

Application of the 2nd Generation OCT in LM PCI

Akiko Maehara, MD

**Cardiovascular Research Foundation/Columbia
University Medical Center, New York**



CARDIOVASCULAR RESEARCH
FOUNDATION



COLUMBIA UNIVERSITY
MEDICAL CENTER

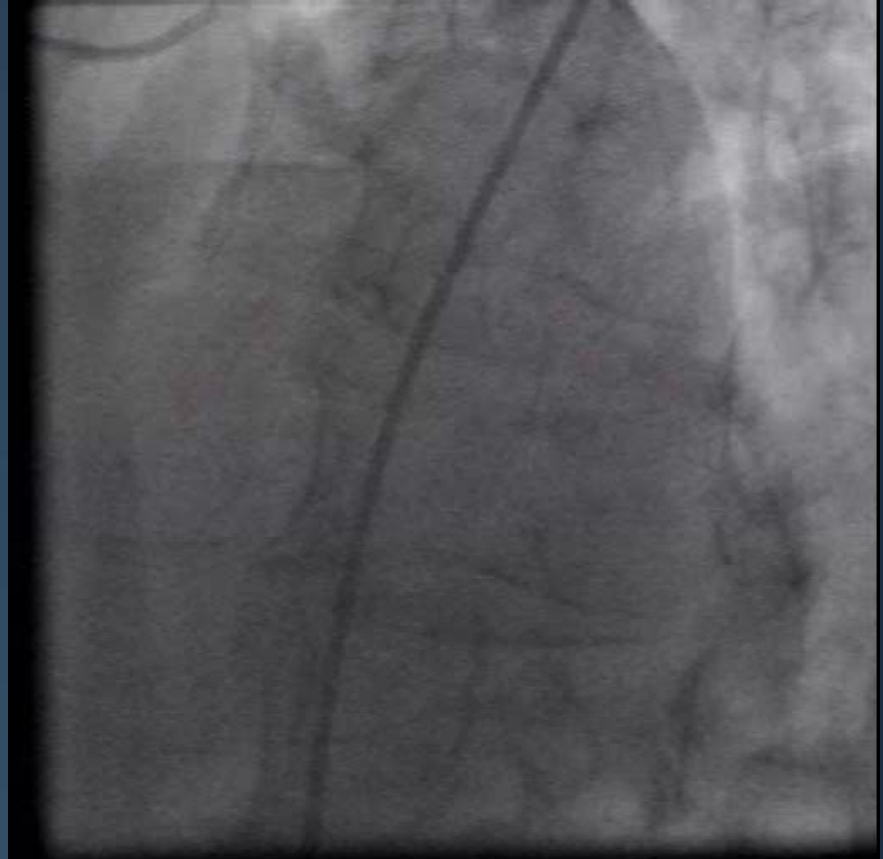
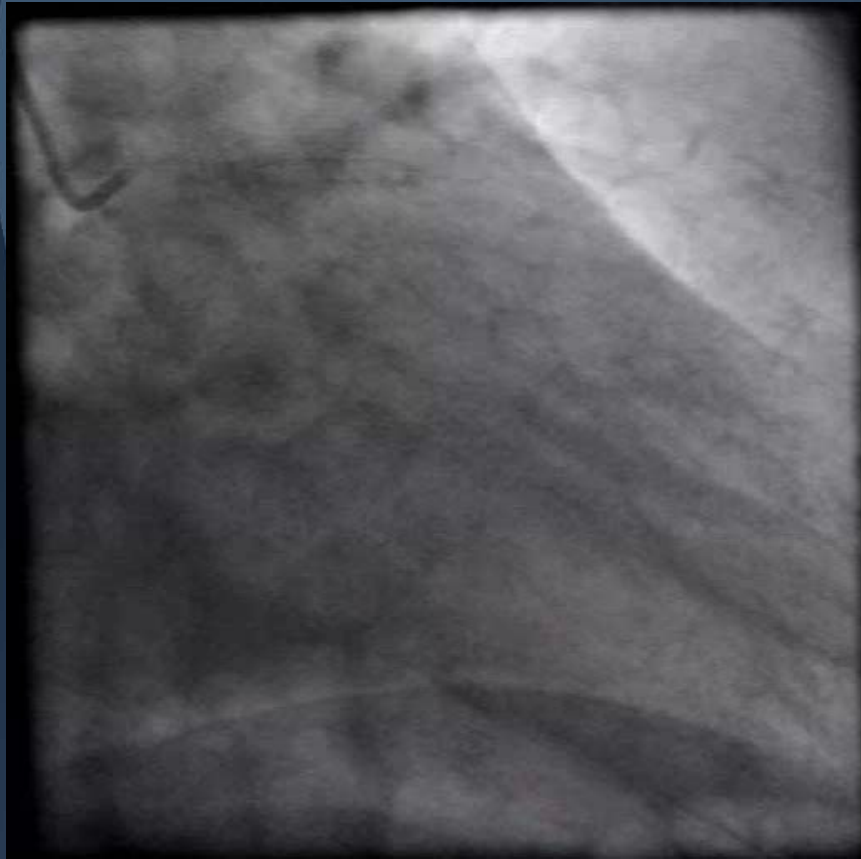


NewYork-Presbyterian
The University Hospital of Columbia and Cornell

79 y. o. Male Positive Stress Test

1. 2 years ago: Proximal LAD XIENCE 3*18mm
2. 1 year ago: Proximal LCX XIENCE 2.5*8mm
3. Half year ago: Proximal LCX ISR treated by KBT
4. Now, symptomatic again





CARDIOVASCULAR RESEARCH
FOUNDATION

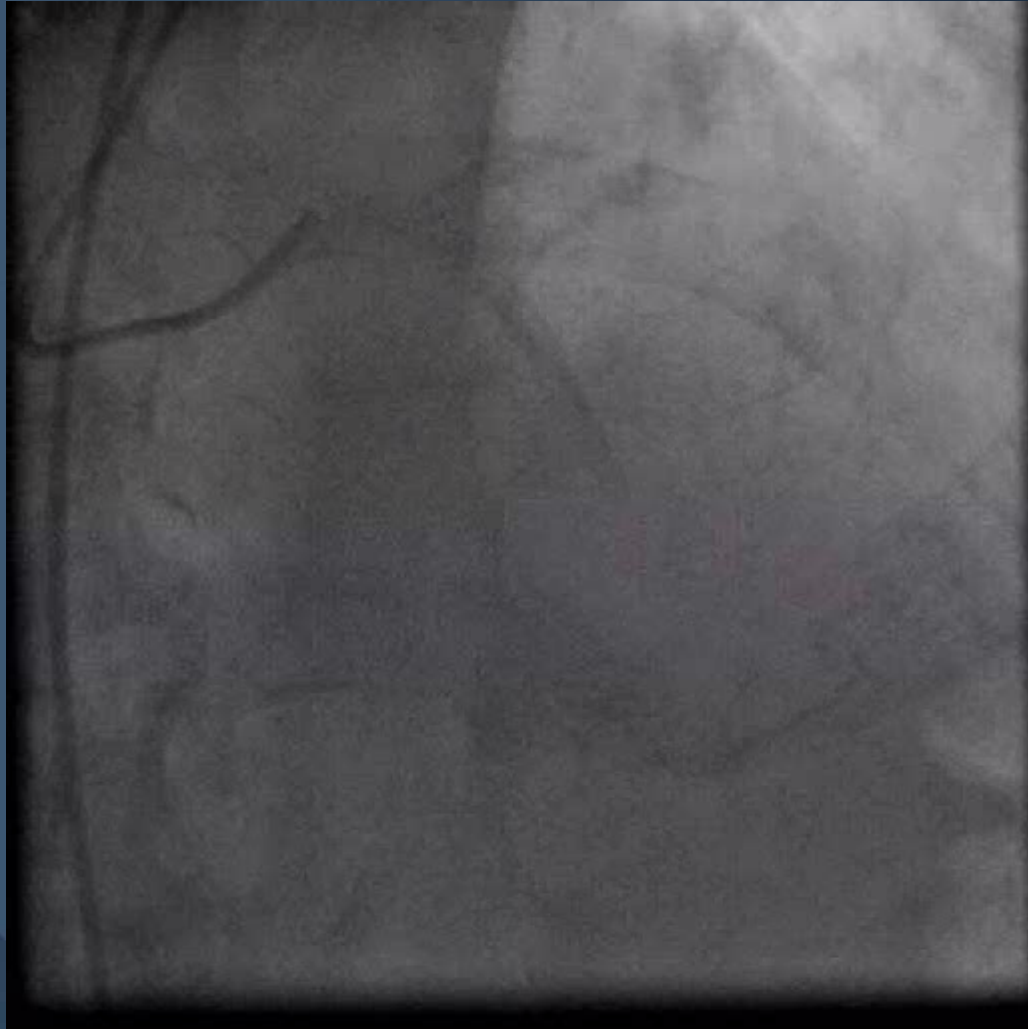


COLUMBIA UNIVERSITY
MEDICAL CENTER



NewYork-Presbyterian

The University Hospital of Columbia and Cornell



CARDIOVASCULAR RESEARCH
FOUNDATION



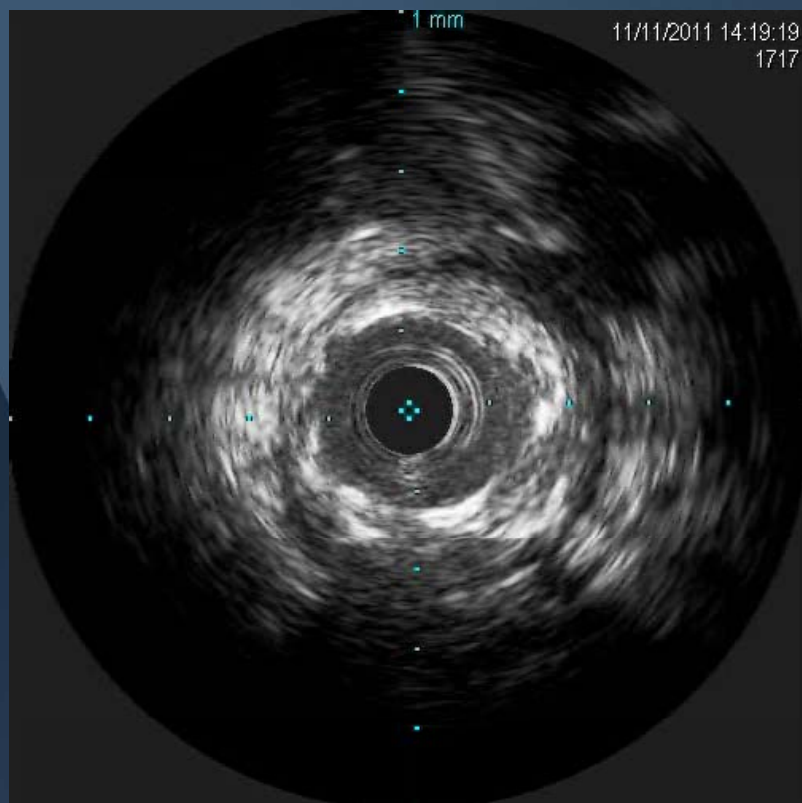
COLUMBIA UNIVERSITY
MEDICAL CENTER



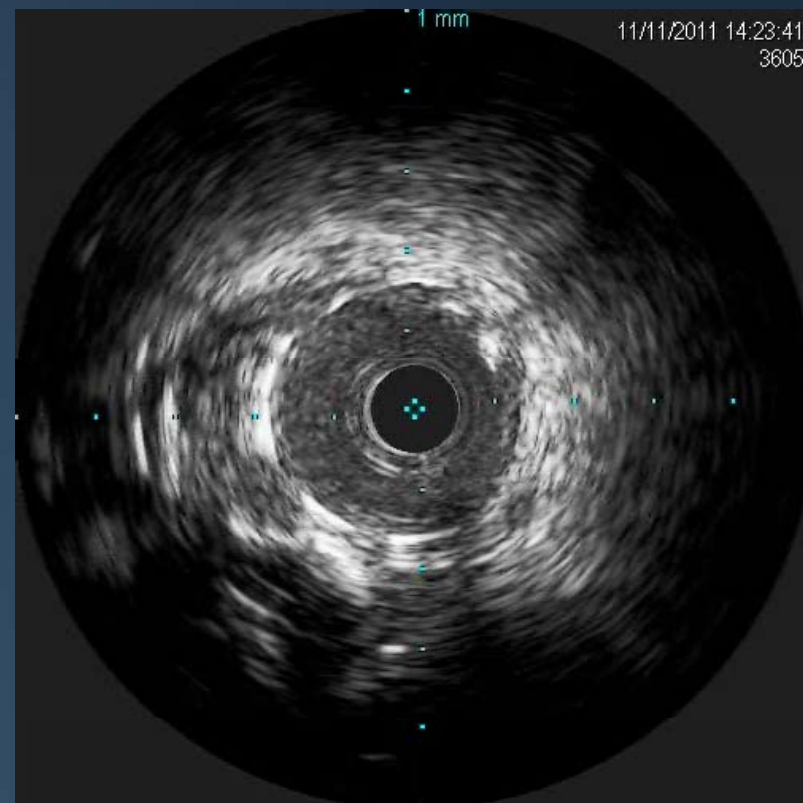
New York-Presbyterian

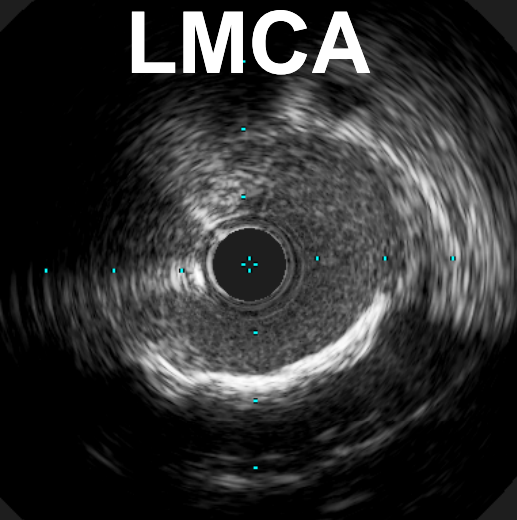
The University Hospital of Columbia and Cornell

From LCX



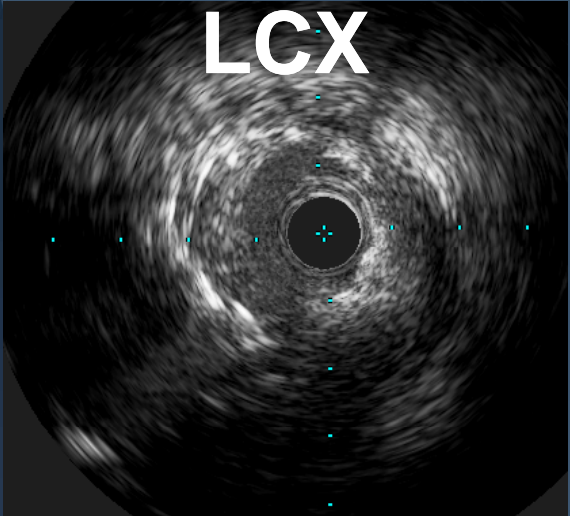
From LAD





LMCA

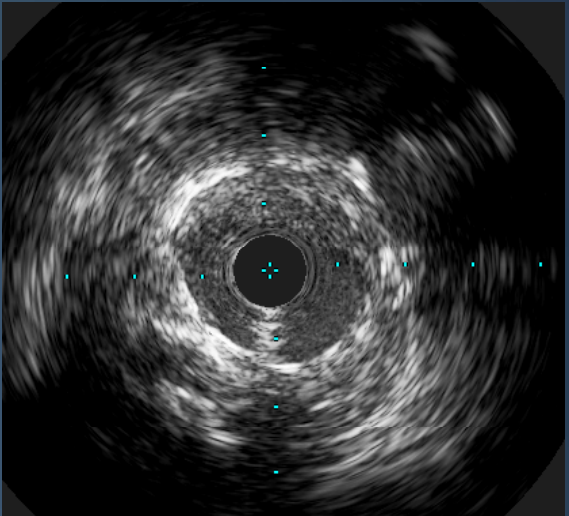
MLA=6.6mm²



LCX

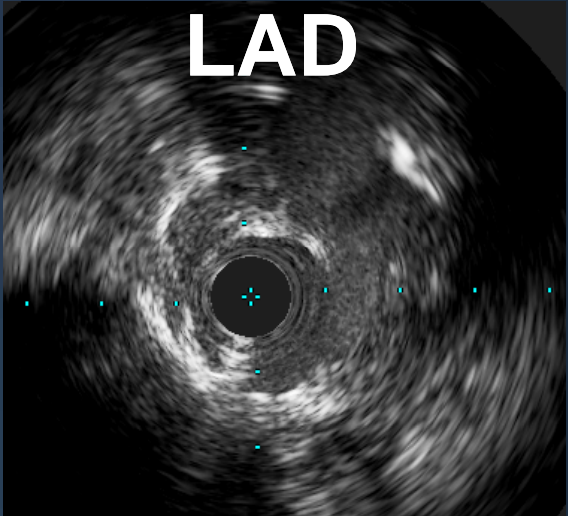
MSA=5.6mm²

MSA=3.0mm²



MSA=6.0mm²

MSA=3.6mm²



LAD



CARDIOVASCULAR RESEARCH
FOUNDATION



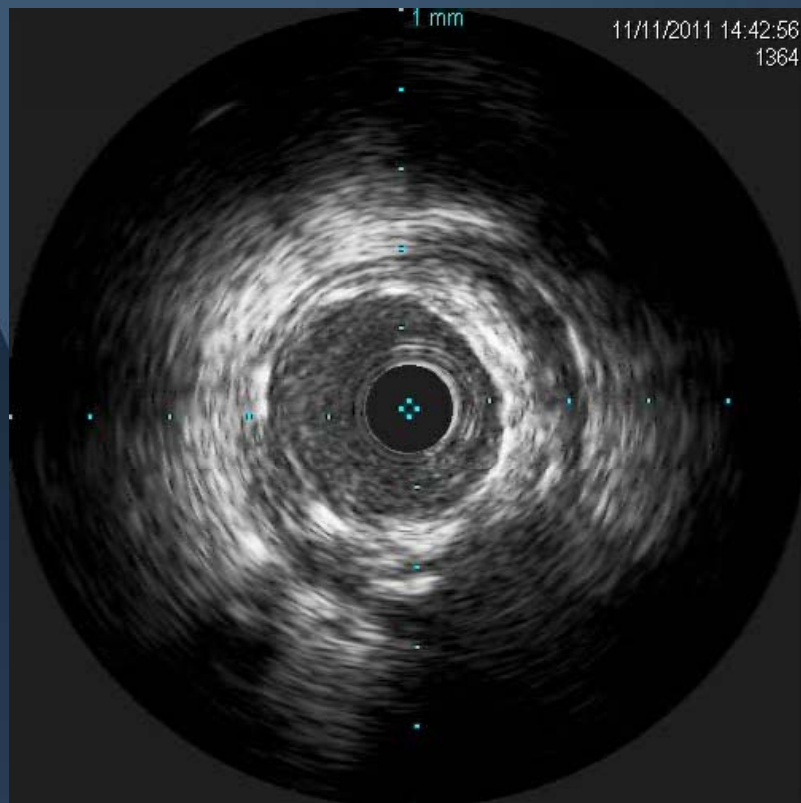
COLUMBIA UNIVERSITY
MEDICAL CENTER



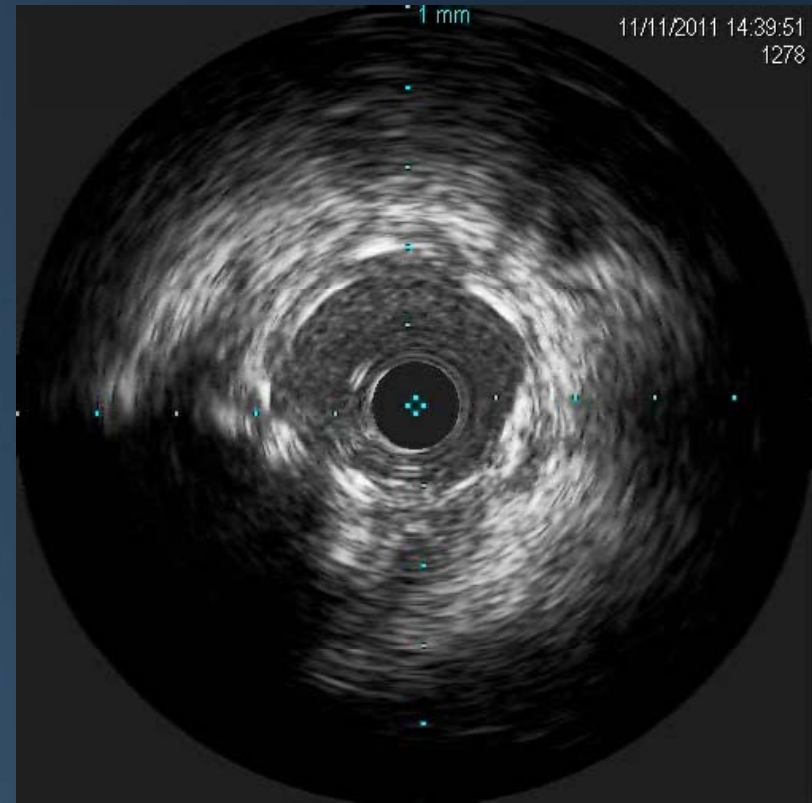
New York-Presbyterian

The University Hospital of Columbia and Cornell

From LCX

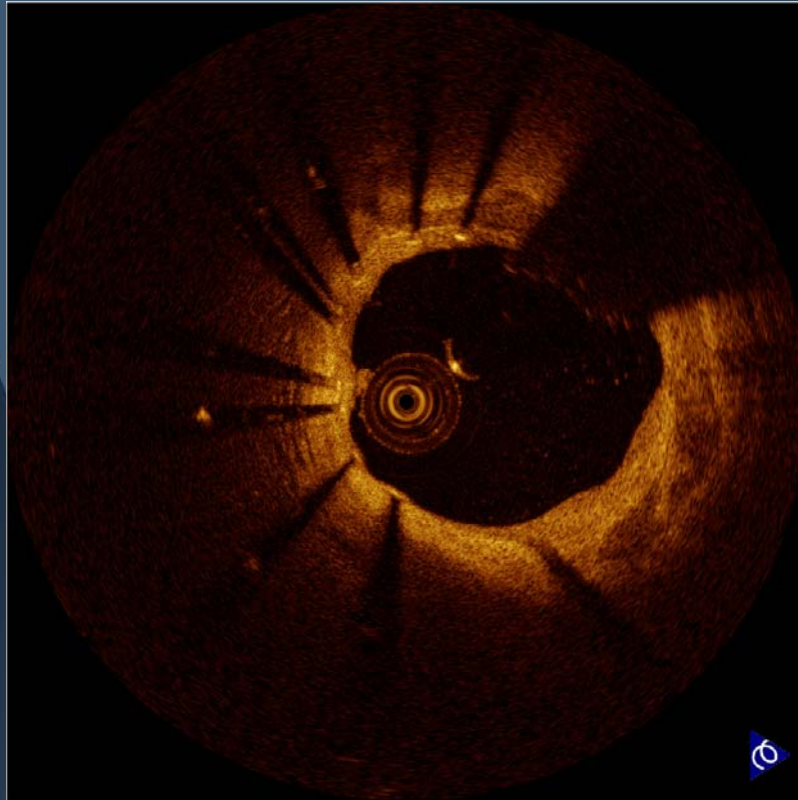


From LAD

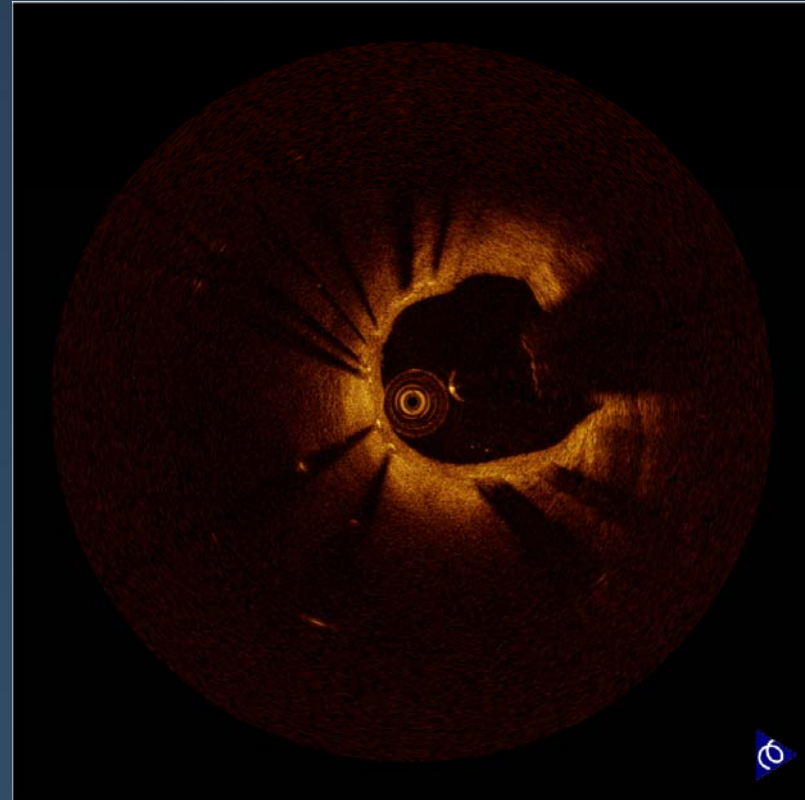


C7x OCT from LCX

Regular Size

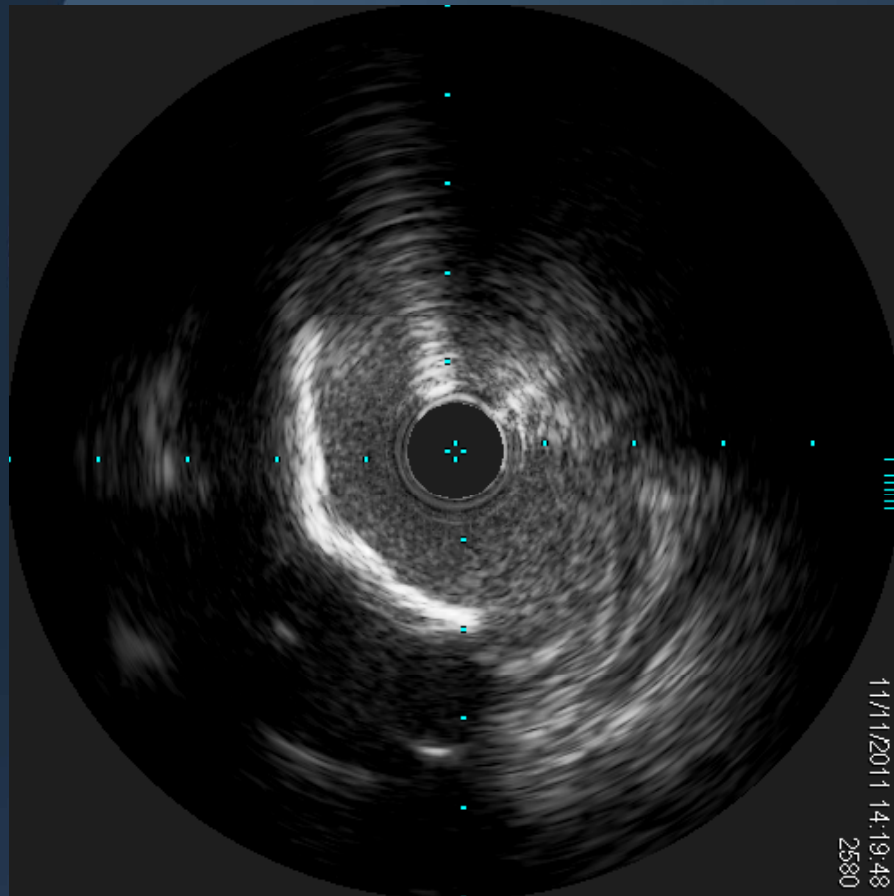


Zoom Out

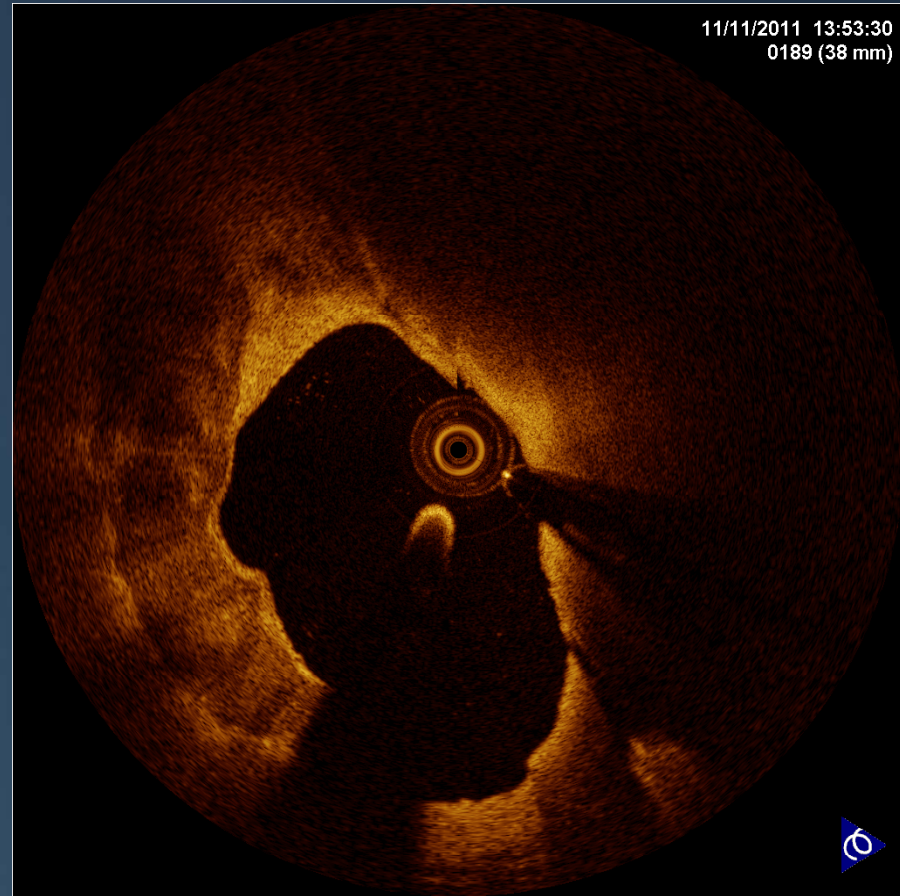


1. Entire Cross Section is Visible.

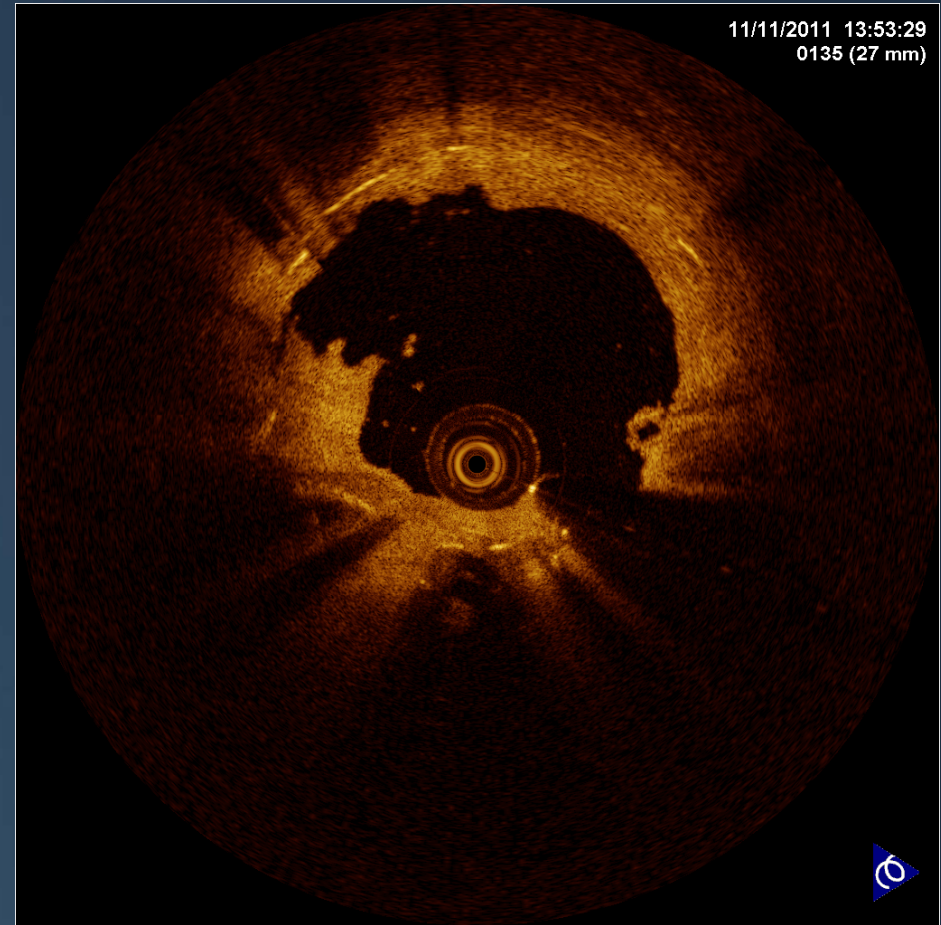
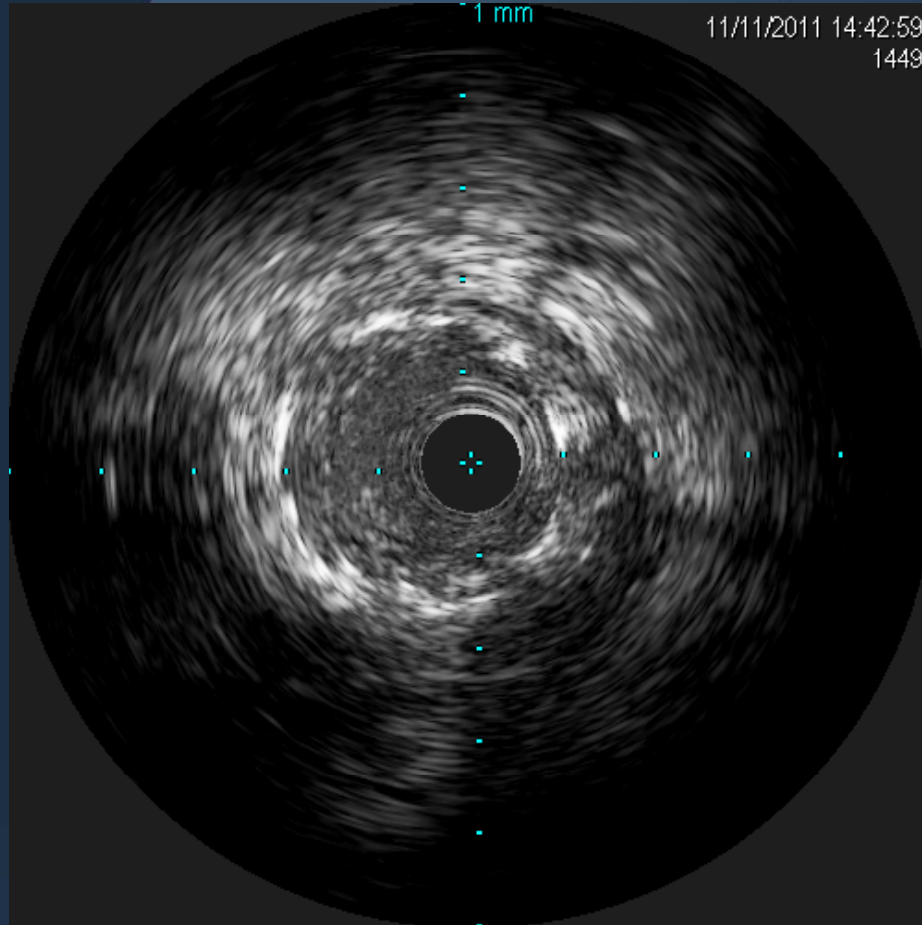
MLA=6.6mm²



MLA=6.9mm²

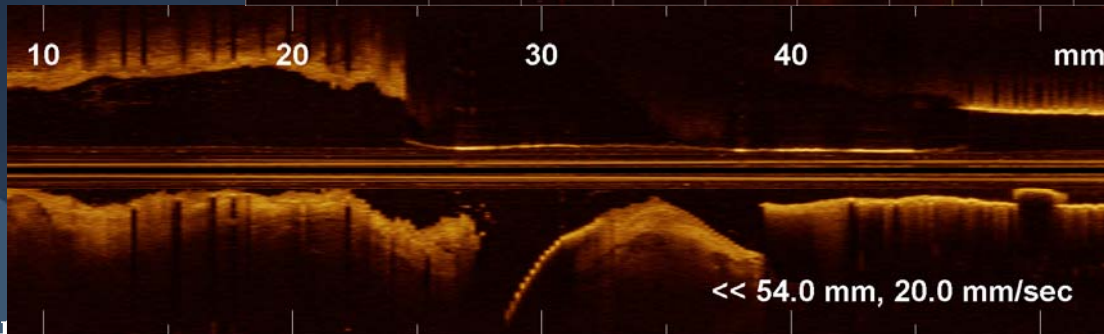
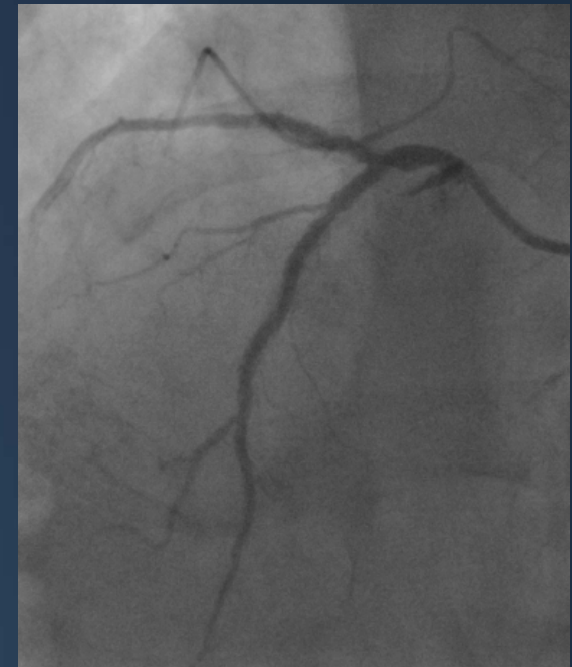
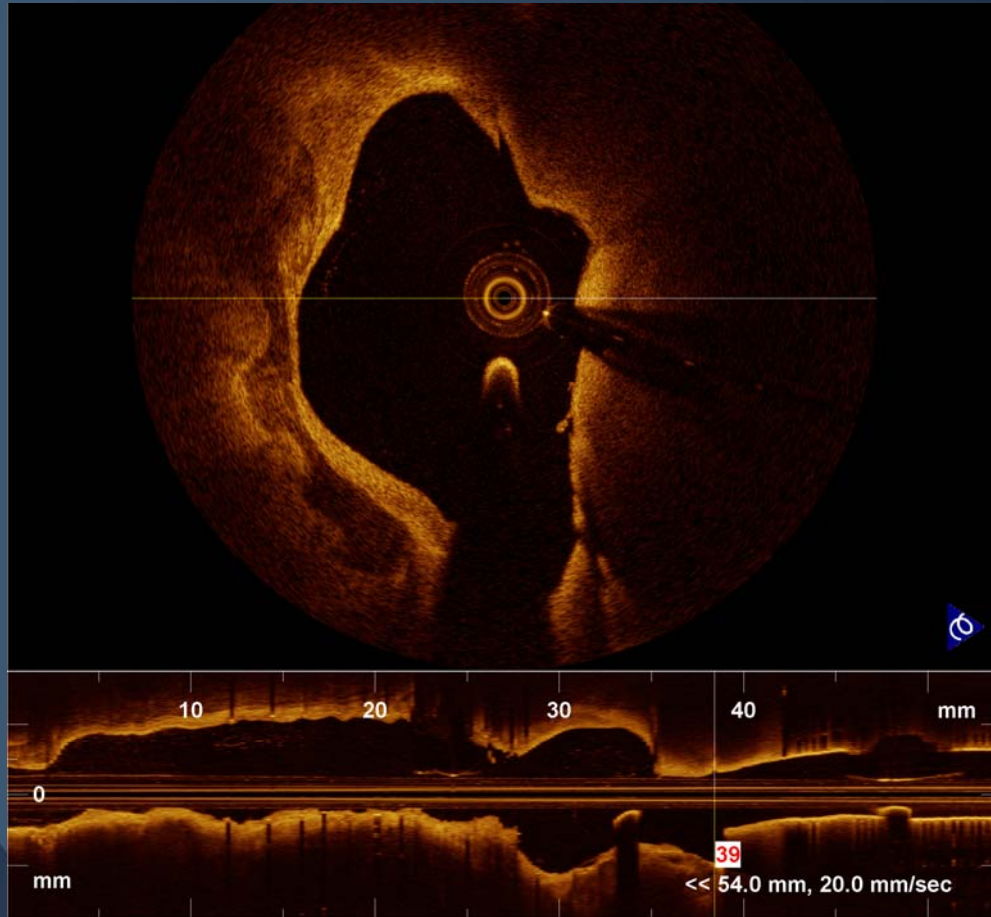


2. Similar Measurement



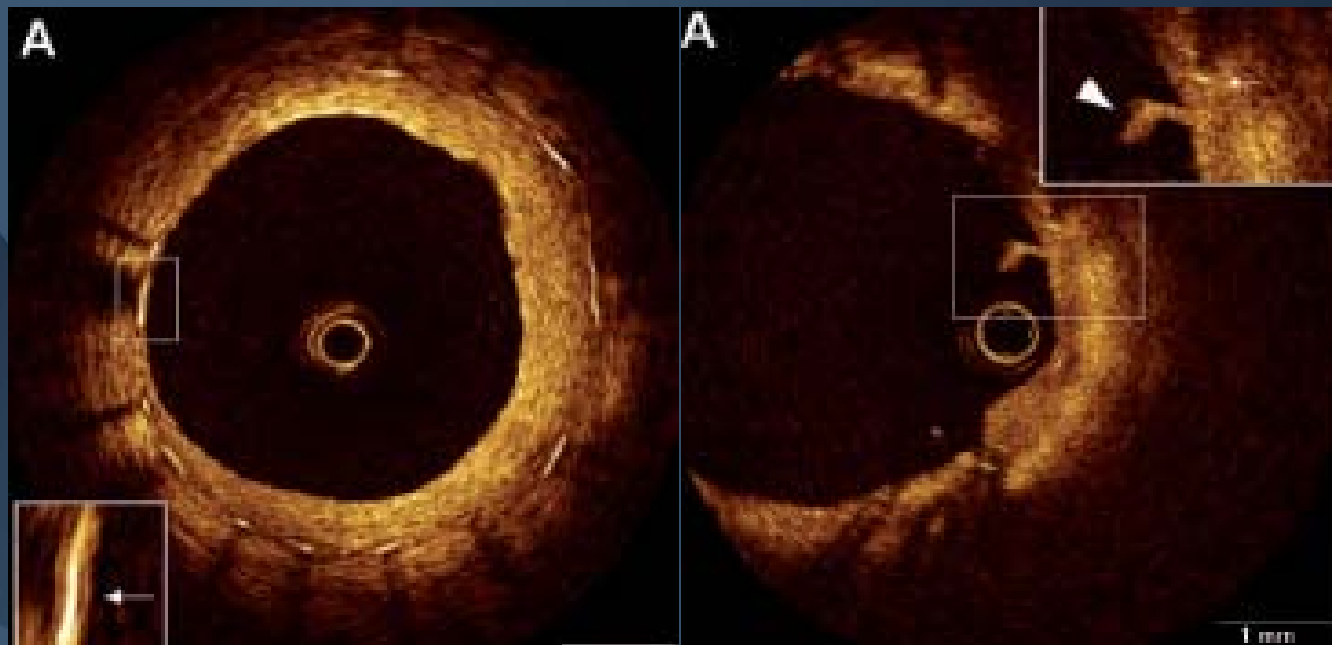
3. Clear Delineation of Strut/Tissue

4. 3D Evaluation - Pathway of wire -



5. Left Main Stent Evaluation 6 Months Post Stent Implantation

- *15 Patients*
- *M3 System*
- *2-3ml/sec Contrast Injection without Occlusion*
- *6Fr Extra Back Up Guiding Catheter*
- *No Complication*



Case	Analyzed Length (mm)	Average Analyzable Quadrants	# of Analyzed Strut	Any uncovered malapposed	AIT with covered strut	AIT with uncovered strut	Stent Type
1	12.0	3.6	211	8.0%			P
2	6.2	2.9	92	25%			P
3	10.4	3.4	75	17.3%			P
4	10.7	1.8	53	3.8%			E
5	8.9	2.3	43	7%	Yes		E
6	10.4	2.2	51	0%			P
7	10.4	2.1	91	0%			P
8	6.5	2.4	48	16.6%	Yes		P
9	7.1	2.8	74	0%			P
10	6.9	3.8	166	23.3%		Yes	E
11	8.4	3.4	89	4.5%	Yes	Yes	E
12	7.5	2.9	84	9.5%	Yes		E
13	6.2	3.7	112	10.7%			P
14	3.5	1.0	14	0%			E
15	9.8	2.9	80	23.8%			E

Summary

- 1. Left Main evaluation is feasible for the most of cases.**
- 2. 3D evaluation (wire passage, strut distribution) may give us additional new insight for distal left main stenting.**
- 3. Clinical implication for strut coverage/malapposition will be warranted.**

