

## Value of thallium-201 early reinjection for assessment of myocardial viability

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To assess the efficacy of early reinjection for predicting post intervention improvement in thallium-201 (Tl) uptake and regional wall motion, we reinjected a small dose of Tl following post-stress imaging and obtained reinjection early images (10 min after early reinjection) and reinjection delayed images (3 hr afterwards) in 40 patients who were referred to us for revascularization (group I). Twenty-nine patients in group I also underwent conventional stress-redistribution Tl scintigraphy (group II). Conventional stress-redistribution Tl scintigraphy was repeated after intervention. Contrast left ventriculography was performed before and after intervention and changes in regional wall motion were assessed in 22 of 40 patients. In group I, the predictive value for improvement and no improvement (the accuracy) of reinjection early images in perfusion was 83%, while that of reinjection delayed images was 91%. Furthermore, the accuracy of reinjection early images in regional wall motion was 80%, while it was 91% for reinjection delayed images. In group II, the accuracy in perfusion was 78% and the value in regional wall motion was 70%. Both accuracy in perfusion and in regional wall motion obtained from reinjection delayed images were significantly higher than the values in group II ( $p < 0.05$ ). These data suggest that early reinjection is useful for predicting postintervention thallium uptake and regional wall motion.

**Key words:** thallium-201, early reinjection, myocardial viability