The usefulness of coronary computed-tomography angiography in midterm follow-up of old myocardial infarction

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[Abstract] The case was a 69-year-old man who operated percutaneous coronary intervention (PCI) to middle lesion of left anterior descending due to acute anteroseptal myocardial infarction in 2003. Since then, he was followed up by use of exercise stress myocardial scintigraphy until 2007. In February 2013, midterm further evaluation of coronary arteriosclerosis was tested by use of coronary computed-tomography angiography (CCTA) even though he had no symptoms. The test revealed a significant stenosis with soft-plaque in left main trunk (LMT) that CT value was 37 hounsfield unit. And coronary angiography clarified a 75% stenosis in LMT with vulnerable plaque, so he underwent PCI in this area. Patients of old transmural myocardial infarction may be discovered significant stenoses by CCTA but they were not detected new infarct areas by stress myocardial scintigraphy. This report is a case of old transmural myocardial infarction that we could perform PCI to a coronary artery with vulnerable plaque despite asymptomatic state, before occurrence of cardiovascular events.