A case that no stent strategy was achieved by DCA+DCB with IVUS guidance in the LMT true bifurcation lesion

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Case 70’s year old male

【Relevant clinical history and physical exam】
A 70’s-year-old man was admitted with an exertional chest pain for 1 month. His coronary risk factors were hypertension, dyslipidemia and smoking. His past history were IgA nephropathy and prostatic hypertrophy.

【Relevant test results prior catheterization】
Baseline ECG was normal. Echocardiogram revealed normal LV function (ejection fraction 62.2%).

【Laboratory Data】Cre 1.0, eGFR 56.6, LDL-C 102, HDL 31, TG 202, HbA1c 5.9
【SYNTAX score】 31
CAG Summary

LMT true bifurcation without severe calc +3VD

PCI for LMT using DCA
DCA 【ATHEROCUT New Features】

- Safety system
- GW hold
- 7Fr compatible
- 6000rpm
- DLC coating
- Short cutter
IVUS-guided DCA

Pericardium (心外膜)

Septal

Diagonal

Circumflex

Myocardium (心内膜 心筋側)

LV

RV

LAO cranial

RAO30°
IVUS (brunch guide)
First Target: 12o’clock (test cut 2atm)
Second Target: 11～1 o’clock (2atm)
Angiogram: almost no stenosis about 25% 

IVUS: a lot of plaque 

additional cut at the several times
Total 6 ses:

%plaque area: 72%→42%
Of course, DCA cut in this site!
Total 3 sessi

%plaque area: 78% → 47%
Summary

• PCI was performed for the LMT true bifurcation using DCA.
• With IVUS guidance, the plaque was reduced from 72% to 42%.
• Finally, KBT with two DCB was performed in the LMT.
• No stent strategy, DCA+DCB, was achieved.
Discussion

• LMT true bifurcation
  → two stent or single stent + KBT

  Both stenting strategies were feasible for LMT bifurcation lesions with a high operation success rate and safety. However long term outcomes were unclear.

→ DCA+DCB

In our single center, about 40 cases were treated by DCA+DCB. The number of Restenosis cases were only 2 cases.

How is this strategy?
Conclusion

No stent strategy was achieved by DCA+DCB with IVUS guidance in the LMT true bifurcation lesion.
Thank you for your attention!!