

## Increasing myocardial $^{123}\text{I}$ -BMIPP uptake in non-ischemic area in a patient with acute myocardial ischemia

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The subject was a 65-year-old woman with chest pain. An electrocardiogram revealed T-wave-inversion in leads III, aV<sub>F</sub>, V<sub>1</sub>–V<sub>5</sub>.  $^{99\text{m}}\text{Tc}$ -tetrofosmin myocardial SPECT showed mildly reduced uptake in the anteroseptal wall and the apex. These findings suggested acute myocardial ischemia. Coronary angiography did not show any stenotic lesions, but diffuse coronary ectasia was noted in three vessels. Coronary flow velocity was remarkably reduced on coronary angiography. Epicardial coronary spasm was not provoked by ergonovine loading test. Left ventriculography showed diffuse hypokinesis.  $^{123}\text{I}$ -BMIPP myocardial SPECT showed mildly reduced uptake in the anteroseptal wall and the apex on the early images. But 4-hour delayed images showed an increase of 8% in myocardial  $^{123}\text{I}$ -BMIPP uptake. We treated this patient with ticlopidine and nicorandil. After drug therapy her symptoms and left ventriculography improved.  $^{123}\text{I}$ -BMIPP myocardial SPECT findings on the early images improved, whereas delayed images showed a decrease of 28% in myocardial  $^{123}\text{I}$ -BMIPP uptake after two weeks and 36% after four weeks. These dynamic changes in  $^{123}\text{I}$ -BMIPP findings might be a reflection of myocardial fatty acid metabolism in patients with acute myocardial ischemia. Delayed  $^{123}\text{I}$ -BMIPP myocardial SPECT images are useful for the assessment of fatty acid metabolism.

**Key words:** acute myocardial ischemia,  $^{123}\text{I}$ -BMIPP, fatty acid metabolism