Tracking Angina Pectoris on the Coronary Fractional Flow Reserve

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Picture.

A 75-year-old man developed effort angina and was admitted to our hospital. Angiography revealed 75% stenosis in the right coronary artery (RCA) #2 with a fractional flow reserve (FFR) of 0.66 and 75% stenosis and total occlusion in left anterior descending artery (LAD) #6 and #7 with a FFR of 0.86 in LAD #6. RCA gave rise to a collateral ar-

tery to LAD (Picture). As the narrowing was not severe and it was possible to increase the FFR in RCA, we performed percutaneous coronary intervention (PCI) in LAD and assessed the change to the FFR. Interestingly, the FFR increased to 0.74 (<0.75) in the RCA and decreased to 0.79 in the LAD. We therefore selected PCI and medical follow-up

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in the RCA and LAD, respectively. The patient was discharged without any symptoms. Measuring the FFR has become the gold standard for guiding revascularization (1), which is considered warranted for a FFR <0.75 . However, as observed in the present case, we should therefore pay close attention to the possibility that the FFR of the donor artery can be affected by the existence of a collateral artery (2).

If the FFR increases to more than 0.75, then it would also be possible to select a medical follow-up in RCA#2.

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