

3rd **IMAGING & PHYSIOLOGY Summit 2009**

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- A misfortune turns into a blessing -

Evaluation of Dissection for True Lumen and False Lumen in Chronic Total Occlusion

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IVUS Guided CTO intervention

Overview

IVUS guided wiring is a feasible and effective method

Not standard technique for CTO lesions

Final method to a misfortune turns into a blessing of CTO

PCI, when other methods failed

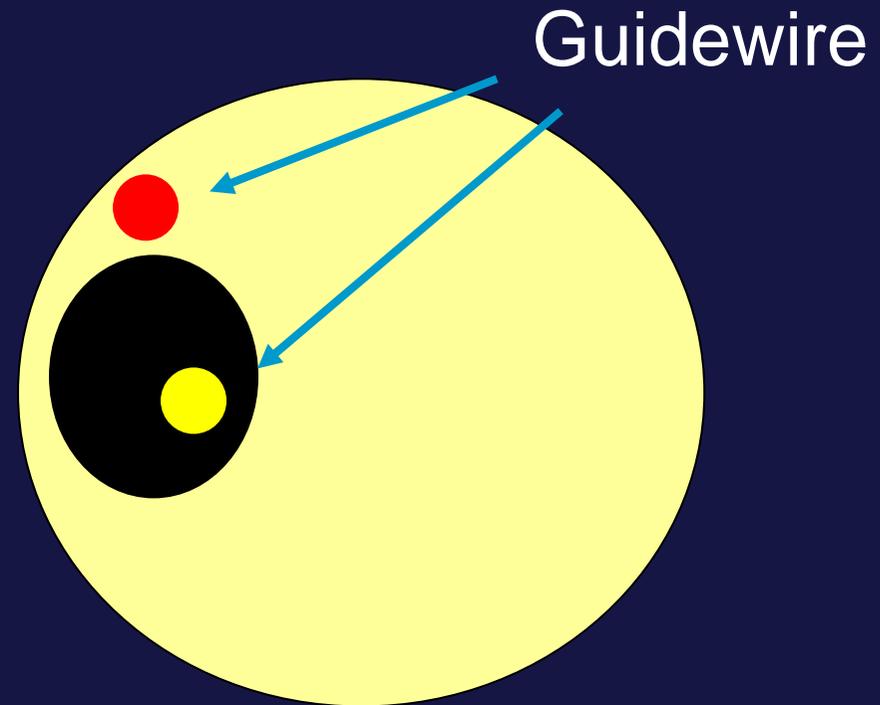
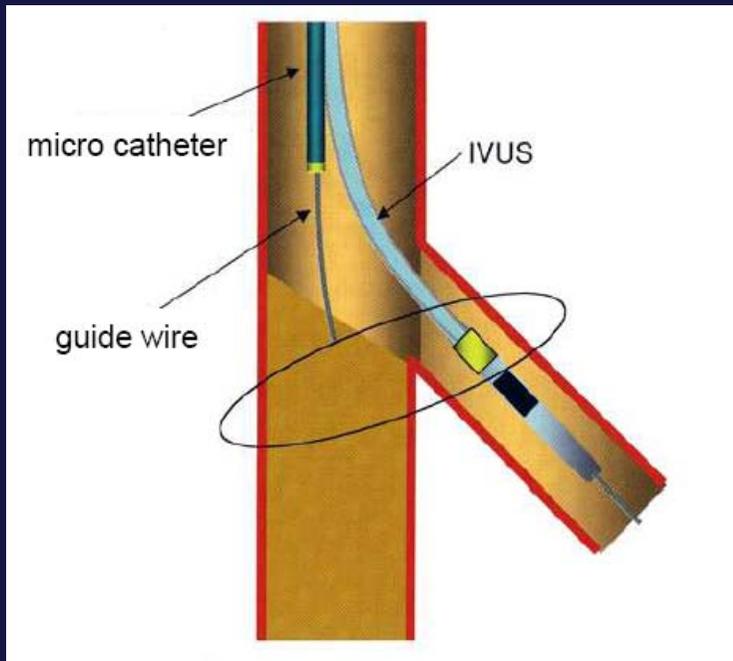
Role in CTO intervention

Identification of the guidewire entry

Navigate the guidewire from false lumen to true lumen

Assess complication

Adjust stent expansion



Courtesy Dr.

IVUS guiding during CTO PCI

Looking for echo free space: lumen

Identification of intima and media

Wire position

Practical Tips for CTO PCI

Keep the wire inside “the External Elastic Membrane” and to bring it to the true lumen distally

Pre-dilatation with a small balloon is essential to put an IVUS catheter into the sub-intimal space

Especially recommended before the enlargement of the subintimal space

Volcano catheter with short tip preferable (10 mm)

Atlantis Pro 2 catheter - small vessel and side branch

Disadvantages

Long dissections

Dilatation of false lumen

Coronary perforation possible

Male/69, Stable angina

Chief complaint: effort chest pain

P/I

69 yr old male pt was transferred from private clinic due to effort related chest pain. OPD coronary angiography and PCI were performed

Risk Factors:

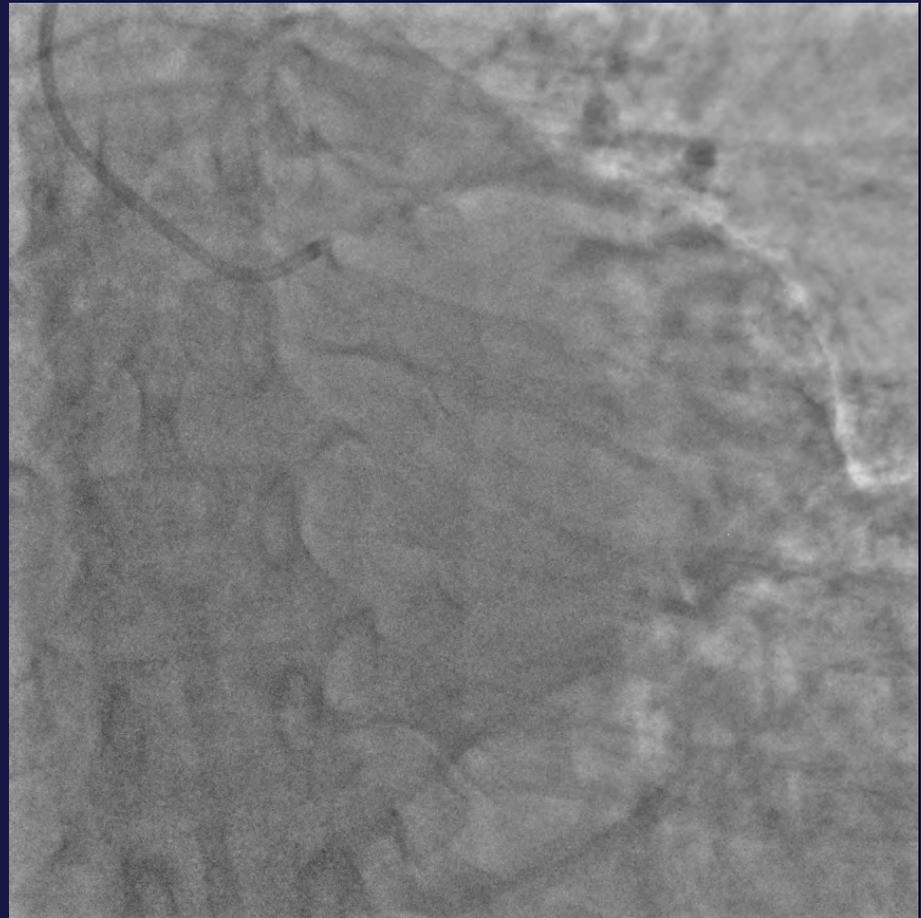
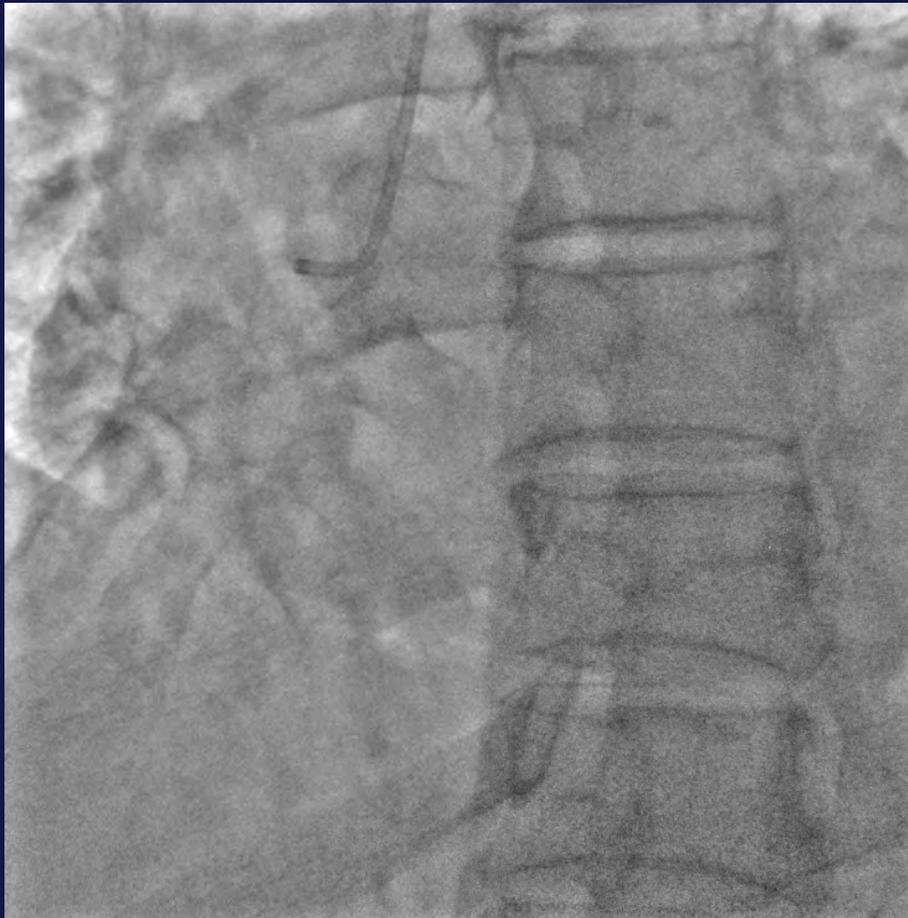
Hypertension (+)

Ex-smoker 30 pack year

ECG: non-specific ST-T changes

Echo: Normal, EF= 59 %

Initial CAG





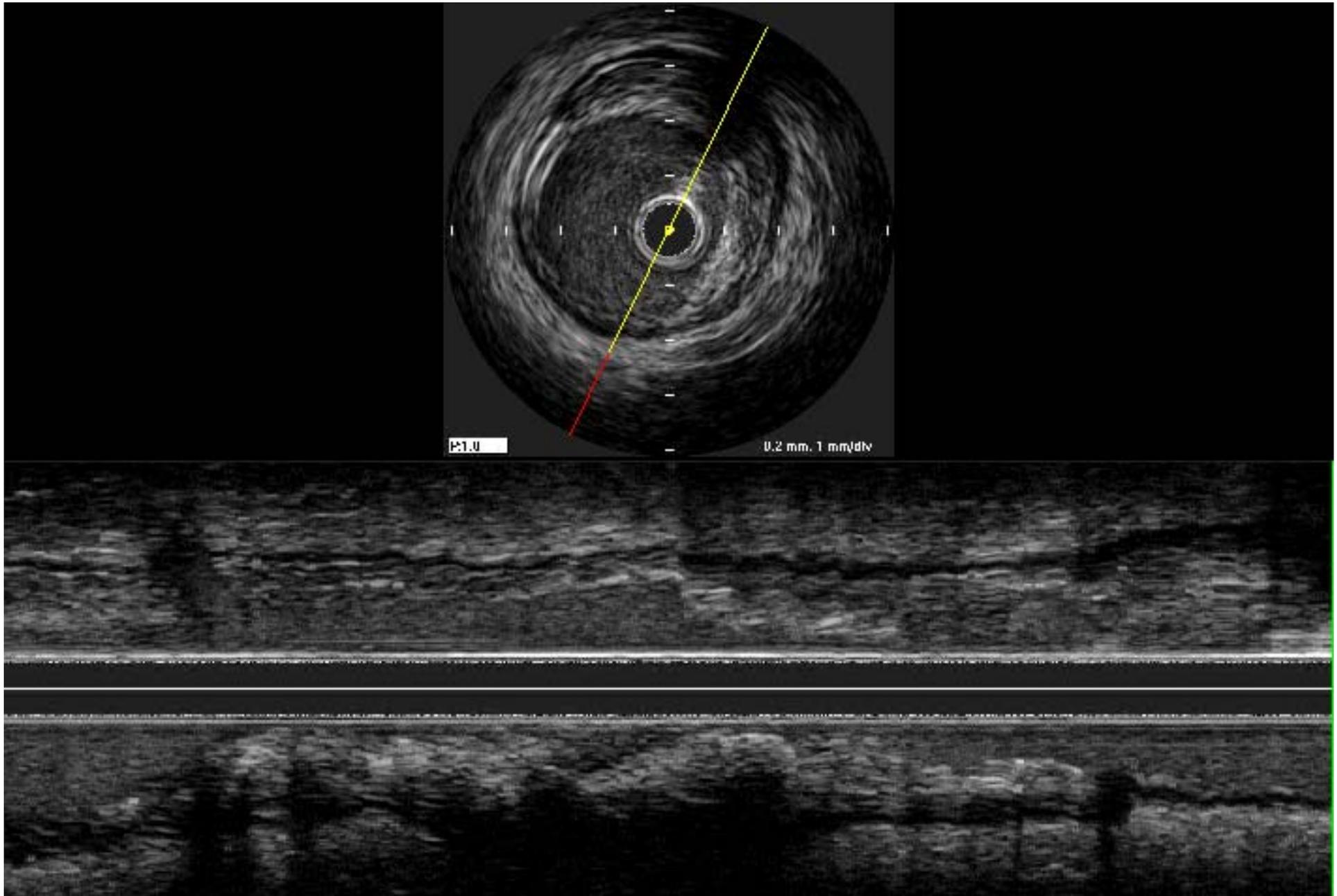
6F JRG 4.0 guiding catheter

Fielder guidewire

Miracle 3 guidewire with Progreat microcatheter support

Conquest Pro guidewire with Progreat microcatheter support

Lacros balloon 1.3x10 mm



True lumen vs False lumen

Male/39, Stable angina

Chief complaint: effort chest pain

P/I

39 yr old male pt was transferred from private clinic due to effort related chest pain. OPD coronary angiography and PCI were performed

Risk Factors:

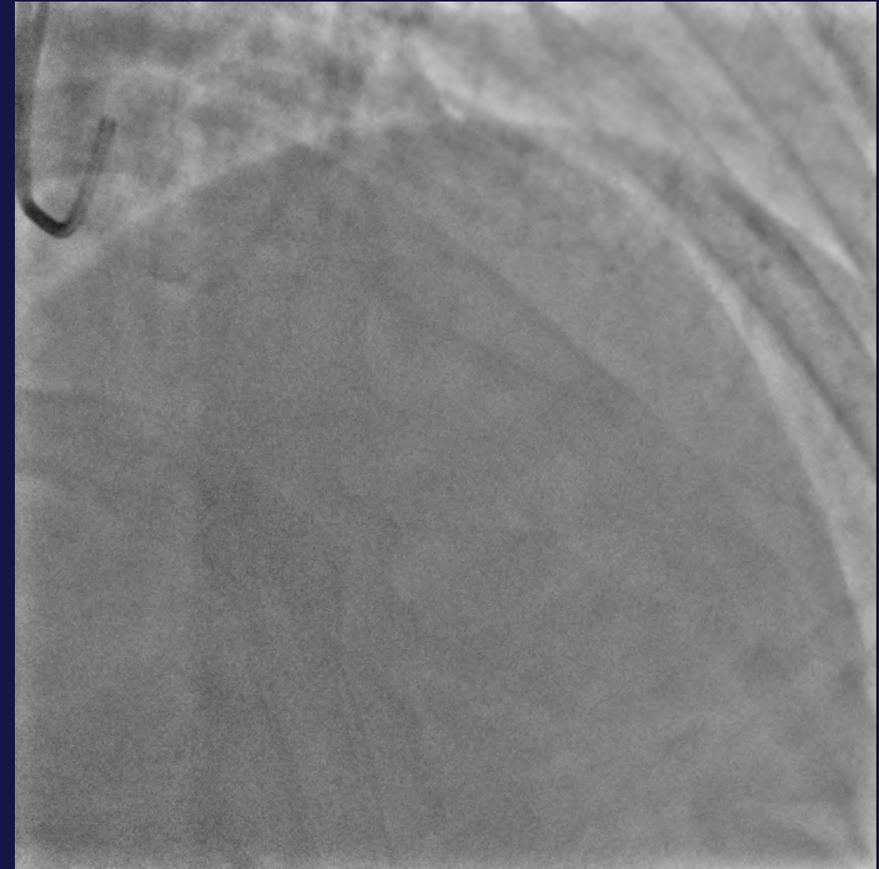
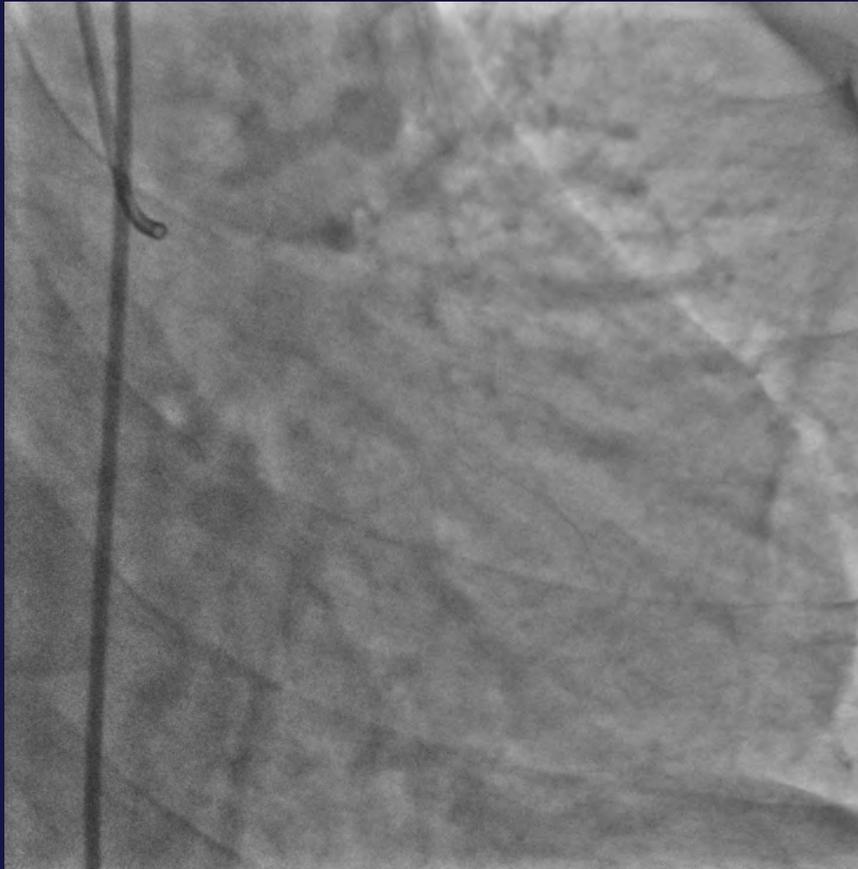
Smoking(+) 20 pack year

ECG: WNL

Echo: Normal, EF= 61 %

Treadmil test: positive study, stage 3

Initial CAG



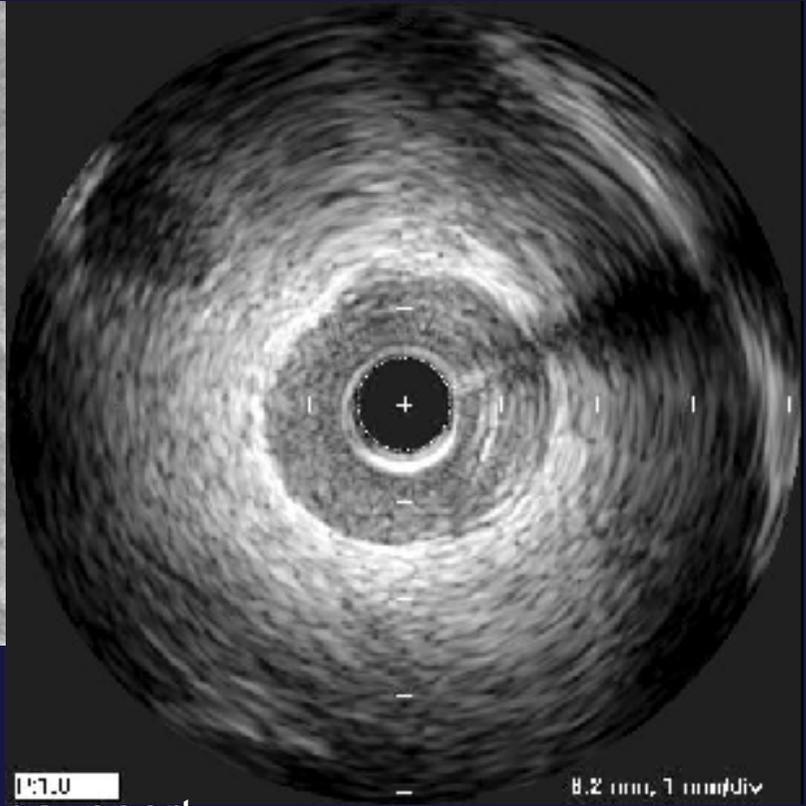
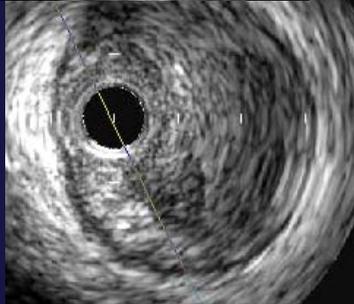
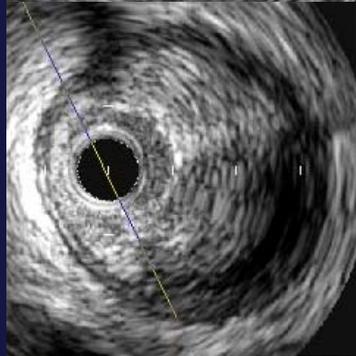
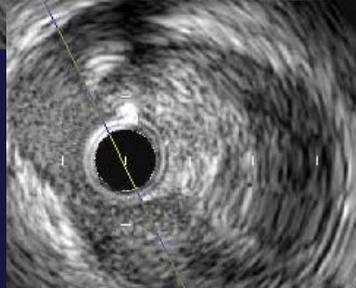
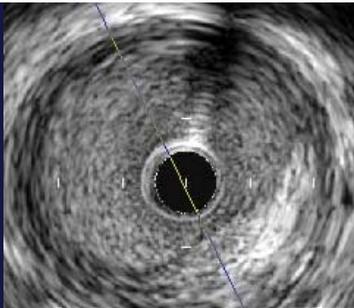


6F XB 3.5 guiding catheter

Fielder guidewire

Miracle 3 guidewire with Excelsior microcatheter support

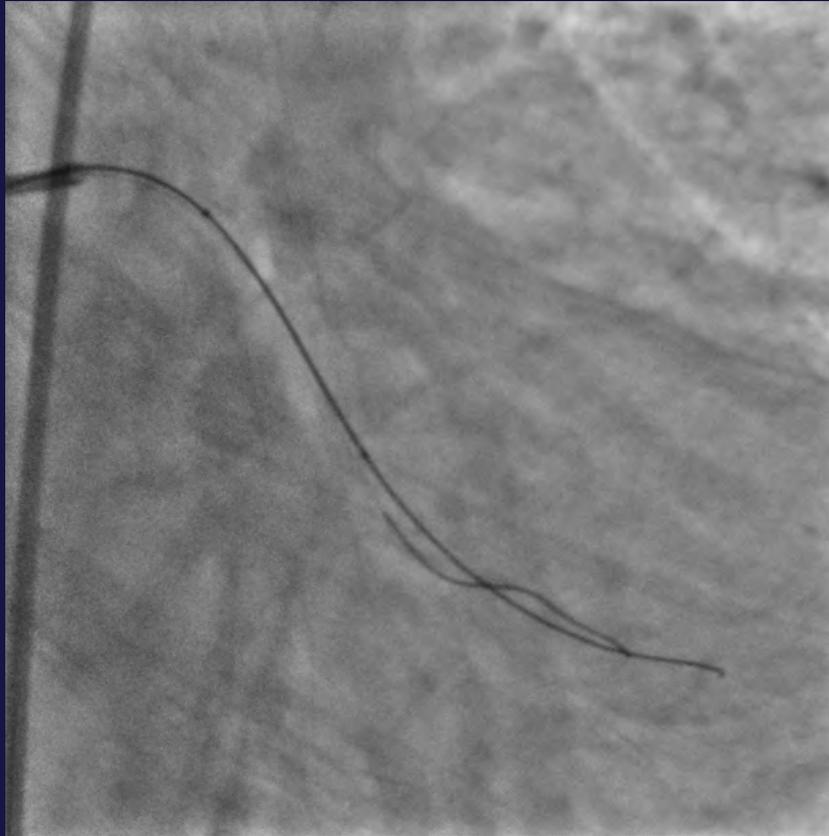
Conquest Pro guidewire with Excelsior microcatheter support



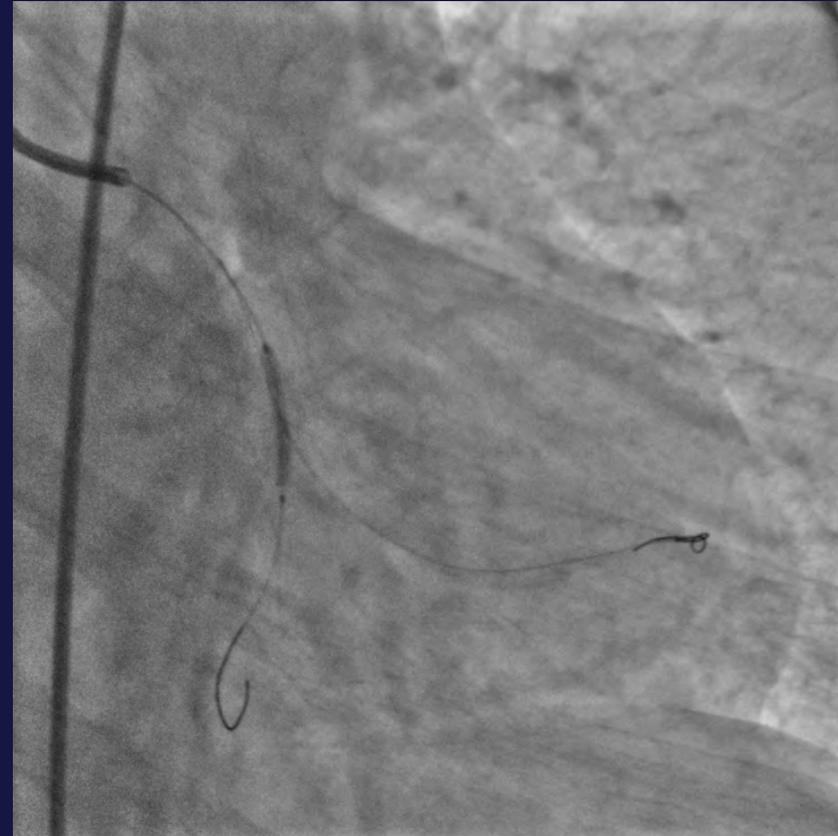
Miracle 3 guidewire
with Excelsior microcatheter support

0.50

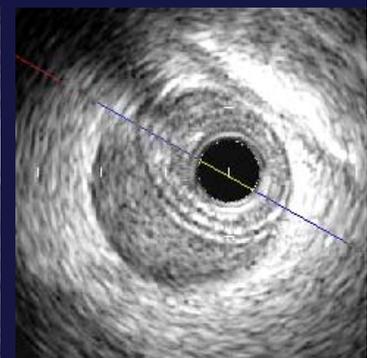
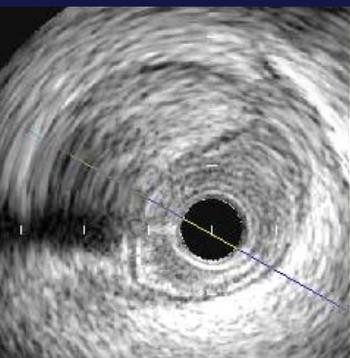
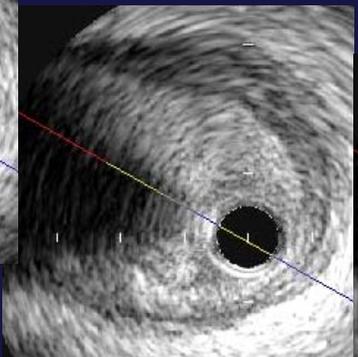
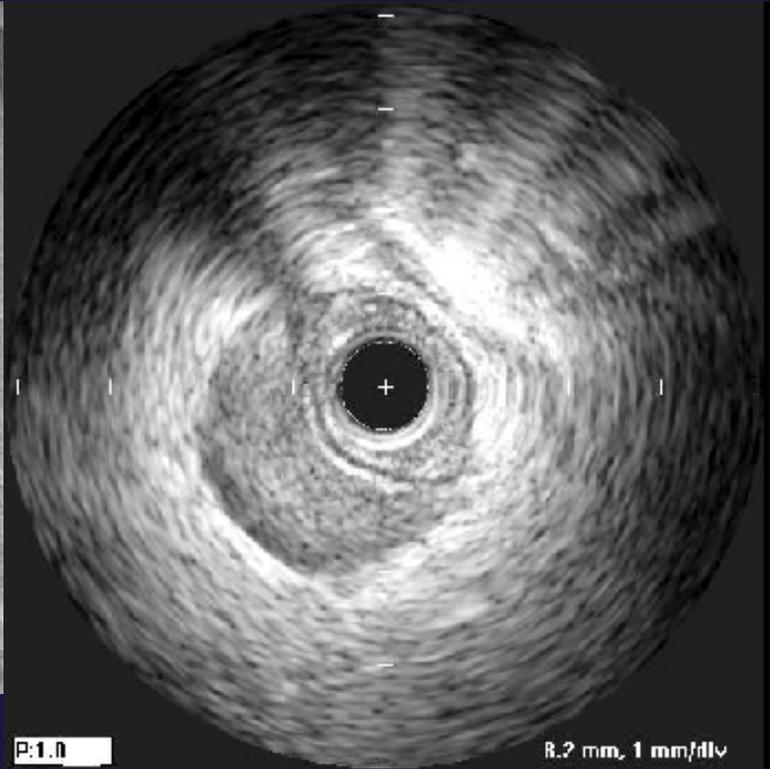
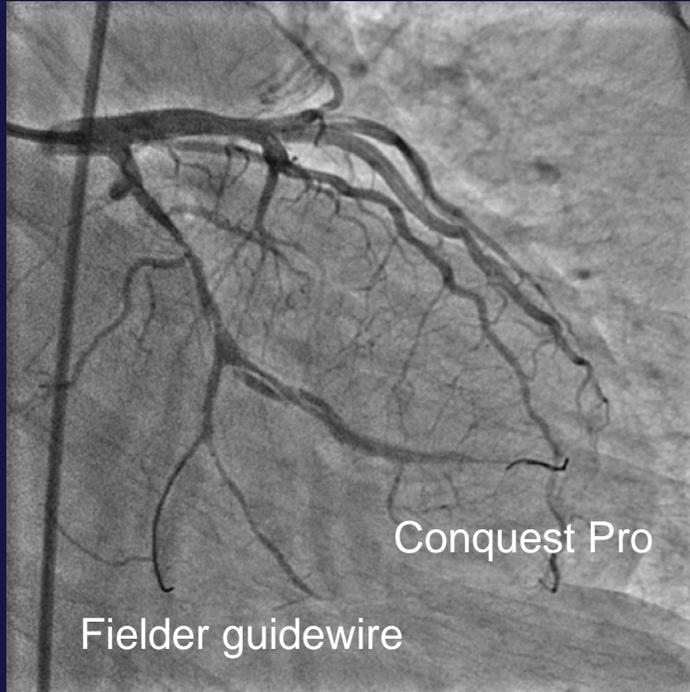
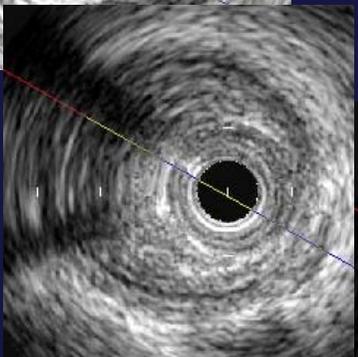
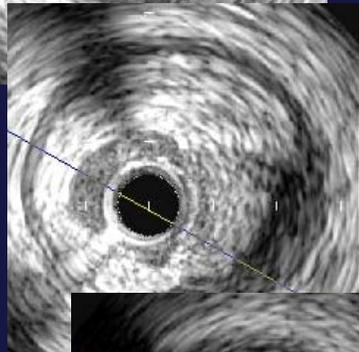
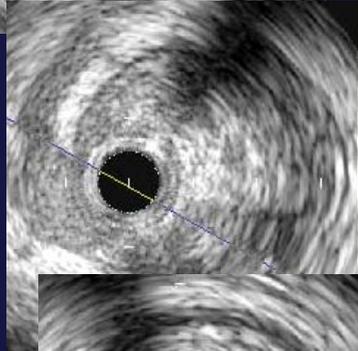
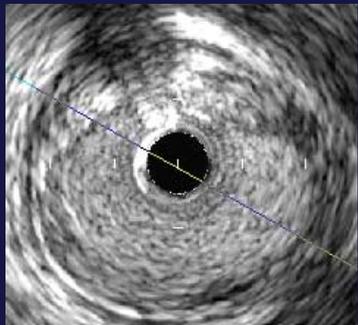
8.2 mm, 7 mm/div



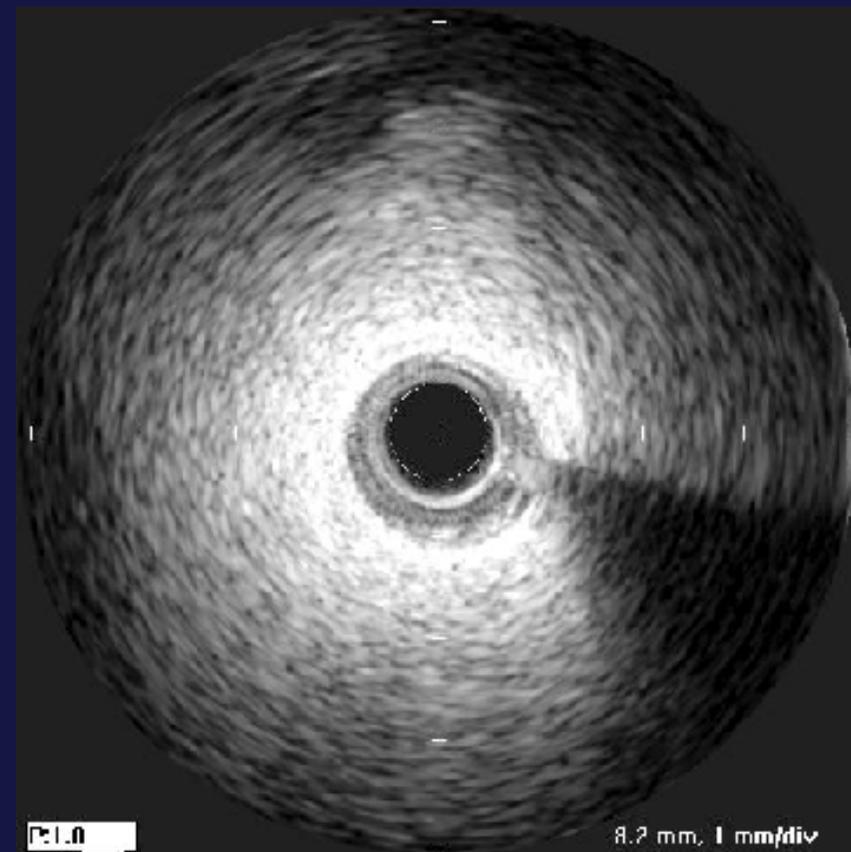
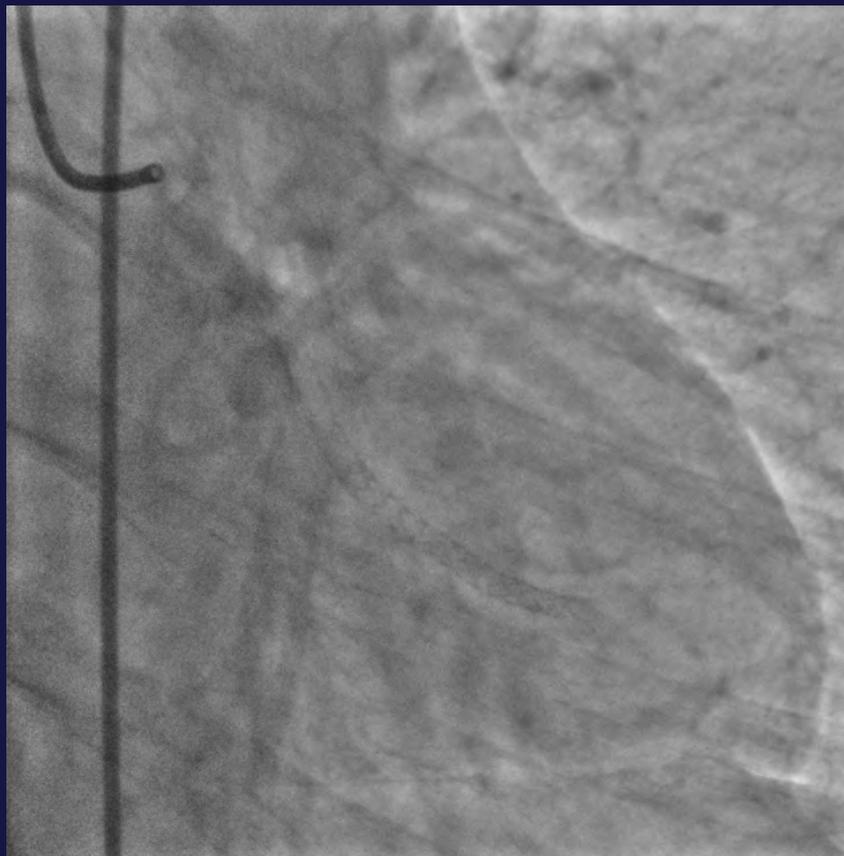
Parallel wire technique
: Fielder guidewire in false lumen
Conquest Pro guidewire in true lumen



Apollo Balloon 1.5x15 mm



Final CAG and IVUS





감사합니다.
Thank you for your attention