

Summary

Safety of Adenosine Stress Myocardial Perfusion Imaging by a One-Route Infusion Protocol

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When adenosine stress testing is performed, a vein is generally accessed in each arm. To determine whether the one-route infusion protocol, that is, infusion via one upper arm vein, is safe, myocardial perfusion imaging was performed during adenosine stress testing in patients with angina pectoris.

Sixty-six consecutive patients (43 men, 68 ± 11 years of age) with suspected coronary artery disease were enrolled in this study. For the stress test, adenosine was injected at $120 \mu\text{g}/\text{kg}/\text{min}$ for 6 minutes.

Systolic blood pressure, diastolic blood pressure, and heart rate did not show any significant changes after injection of the adenosine and radioisotope (RI) tracer.

Adverse events during infusion of the adenosine

were seen in 42 (64%) patients and included chest discomfort/oppression in 17 (26%) and dyspnea/throat discomfort in 15 (23%). On the other hand, adverse events just after infusion of the RI tracer occurred in 5 (8%) patients and included chest oppression in 2 (3%) and dyspnea in 1 (2%). Almost all adverse events disappeared quickly without treatment.

Therefore, we concluded that adenosine stress myocardial perfusion imaging using a one-route infusion protocol is safe and useful to do for patients unable to secure veins in both arms.

Key words: Adenosine, One-route infusion protocol, Myocardial perfusion imaging, Coronary artery disease.