

## Summary

### Assessment of Microcirculation Disturbance with Nuclear Cardiology in a Patient with Coronary Ectasia: A Case Report

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A 69-year-old woman presented with dyspnea on exertion. Echocardiography showed dilatation and diffuse hypokinesis of the left ventricle.  $^{99m}\text{Tc}$ -tetrofosmin myocardial SPECT showed moderately reduced uptake in the anteroseptal wall and the inferior wall on the rest images, but was improved on the ATP loading images.  $^{123}\text{I}$ -BMIPP myocardial SPECT showed severely reduced uptake in the anterior wall and the inferior wall. These SPECT findings suggested ischemic heart disease rather than dilated cardiomyopathy. Coronary angiography showed no organic stenosis, but diffuse coronary ectasia was noted in three vessels. Intravascular ultrasound revealed re-

markable coronary ectasia, with a maximal diameter of 8.2 mm. Coronary flow velocity as measured by Doppler blood flow guide wire was remarkably reduced. Coronary spasms were not provoked by ergonovine loading test. These findings suggested that microvascular thrombi and disturbance of dilatation caused myocardial ischemia in this patient. We treated the patient with ticlopidine and nicorandil. Following treatment left ventricle wall motion,  $^{99m}\text{Tc}$ -tetrofosmin and  $^{123}\text{I}$ -BMIPP myocardial SPECT findings were improved.

**Key words:** Coronary ectasia, Microcirculation disturbance,  $^{99m}\text{Tc}$ -tetrofosmin,  $^{123}\text{I}$ -BMIPP.