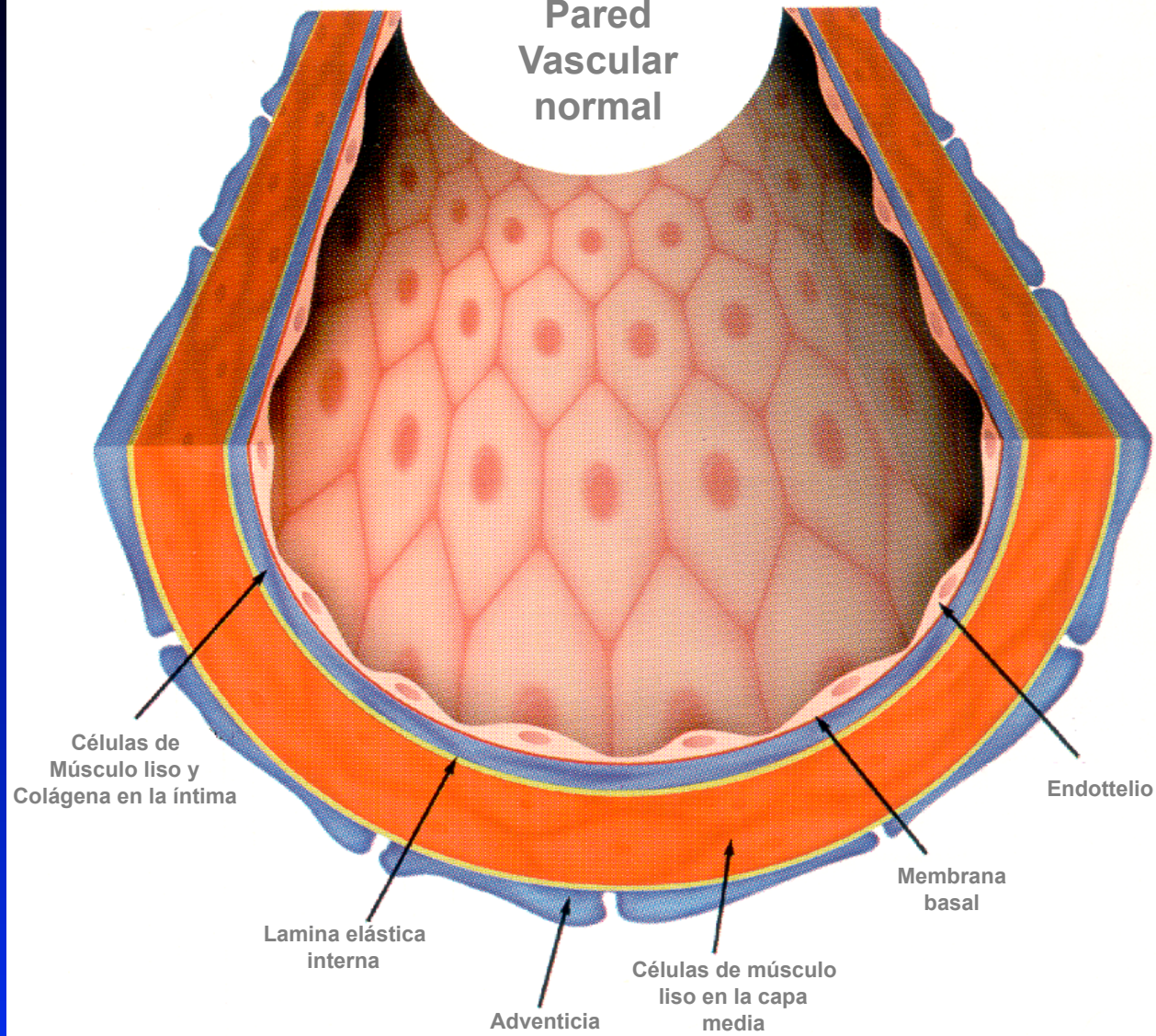
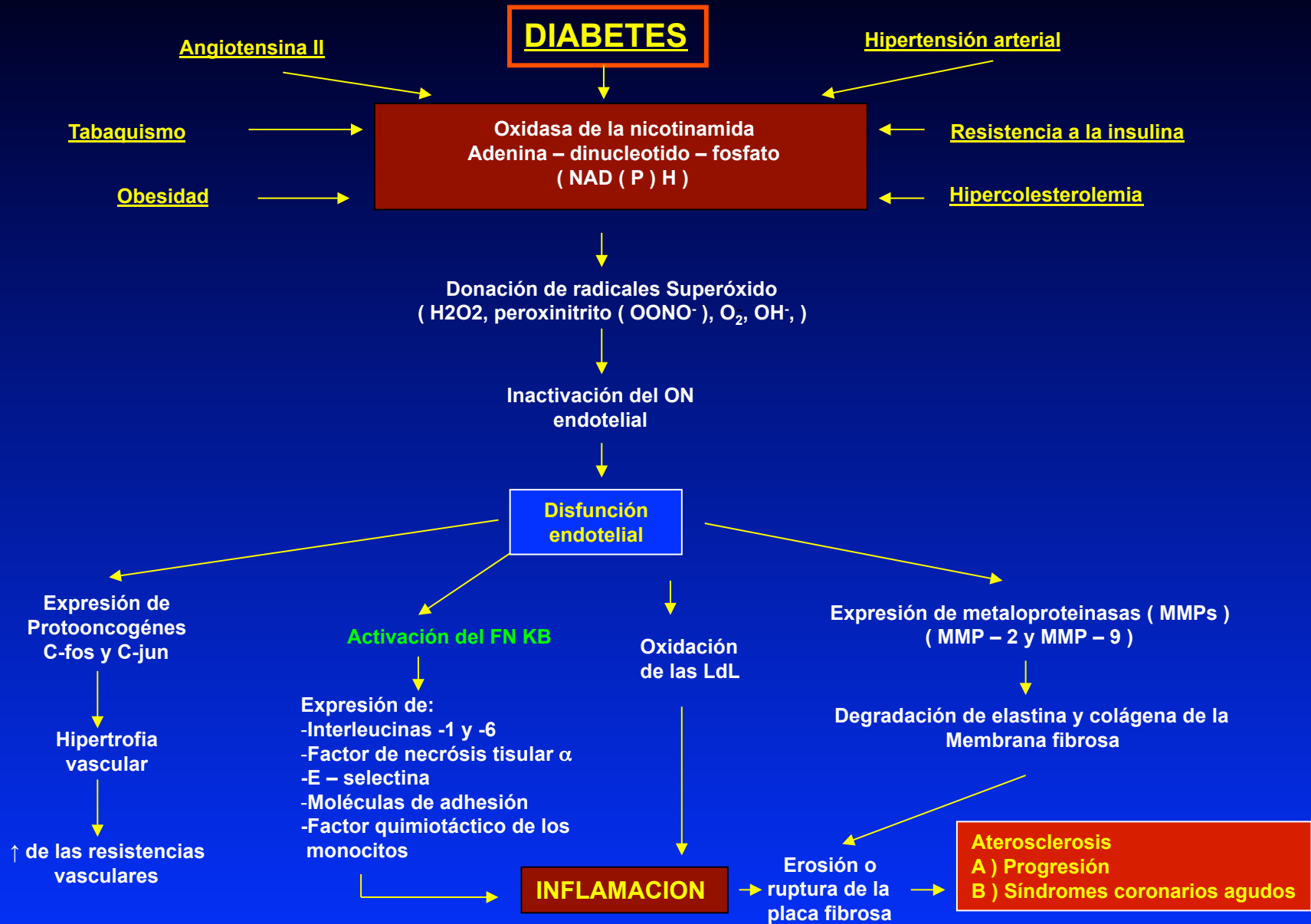


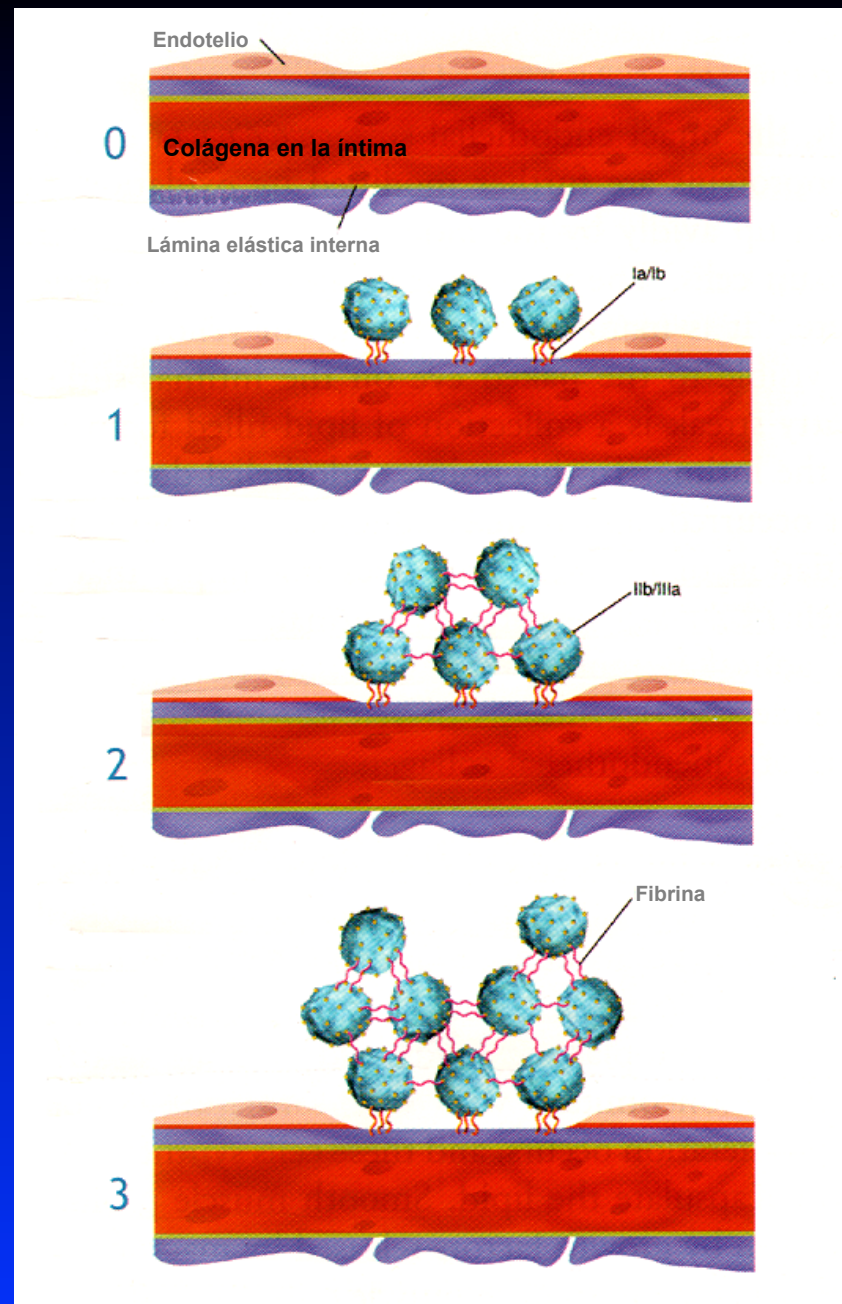
Pared Vascular normal



Disfunción Endotelial



Respuesta a la Erosión Endotelial



Aterosclerosis I

Hipercolesterolemia

↓
Acumulación de ésteres
de colesterol en el
subendotelio

↓
Adhesión de monocitos
al endotelio

↓
Migración de monocitos
al subendotelio

↓
Fagocitosis de colesterol

↓
Células espumosas

← ELAMs
← Interleucina 1-B

← MCP

Aterosclerosis II

Células espumosas
en el subendotelio

Oxidación de las LDL

Inflamación

Síntesis de
colágena

Músculo liso

Mecanismo autoinmune

Linfocito T

Capa fibrosa



Aterosclerosis III

❖ ↑ de colesterol



Núcleo
Lipídico

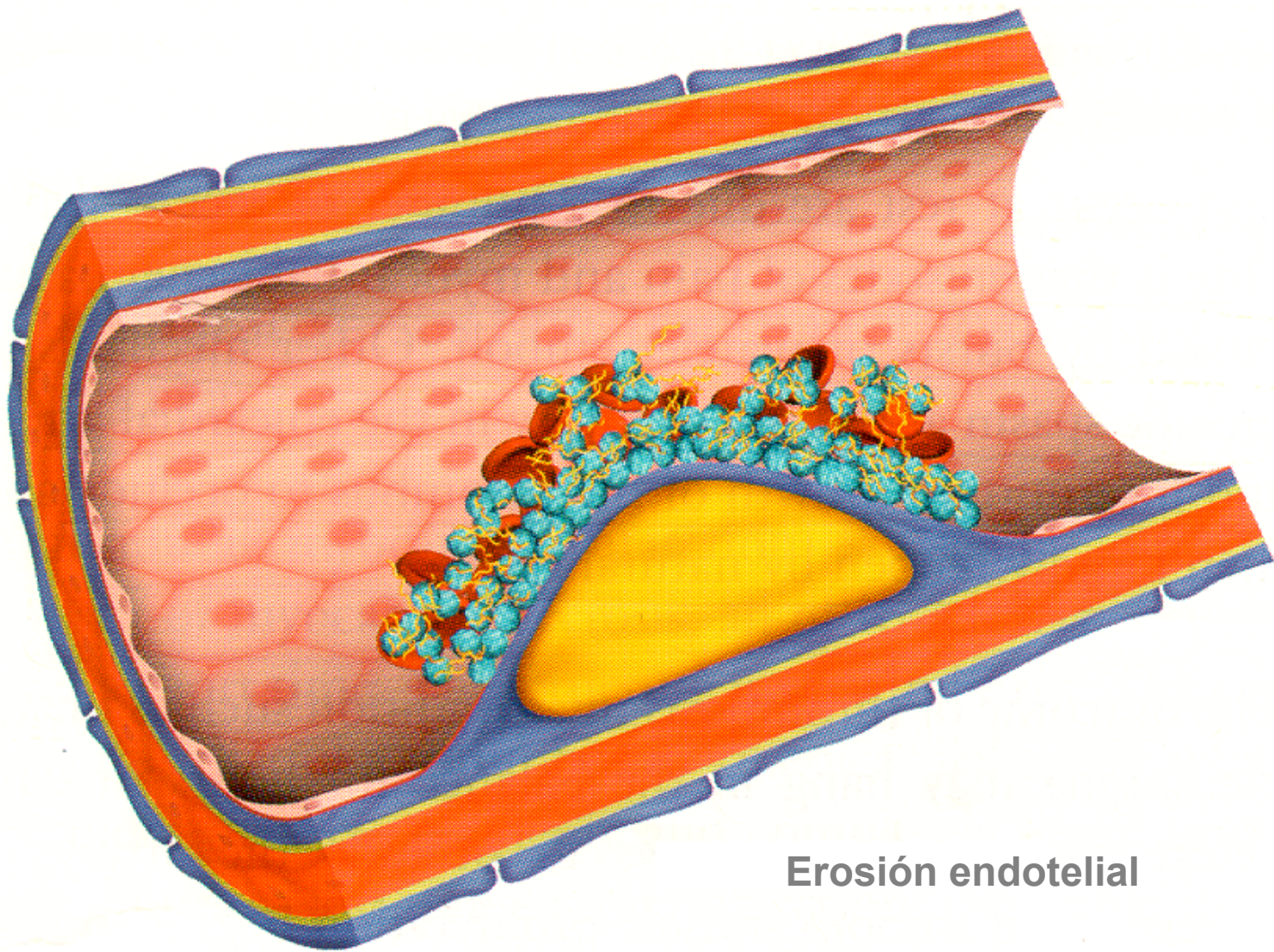
❖ ↑ de células espumosas

❖ ↑ de células músculo liso

❖ ↑ de colágena



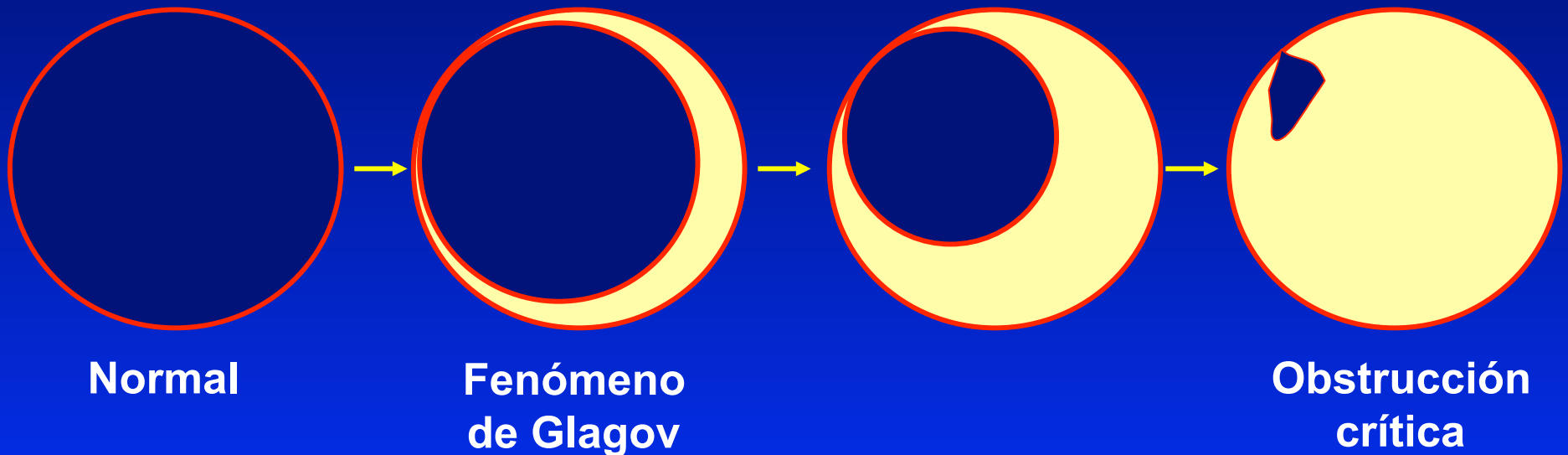
Capa
Fibrosa



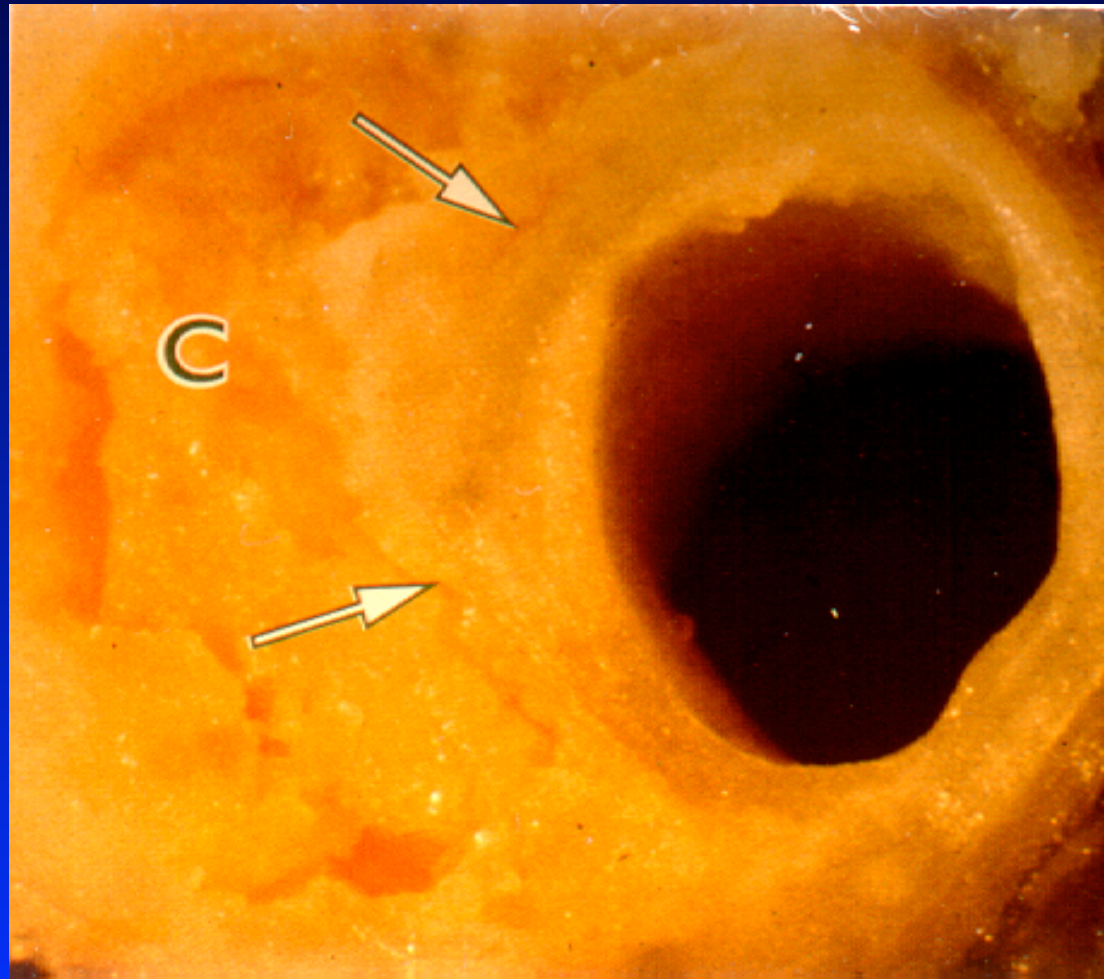
Erosión endotelial

Remodelación Vascular

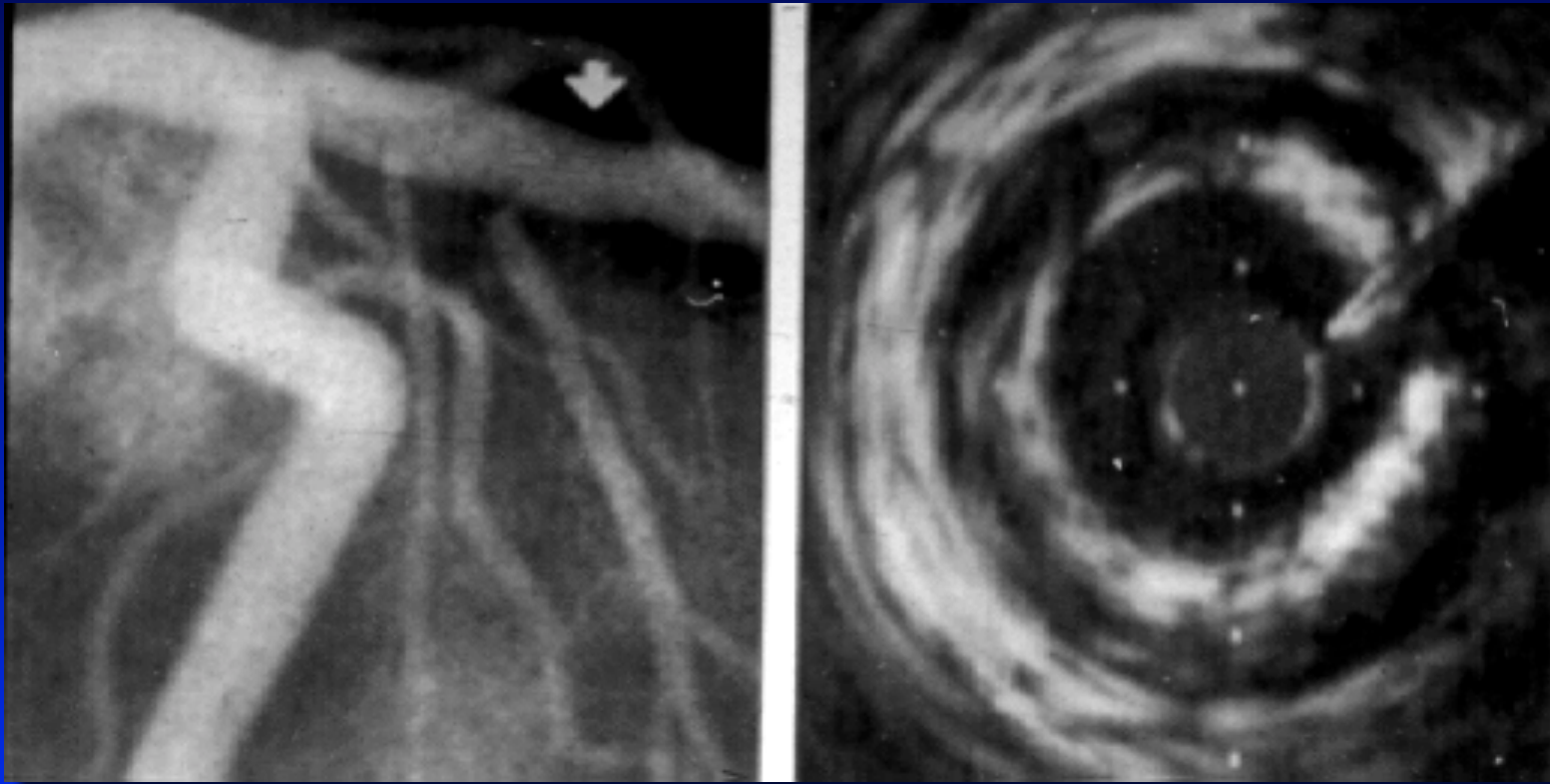
Expansión compensadora



Remodelación Vascular

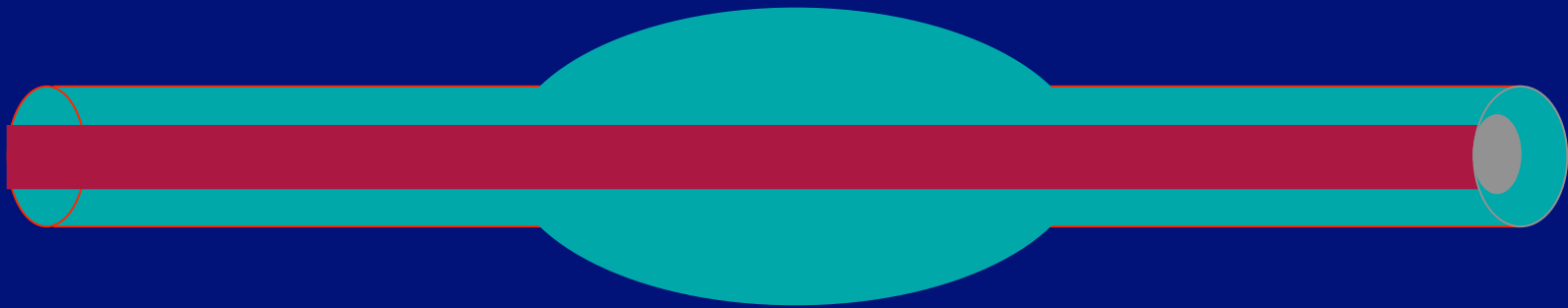


Remodelación Vascular

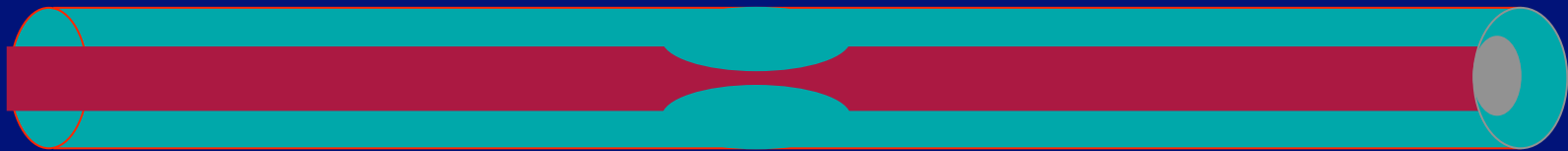


Fenómeno de Glagov

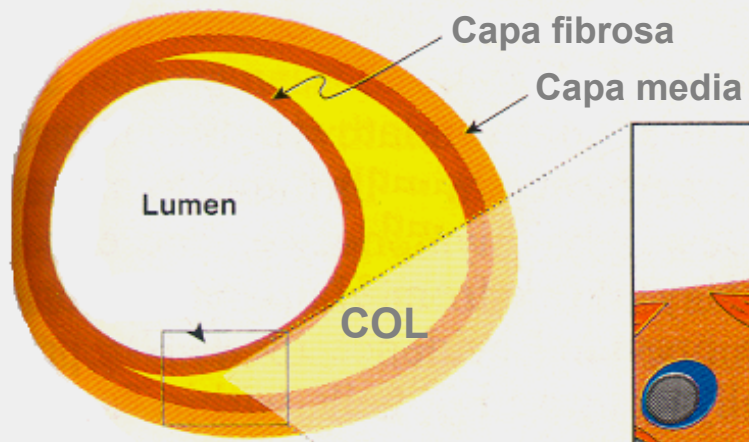
Remodelación Vascular



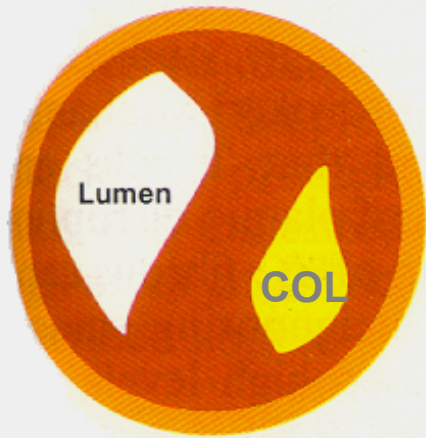
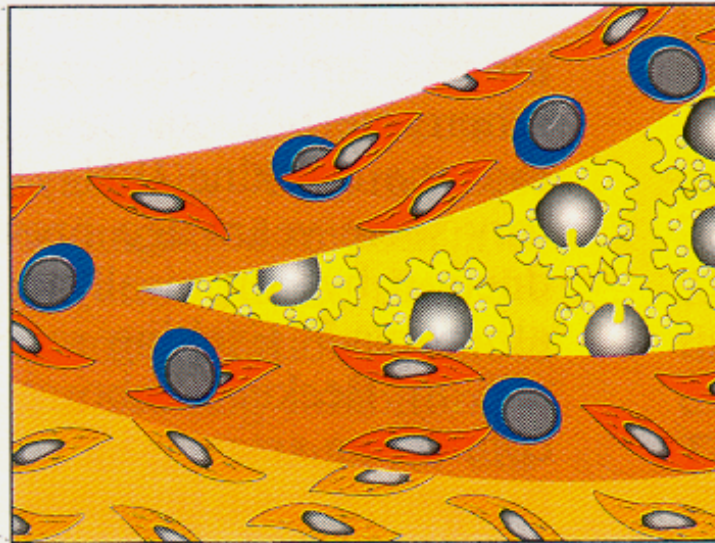
Compensadora (inestable)







No compensadora (estable)



Placa Vulnerable



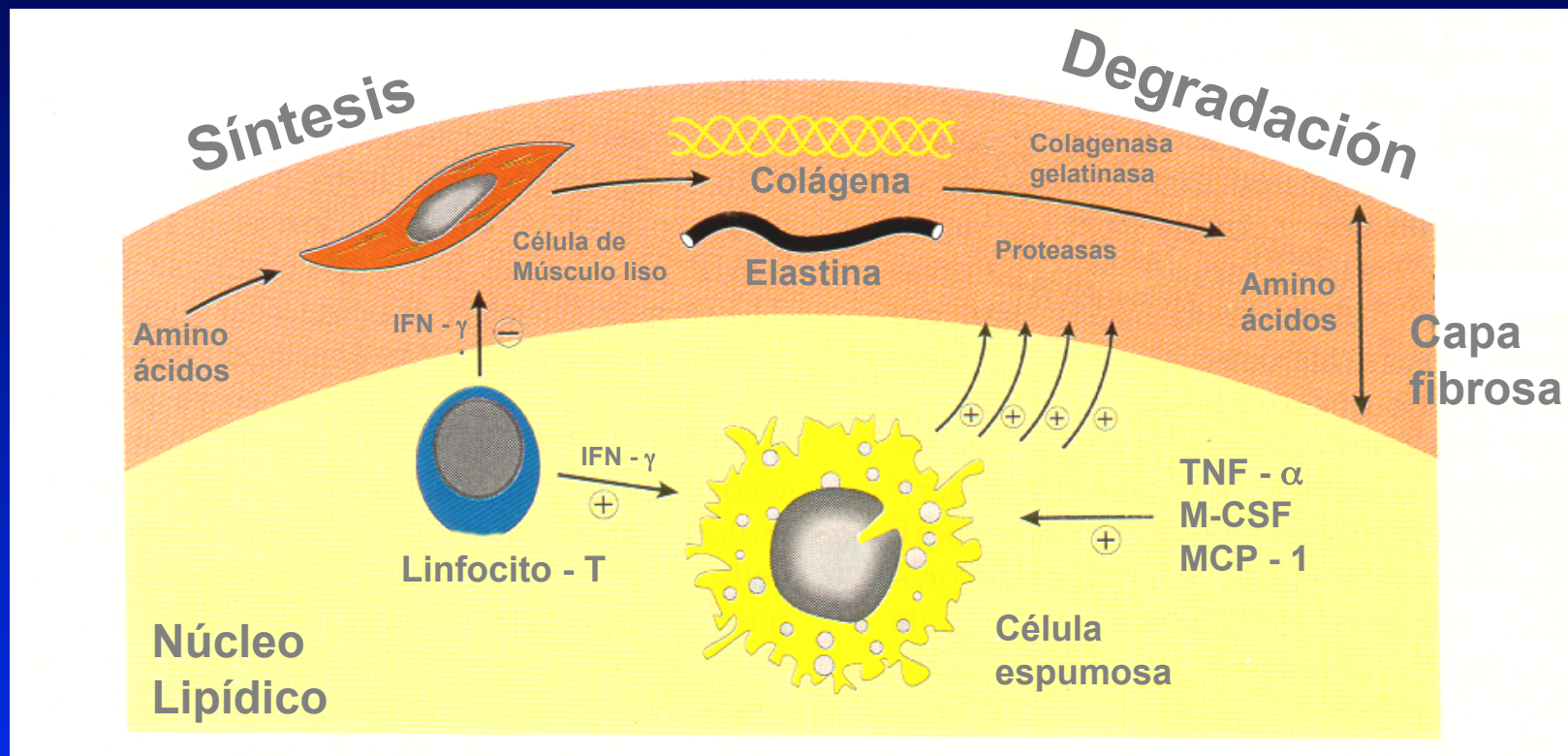
Placa Estable

-  - Linfocito - T
-  - Célula espumosa (factor tisular)
-  - Célula muscular lisa activada
-  - Célula muscular lisa normal

Aterosclerosis IV

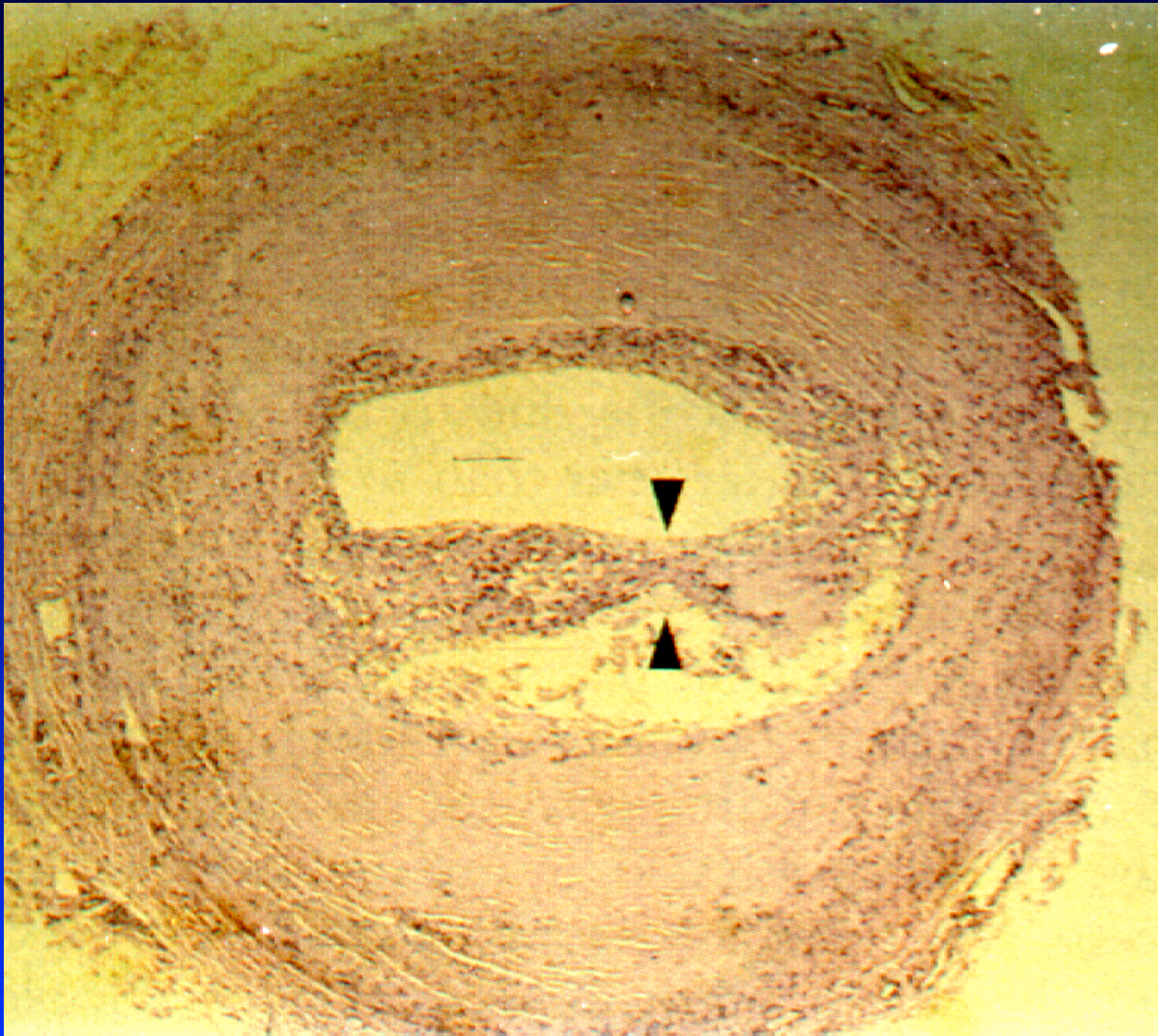


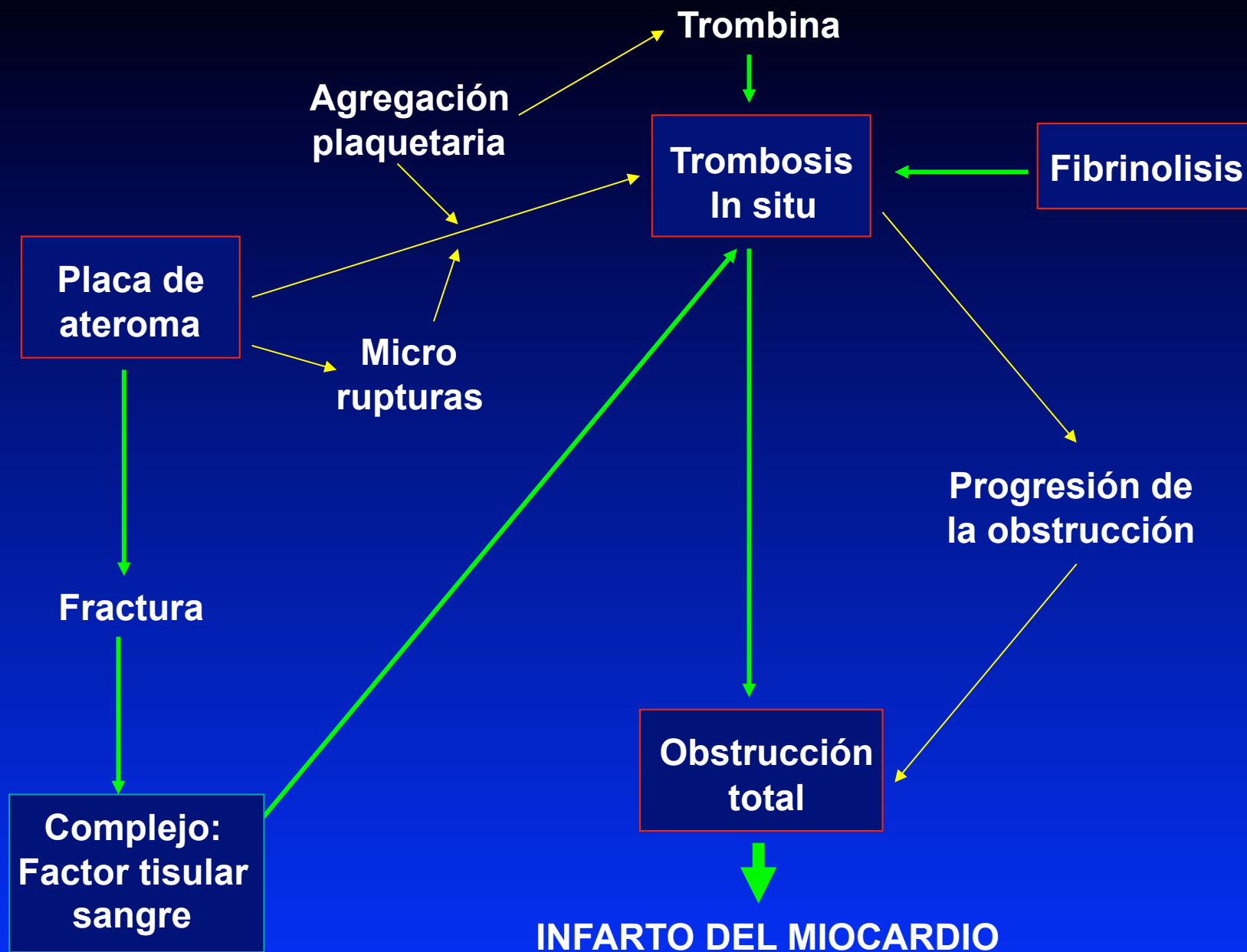
Fisiopatología de la Ruptura de la Placa



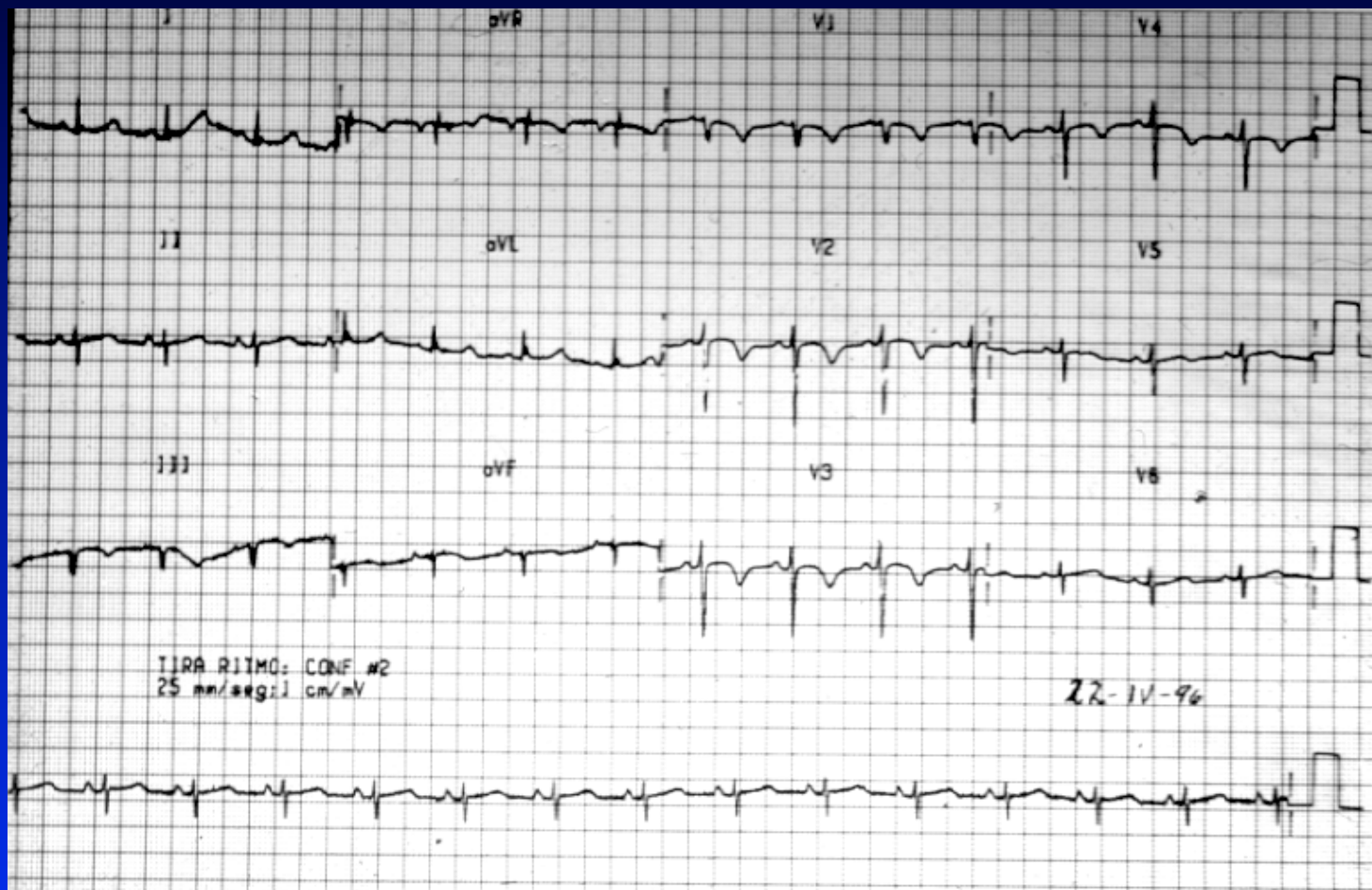
Circulation 1995;91:2844-2850

Placa Inestable



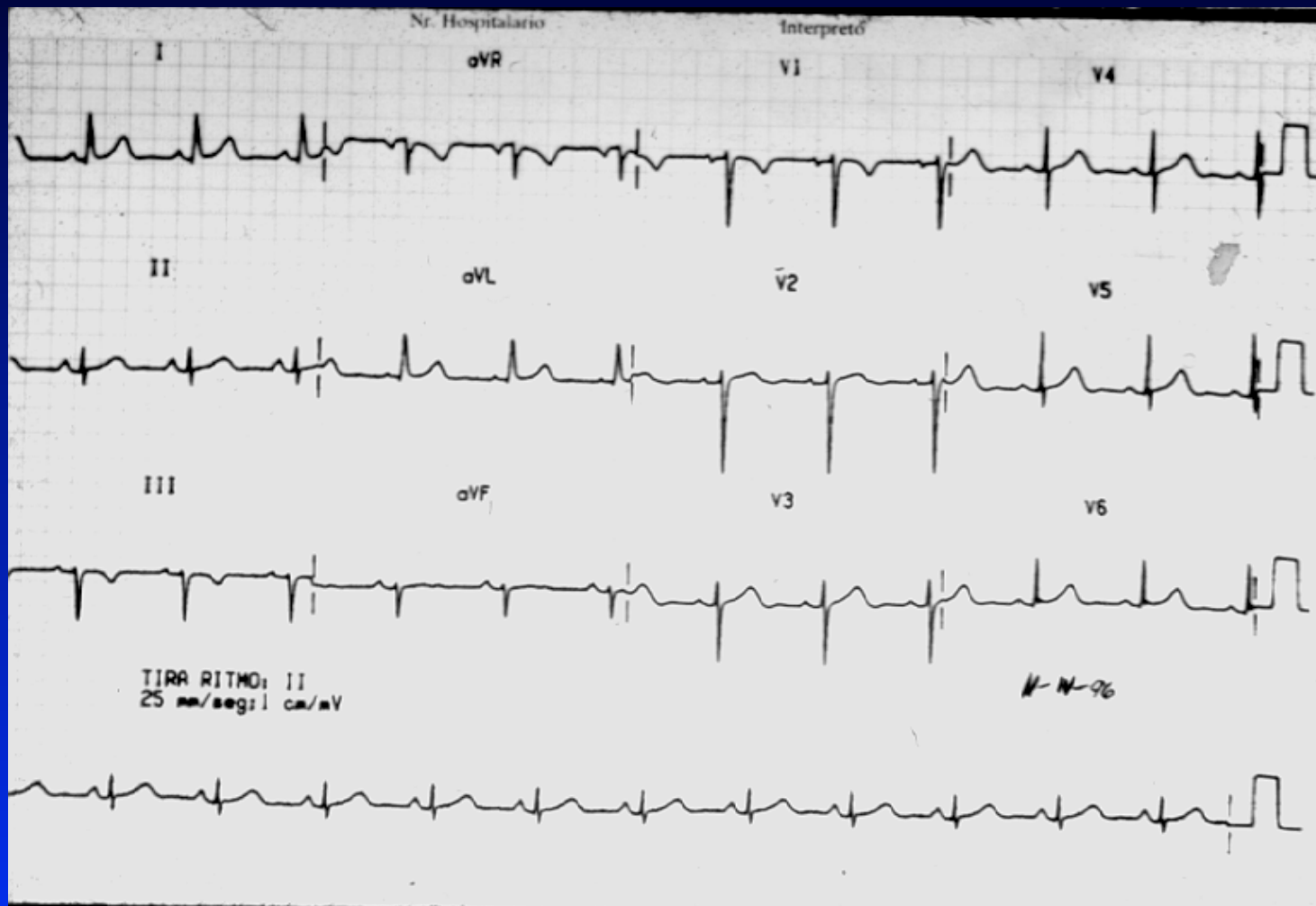


ECG en el Momento del Dolor



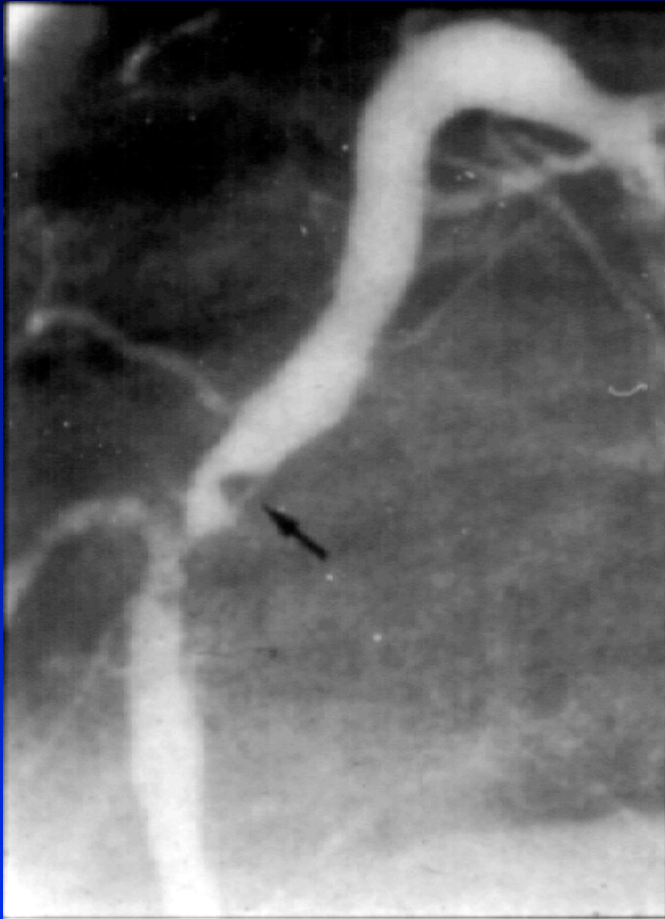
Angina Inestable

ECG Después del Ataque Anginoso

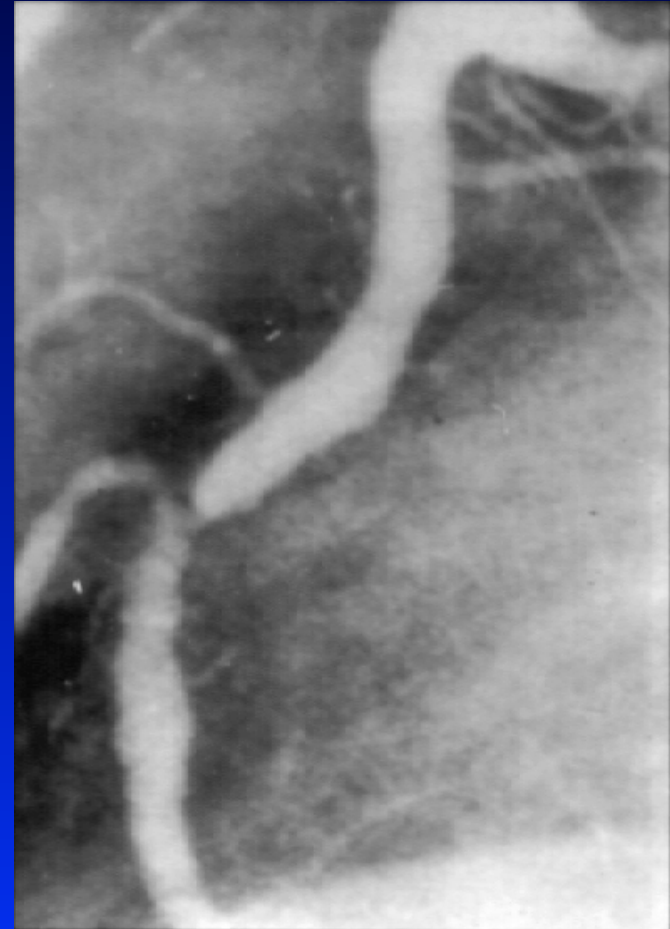


Angina Inestable

Síndromes Isquémicos Agudos

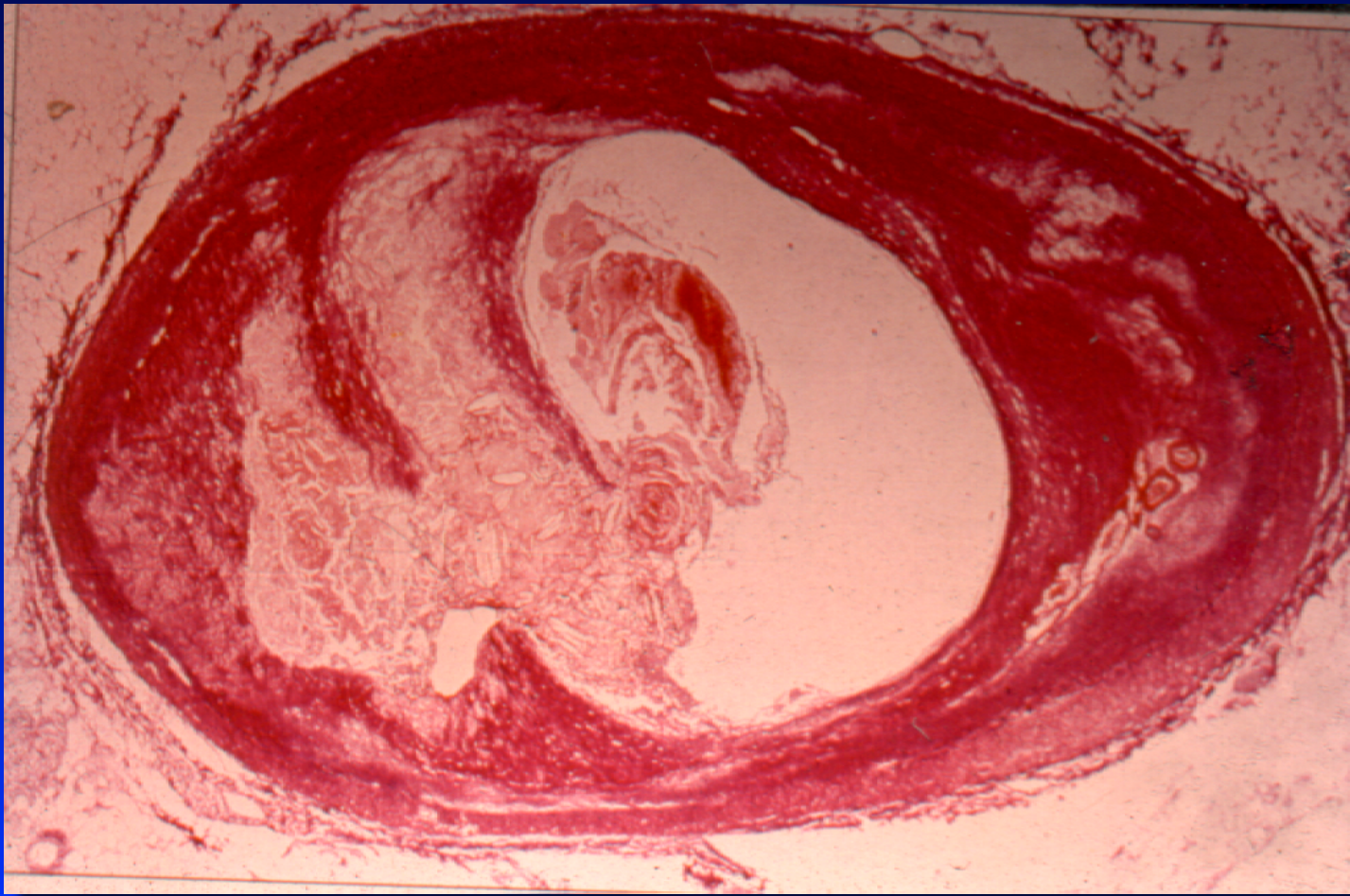


Angina inestable

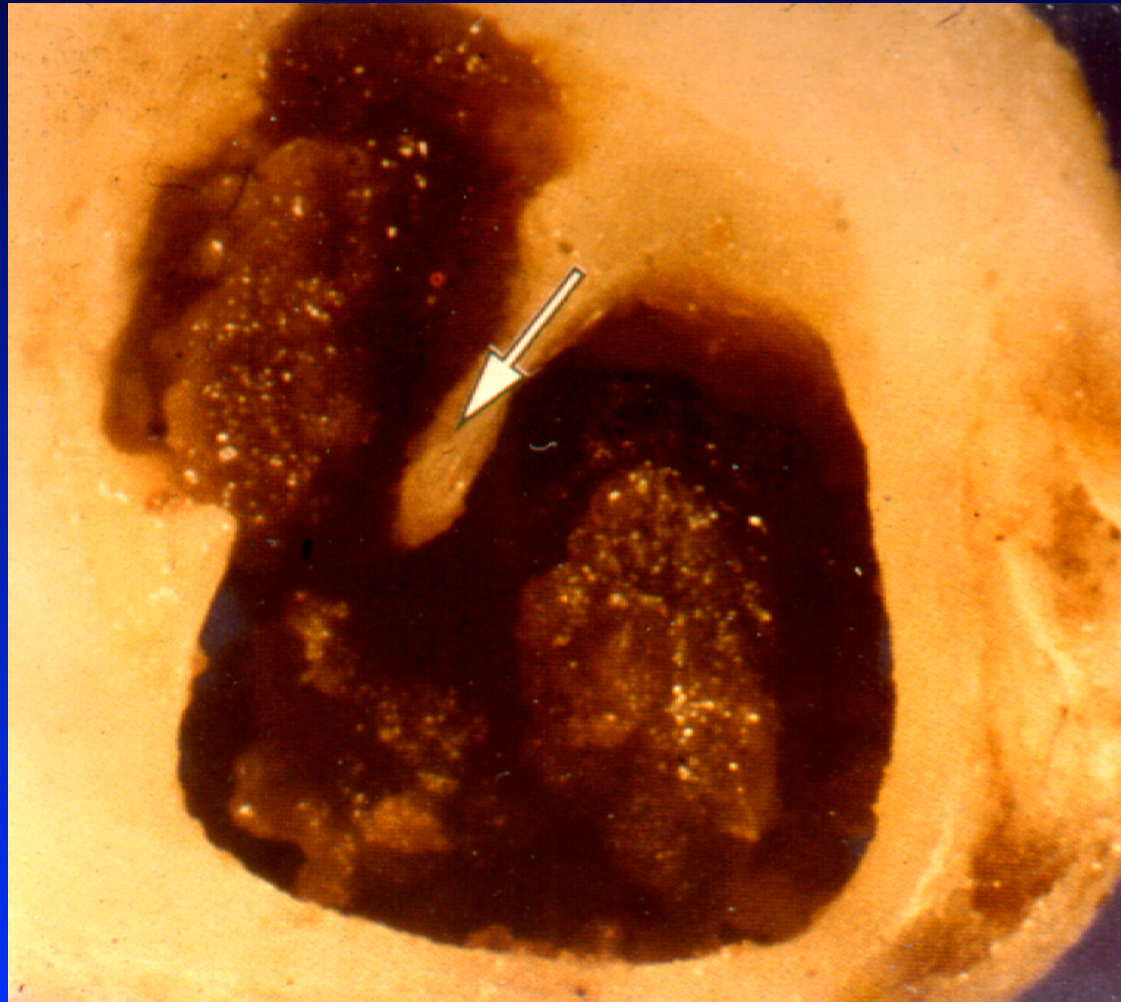


6 días después

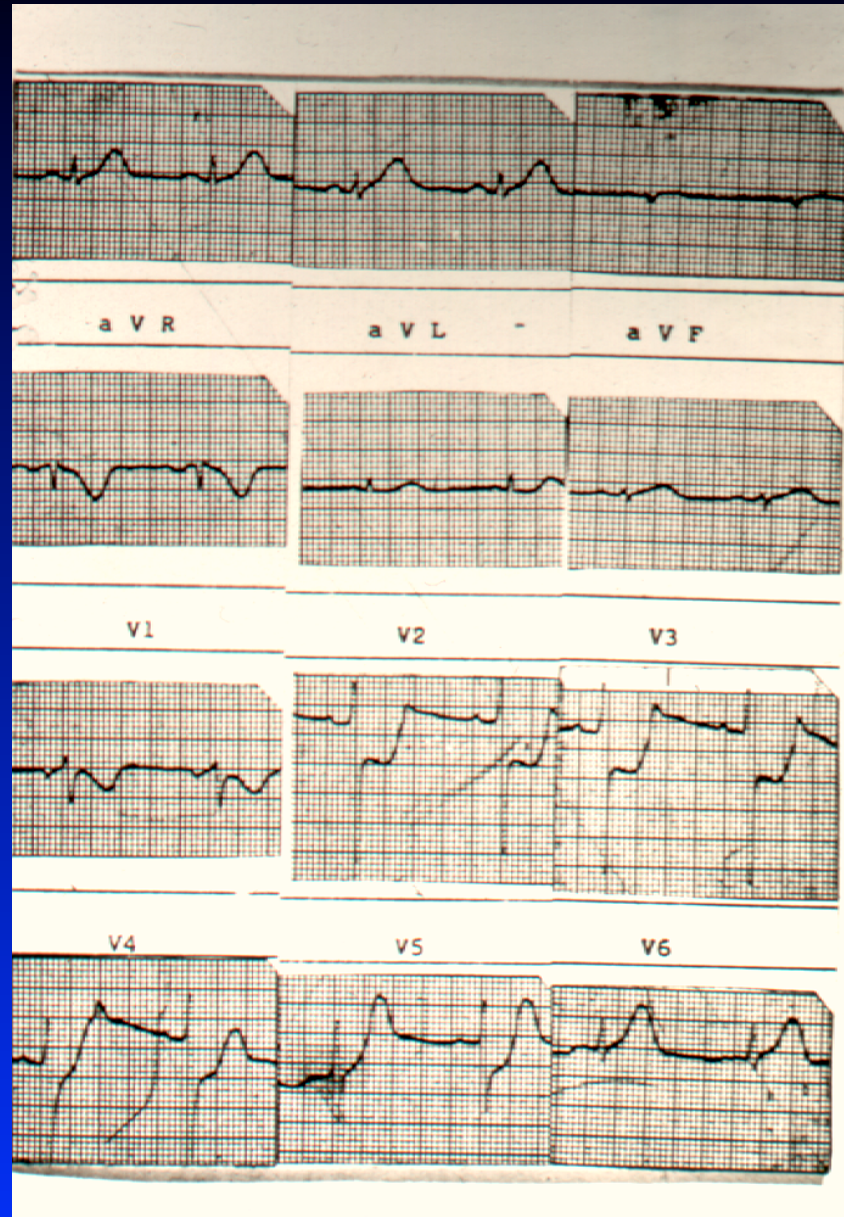
Ruptura de Placa Inestable



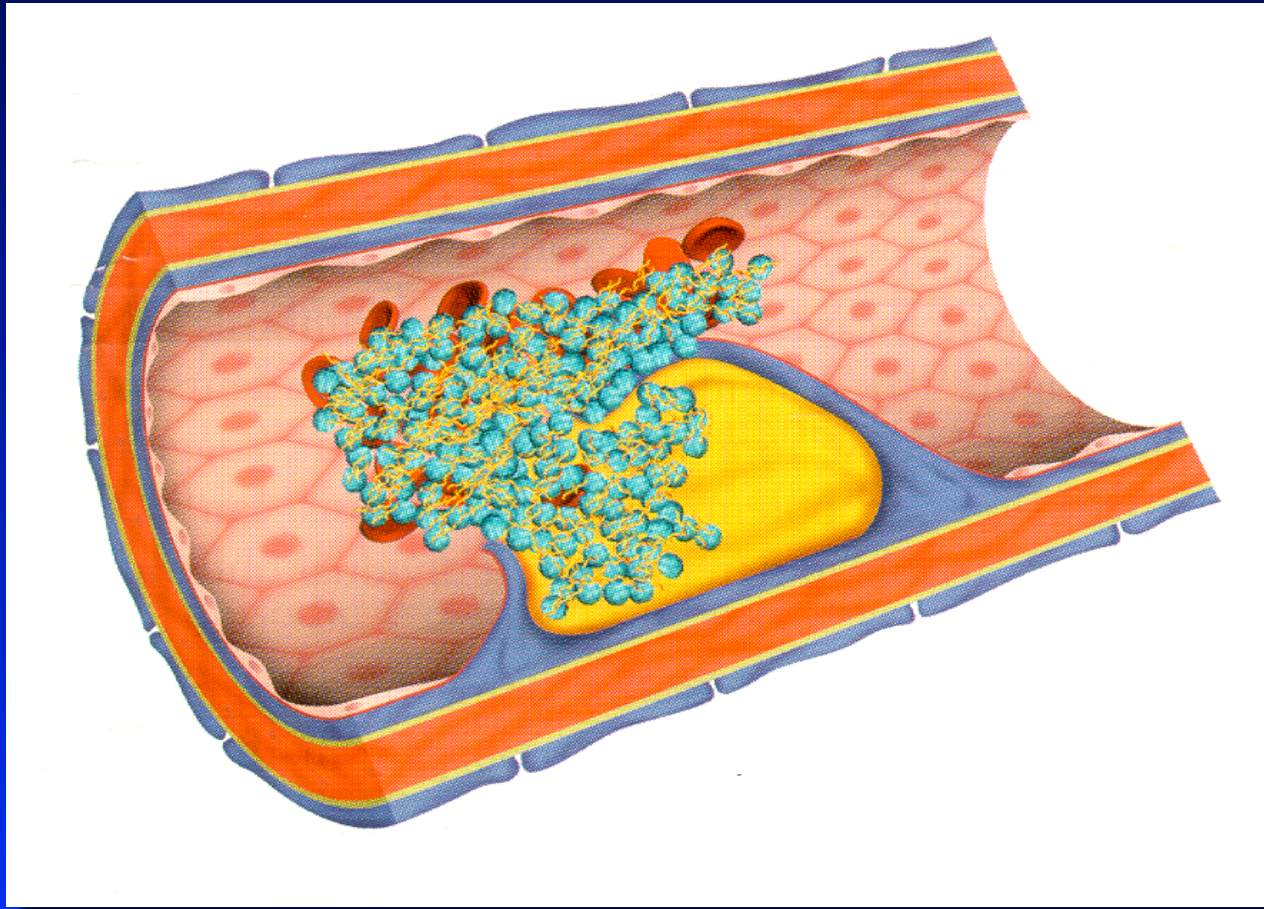
Trombosis Coronaria Suboclusiva



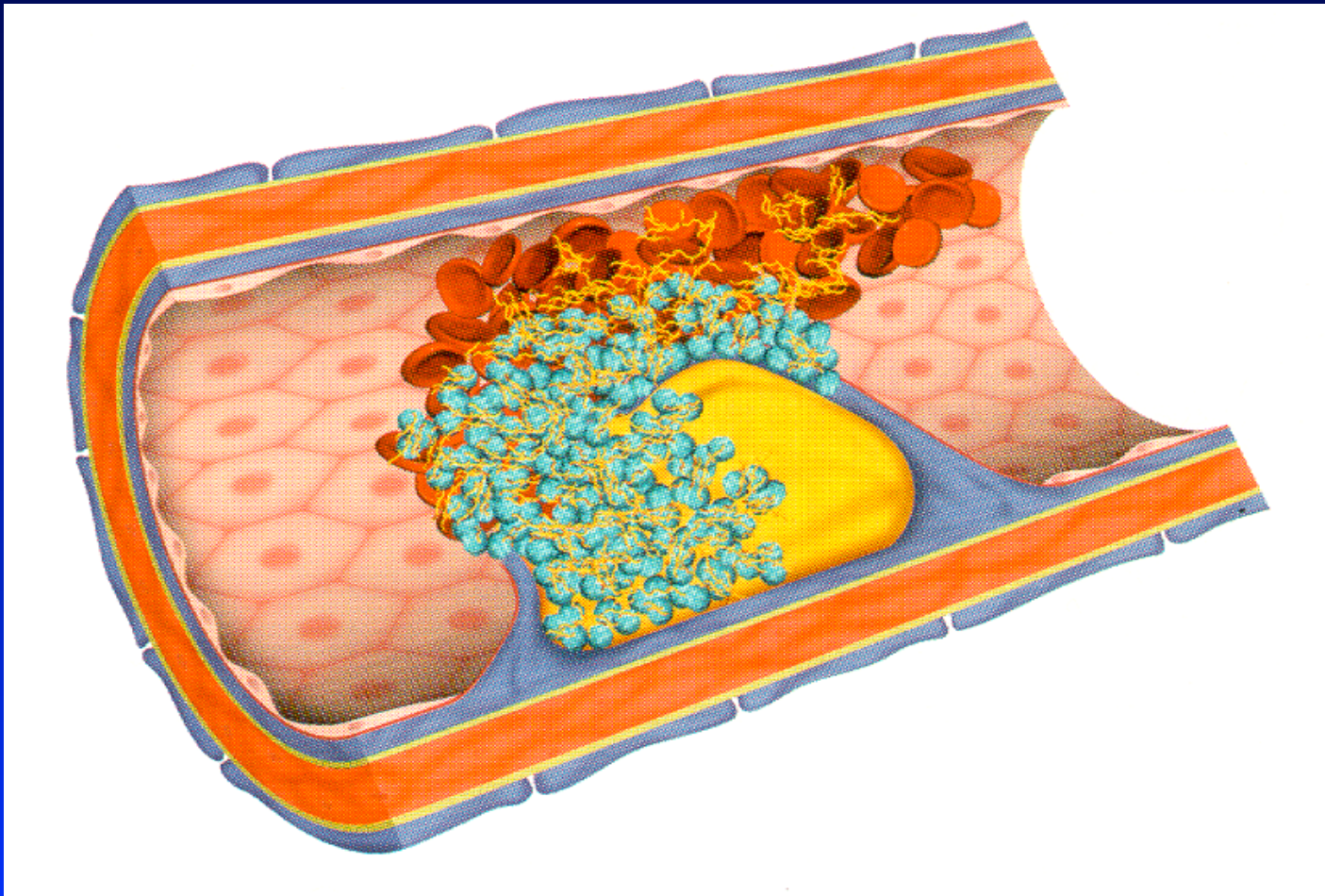
ECG de Infarto Subendocárdico



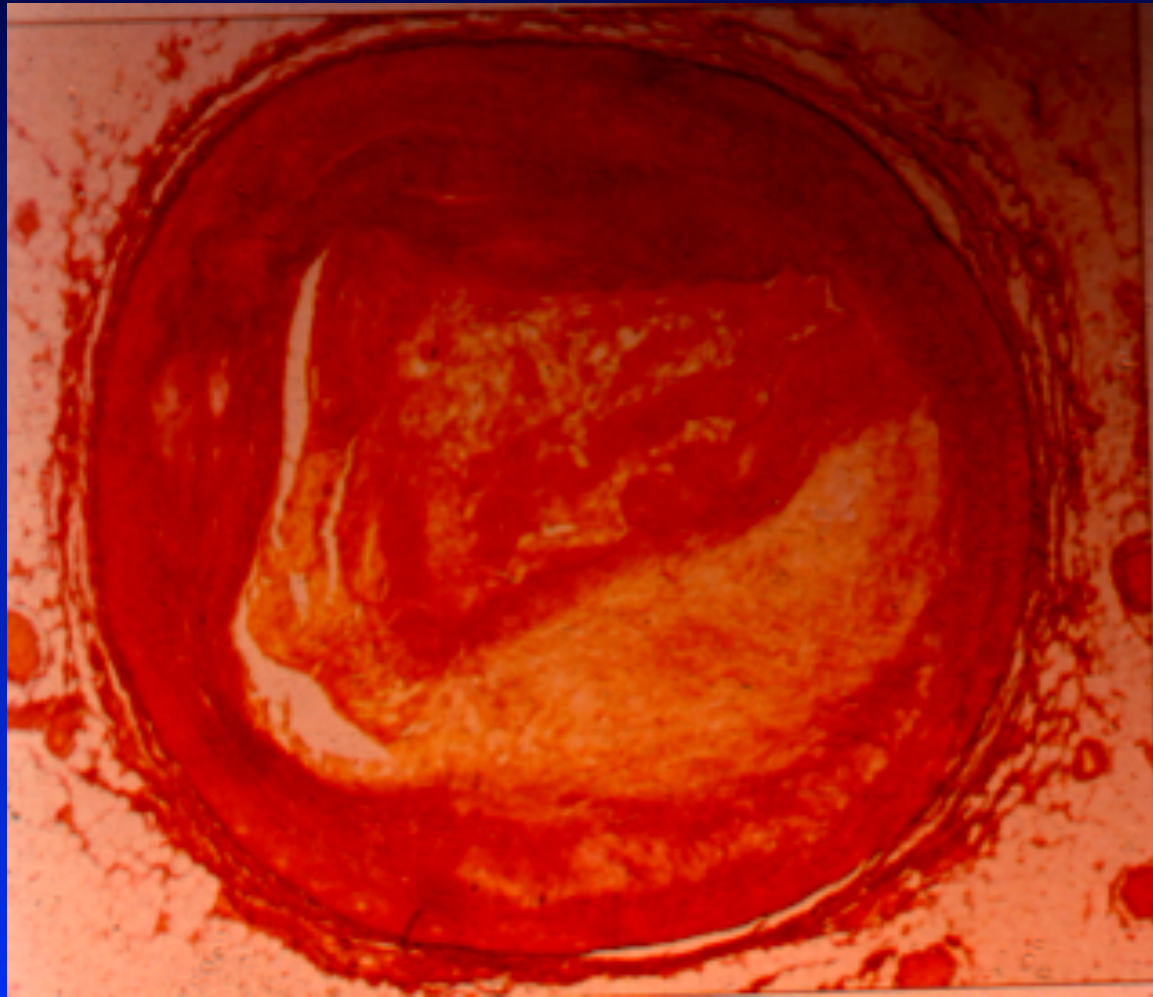
Ruptura de la Placa



Trombo Oclusivo



Trombosis Coronaria Oclusiva



Función Endotelial

Image 1

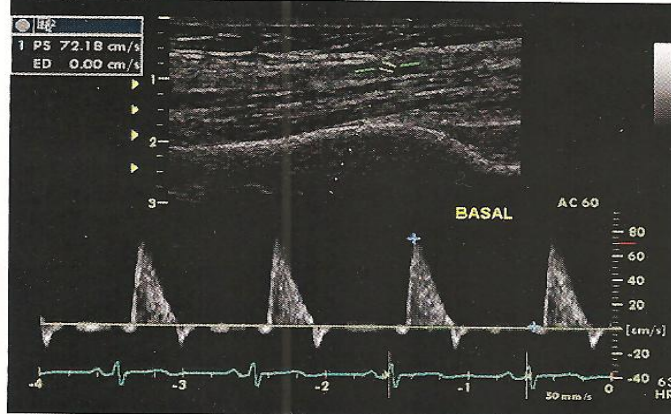
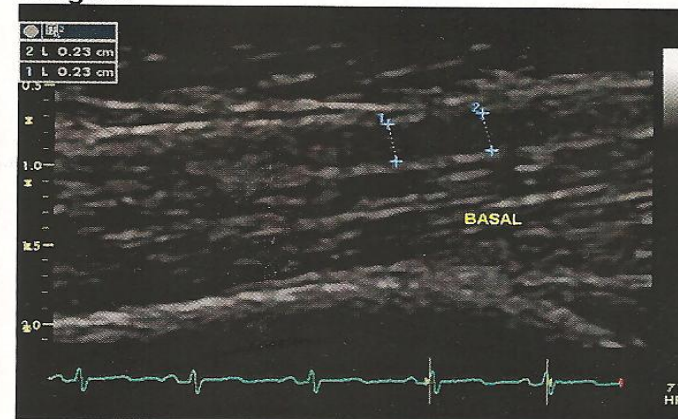


Image 2



23 mm

Image 3

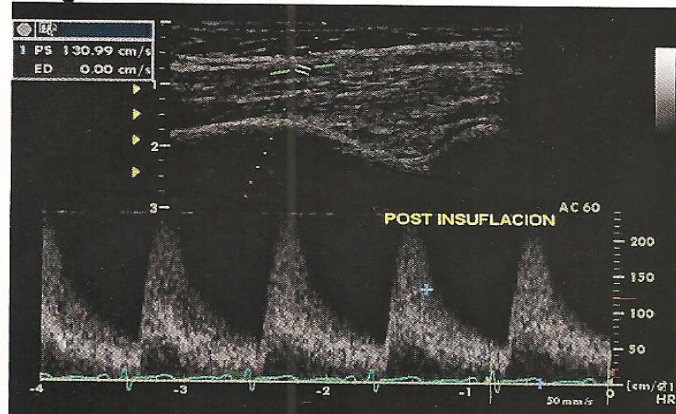
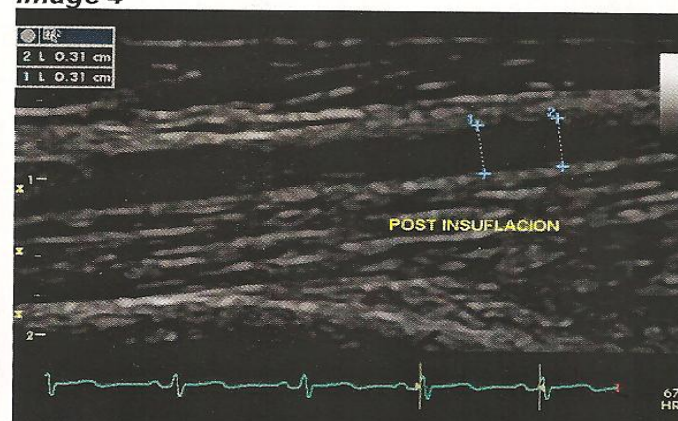
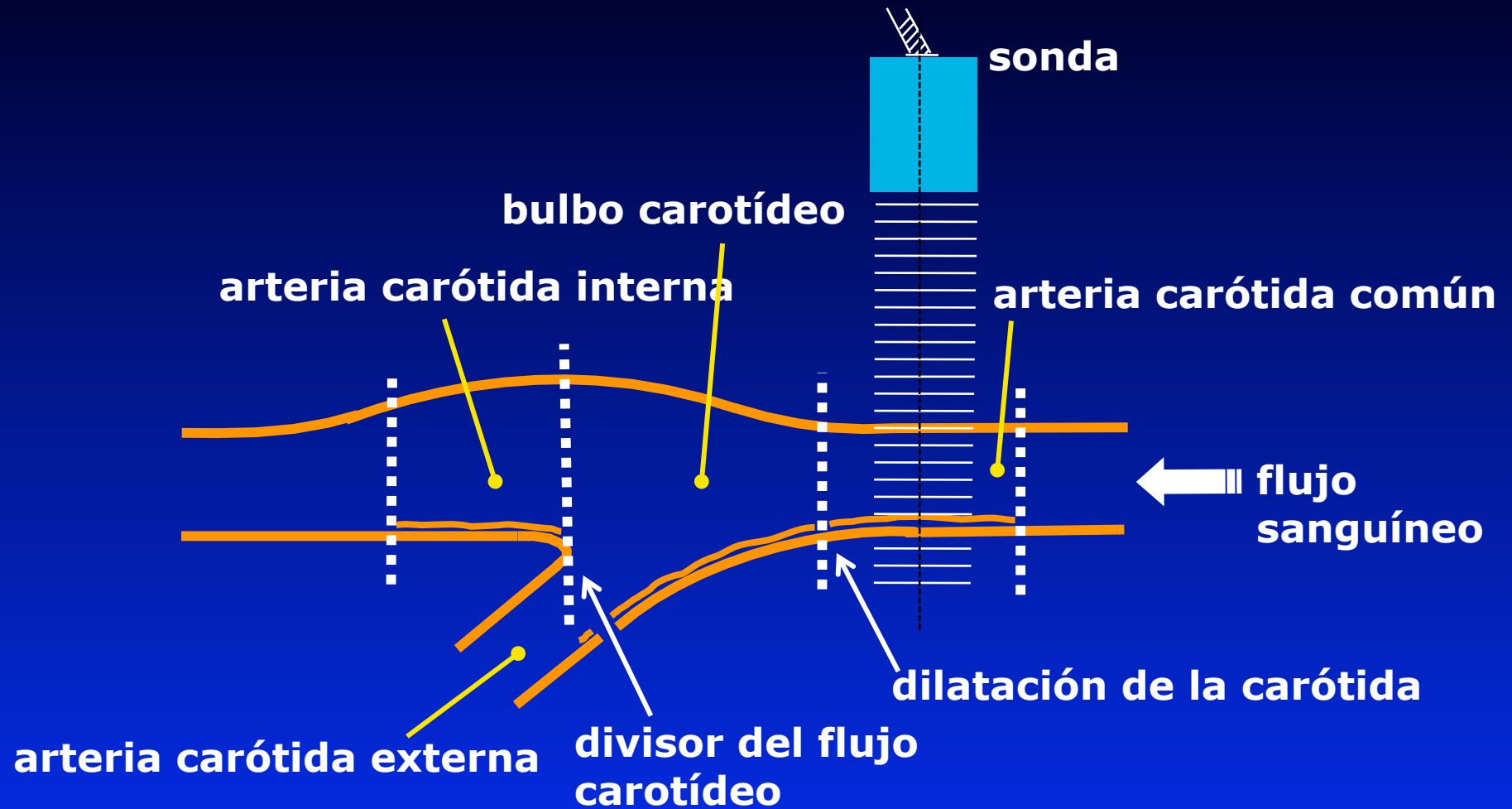


Image 4



31 mm

Medición del GIM



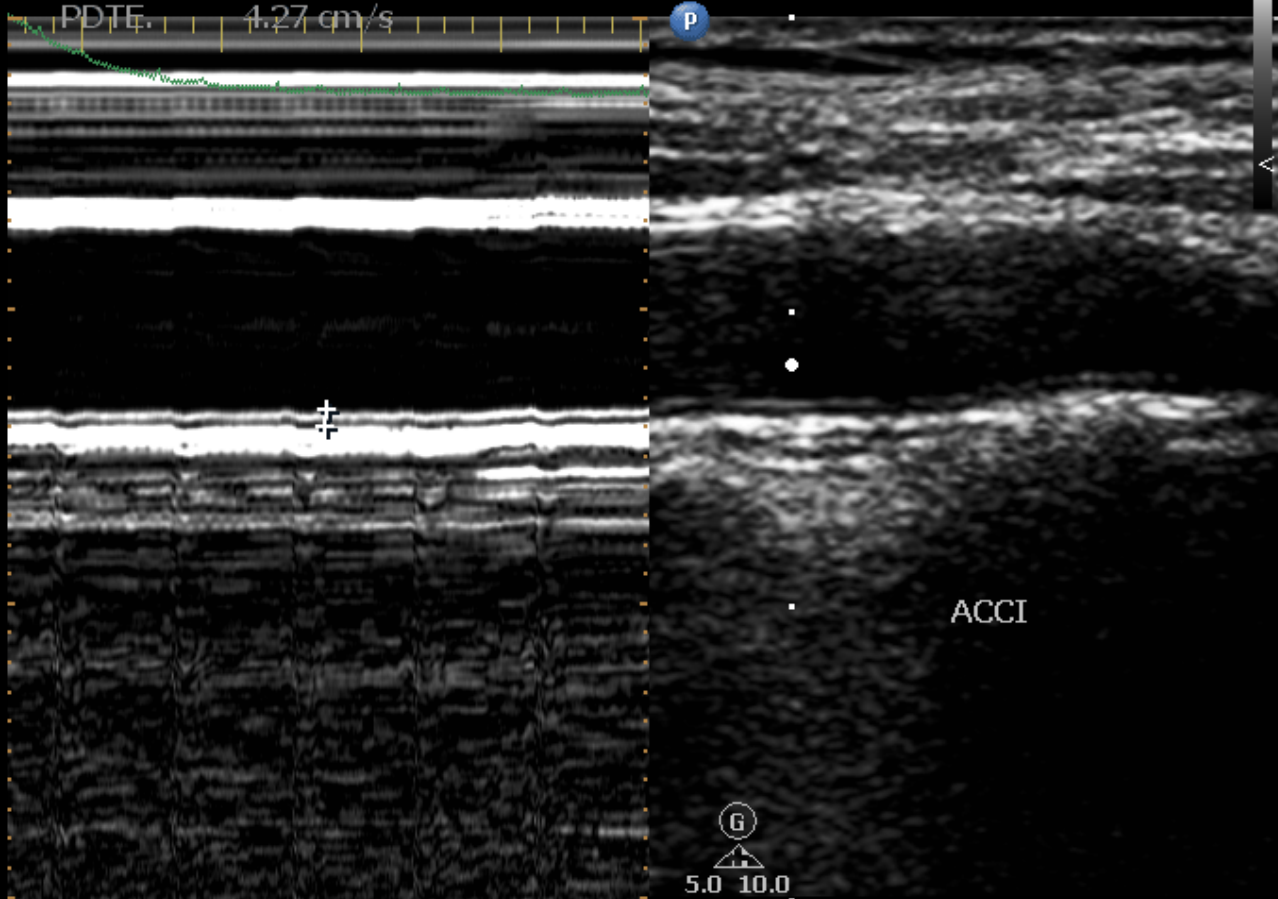
GROSOR INTIMA-MEDIA

PHILIPS CASO LOPEZ GARCIA, LUCIA 13/12/1935 MI 0.8 30/04/2007
MPL 07-04-30-193504 Philips Medical Systems TIS 0.8 20:22:42

PANTOJA
L12-3
54Hz
3cm

+ Distancia 0.058 cm
Tiempo 0.013 s
PDTE. 4.27 cm/s

2D
H1
Gan. 51
232dB/C1
J/1/2



ACCI

5.0 10.0

GIM de la carótida medido utilizando ultrasonido en modo B

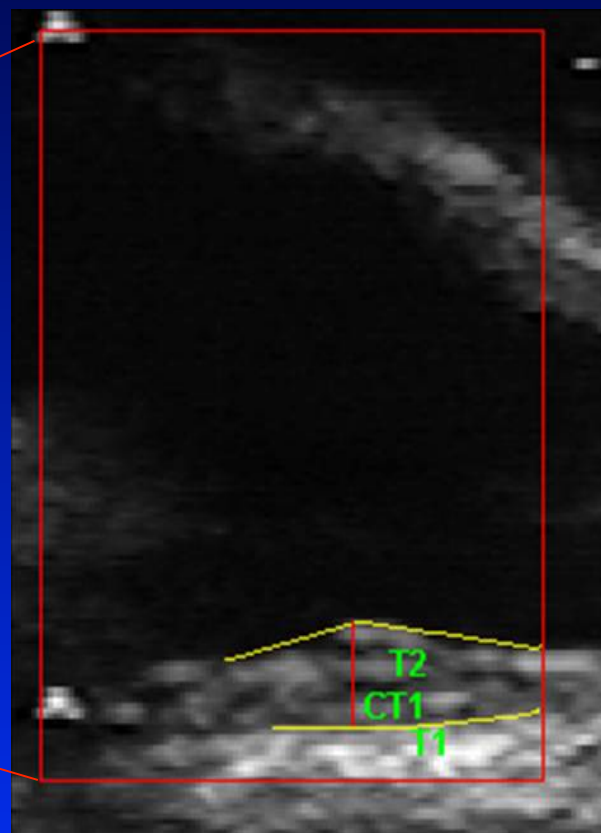
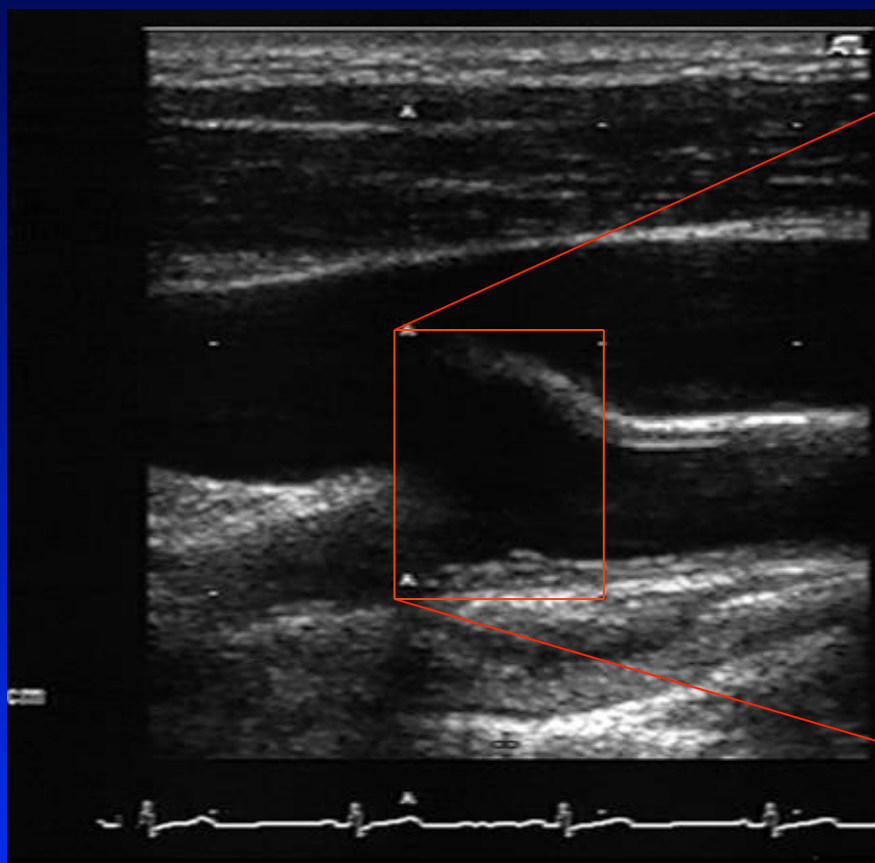
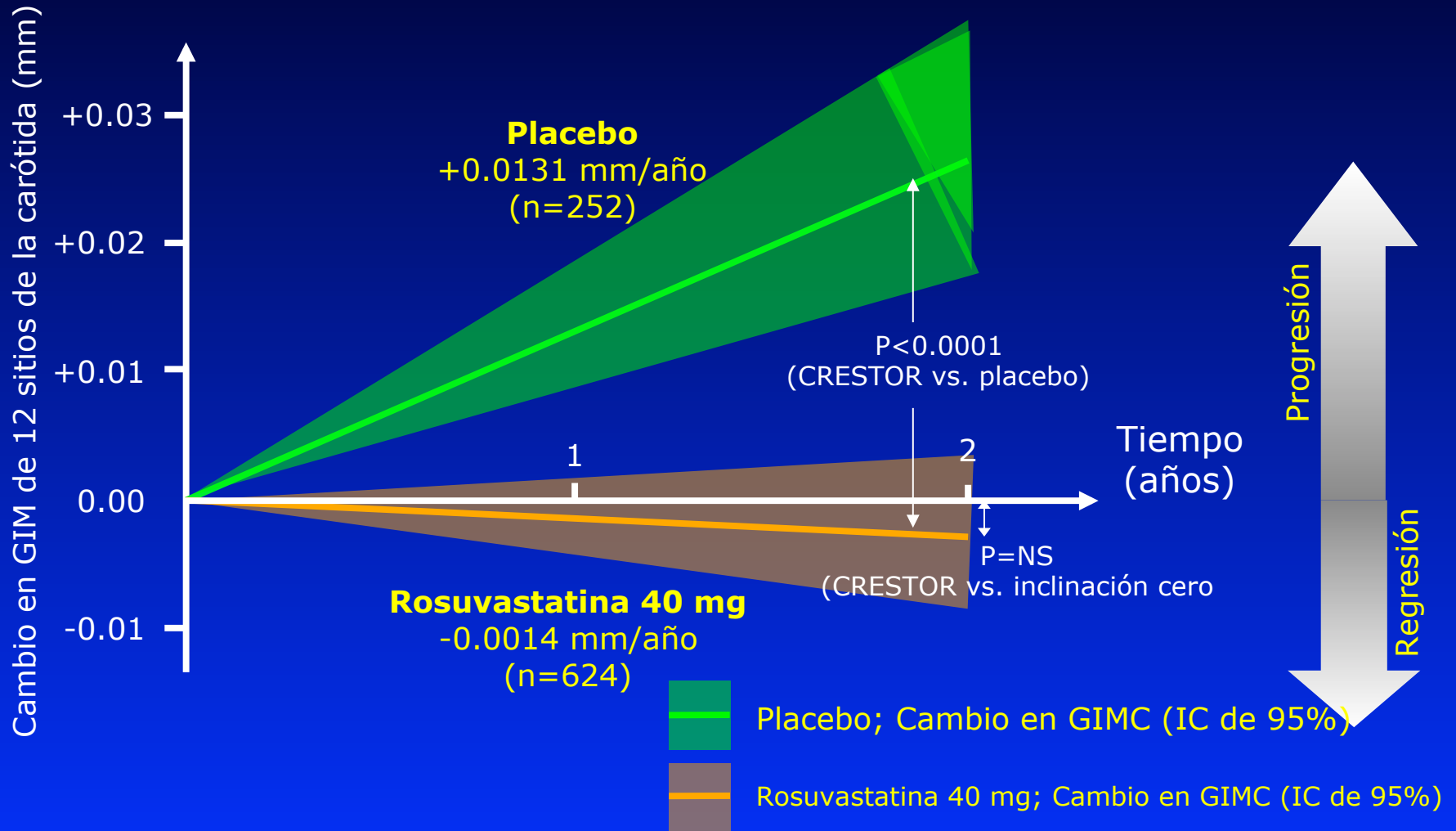


Imagen de ultrasonido de la arteria carótida Detalle que muestra la medición del GIM

METEOR objetivo final primario: Cambio del máximo GIM en 12 sitios de la carótida Rosuvastatina vs placebo



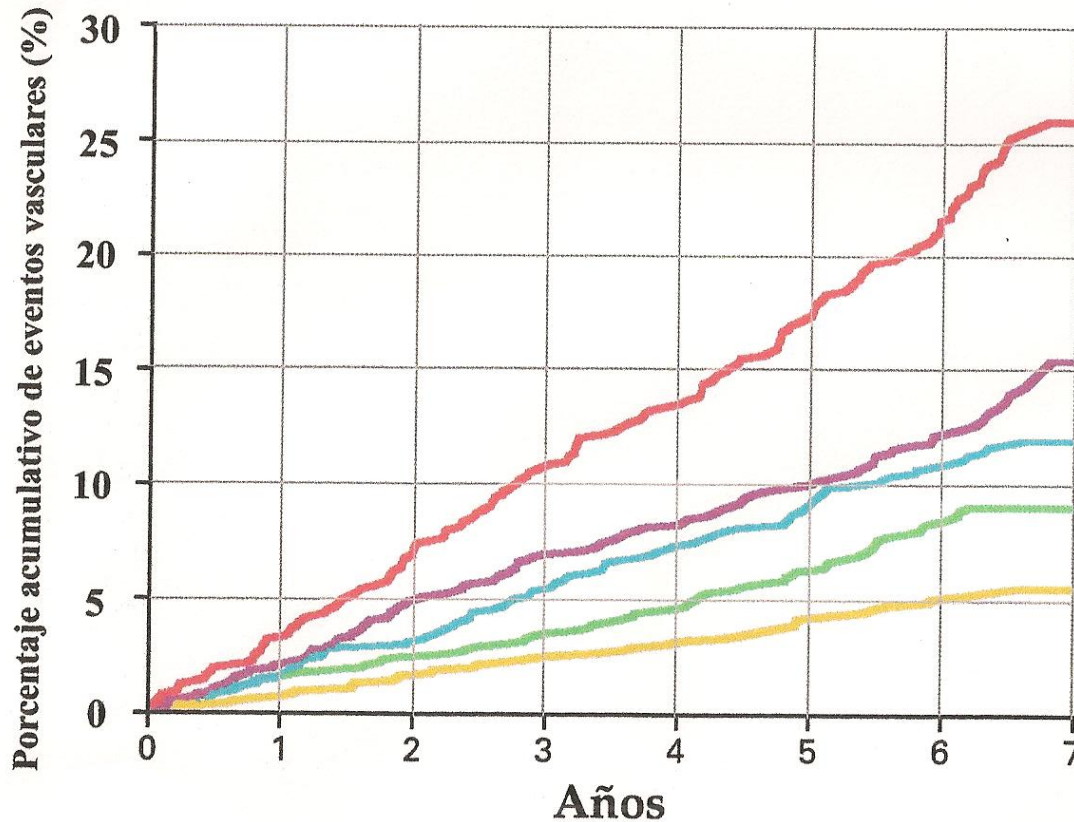
Grosor intima/media (GIM)

Cardiovascular Health Study

Engrosamiento Íntima-Media como factor de riesgo de infarto al miocardio y evento vascular cerebral

N Engl J Med 1999; 340: 14- 22

E.I.M.



1era quintila > 1.18 mm

2da quintila 1.06 – 1.17 mm

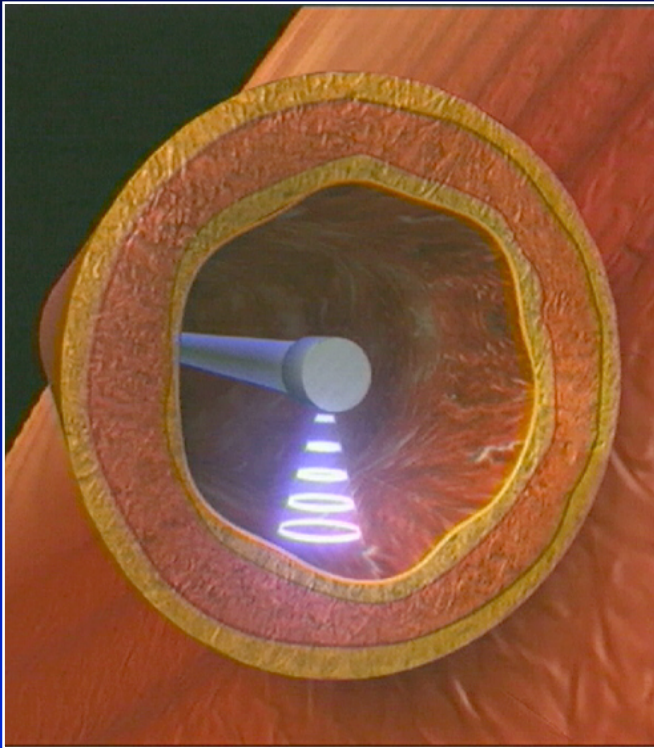
3era quintila 0.97 – 1.05 mm

4ta quintila 0.87 – 0.96 mm

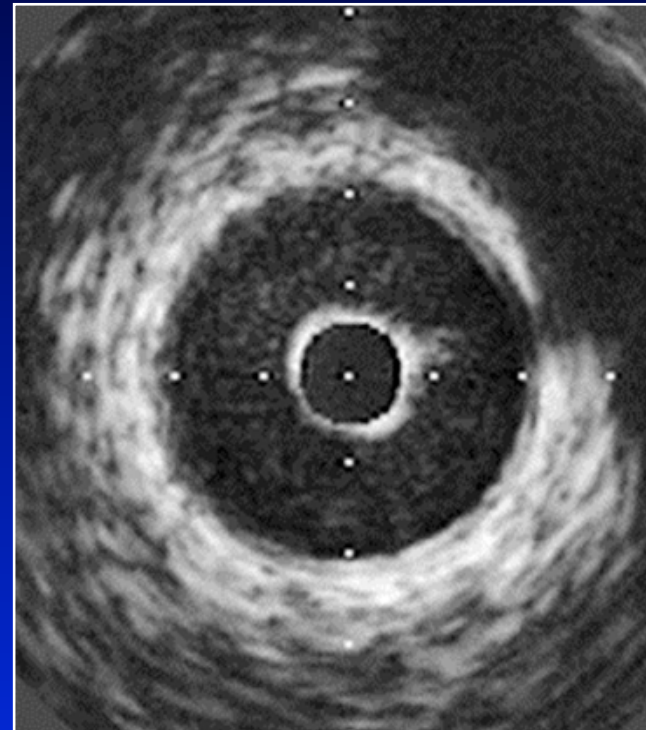
5ta quintila < 0.87 mm

Ultrasonido intracoronario

Transductor giratorio



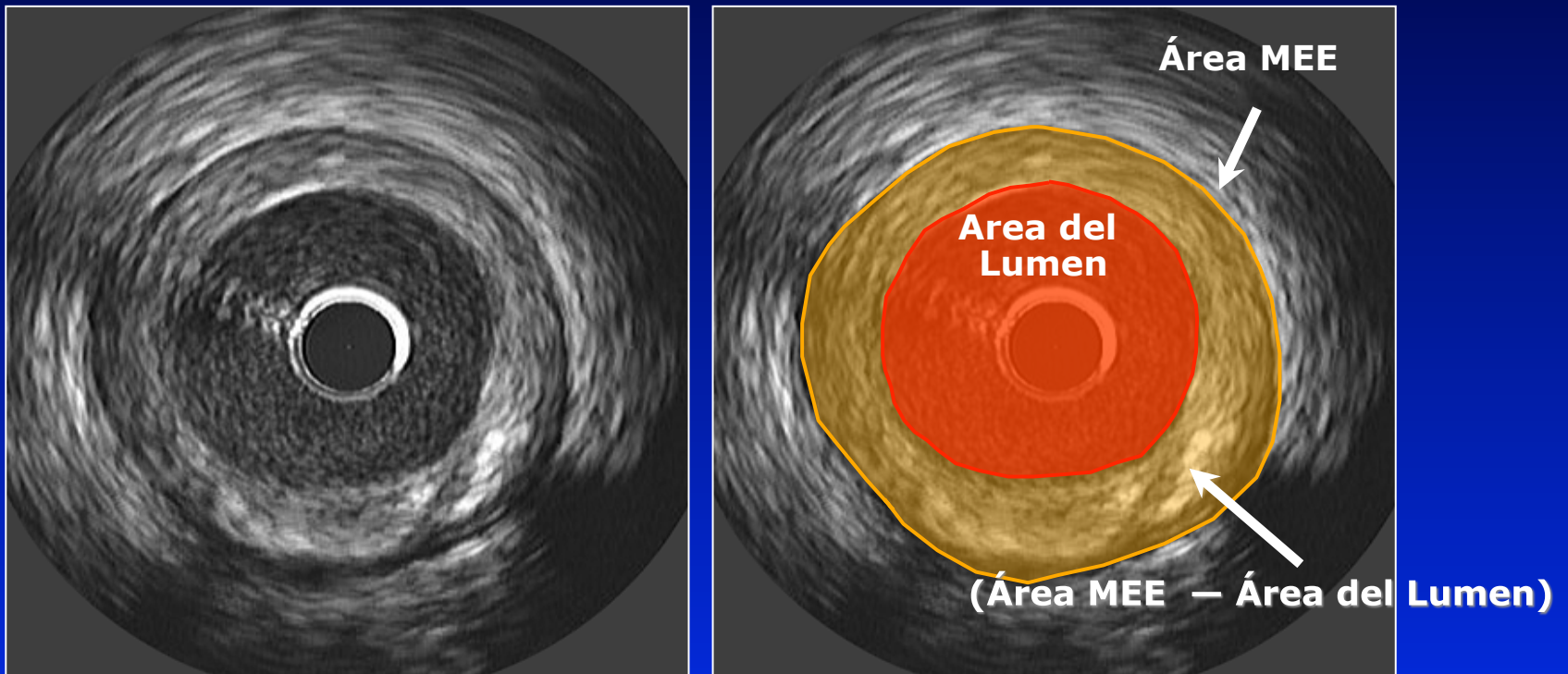
Anatomía coronaria normal



Imágenes de ultrasonido intravascular Cortesía del Laboratorio Cardiovascular de la Cleveland Clinic

Determinación Mediante el IVUS del Volumen del Ateroma

La Planimetría Precisa de la MEE y de los Bordes del Lumen permite el cálculo del Área del Corte Transversal del Ateroma



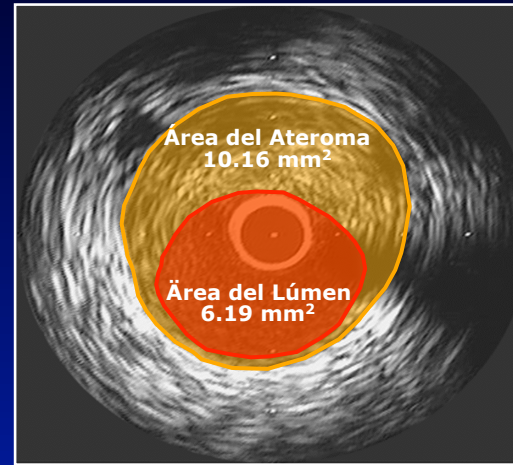
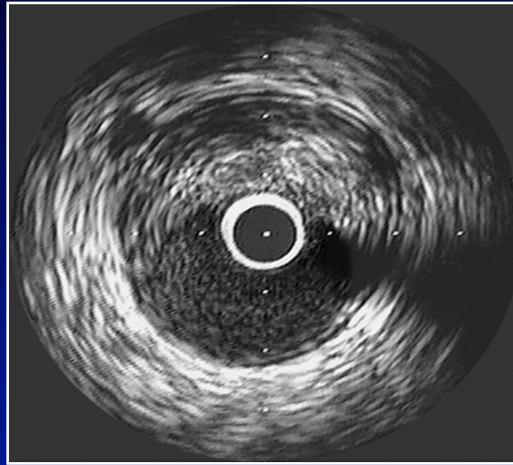
Imágenes de ultrasonido intravascular Cortesía del Laboratorio Cardiovascular de la Clínica Cleveland

MEE = Membrana Elástica Externa

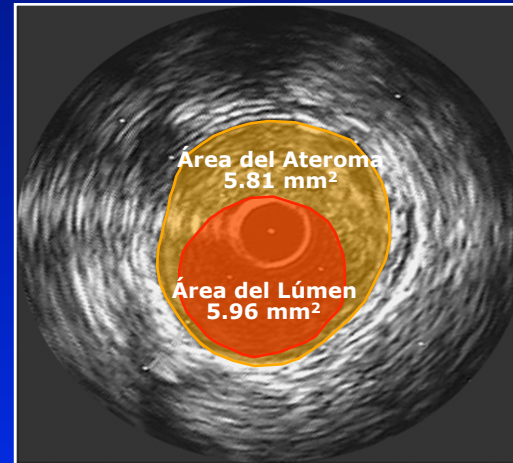
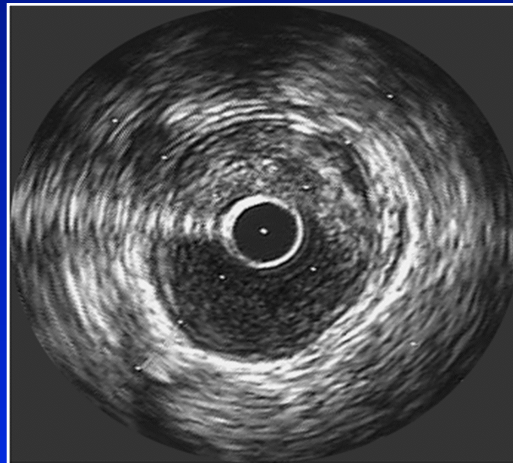
JAMA 2006;295:156-1565

Ejemplo de regresión del volumen de la placa con rosuvastatina, medida mediante IVUS

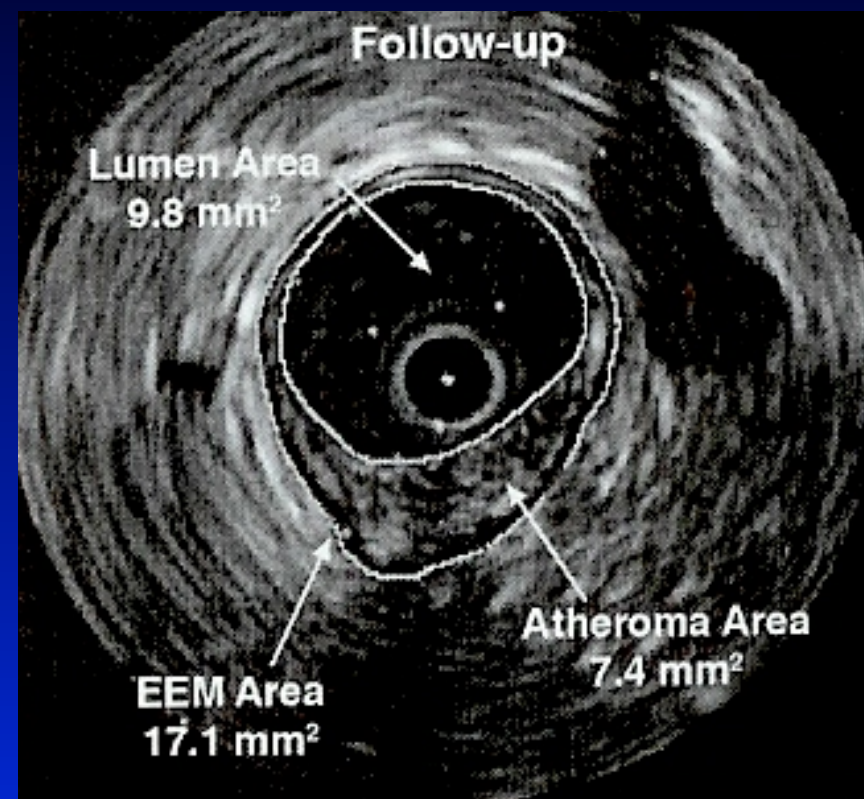
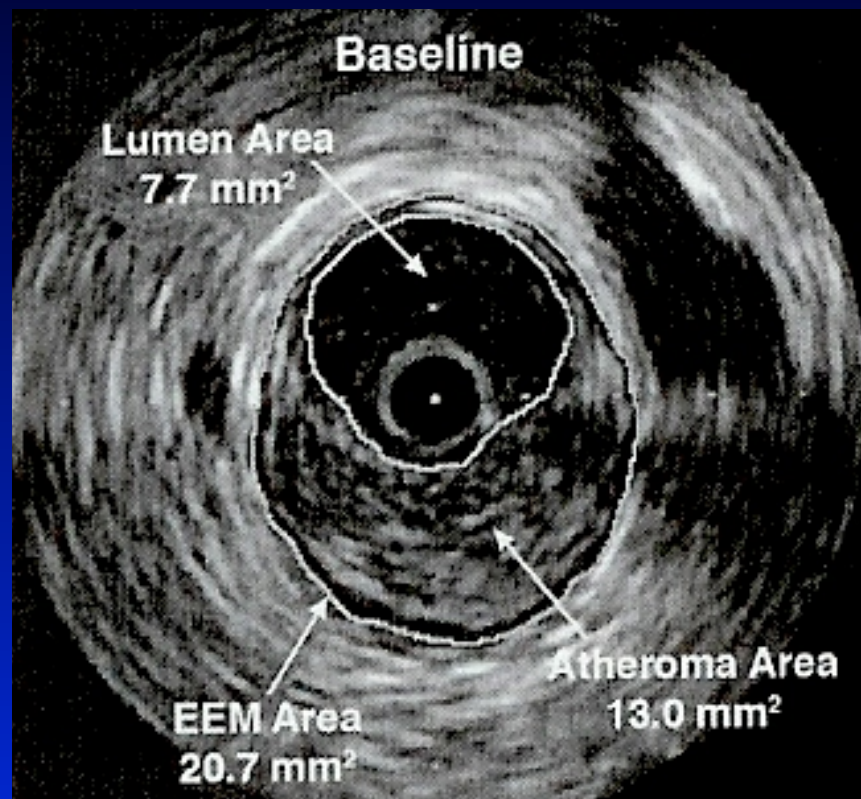
IVUS
Basal



IVUS de
seguimiento a
los 24 meses



Regresión de Aterosclerosis. XXI

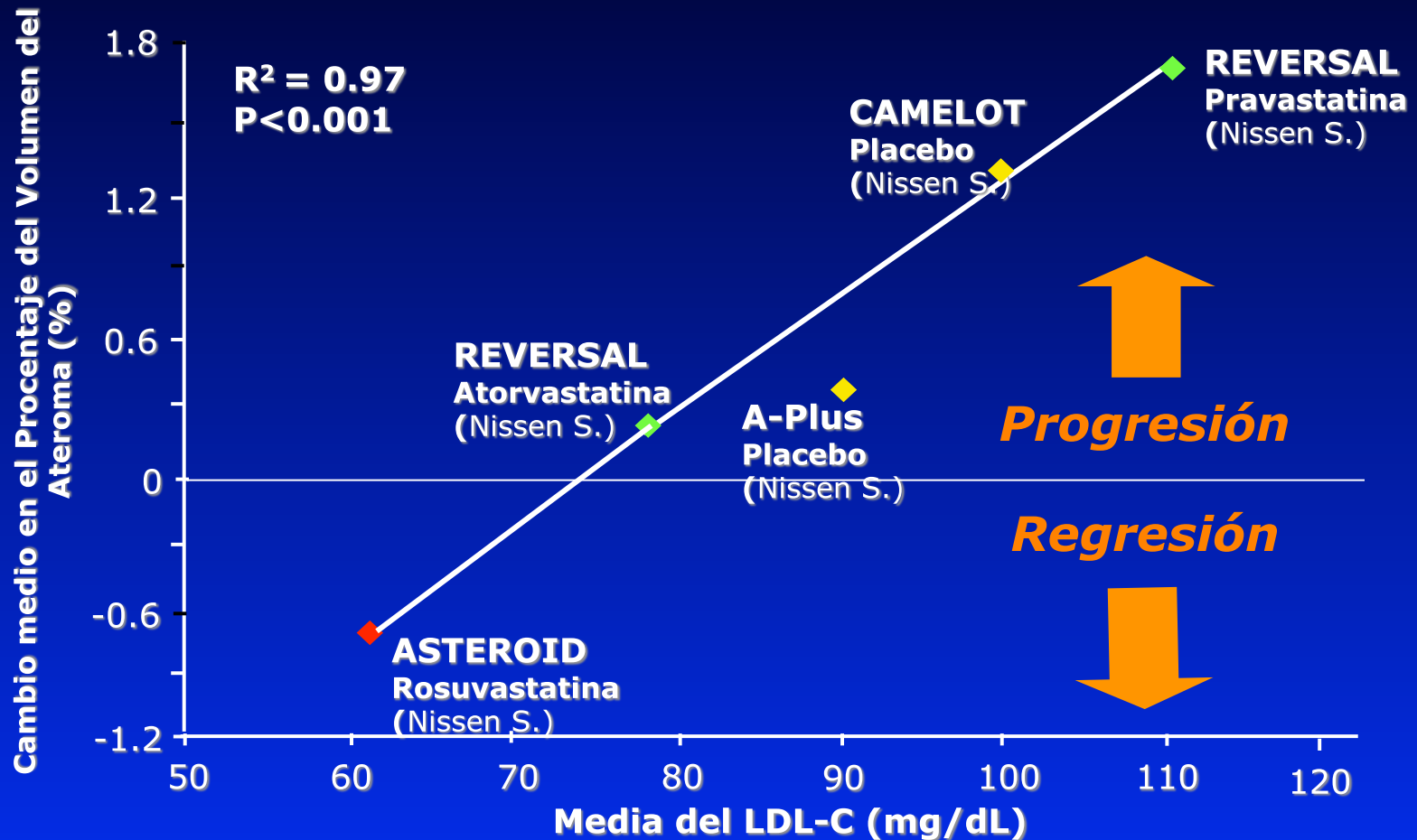


Antes del tratamiento
con estatinas

(LDL < 70 mg/dl)

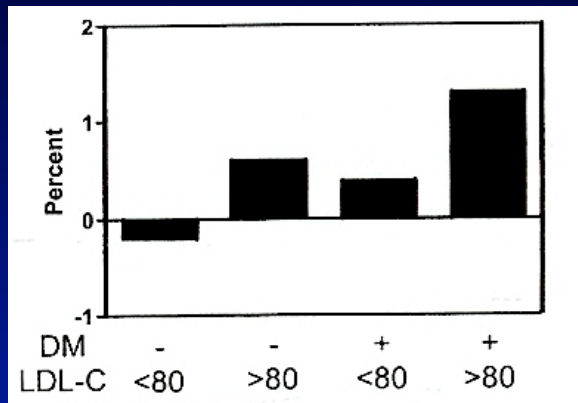
Después del tratamiento
con estatinas

Relación entre los niveles de LDL-C y el cambio en el porcentaje del volumen del ateroma para varios ensayos con IVUS

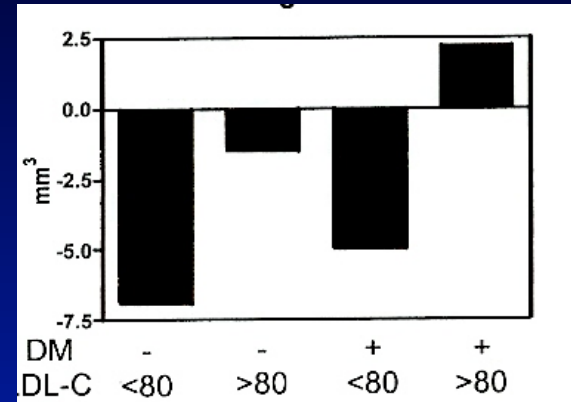


JAMA 2006;295:156-1565

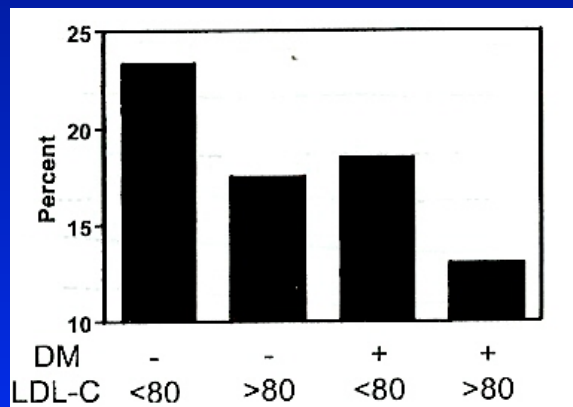
Efecto del Tratamiento sobre la Progresión y Regresión de Aterosclerosis en Diabetes Mellitus



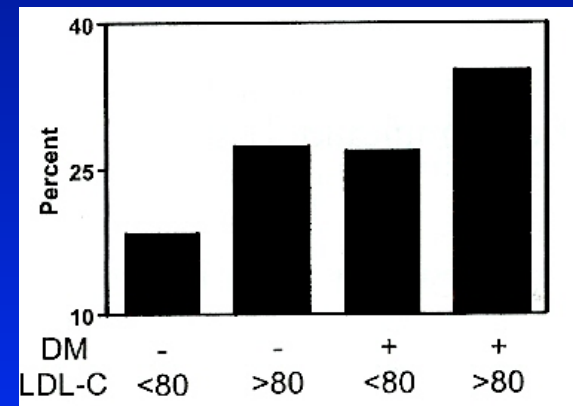
% Δ Volumen Placa



Δ Total de Placa



Regresión



Progresión