

# Subintimal recanalization of peripheral CTO

*Techniques for procedural success and optimal results*

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# Presenter Disclosure Statement

*Name: Naoto Inoue*

*Nothing to disclose related with  
this presentation*

# Lesion characteristics in peripheral CTO

- Long CTO

Very tough job to advance in the true lumen

- Large vessel size (vs coronary artery)

0.035 inch wire appropriate

- Calcified lesion

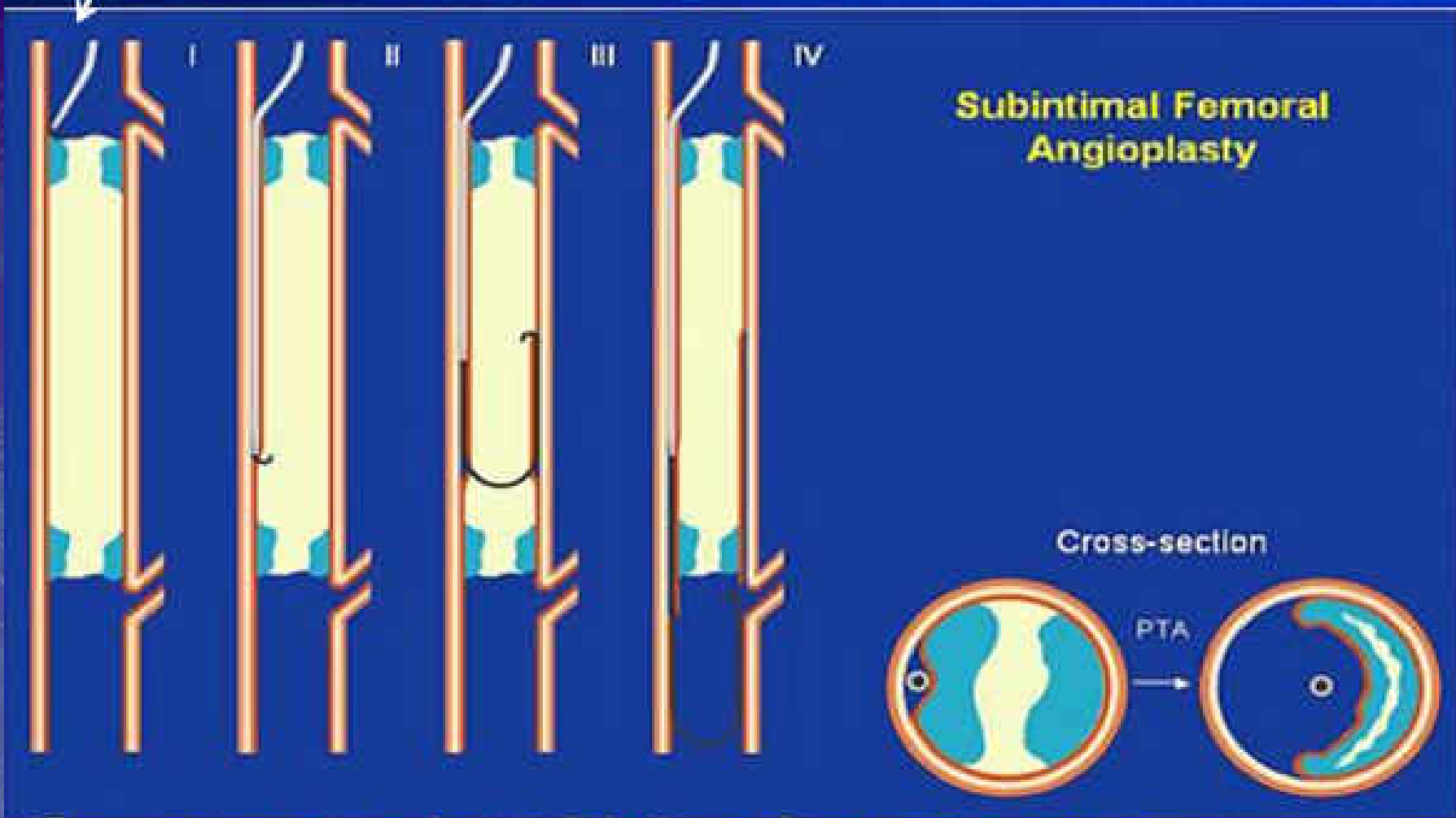
Difficult to penetrate calcified plaque

- Thrombotic lesion

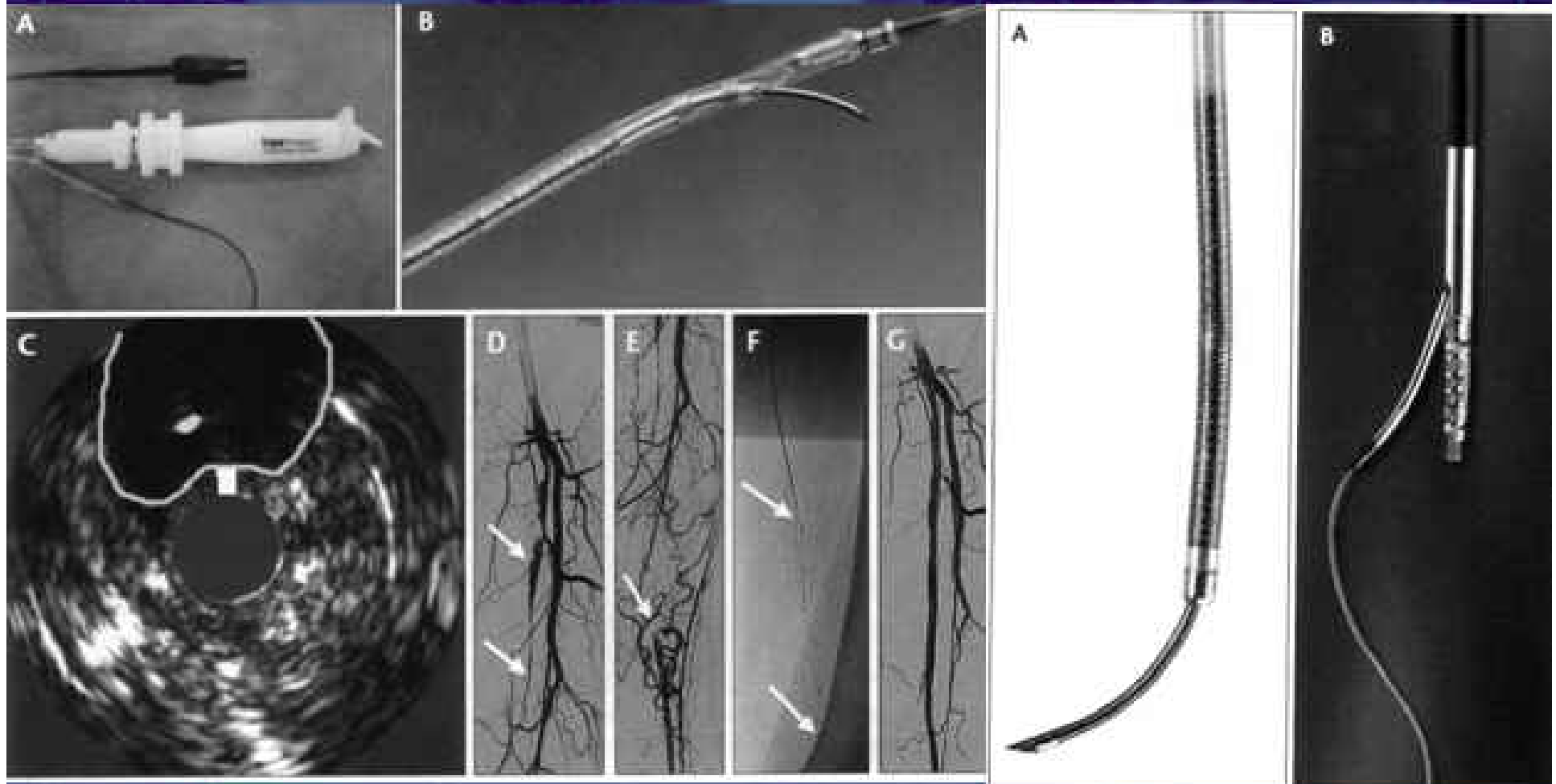
Prevent distal embolization

# Subintimal angioplasty

Support catheter



# Re-entry device



Pioneer™

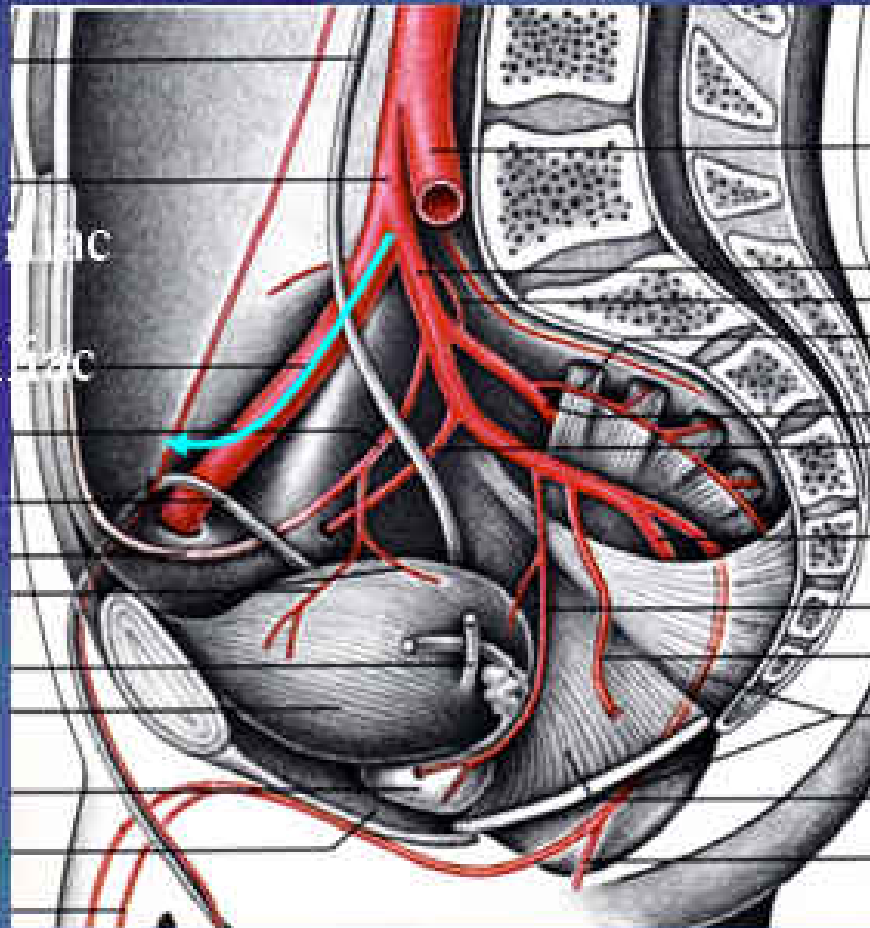
Outback™

# Aorto-iliac CTO

Right common iliac

Right external iliac

Front



Left common iliac

Right internal iliac

Back

# Aorto-iliac CTO



The usefulness of biplane angiography

# Aorto-iliac CTO

EIA CTO



Knuckle wire (Terumo 0.035 wire)

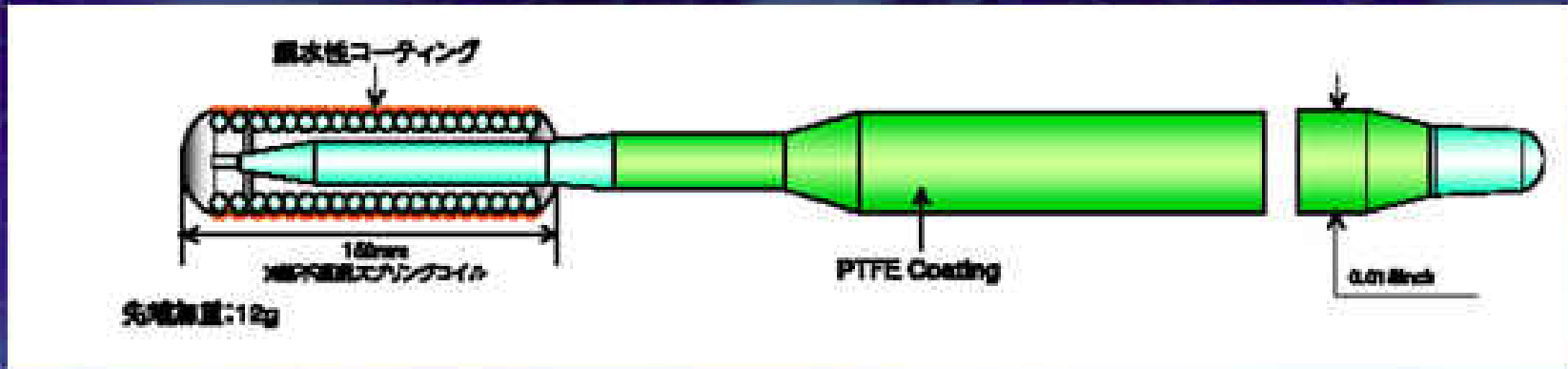
JR4



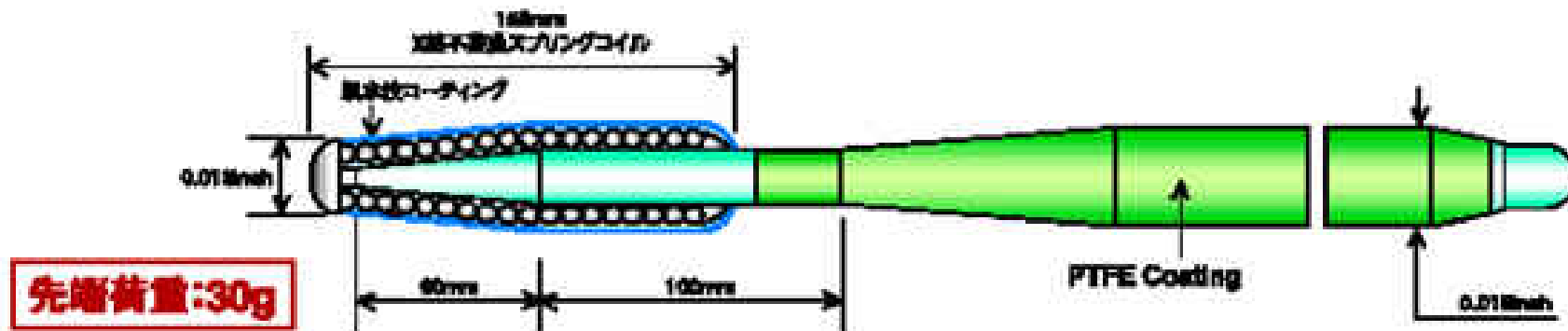
Treasure wire





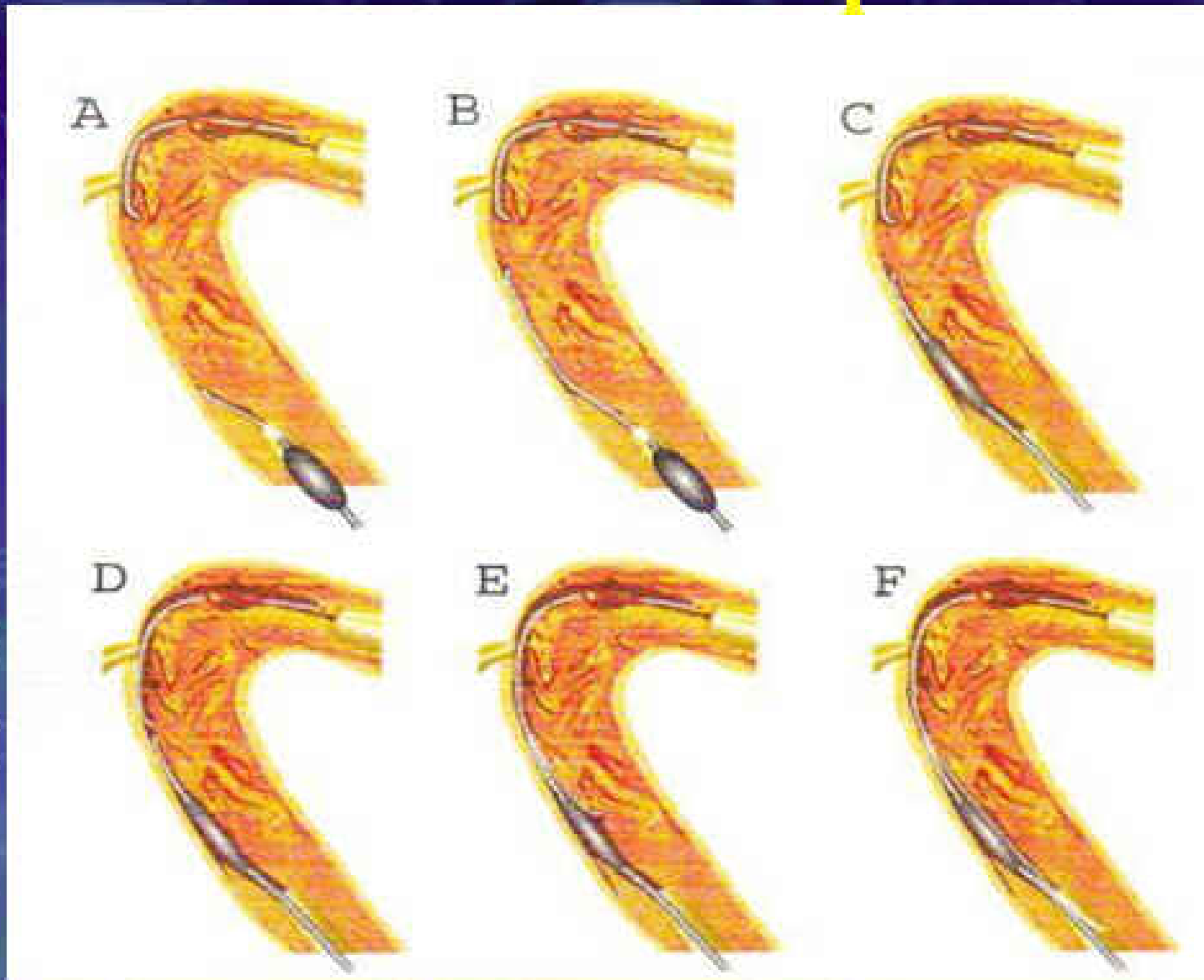


0.018 Treasure wire (Tip load 12g)



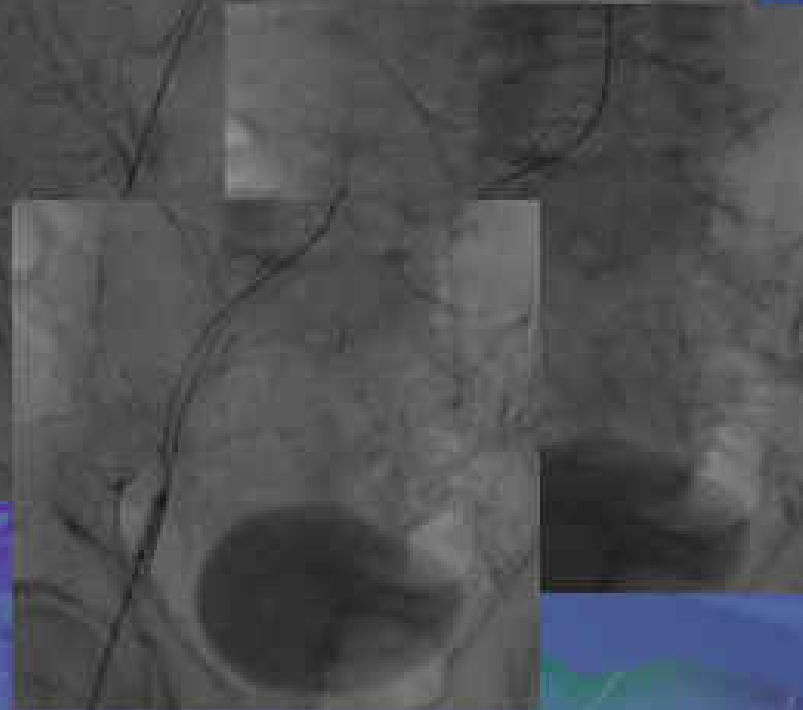
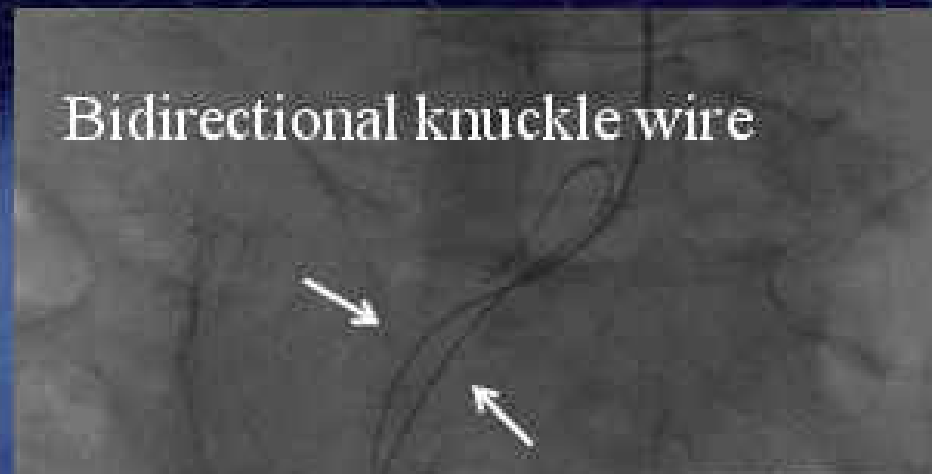
0.018 Astato wire (Tip load 30g)

# CART technique

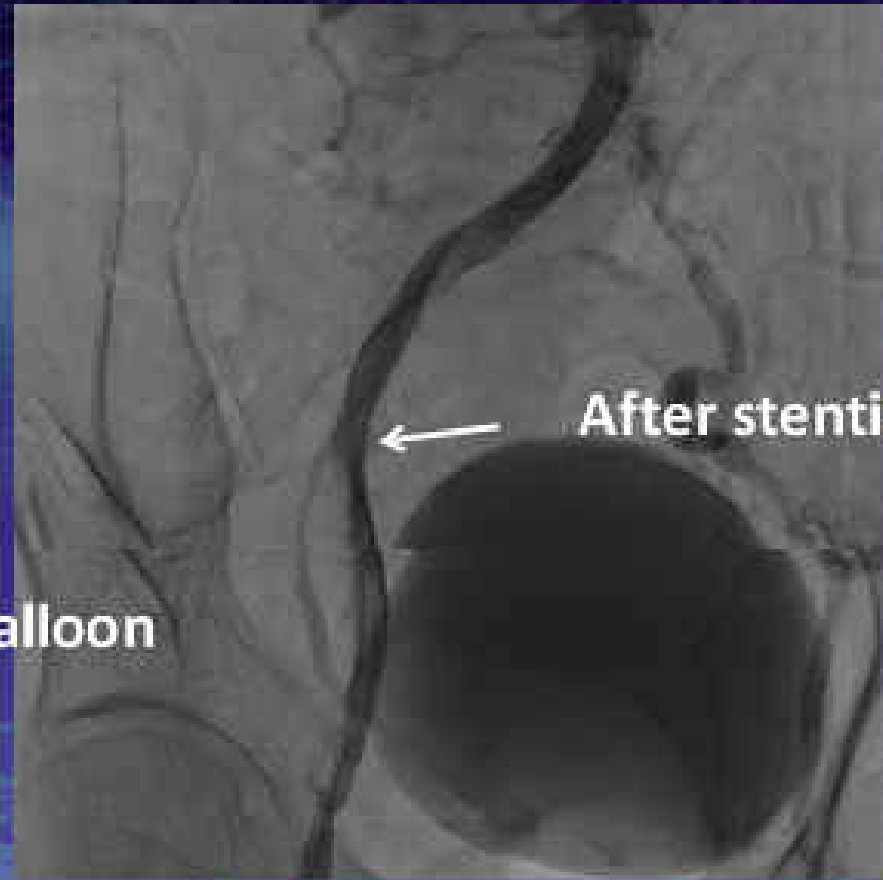
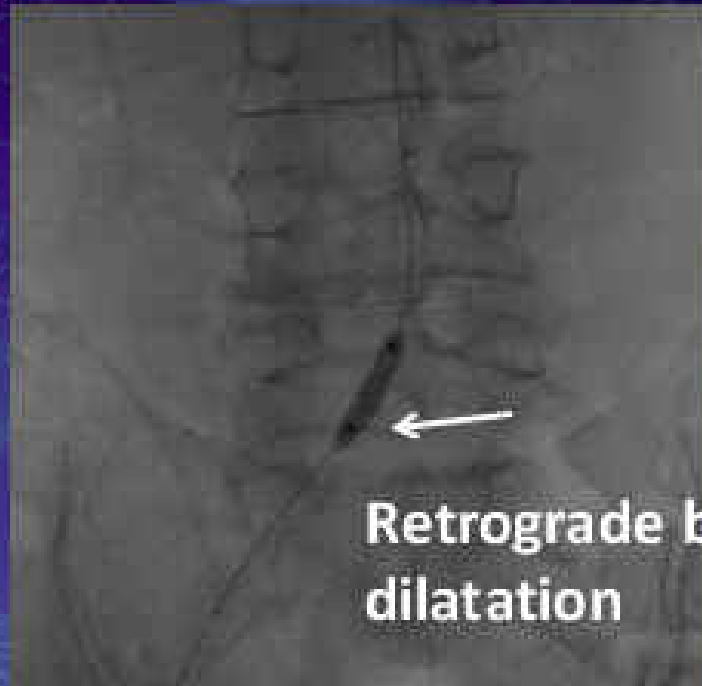


Courtesy of Dr. Kato

2009 ASIA-TCT

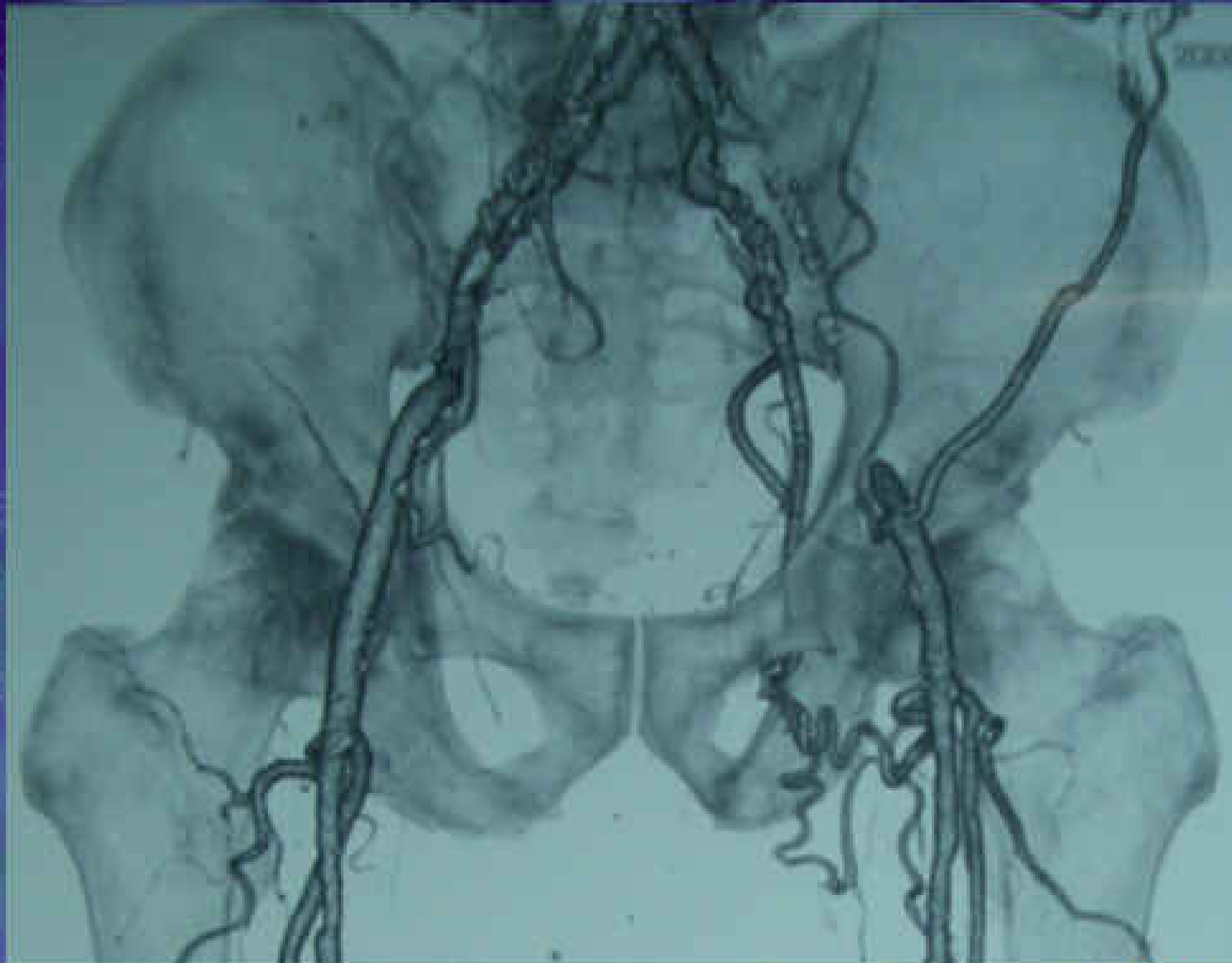


CART technique



CART technique

# CART technique and IVUS

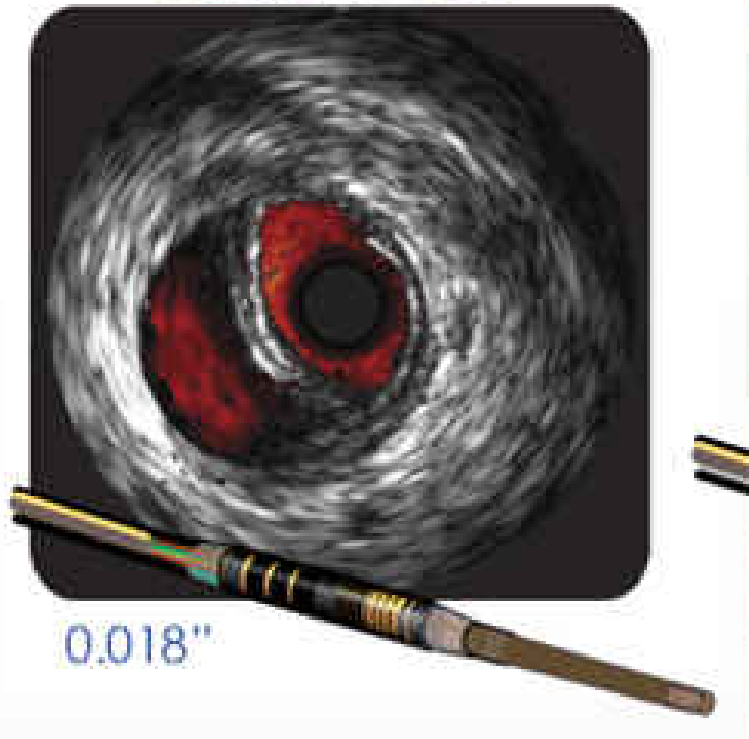




Astato  
+  
Transit

Treasure

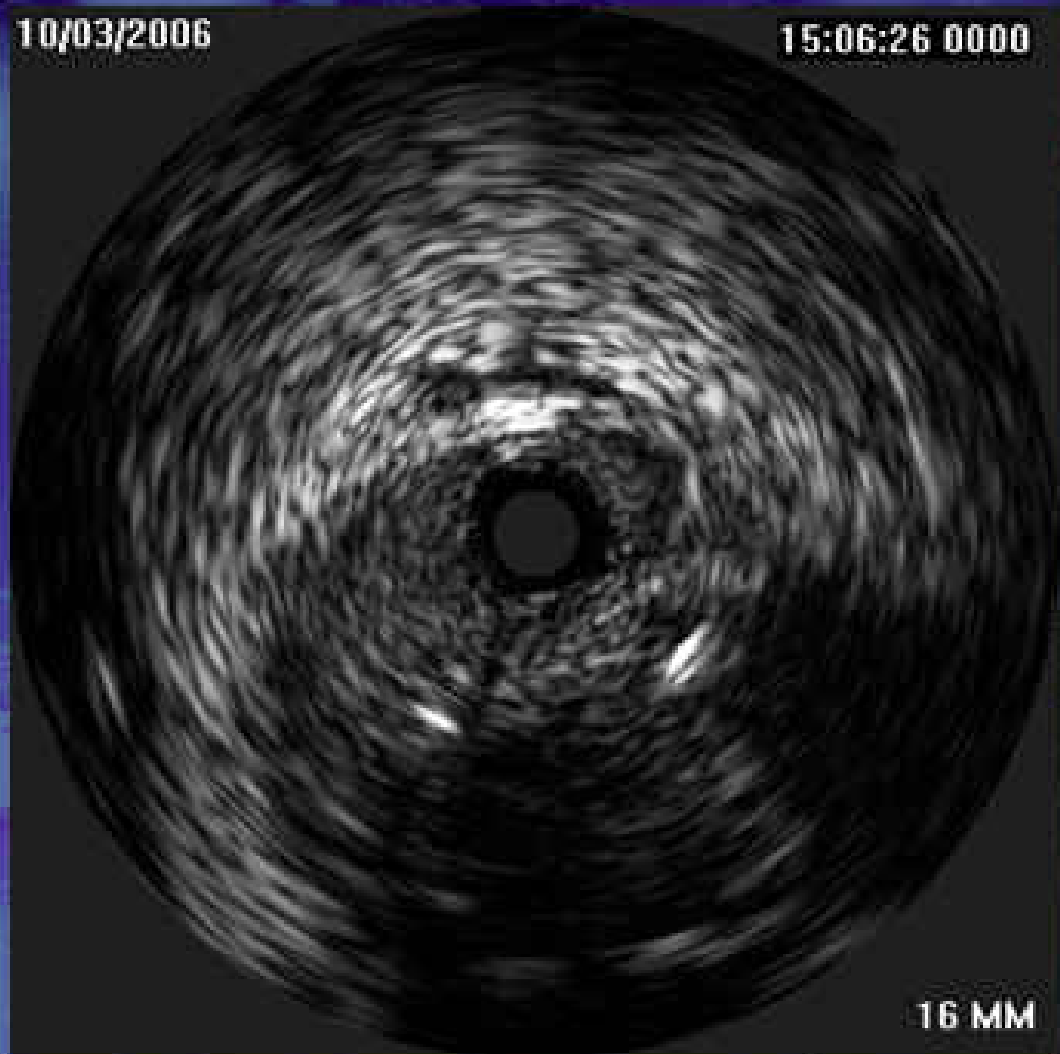
Visions® PV .018



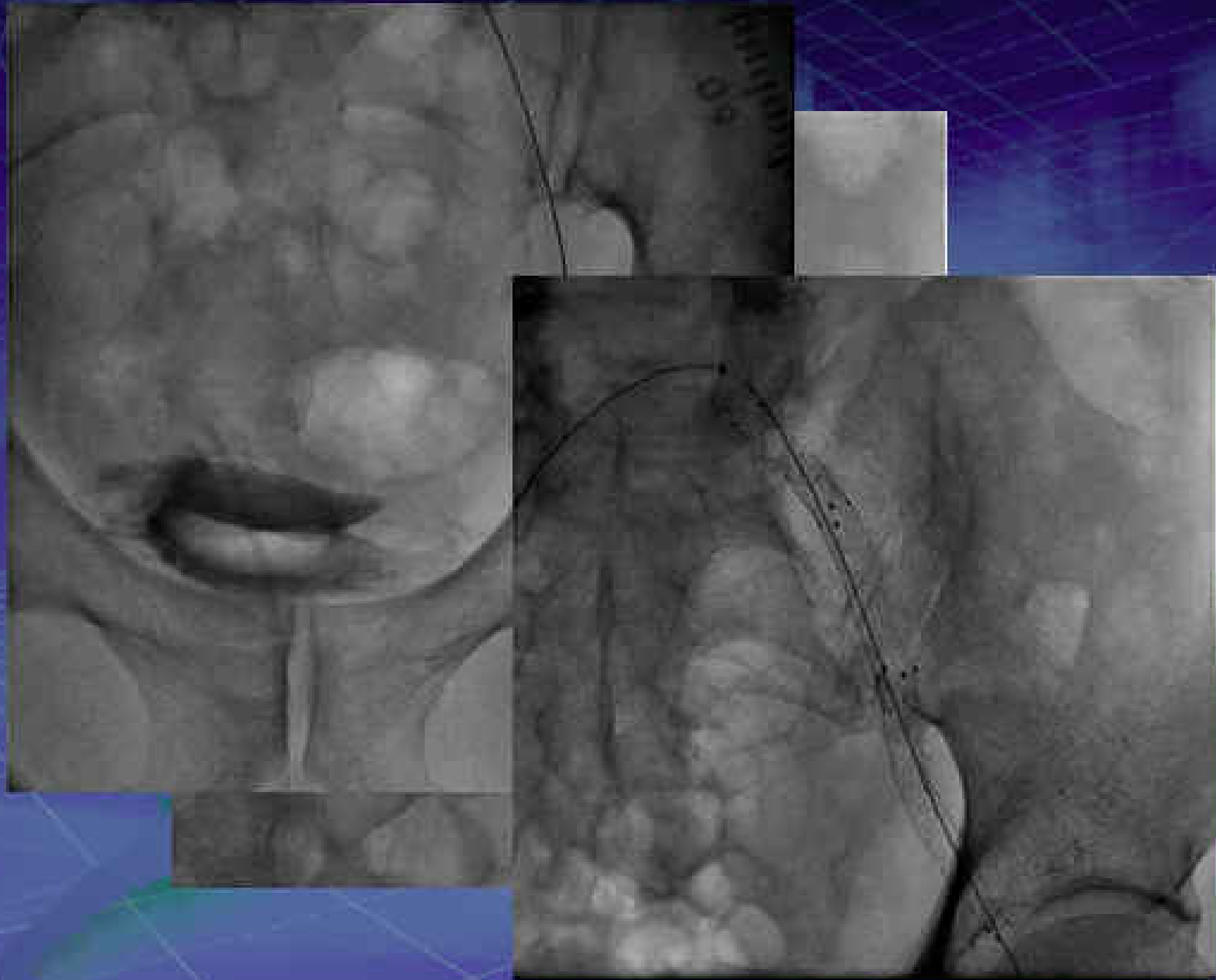
0.018"

10/03/2006

15:06:26 0000

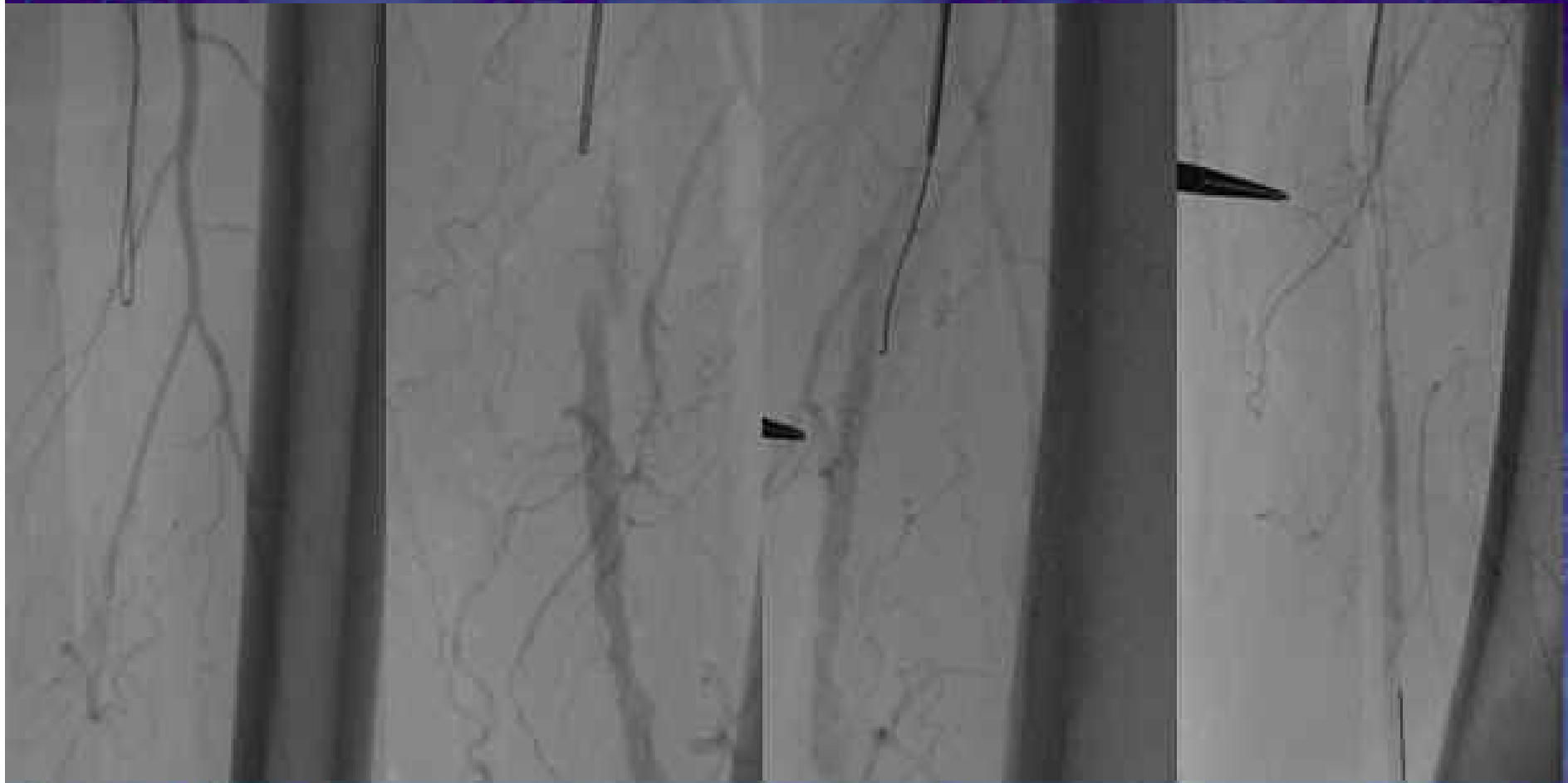


16 MM

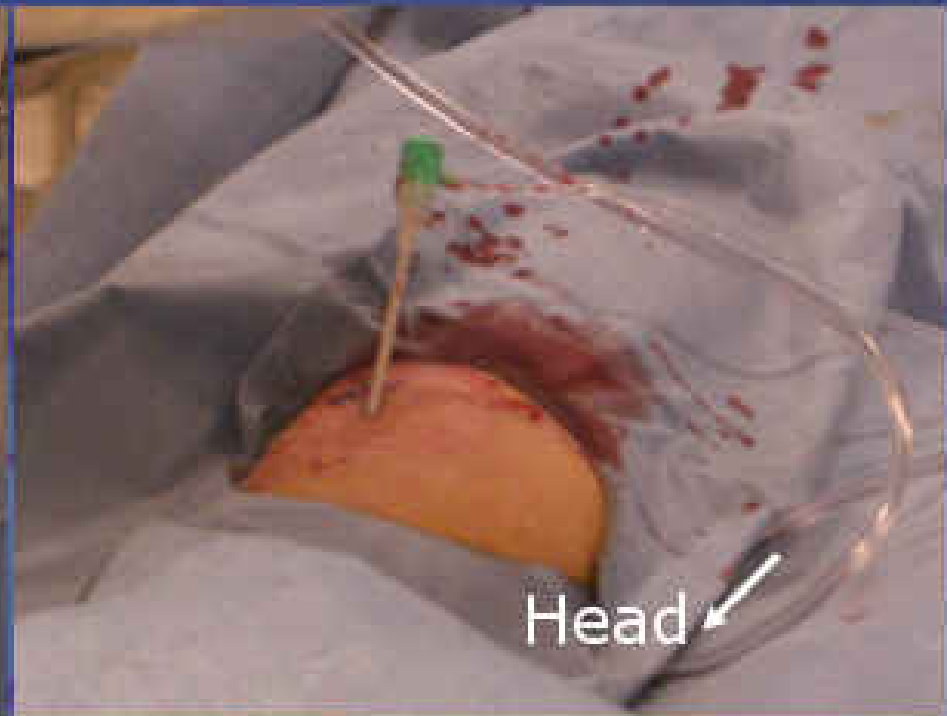




# Femoropopliteal CTO

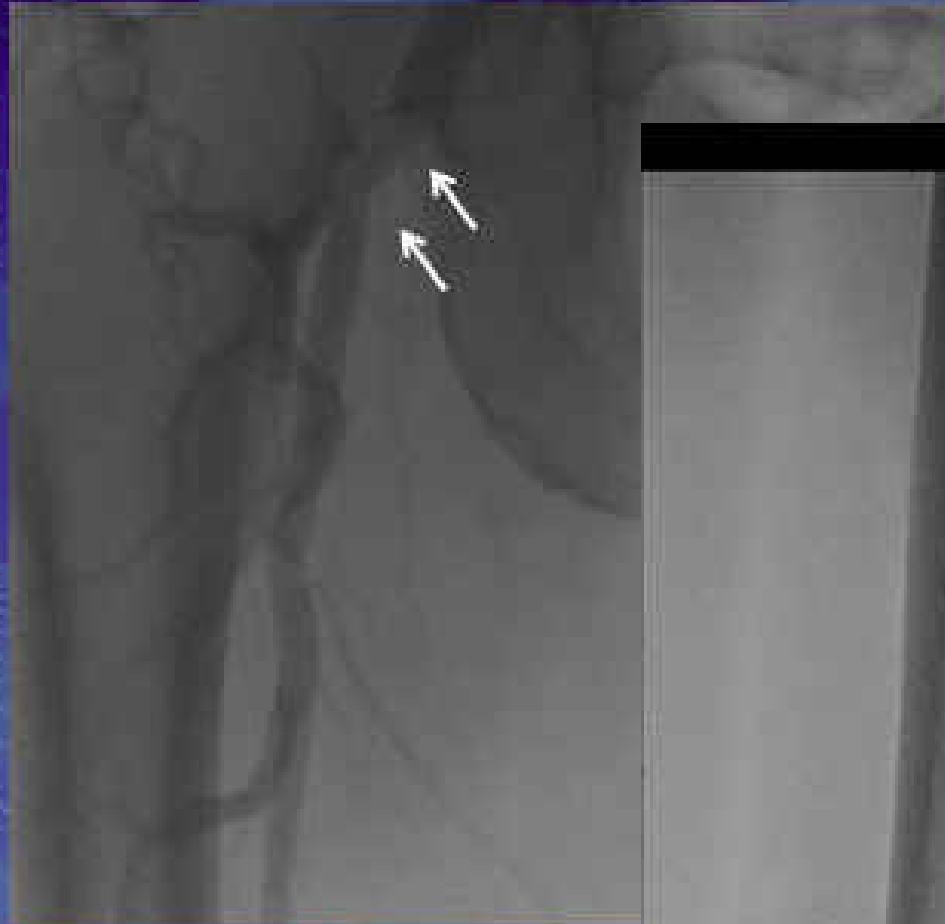


# Popliteal puncture using echo or angiography



# Femoropopliteal CTO

Bidirectional approach

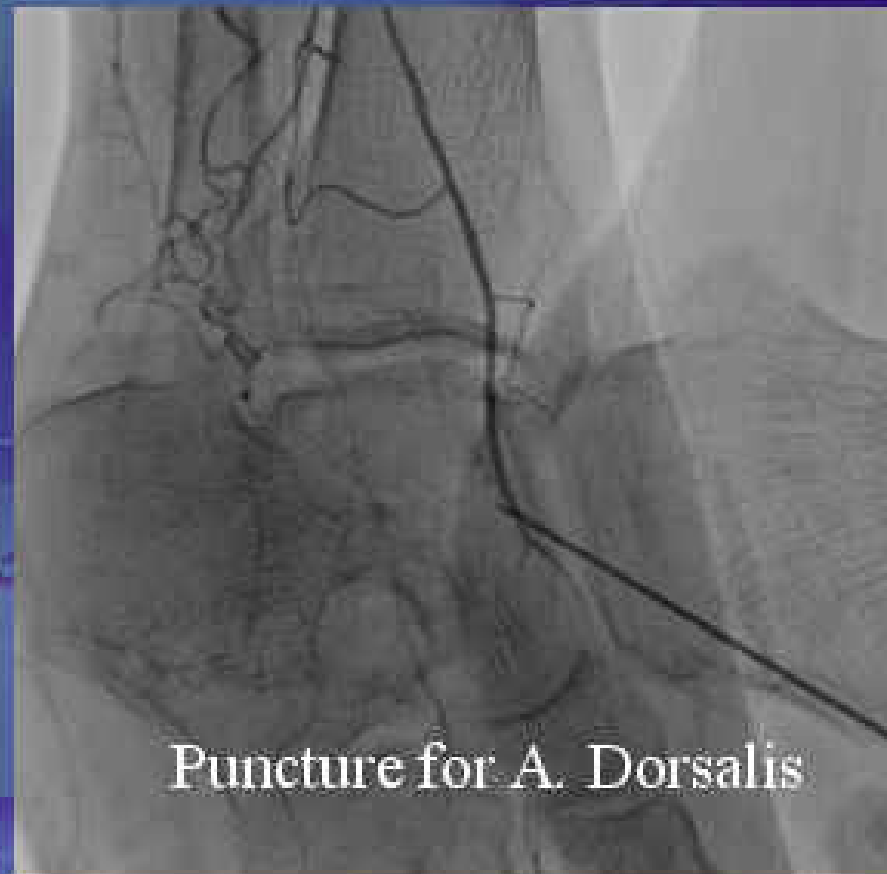
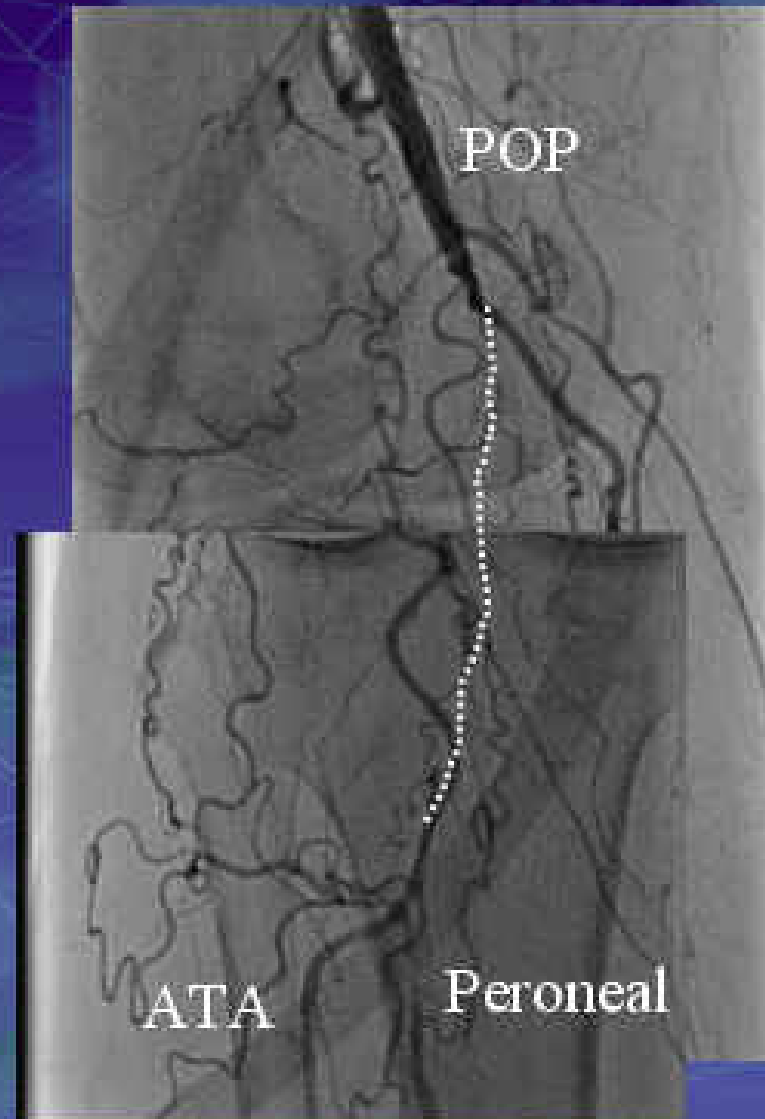


# Femoropopliteal CTO

Bidirectional approach



# Popliteal-peroneal trunk CTO





Anteg  
3.0x2

Wire fro



# Below the knee CTO

Subintimal technique rare

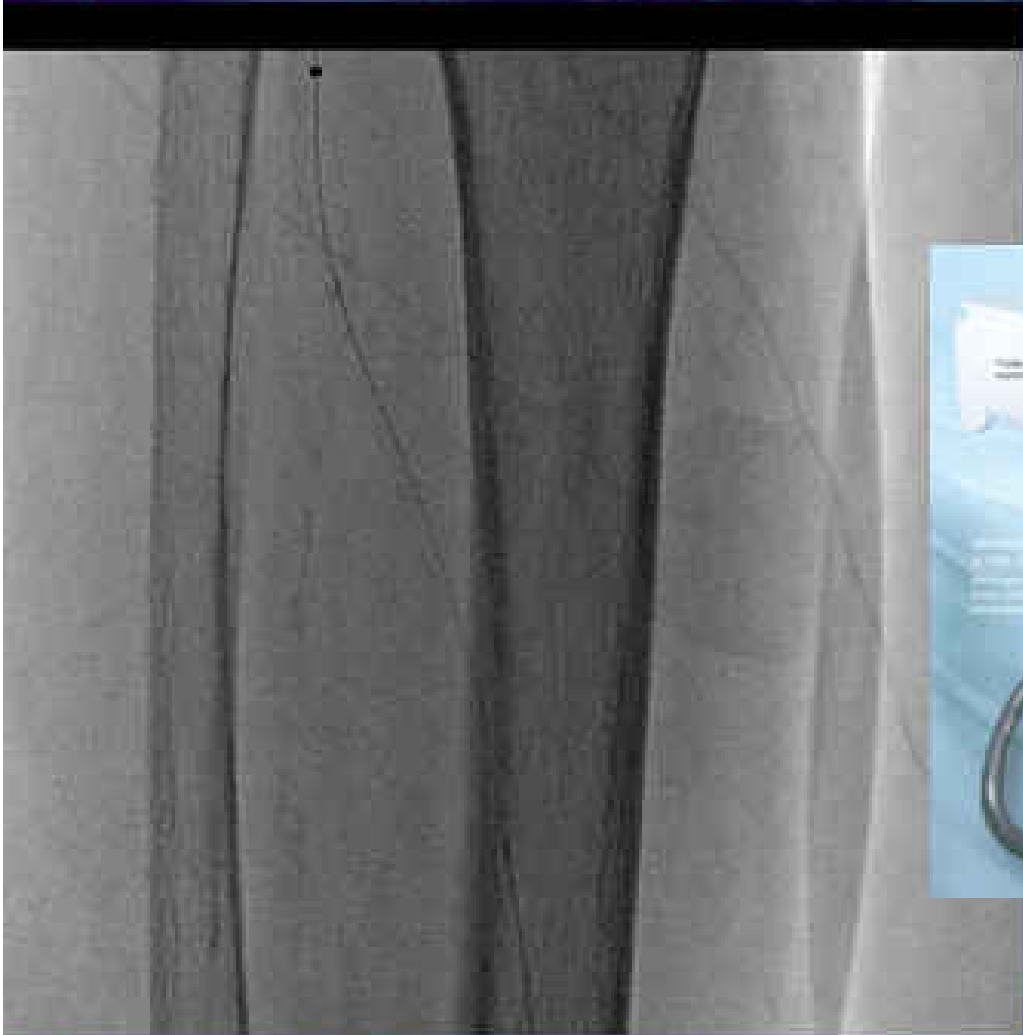
No appropriate stent

Recanalization through true lumen





0.014 inch stiff wire



Laser 1.4 60/60



2.0x100mm b

Kissing balloon

2.5x100mm

2.5x40mm

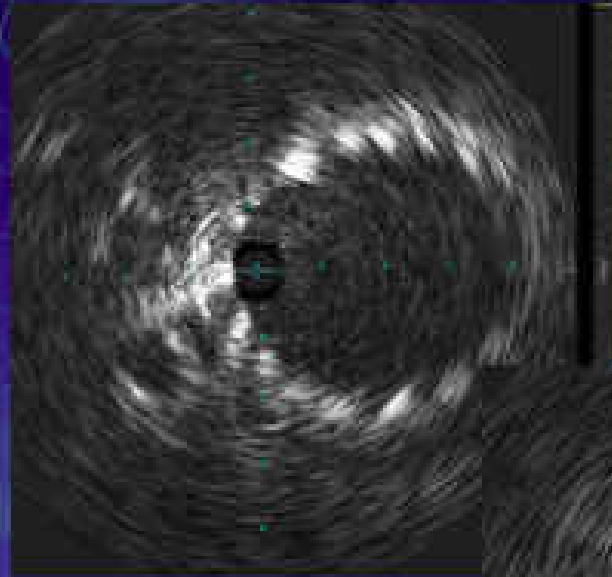
# Final result



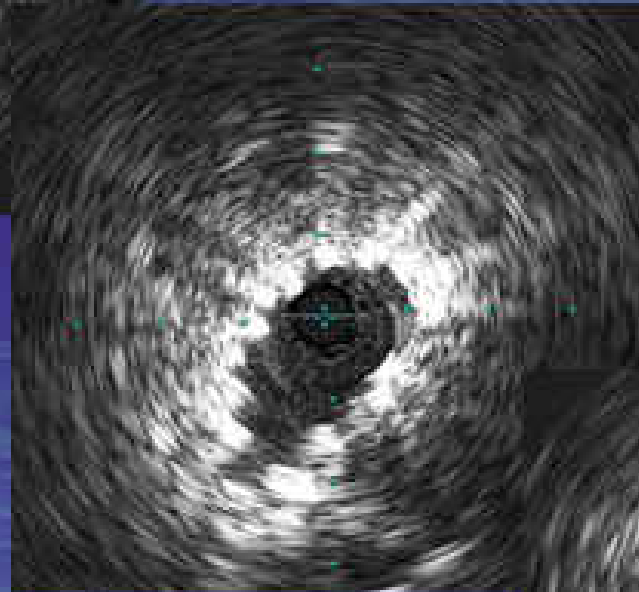
# The issue of subintimal angioplasty

- Stent underexpansion
- Few data on long-term prognosis
- Few data comparing to intraluminal angioplasty

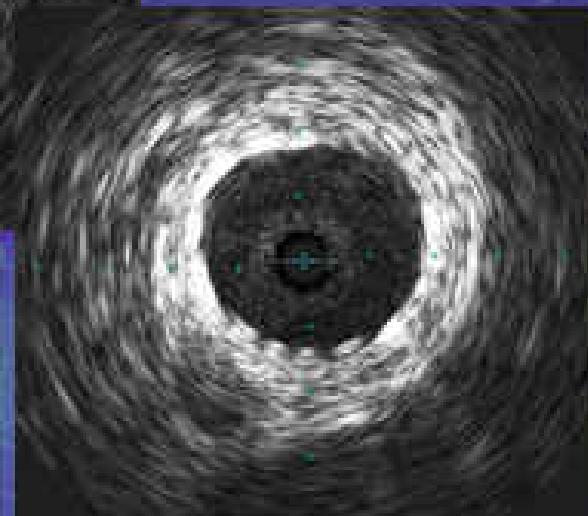
## Underexpansion of stent



Proximal



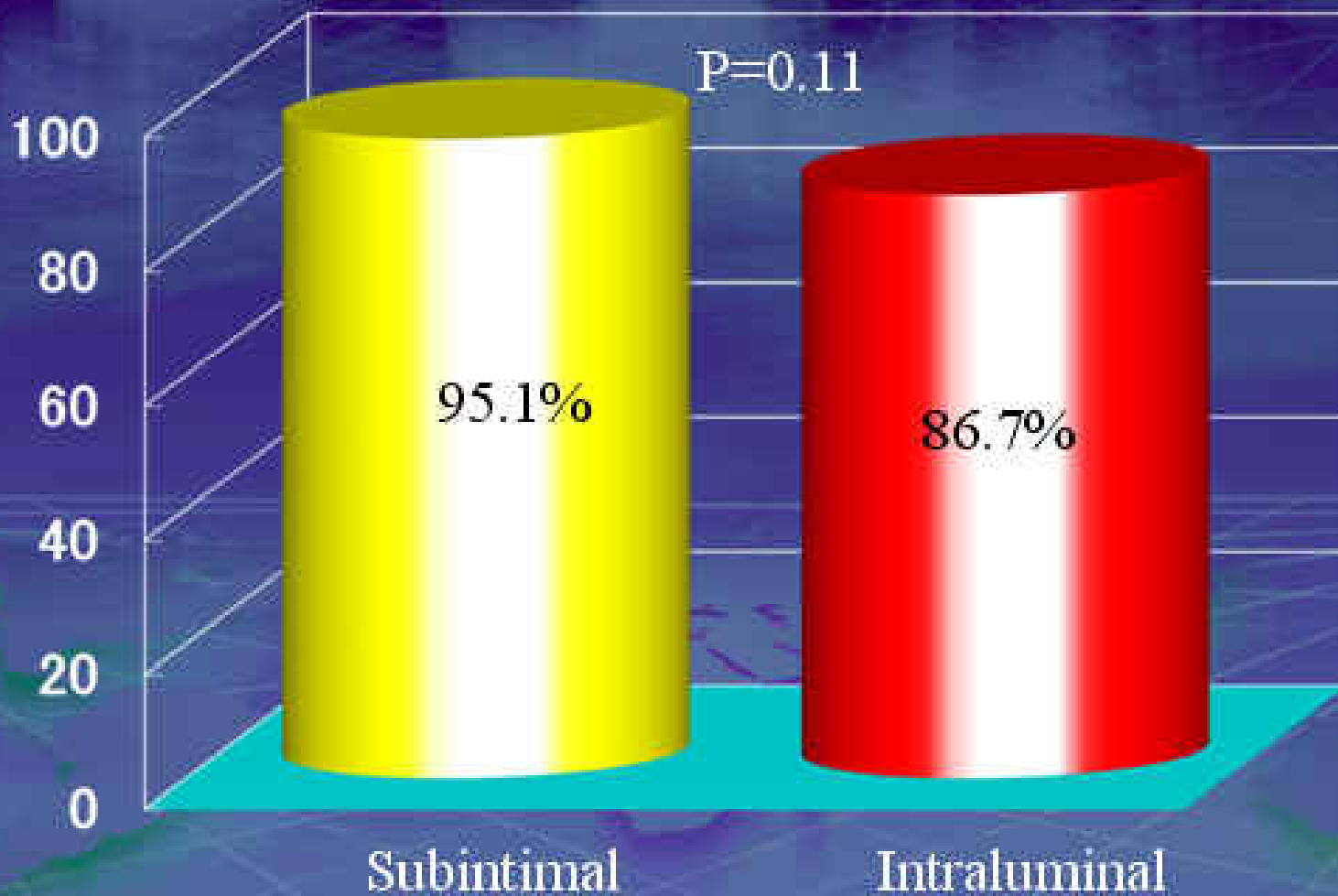
Mid



Distal

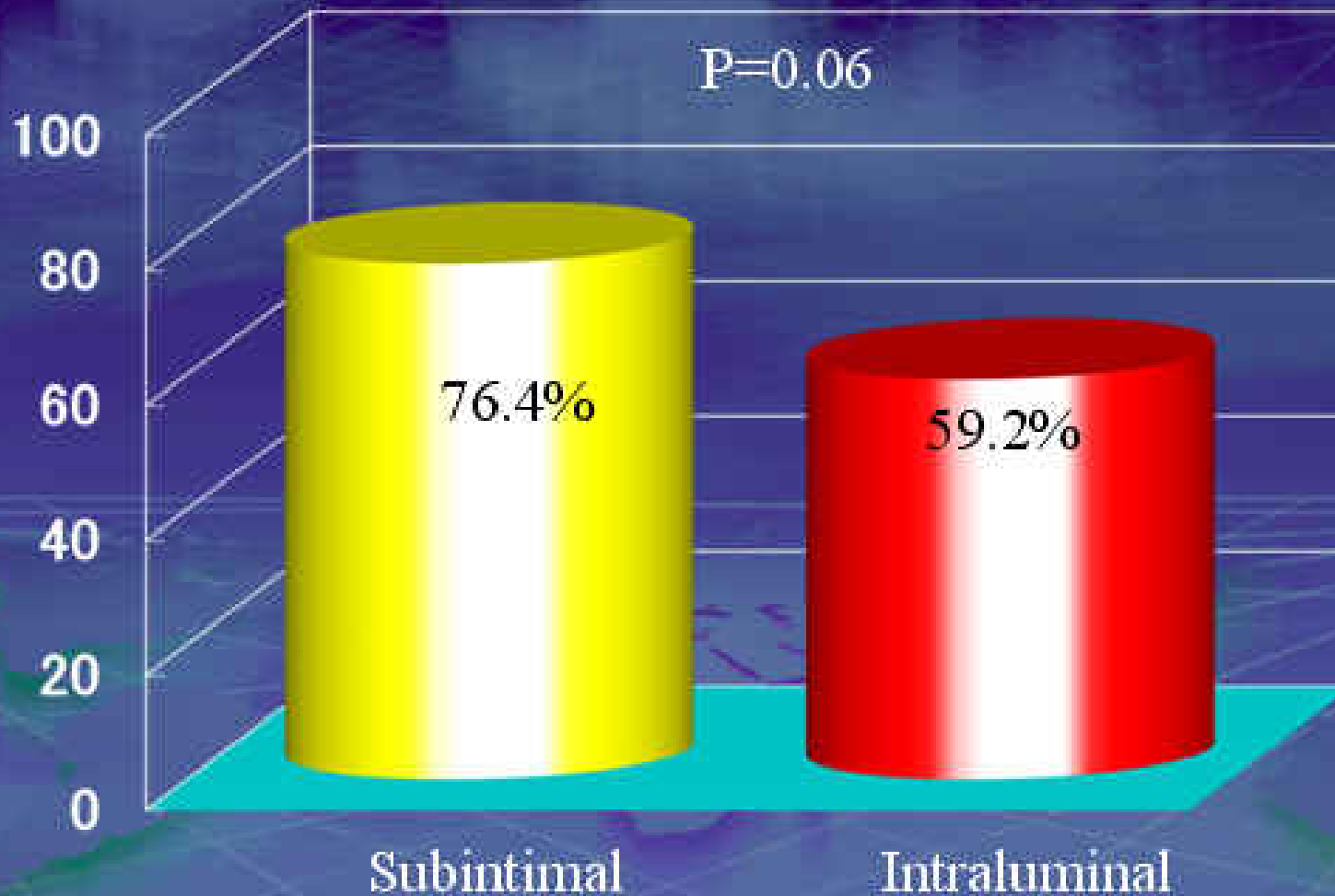
# Success rate

No major complication



Ko YG et al. J Endovasc 2007

## Primary patency at 12 month



Ko YG et al. J Endovasc 2007



## Subintimal technique in peripheral CTO

- Get higher success rate
- Shorten procedure time
- Might be able to prevent distal embolization
- Need more clinical data

The background is a deep blue color with a white wireframe grid pattern that recedes into the distance. A faint, light-colored world map is visible in the lower half of the image, centered horizontally. The text "Thank you!" is prominently displayed in the center.

**Thank you!**