Abstract: P6439

Clinical outcomes of acute coronary syndrome with intact-fibrous cap plaque at the culprit lesions in diabetic and non-diabetic patients

Authors:
T Niida¹, T Yonetsu¹, T Lee¹, M Nakao¹, S Nakagama¹, T Nakamura¹, Y Matsuda¹, Y Hatano¹, T Sasaoka¹, T Umemoto¹, T Kakuta², K Hirao¹, ¹Tokyo Medical and Dental University - Bunkyo-ku - Japan, ²Tsuchiura Kyodo Hospital, cardiovascular center - Tsuchiura - Japan,

Topic(s):
Acute Coronary Syndromes: Angiography, Invasive Imaging, FFR

Citation:
Background: Previous studies revealed that the morphological substrates of the culprit lesion assessed by optical coherence tomography (OCT) in acute coronary syndrome (ACS), which includes ruptured plaque (RP) and intact fibrous cap (IFC) plaque, are associated with subsequent clinical outcomes. Nevertheless, the impact of culprit morphology on clinical outcomes has not been evaluated in patients with diabetes mellitus (DM), which is one of the major determinants of clinical prognosis.

Purpose: We sought to investigate the association of the culprit lesion morphology with clinical outcomes in patients with DM and those without DM.

Methods: We retrospectively investigated a total of 508 patients with acute myocardial infarction (AMI) experiencing their first episode of ACS in whom OCT-guided, primary percutaneous coronary intervention (PCI) was performed and a culprit lesion was observed by OCT with sufficient image quality. Patients were divided into two groups according to the culprit lesion morphology into patients with RP (RP group) and those without RP (IFC group). The rate of major adverse cardiac events (MACE) including death, myocardial infarction, target or non-target lesion revascularizations were compared between RP and IFC groups in patients with DM (DM) and those without DM (non-DM), separately.

Results: MACE was captured in 80 patients during the median follow-up of 505 (IQR 274-1300) days. In non-DM, RP group showed significantly worse MACE-free rate than in IFC group (Figure). In DM, there was no significant difference between RP and IFC groups (Figure).

Conclusion: Culprit lesion morphology assessed by OCT was not associated with clinical outcomes in DM patients unlike non-DM patients. Distinct strategy for secondary prevention may be required for DM patients.
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Conclusion: Culprit lesion morphology assessed by OCT was not associated with clinical outcomes in DM patients unlike non-DM patients. Distinct strategy for secondary prevention may be required for DM patients.

non-DM

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DM

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