

Perlmutter NS, RA Wilson, DA Angello, RT Palac, J Lin, BG Brown. Ribose facilitates thallium-201 redistribution in patients with coronary artery disease. *J Nucl Med* 1991;32:193-200.

To investigate whether i.v. infusion of ribose, an adenine nucleotide precursor, postischemia facilitates thallium-201 (201TI) redistribution and improves identification of ischemic myocardium in patients with coronary artery disease (CAD), 17 patients underwent two exercise 201TI stress tests, performed 1-2 wk apart. After immediate postexercise planar imaging, patients received either i.v. ribose (3.3 mg/kg/min x 30 min) or saline as a control. Additional imaging was performed 1 and 4 hr postexercise. Reversible defects were identified by count-profile analysis. Significantly more (nearly twice as many) reversible 201TI defects were identified on the post-ribose images compared to the post-saline (control) images at both 1 and 4 hr postexercise (p less than 0.001). Quantitative analyses of the coronary arteriogram was available in 13 patients and confirmed that the additional reversible defects were in myocardial regions supplied by stenosed arteries. We conclude that ribose appears to facilitate 201TI redistribution in patients with CAD and enhances identification of ischemic myocardium.

