**How to Optimize LM PCI in Contemporary Practice? Lessons from the Expert**

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Left main percutaneous coronary intervention (LM PCI) is still challenging in modern era. LM PCI is regarded as a class IIa or IIb in selected cases in several guidelines and it is widely performed in real world. IVUS-guided LM PCI is known to be associated with lower mortality than angiogram-guided LM PCI. Therefore, optimization of LM PCI is very important during the procedure. Intravascular ultrasound is a key element during LM PCI for the optimization of the procedure.

Several lesions of LM seem to be very severe stenotic due to negative remodeling, eccentric lesion or specific angiographic view. All these lesions do not need to be intervened and the intervention can be avoided using IVUS. And we should be keep in mind that there is big discrepancy between angiogram and IVUS especially in LM lesion. Assessment of both LAD and LCX coronary artery using IVUS is also very important especially in distal left main lesion because the number of stent and the stenting technique can be changed according to the lesion status. Post-stent IVUS is also very important to find geographic miss, stent mal-apposition, stent expansion and edge dissection which is same in non-LM lesion. But, immediate complication after LM PCI can be more lethal compared to the non-LM lesion.

High-risky LM lesion especially Syntax score 33 or more is still class III for the PCI. When we do LM PCI in selected cases, we have to use IVUS routinely for well optimization and better survival.