Asia-Pacific Hotlines at TCT 2016: Randomized Evaluation of Routine Follow-up Coronary Angiography After Percutaneous Coronary Intervention Trial (ReACT)

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What was your rationale for this study and what was known before?

In several previous studies, routine follow-up coronary angiography (FUCAG) after percutaneous coronary intervention (PCI) has been reported to have increased the rate of coronary revascularisation, but not to have improved clinical outcomes. Based on these study results, the current clinical guidelines in the United States of America have already disregarded routine FUCAG, even after PCI for left main coronary artery disease. On the other hand, prior studies carried out in the drug-eluting stent (DES) era were performed in the context of pivotal randomised trials. There have been no randomised clinical trials evaluating the clinical impact of routine FUCAG post PCI in the real-world clinical practice including in patients with, for example, complex coronary artery disease and acute myocardial infarction, at high risk for cardiovascular events.

What is unique about this study in your country?

In Japan, routine FUCAG after PCI is still commonly performed in real-world clinical practice. This trial is the first dedicated randomised trial comparing an angiographic follow-up (AF) strategy with a clinical follow-up only (CF) strategy after PCI in daily clinical practice.

Did you experience any unexpected challenges?

The ReACT trial is a prospective, multicentre, open-label randomised trial comparing a routine AF strategy with a CF strategy in daily clinical practice in Japan[1]. Between May 2010 and July 2014, 700 patients who had successful PCI without planned staged PCI in 22 participating centres were randomly assigned to the routine AF group, in which patients were to receive FUCAG at eight to 12 months after PCI, or to the CF group. The definition of the primary endpoint was a composite of death, myocardial infarction, stroke, emergency hospitalisation for acute coronary syndrome, or hospitalisation for congestive heart failure during a minimum 1.5 years of follow-up. During a median 4.6 (interquartile range: 3.1-5.2) years of follow-up, the cumulative five-year incidence of the primary endpoint was 22.4% in the AF group and 24.7% in the CF group (hazard ratio [HR]: 0.94, 95% confidence interval [CI]: 0.67-1.31, p=0.71). Also, there were no significant differences between the AF and CF groups in terms of any other clinical endpoints. Although any coronary revascularisation within the first year after the index PCI was more frequently performed in the AF group than in the CF group (12.8% versus 3.8%, log-rank p<0.001), the difference in any coronary revascularisation between the two groups attenuated over time with a similar cumulative five-year incidence (19.6% versus 18.1%, log-rank p=0.92).

How does the conclusion apply to your daily practice?

Given the costs involved and the invasive nature of coronary angiography, it is likely that FUCAG would be reserved only for patients with recurrent symptoms or evidence of ischaemia. However, the scheduled angiographic follow-up would still be acceptable in the first-in-man coronary device trials, or as the mechanistic substudy in the pivotal coronary device trials, because there was no excess of adverse clinical events with the routine AF strategy except for the increased rate of early repeat coronary revascularisation.

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Conflict of interest statement

The author has no conflicts of interest to declare.

Reference

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