

# IVUS and OCT for PCI Optimization MLD-MAX

Pre-PCI

Post-PCI

M

Morphology

Deep Calcium

Superficial Calcium

Nodular Calcium

L

Lesion

- **Target healthy landing zones** (avoid atheroma or lipid pools)
- **Determine length** between proximal and distal reference measurements

D

Diameter

- **Stent sizing: use distal luminal reference for 1:1 stent sizing per the ULTIMATE trial** which used IVUS (pay attention to stent post-dilation limits)
- **Use proximal and distal references for respective post-stent balloon dilation**

Arc > 180 degrees

Thickness > 0.5mm\*

\*only assessed by OCT

Length > 5mm

None

≥ 1 present

NC / Scoring / Cutting Balloon

Adequate 1:1 Balloon Expansion

Yes

Deploy Stent + Post Dilate

No

Consider Calcium Modification\*:  
Lithotripsy  
Rotational / Orbital Atherectomy  
Laser Atherectomy

\*no preferred order

Medial Dissection

- Ensure **absence of stent edge dissections involving media >3mm in length and/or 90-degree arc in diameter**

Apposition

- Consider post-dilation of proximal edge malapposition (may interfere with re-wiring) and gross malapposition of long segments (>3mm), or malapposition associated with under-expansion.
- Treat malapposition with low pressure semi-complaint balloon.

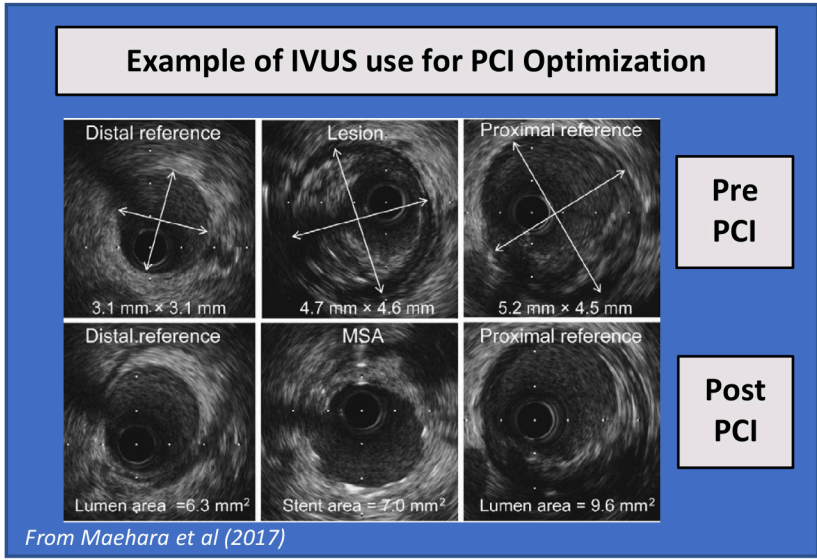
Expansion

- **Optimal ≥90% distal ref segment**
- **Acceptable ≥80% distal ref segment**
- **MSA >5.5 mm<sup>2</sup> by IVUS for non-left main**
- **MSA >4.5mm<sup>2</sup> by OCT for non-left main**

M

A

X



**References:**

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