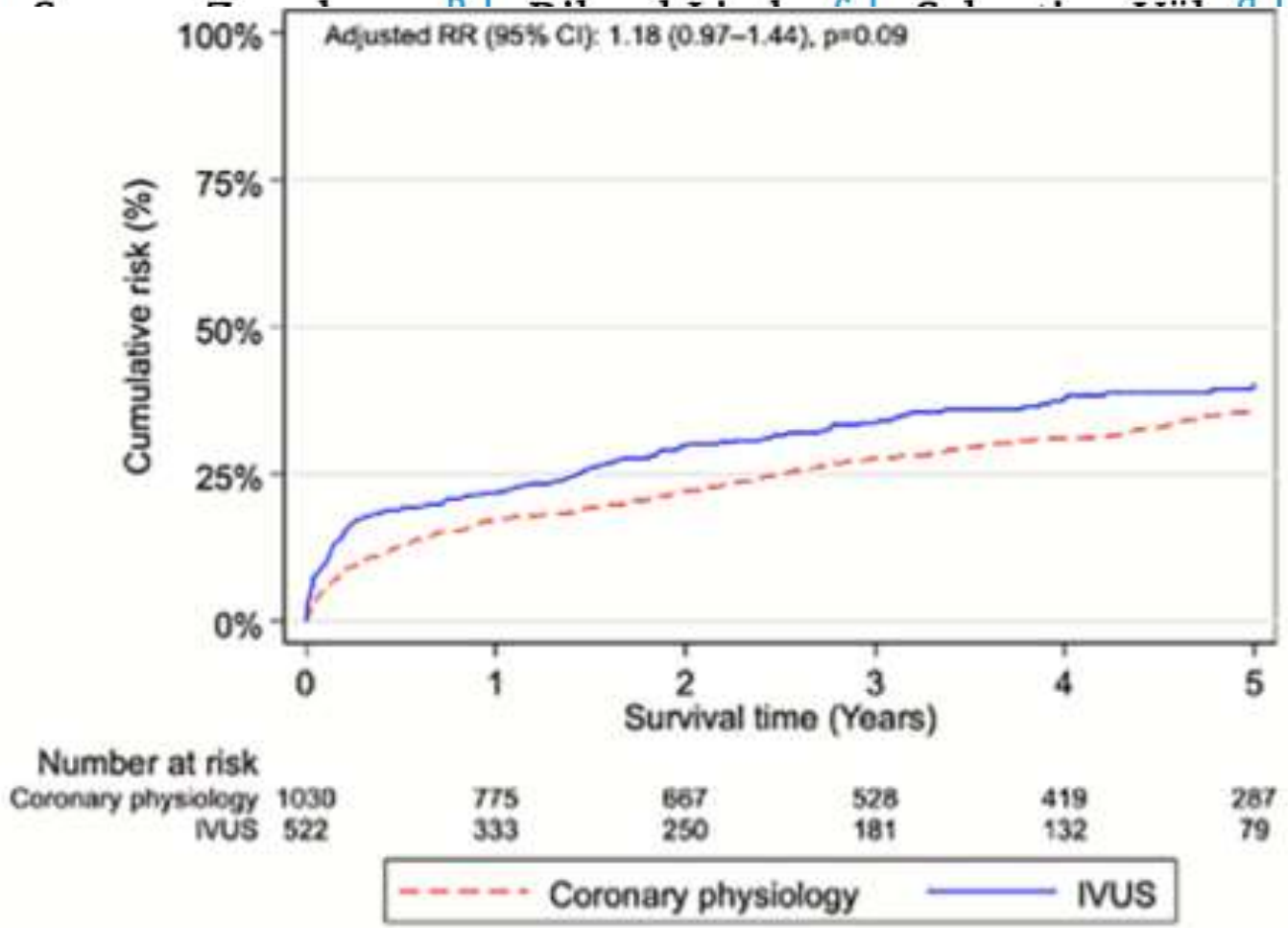

Berntorp K, et al. International Journal of Cardiology 419 (2025) 132726

Conclusiones – Lesiones intermedias de TCI. Cómo valorarlas?

- ✓ La valoración anatómica (IVUS-OCT) son utilizes para caracterizar la placa y decider tipo de tratamiento
- ✓ Para decidir intervención el punto de corte de 6 mm^2 se puede utilizer con seguridad para diferir el procedimiento
- ✓ El corte de 4.8 mm2 se podria utilizer para decider tratamiento
- ✓ La evaluación Functional es el gold standard para valorar las lesiones intermedias

Deferred Revascularization of Intermediate Left Main Lesions

No Room for Error*

Gregg W. Stone, MD

Finally,

- none of these tests as a standalone measure should be considered conclusive;
- the critical decision whether to revascularize an angiographically intermediate LM segment should take into account numerous factors,
  - including patient demographics and comorbidities, symptoms, extent and severity of CAD, and the integrated results of all noninvasive and invasive tests.
- **When caring for patients with LMCAD, there is no room for error.**

CURSO ANUAL 2025

CACI

SOLACI

CardioSUC 2025
41° Congreso Uruguayo de Cardiología
El paciente en el corazón de cada decisión

POSGRADO AVANZADO en Hemodinamia y Cardioangiología Intervencionista

MODALIDAD FLEXIBLE:
Los interesados podrán inscribirse en el curso anual o en cada uno de los módulos como unidad.

TRES MÓDULOS

1. Manejo endovascular en territorio Esplácnico. Emboloterapia (hemorragia digestiva, útero, próstata, vejiga, hígado, riñón, bazo)
   MARZO - MAYO
2. Patología Venosa y Pulmonar
   JUNIO - AGOSTO
3. Patología Vascular Periférica
   SEPTIEMBRE - NOVIEMBRE

- Clases sincrónicas mensuales
- Asincrónicas semanales

MARZO A NOVIEMBRE 2025

INFORMES E INSCRIPCIÓN: Tel. Cel. (WhatsApp) +54 9 11 6155-3666
docencia.i@caci.org.ar | administracion@solaci.org | proeducar@solaci.org