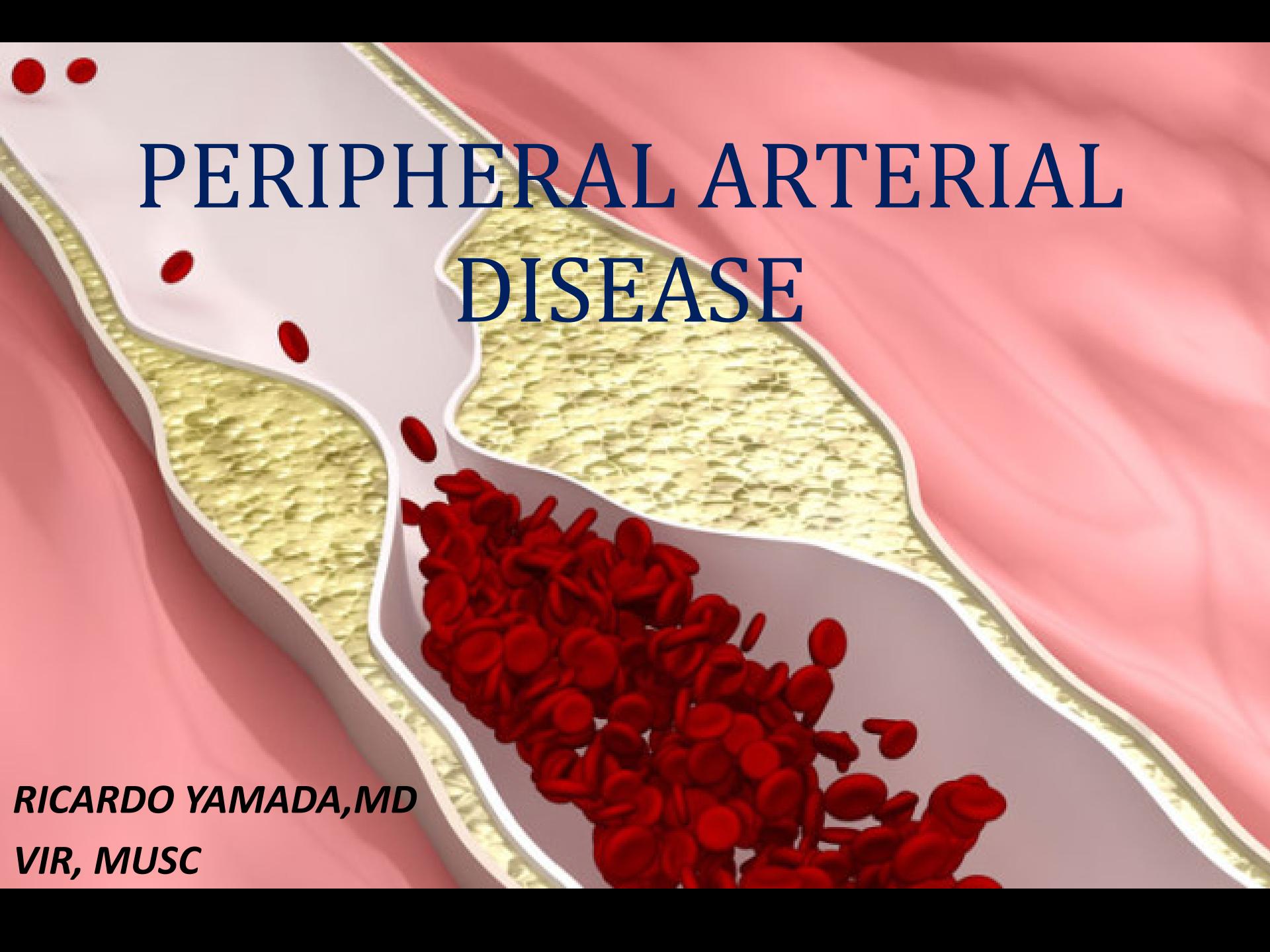
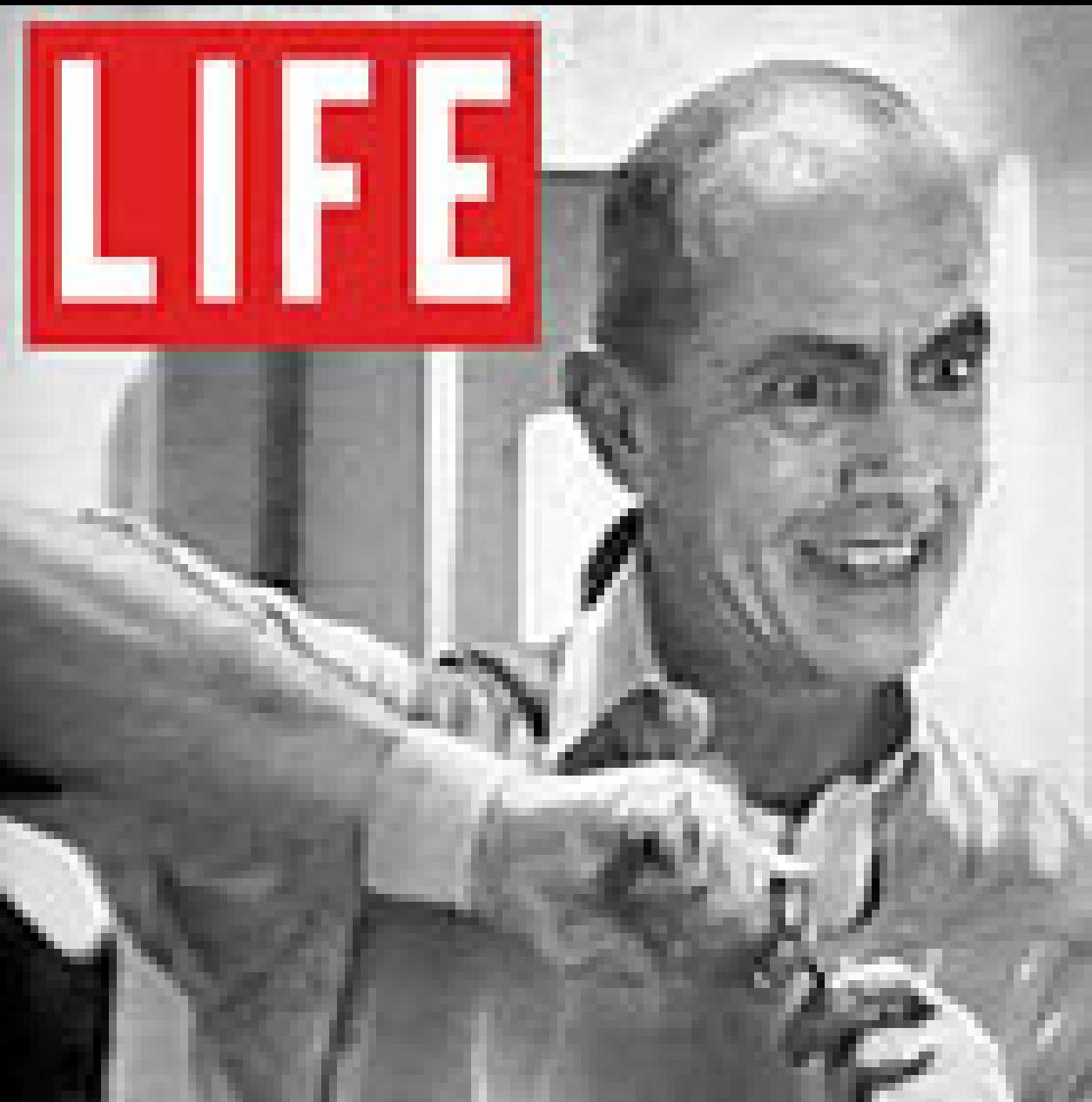


# PERIPHERAL ARTERIAL DISEASE

An anatomical cross-section of a blood vessel wall is shown against a pink background. The innermost layer is white, followed by a yellowish plaque layer. A large cluster of red blood cells is depicted flowing through the vessel, with many cells obstructed by the plaque, illustrating the narrowing of the lumen.

**RICARDO YAMADA, MD**  
**VIR, MUSC**

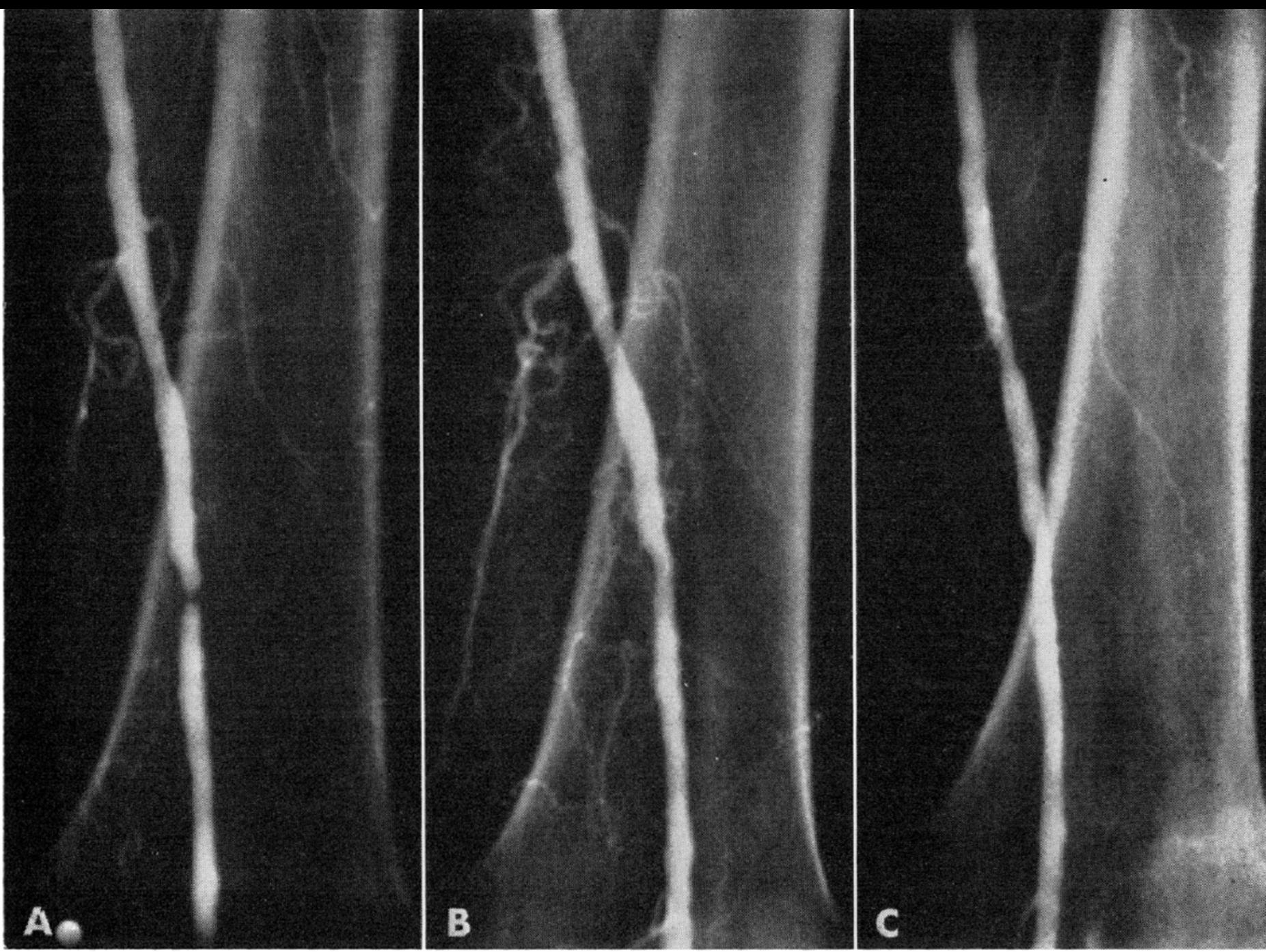


# **Transluminal Treatment of Arteriosclerotic Obstruction**

## **Description of a New Technic and a Preliminary Report of Its Application**

*By CHARLES T. DOTTER, M.D., AND MELVIN P. JUDKINS, M.D.*

*Circulation, Volume XXX, November 1964*

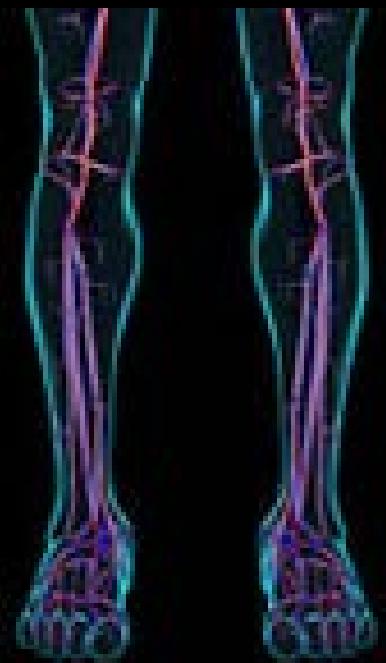
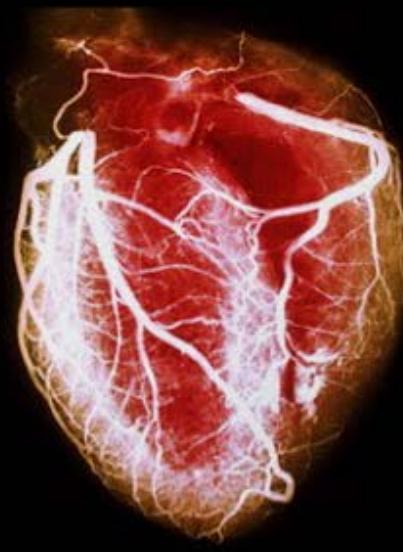


A

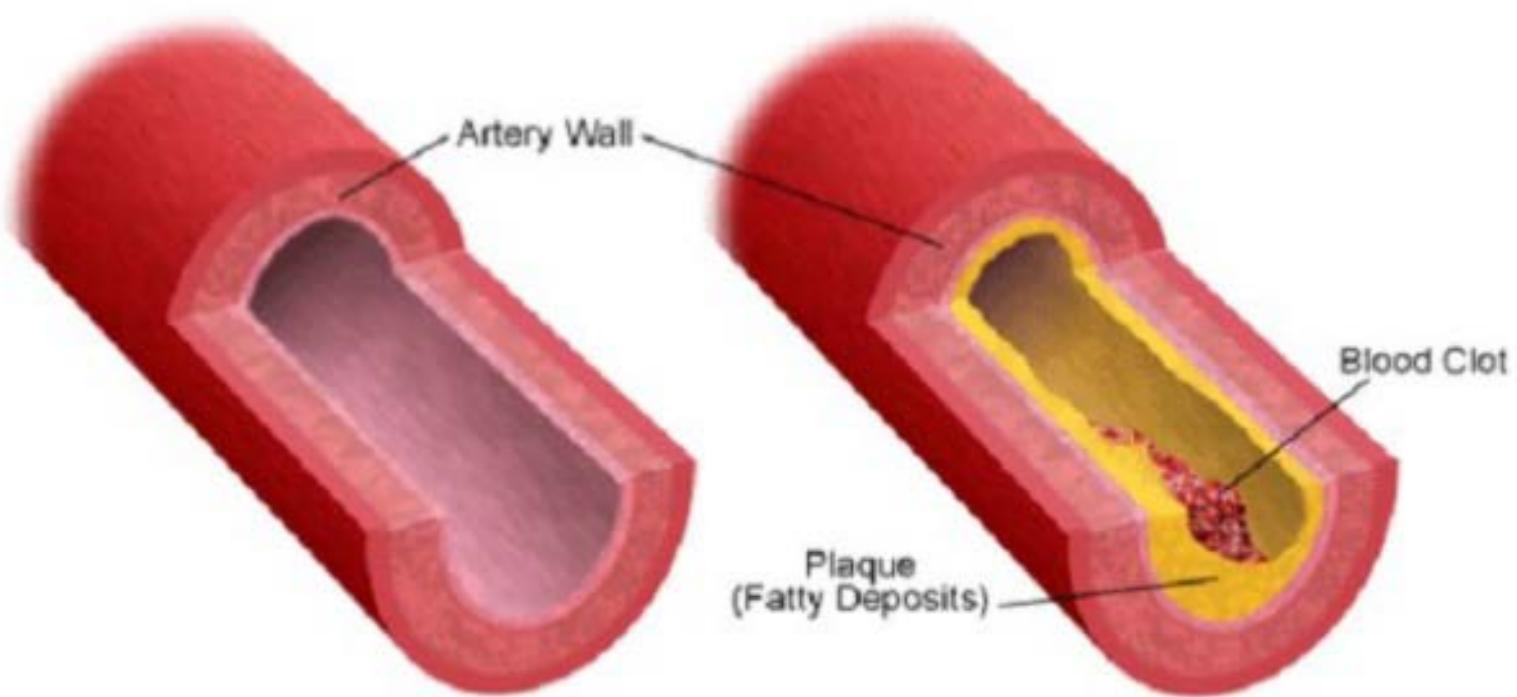
B

C

“ Atherosclerosis of the arteries of the lower extremities resulting in exercise induced ischemia, ulcers and gangrene of the limbs ”



# ATHEROSCLEROSIS



- 
- A photograph showing the back view of an elderly couple walking away from the camera on a paved path. The man on the left wears a blue vest over a light-colored shirt and dark trousers. The woman on the right wears a tan coat, a plaid skirt, and a light-colored hat. She uses a wooden cane. They are walking away from a paved road towards a grassy area with trees. The lighting suggests it's either morning or late afternoon.
- Overall prevalence of 3% - 10%
  - 10% -20% above 70 yo

# Peripheral Arterial Disease

## Risk Factors

- Smoking
- High Cholesterol
- Diabetes
- Being Overweight
- High Blood Pressure
- Inactive Lifestyle

# *CLINICAL PRESENTATION*

- INTERMITTENT CLAUDICATION
- CHRONIC CRITICAL LIMB ISCHEMIA
- ACUTE LIMB ISCHEMIA

# *INTERMITENT CLAUDICATION*



“MUSCLE DISCOMFORT IN THE LOWER  
EXTREMITIES PRODUCED BY EXERCISE AND  
RELIEVED BY REST WITHIN 10 MINUTES”

# *CHRONIC CRITICAL LIMB ISCHEMIA*



- REST PAIN
- ULCER OR GANGRENE

# ACUTE LIMB ISCHEMIA



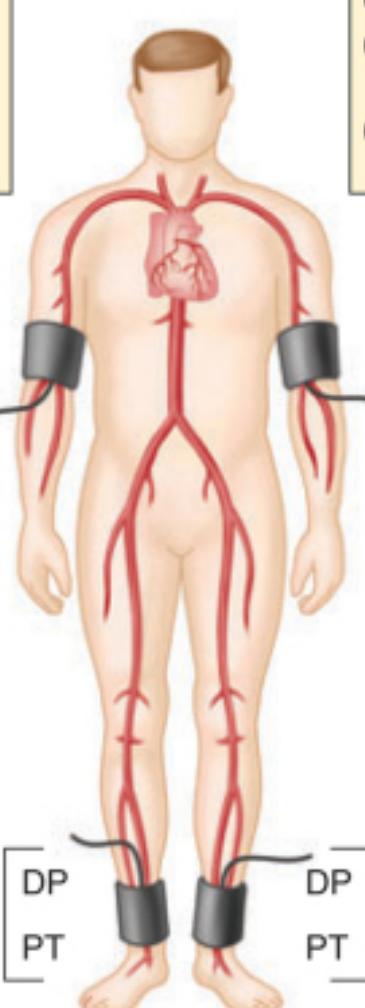
# *WORK-UP*

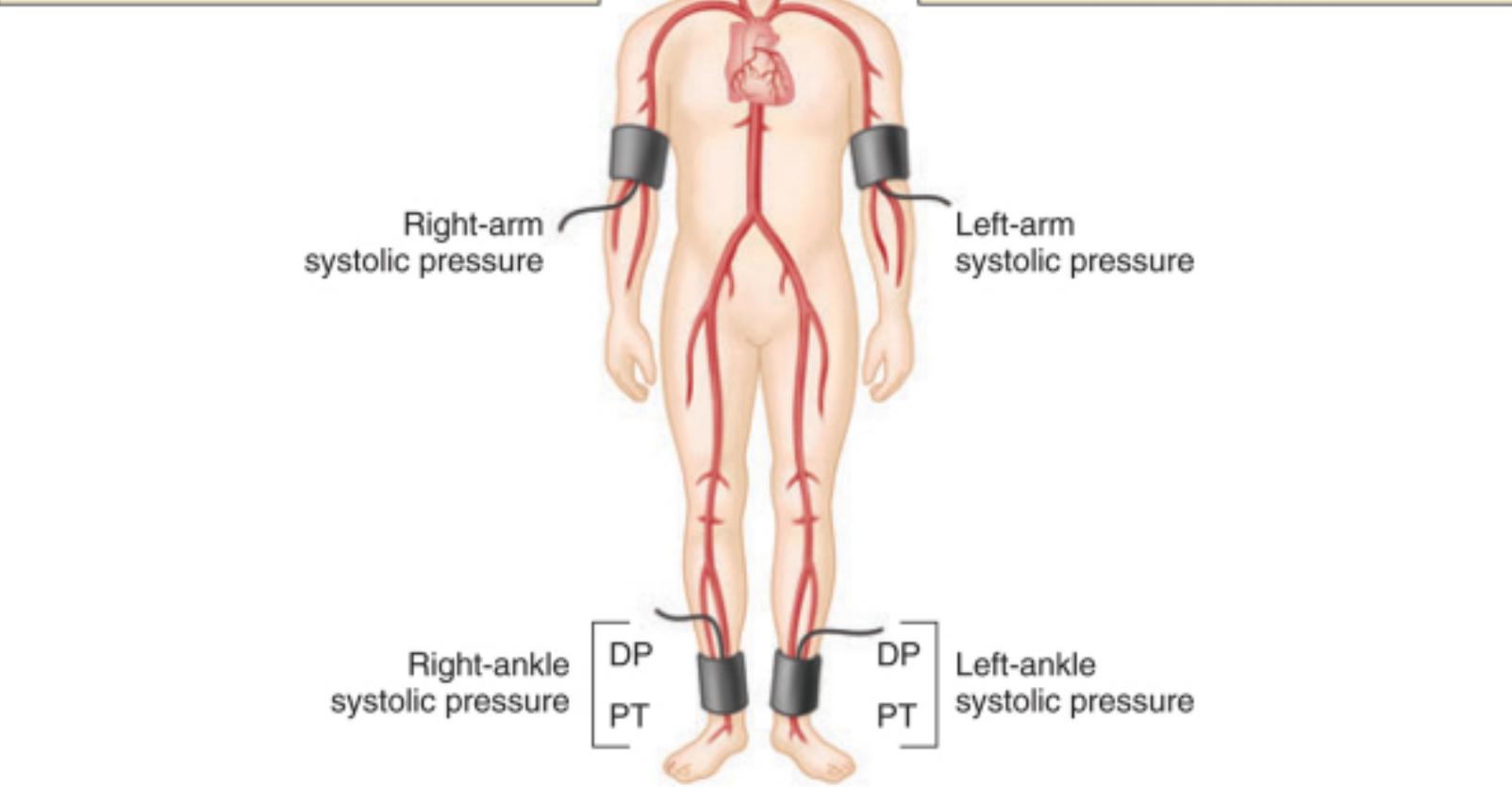
- VASCULAR LAB
- US Doppler
- CTA

# VASCULAR LAB



# ANKLE-BRACHIAL INDEX (ABI)

Right ABI	$\frac{\text{Higher right-ankle pressure}}{\text{Higher arm pressure}}$		<b>Interpretation of ABI</b>
Left ABI	$\frac{\text{Higher left-ankle pressure}}{\text{Higher arm pressure}}$		



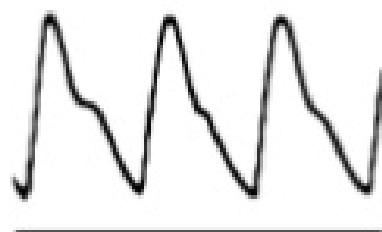
# *TOE PRESSURE AND TBI*

- 30 mmHg lower than the ankle pressure
- < 50 mmHg : ulcers
- < 30 mmHg : rest pain

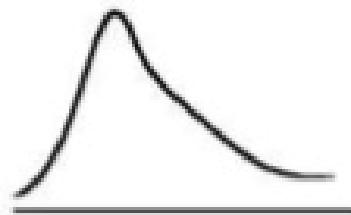


# PULSE VOLUME RECORDING

- Measures changes in pressure, reflecting arterial pulsatility (air plethysmography)
- The shape of the signal is affected by calcification of the arteries as well as occlusions



Normal



Mildly abnormal



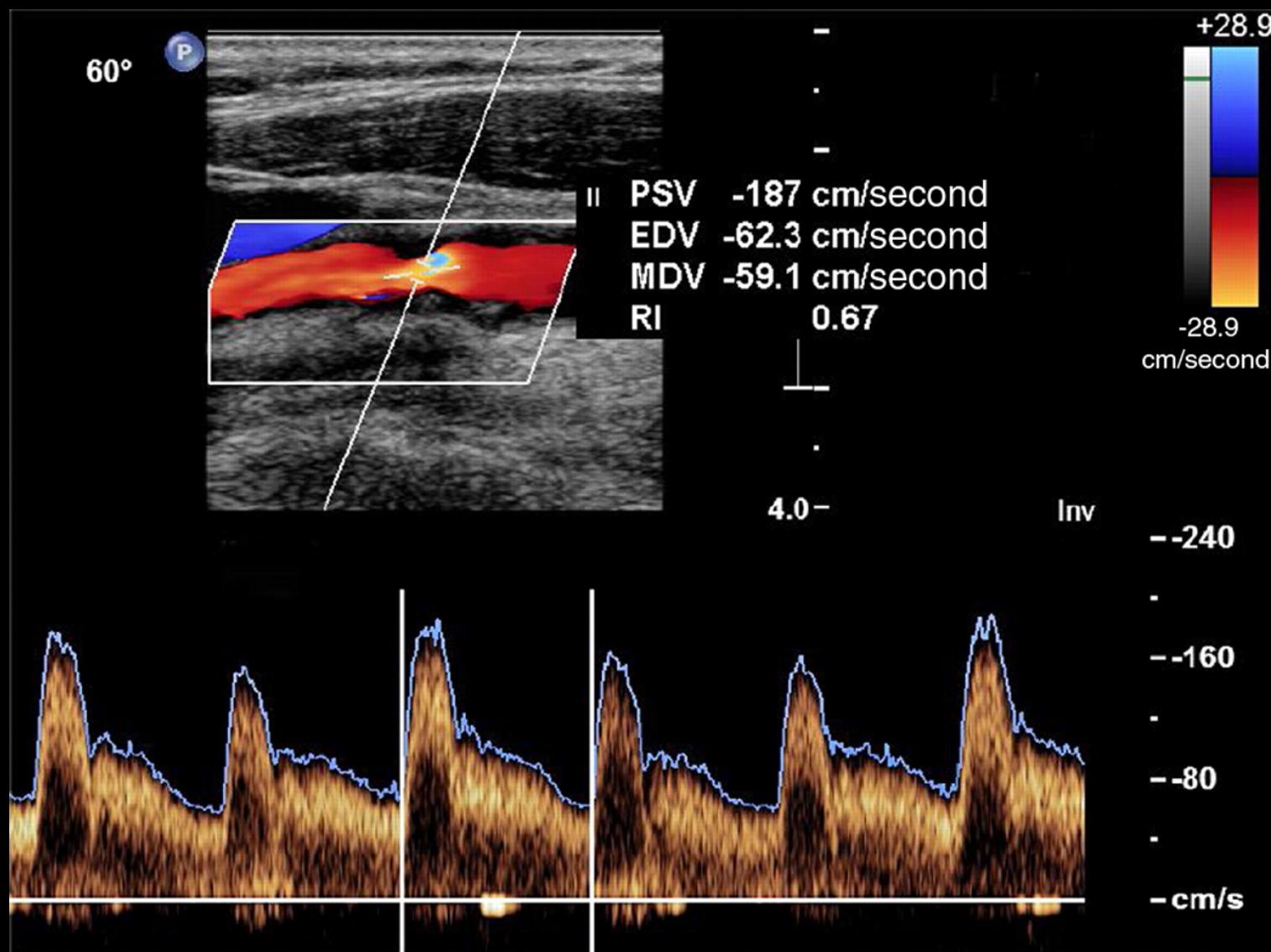
Moderate abnormal



Severely abnormal



# *US DOPPLER*

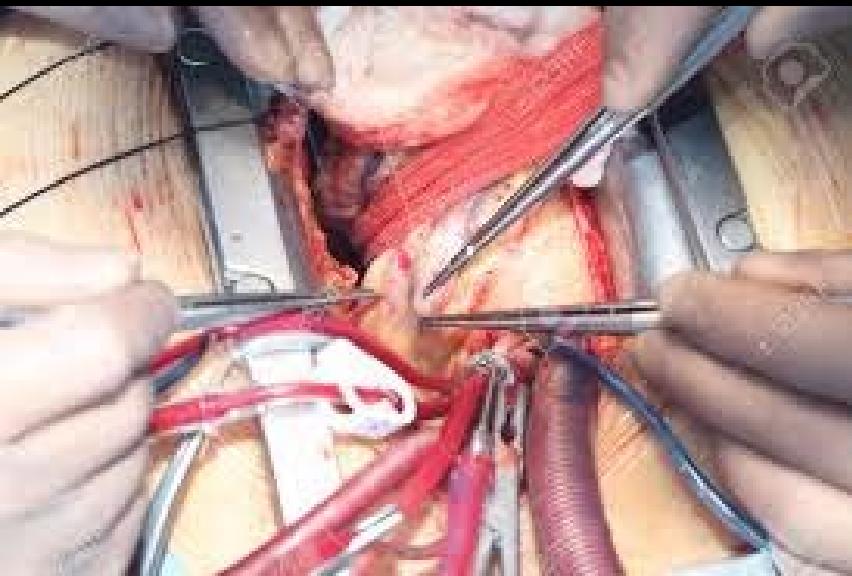


# CTA



# *TREATMENT*

- RISK FACTOR CONTROL
- MEDICATION : CILOSTOZOL
- REVASCULARIZATION

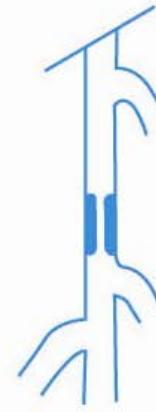
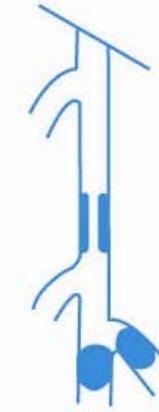
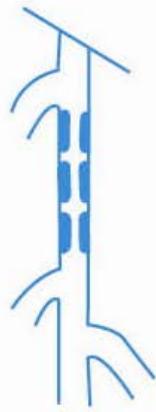
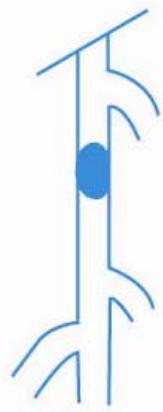


VS



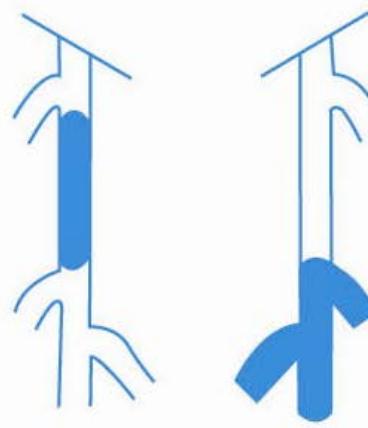


**Inter-Society Consensus  
for the Management of PAD**



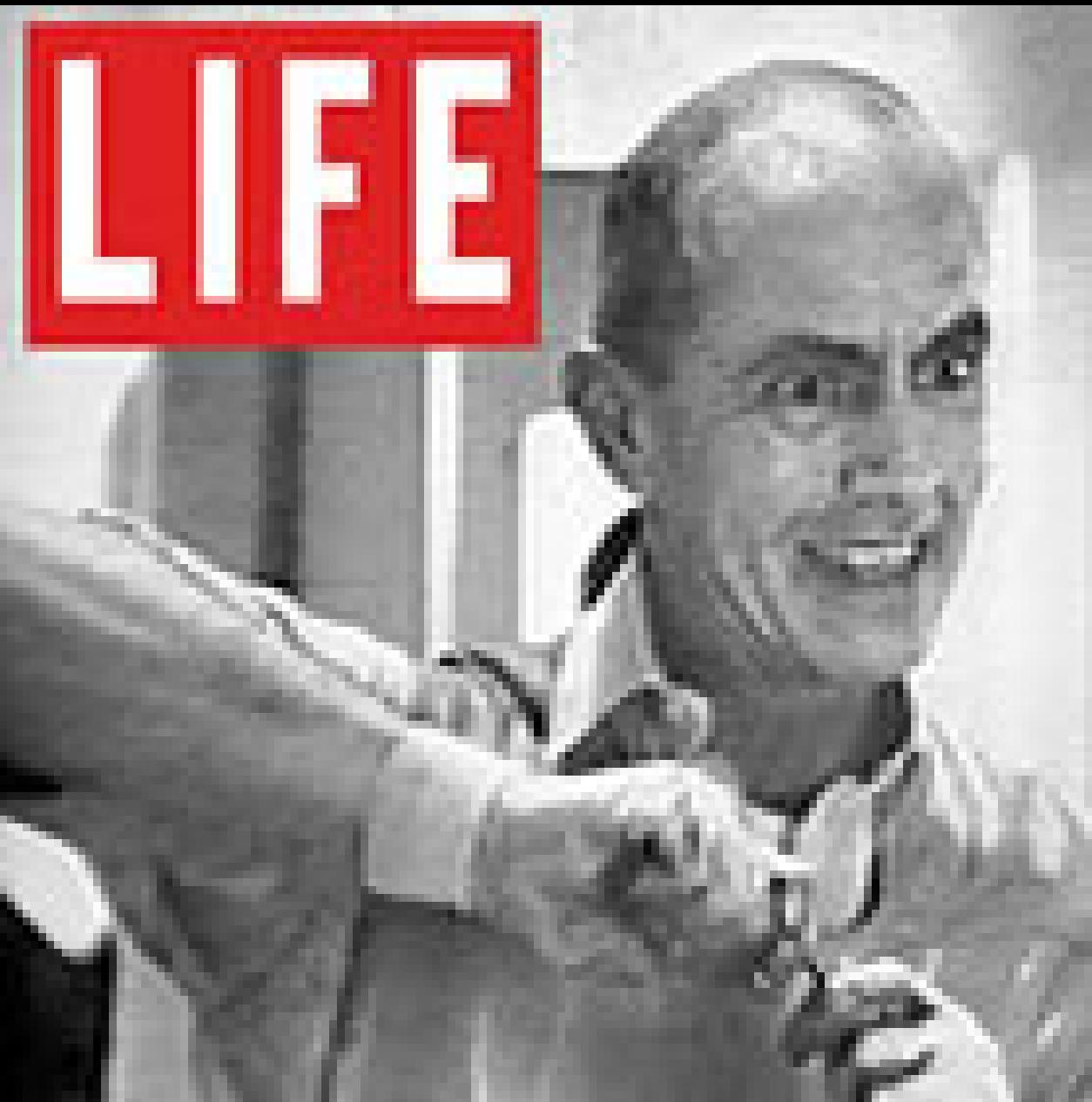
Type A

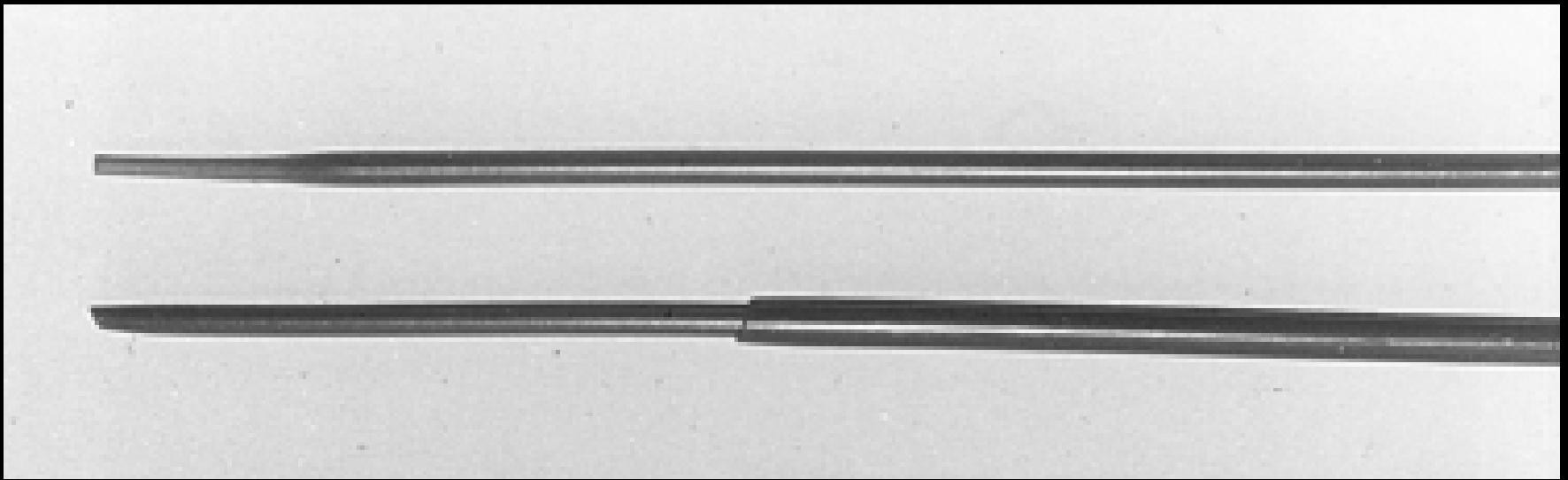
Type B



Type C

Type D

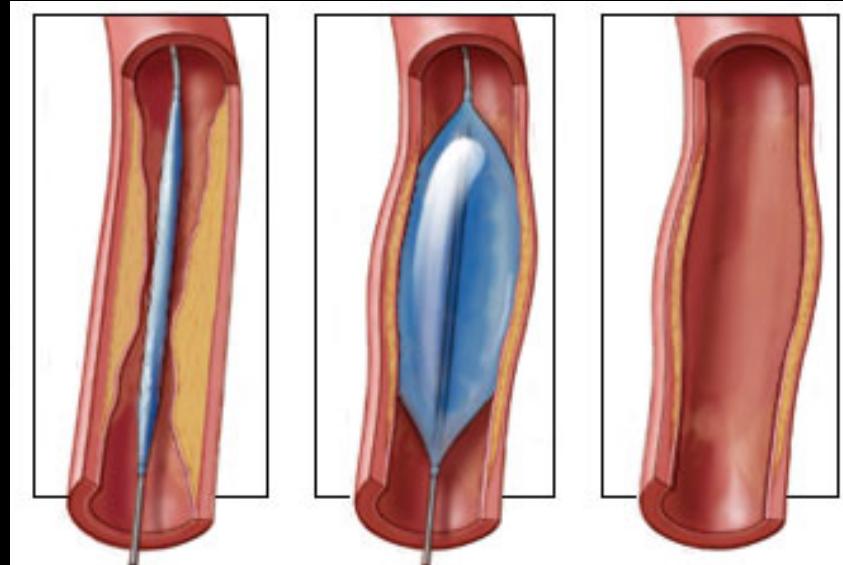
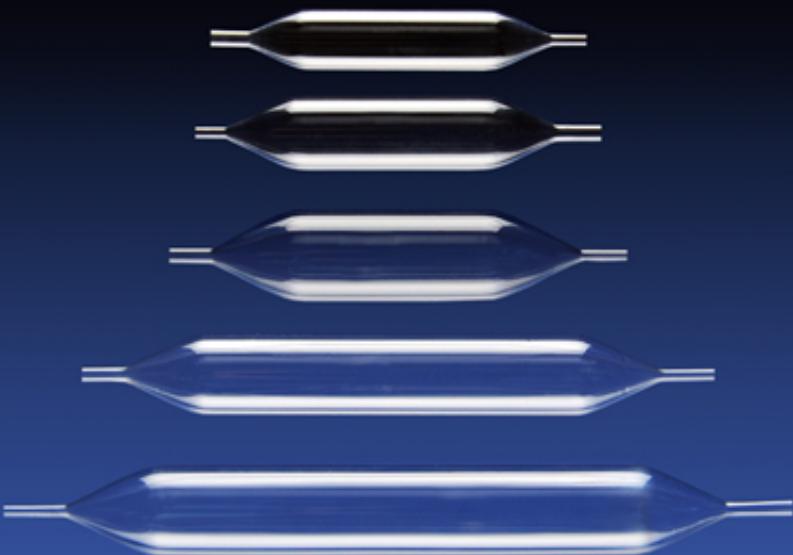




# *ENDOVASCULAR OPTIONS*

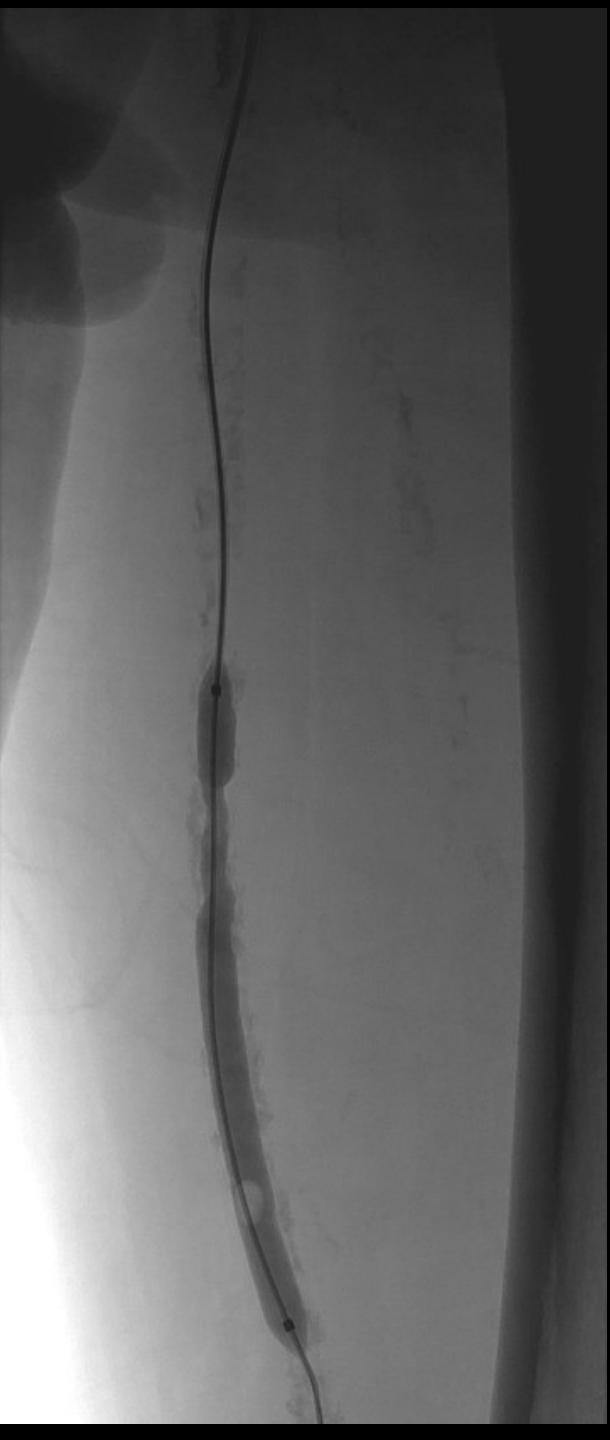
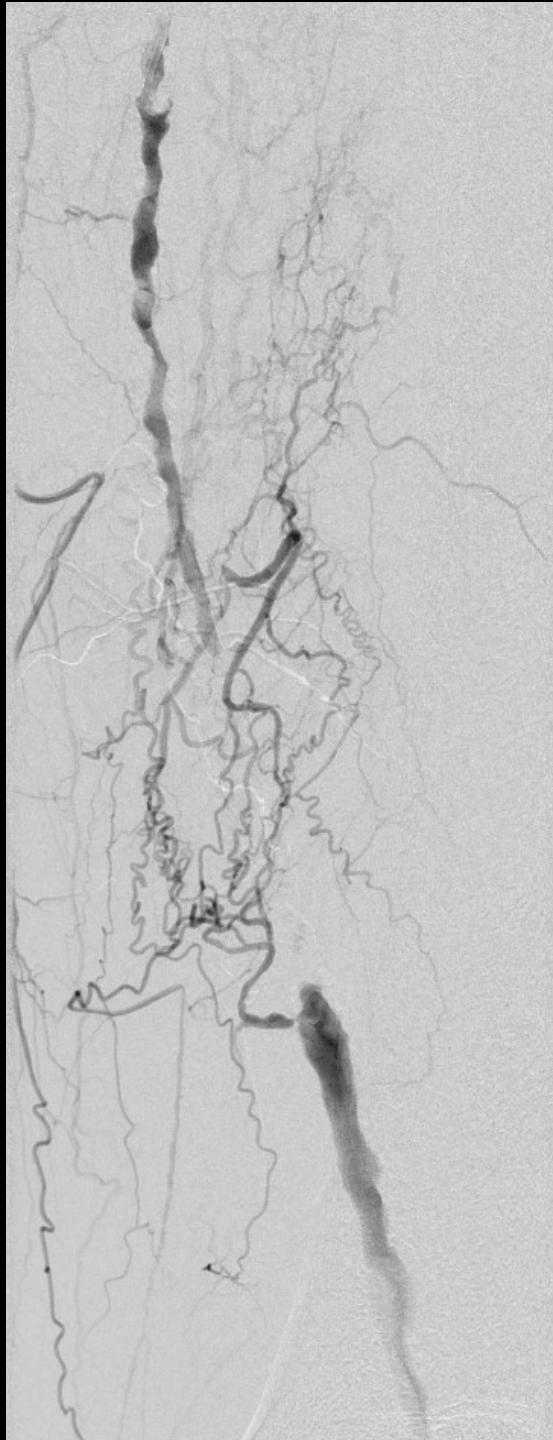
- BALLOON ANGIOPLASTY
- DRUG ELUTING BALLOON
- ATHERECTOMY
- STENT
- DRUG ELUTING STENT

# BALLOON ANGIOPLASTY



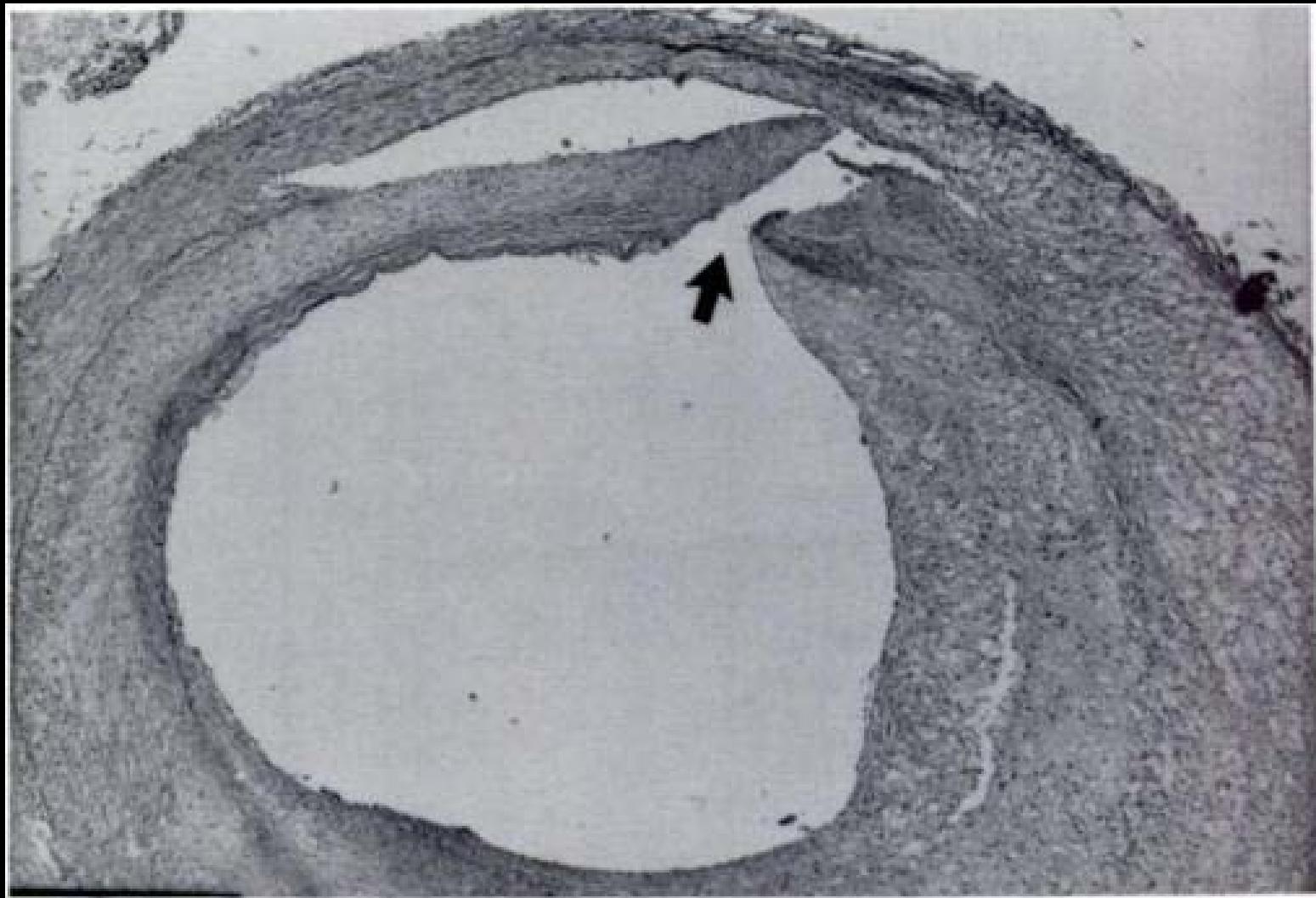
Deflated balloon in artery

Inflated balloon compresses plaque against artery walls

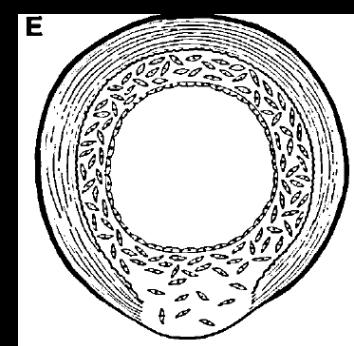
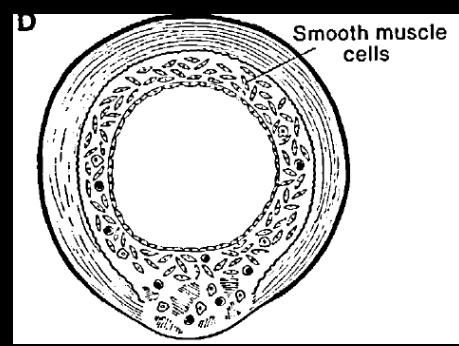
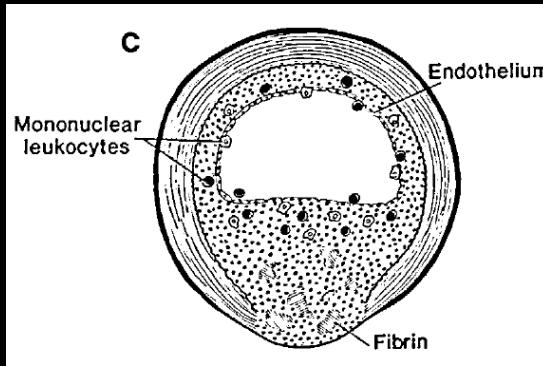
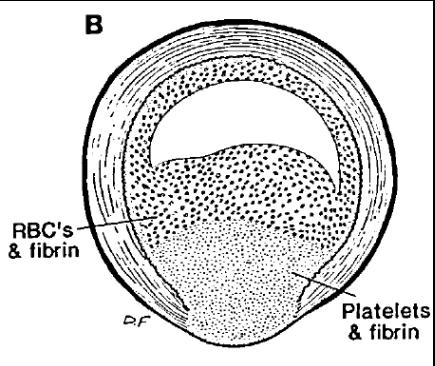
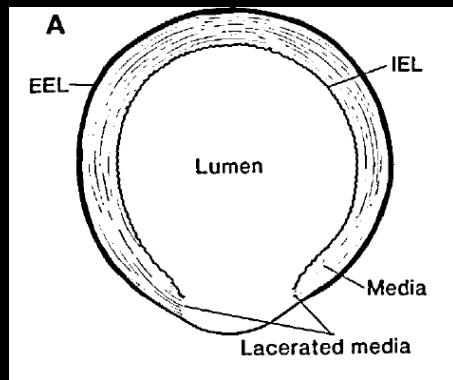




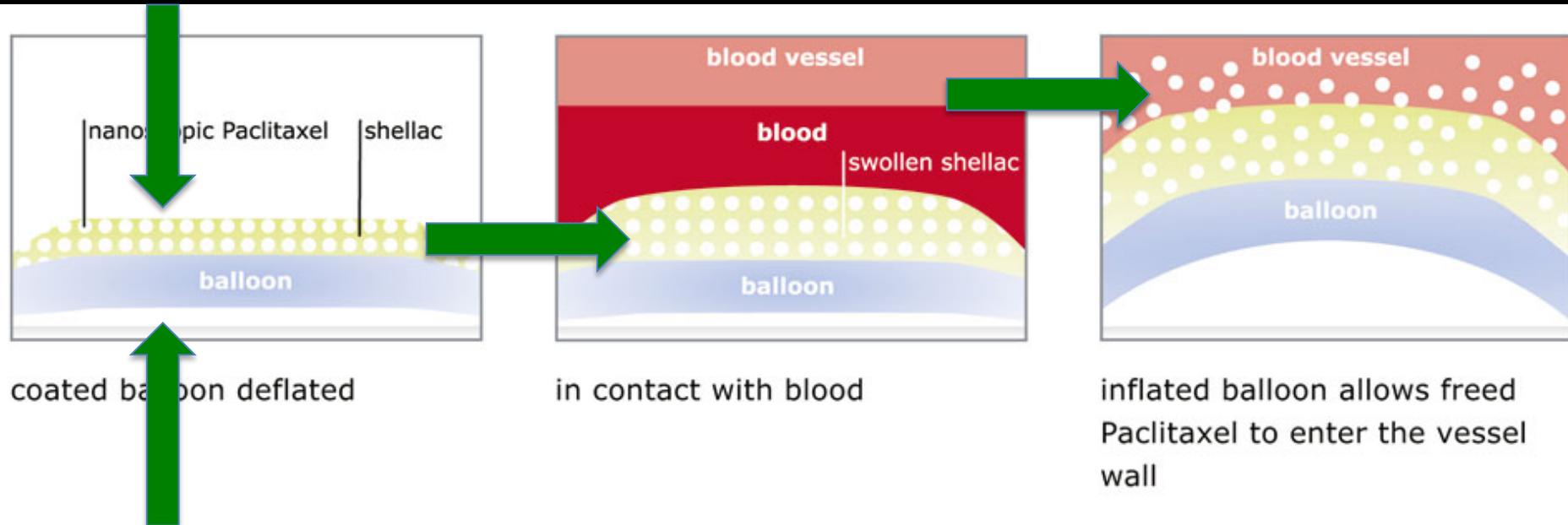
# *PATHOPHYSIOLOGY*



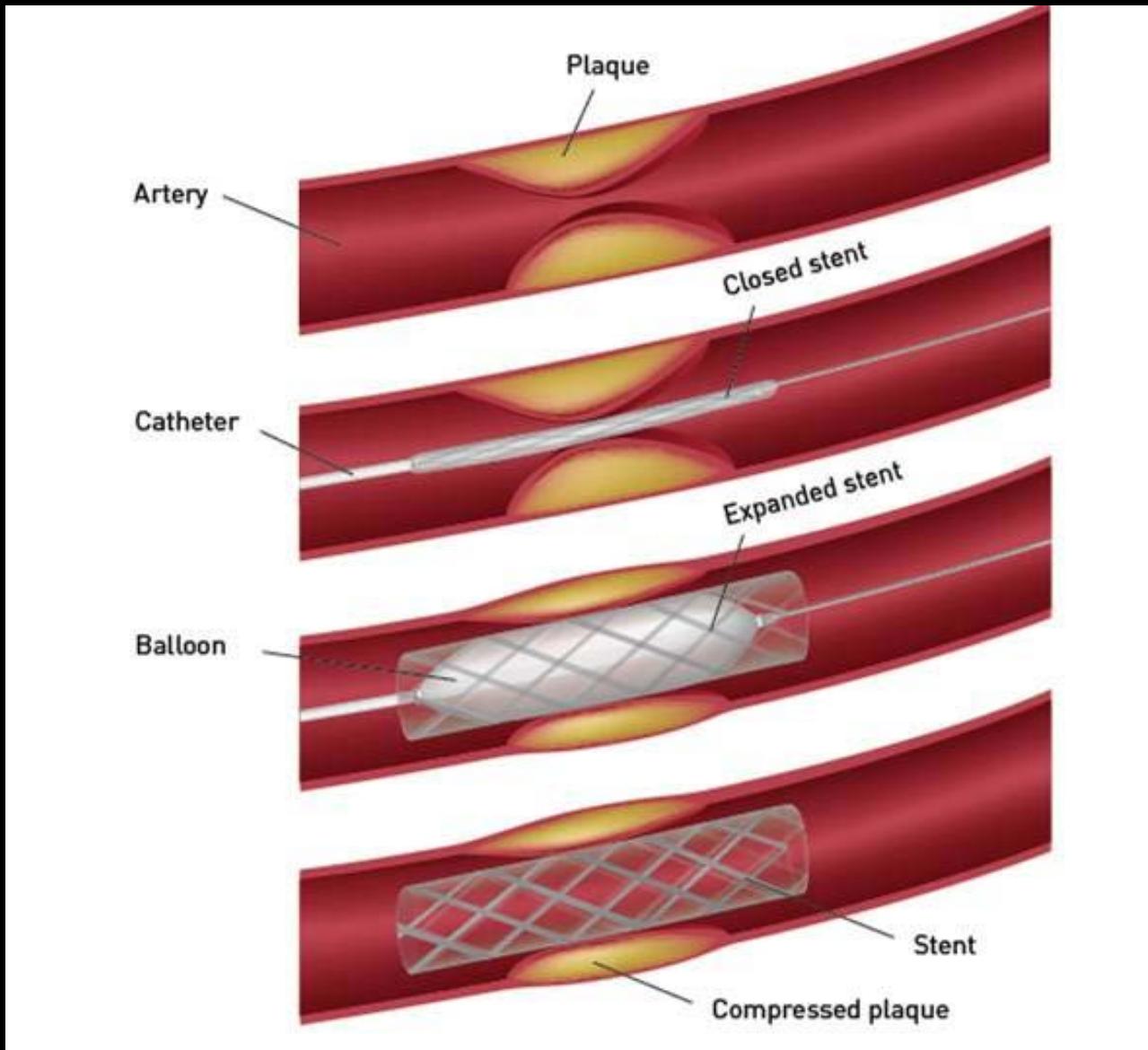
# INTIMAL HYPERPLASIA



# *DRUG ELLUTING BALLOON*

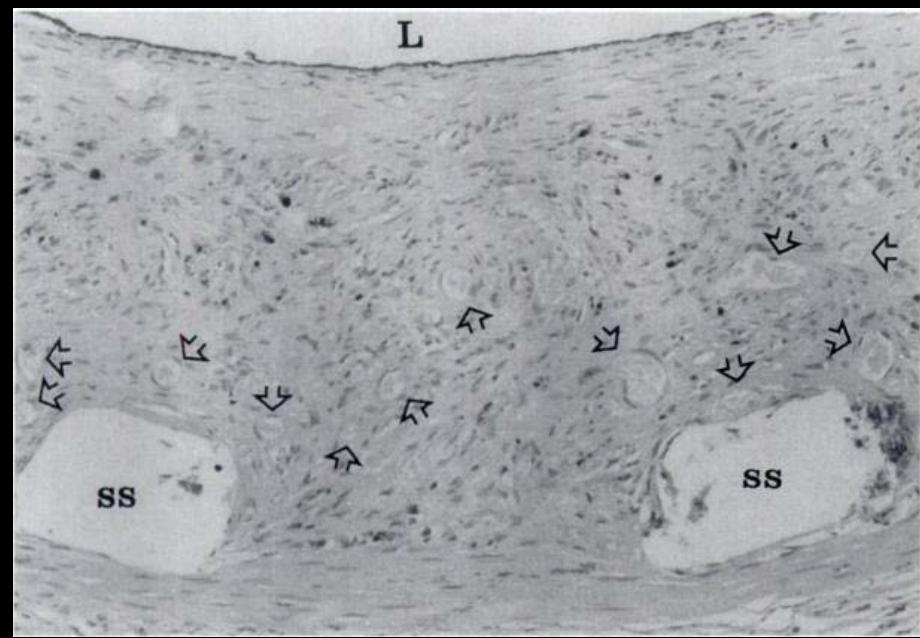
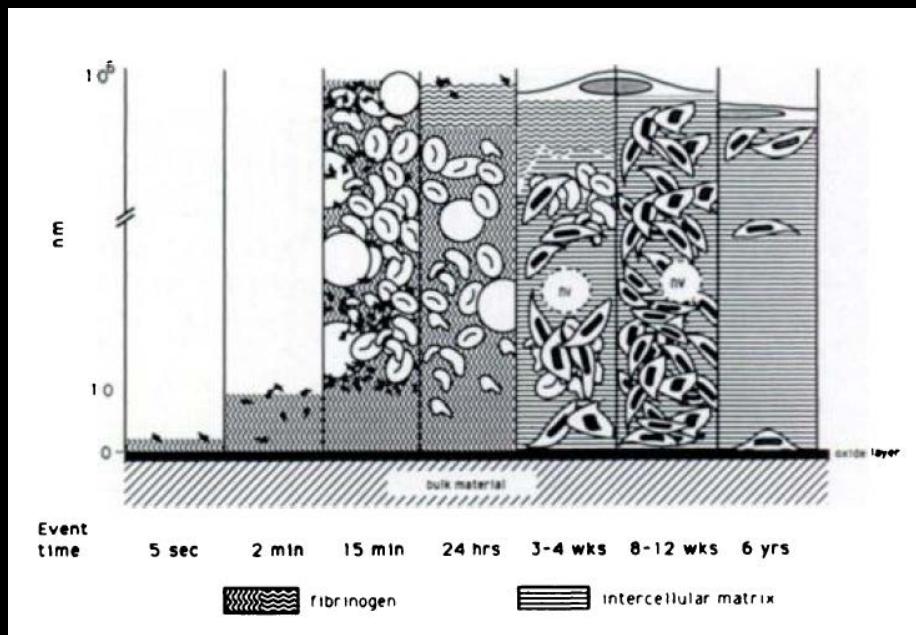


# STENTING





# INTIMAL HYPERPLASIA

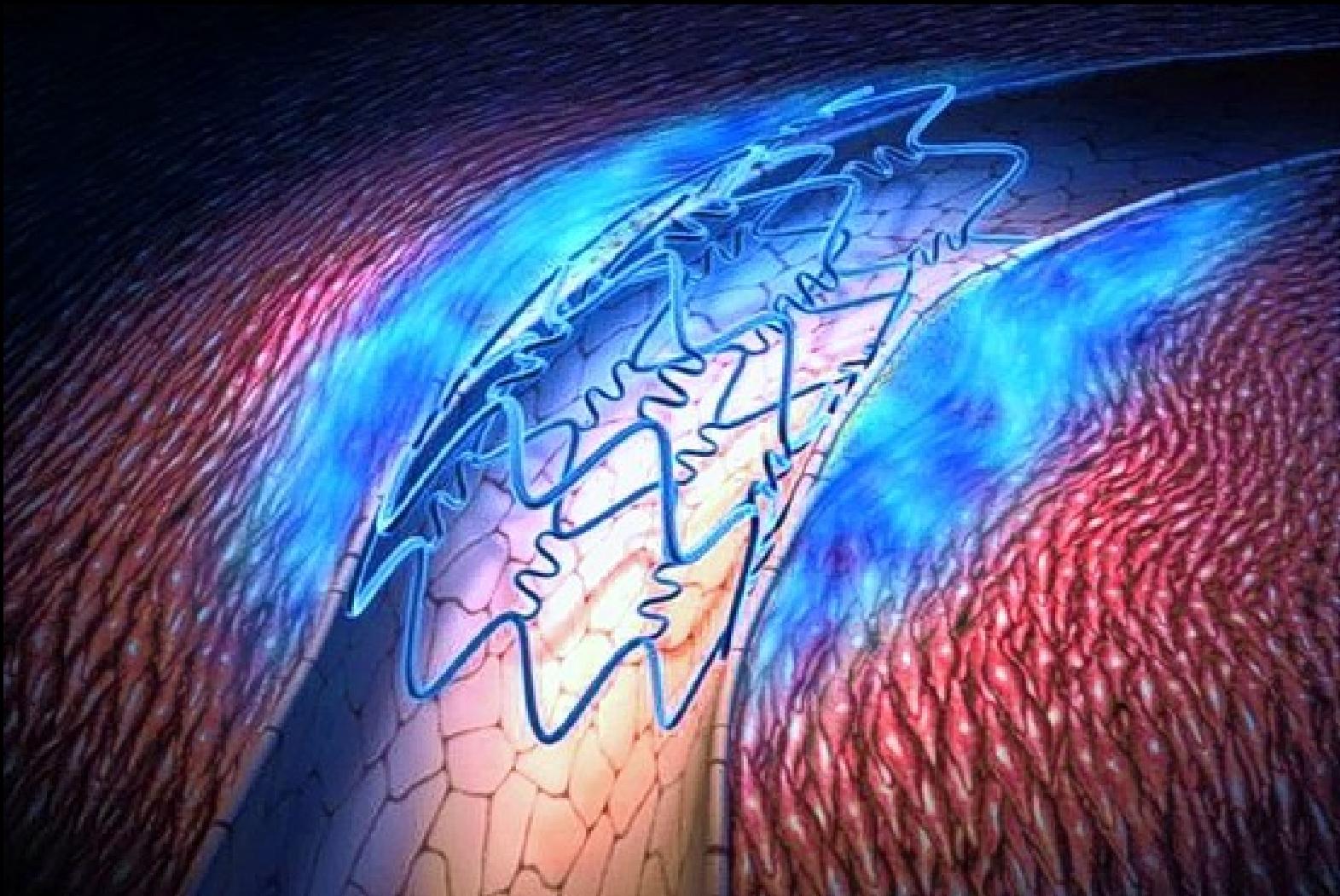


## Intravascular Stents: Tissue-Stent Interactions and Design Considerations

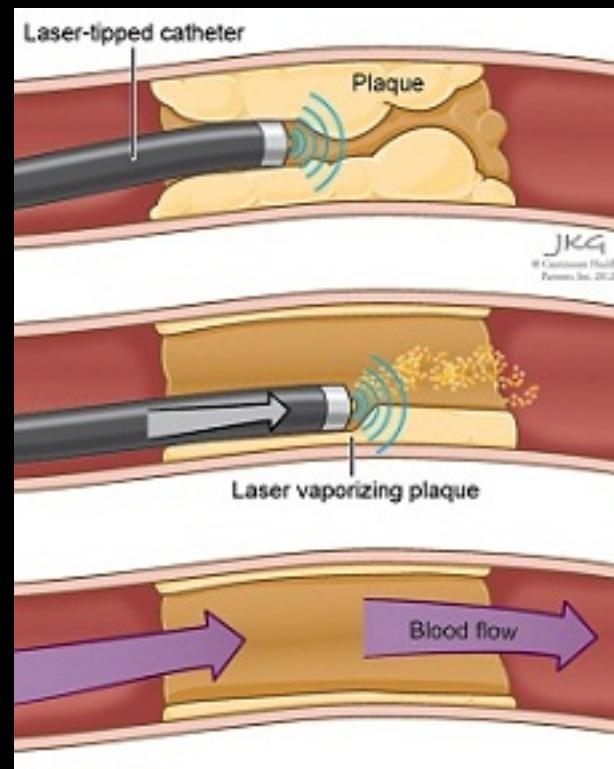
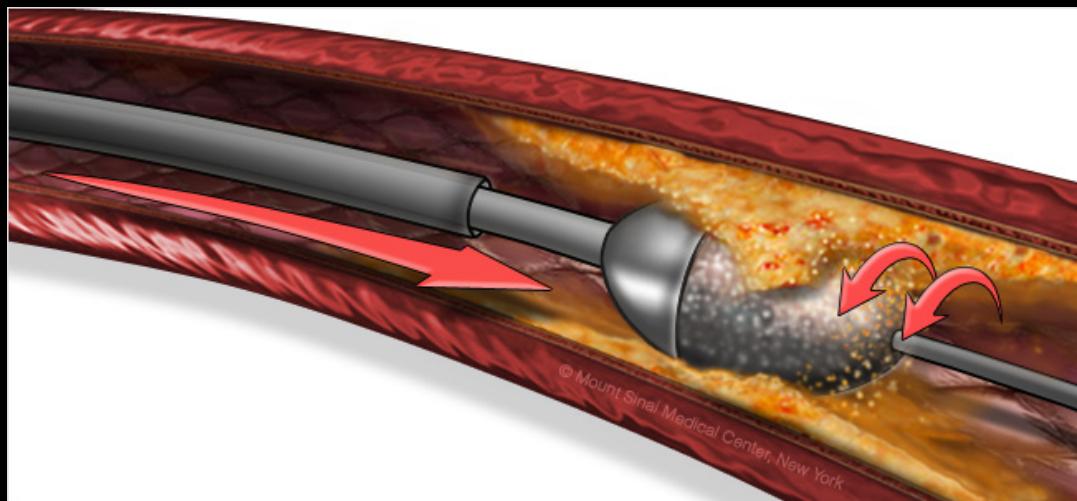
Julio C. Palmaz<sup>1</sup>

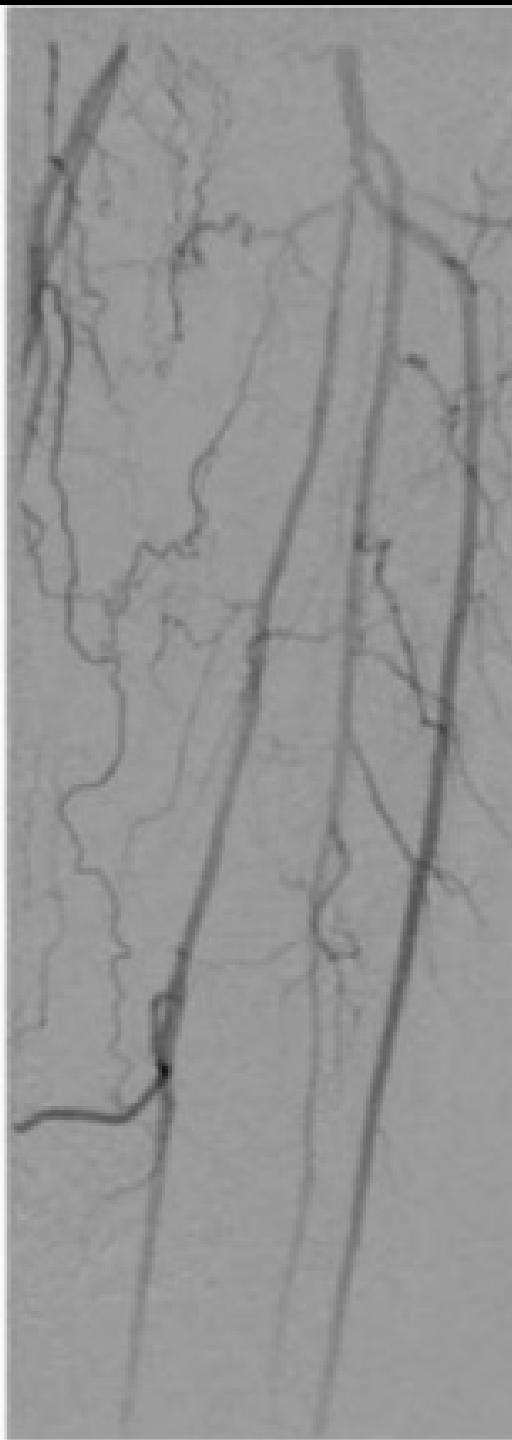
AJR 1993;160:613–618

# *DRUG ELUTING STENTS*



# ATHERECTOMY





# CONCLUSION

- PAD is a very common disease in the elderly population.
- It is a systemic disease.
- Prevention is the best treatment
- Endovascular recanalization is now the first option in most institutions

# THANK YOU

