A 66-year-old man with a history of chronic atrial fibrillation was referred to our hospital due to pre-operative cardiac evaluation for intestinal stenosis.

An electrocardiogram showed negative T in leads II, III, aVF, and V3 to V5, and an echocardiogram showed moderate hypokinesis in the anteroseptal left ventricular wall. Coronary angiography revealed multiple linear filling defects with haziness in the right coronary artery and left anterior descending artery (Figs. 1A and 1B). After surgery for intestinal stenosis, we performed a staged percutaneous coronary intervention for right coronary...
artery and left anterior descending artery stenosis. In both lesions, optical coherence tomography revealed multiple channels of various sizes communicating each other with smooth septa, so-called honeycomb-like structures (Figs. 1C to 1J, Online Videos 1 and 2) The septa were composed of high signal intensity and low signal attenuation, suggesting that the structure consisted of fibrous material. We deployed Xience PRIME stents (Abbott Vascular, Inc., Menlo Park, California) for both lesions, resulting in successful revascularization. Although anticoagulation therapy with warfarin in addition to dual antiplatelet therapy was started after percutaneous coronary intervention, renal infarction occurred 3 months after percutaneous coronary intervention. Emergent angiography revealed a filling defect with thrombus in the left renal artery, and it was successfully removed with percutaneous thrombectomy. Under intensive anticoagulation therapy after the renal infarction, transesophageal echocardiography revealed no evidence of thrombus; however, spontaneous echocardiographic contrast was observed in the left atrium including an appendage.

A honeycomb-like structure finding during optical computed tomography has been reported previously (1–3). They reported a honeycomb-like structure that represented recanalization of an organized thrombus. However, its etiology is still controversial. To our knowledge, there was no report of a honeycomb-like structure at multiple vessels. The patient had received no anticoagulation therapy on the first visit. From the history of atrial fibrillation and renal thromboembolic infarction, we speculated that, in our case, the honeycomb-like structure represented recanalization of cardiogenic embolism.

Reprint requests and correspondence: Dr. Mio Musashi, Cardiovascular Center, Sendai Kousei Hospital, 4-15 Hirosemachi, Aoba-ku, Sendai, Miyagi 980-0873, Japan. E-mail: mio.musashi@gmail.com.

REFERENCES

Key Words: honeycomb-like structure ■ OCT ■ PCI.

APPENDIX

For accompanying videos, please see the online version of this paper.