Basic consideration of PCI for LCX ostial lesion

Hideo Tamai,M.D. Shiga Medical Center for Adults

When we consider PCI for LCX ostial lesion, our principal strategy is the debulking by DCA. That is because stenting has a risk that part of the stent strut protrudes to LMT and jails LAD. Furthermore, in case stenting is inevitable after DCA, the effect of debulking lessens a possibility of restenosis. The debulking by Rota is another option, however DCA is superior to Rota in debulking effect. DCA should be performed according to the IVUS guidance and we cut only the atheroma according to the IVUS finding. LCX ostial lesion often shows eccentricity and negative remodeling. The atheroma of LCX ostial lesion is frequently seen in the opposite side of LAD.

Although DCA should be the main device in PCI for LCX ostial lesion, it is difficult for us to perform DCA in several conditions.

1. Severe calcification makes it impossible to deliver the atherocathe to the lesion. Pre-dilatation by balloons enables us to carry out DCA. If pre-dilatation is not effective, Rota should be considered.
2. Severe angulation and small vessel size also interfere with DCA. However, when vessel looks small angiographically, it is frequent that the vessel turns out to be big by IVUS. Therefore, observation by IVUS before the procedure is important.

When we are not able to perform DCA or obtain sufficient dilatation by DCA, deliberate stenting should be considered.

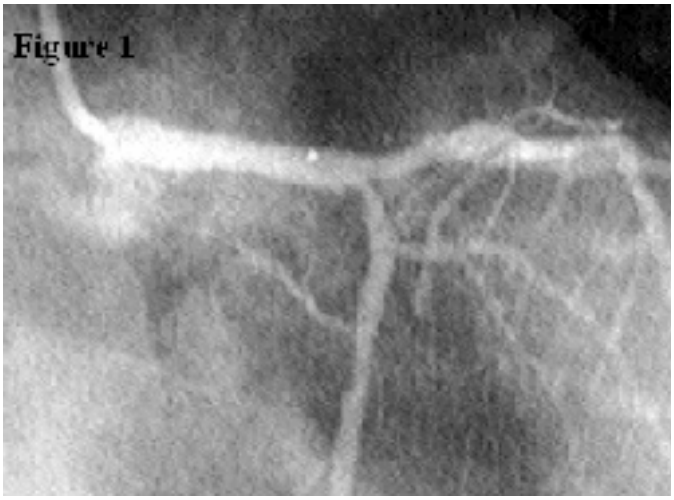
Case 1

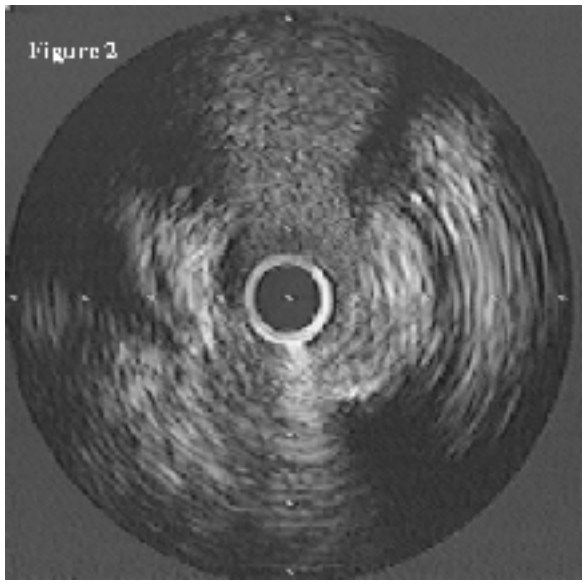
57 y.o., male

Clinical diagnosis; old myocardial infarction

Target lesion; LCX ostium 75% stenosis

Figure 1 shows the angiogram before PCI. At first, we performed IVUS and found an eccentric lesion with calcification (Figure 2). The atheroma was present in the opposite side of LAD. Next, using Flexicut M (max 40psi), we cut the atheroma toward the opposite side of LAD intentionally (Figure 3). Final angiogram (Figure 4) and IVUS (Figure 5) showed an optimal result. The IVUS finding revealed that part of the calcification was cut and disappeared.





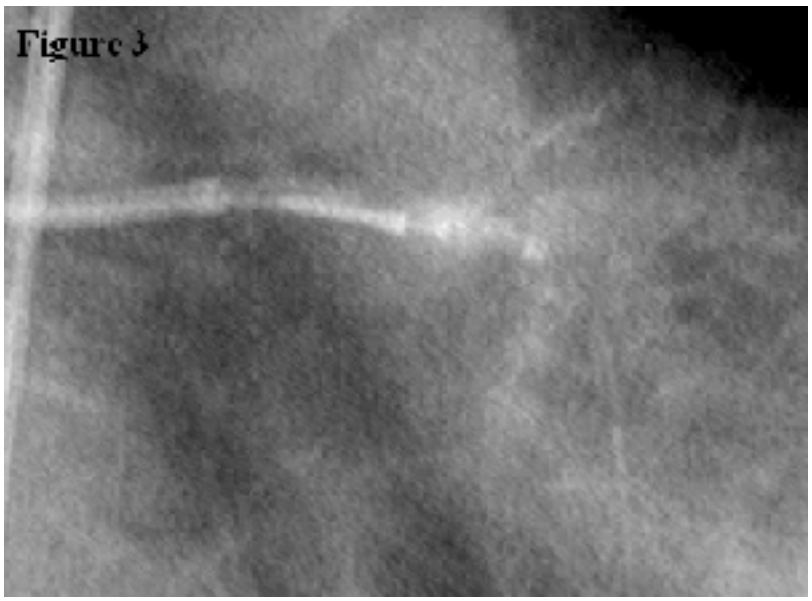


Figure 3


Figure 4

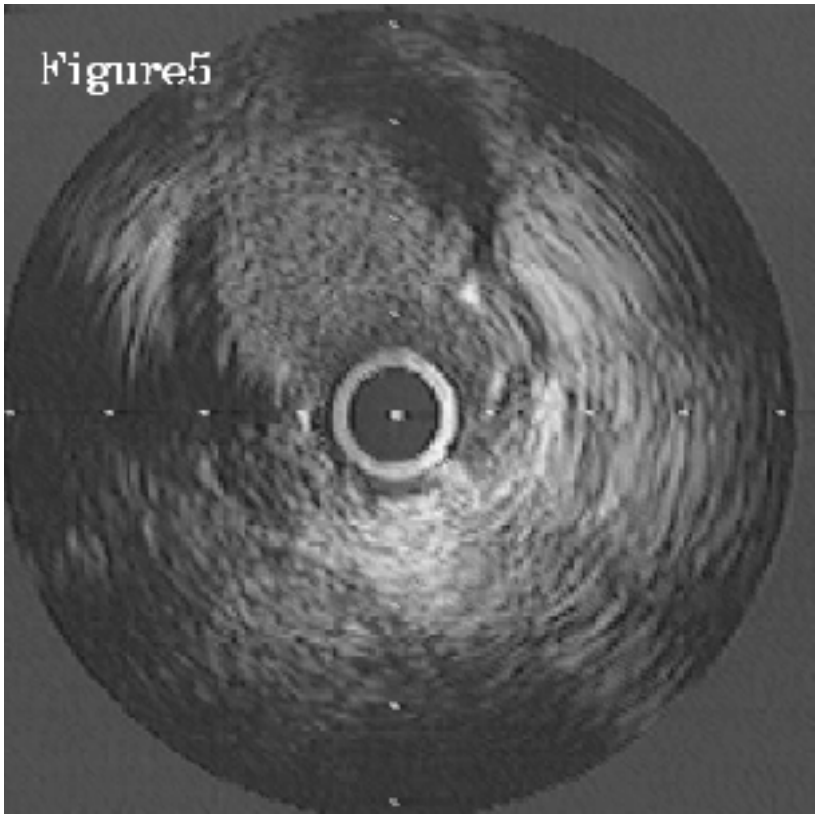


Figure5