Calcified Nodule Observed on Coronary Angioscopy

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A 78-year-old man was referred to hospital due to subacute myocardial infarction complicated with congestive heart failure. Coronary angiography showed a tight stenosis at the ostium of the left anterior descending artery, which was considered to be the culprit lesion (Figure A,B; Supplementary Movie 1). We performed coronary imaging with multiple modalities including intravascular ultrasound (IVUS), optical coherence tomography (OCT), and coronary angioscopy (CAS) to investigate the precise morphology of the lesion. IVUS and OCT showed severe calcification that disrupted and protruded into the lumen at the culprit lesion (Figure C,D), which was consistent with the findings of calcified nodules reported in previous studies.1 CAS showed a number of granular nodules protruding into the lumen with a red thrombus attached to the surface of the lesion (Figure E; Supplementary Movie 2). After rotational coronary atherectomy to the lesion, drug-eluting stent was implanted and successful dilatation of the lesion was achieved. Calcified nodule is one of the mechanisms of acute coronary thrombosis.2 Although the microscopic findings of calcified nodules have been reported in postmortem studies, the macroscopic finding has not been fully clarified. As Dai et al reported in a stable lesion,3 the current report presents the angioscopic findings of a calcified nodule in a culprit lesion in acute coronary syndrome.

Disclosure
The authors declare no conflicts of interest.

References

Supplementary Files
Supplementary Movie 1. Coronary angiogram at baseline.
Supplementary Movie 2. Calcified nodule on coronary angioscopy.

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Figure. (A, B) Coronary angiogram of the left coronary artery and (C–E) intracoronary imaging of the culprit lesion on (C) intravascular ultrasound, (D) optical coherence tomography and (E) angioscopy.