각각의 SPECT 영상을 심첨부, 전부, 전저부, 저부, 하부, 전중격부, 하중격부, 전외측부, 후외측부의 9개의 분절로 나누어서 관류 결손 부위를 관찰하였고, 이들의 극성범위 지도를 분석하였다.

총 126개의 분절 중 운동부하시 39부위에 관류결손이 있었으며 이중 6개의 분절은 안정시 재분포를 보였다. 그리고 안정시 재분포가 일어나지 않았던 33개의 분절중 T1-201 재주사후 13분절(39%)에서 재관류를 관찰할 수 있었으며 20개 분절은 관류가 개선되지 않았다.

따라서 T1-201 재주사영상을 통해 심근괴사로 진단되었던 부분중 살아있는 심근을 더 발견할 수 있었다.

## 34. Reinjection Imaging and 24-hour Delayed Imaging after reinjection for Identification of Viable Myocardium

**Hee Seung Bom, Ji Yeul Kim**
**Joo Hyung Park, Young Keun Ahn**
**Jong Choon Park** and **Jung Chaee Kang**

*Department of Nuclear Medicine,*
*Chonnam University Medical School*

It was known that conventional stress-redistribution imaging was not adequate for detection of severely ischemic but viable myocardium. Albeit the gold criteria of viable myocardium is the presence of metabolism which can be detected by PET, reinjection technique was reported to be able to identify most, not all, of viable myocardium.

Because reinjection imaging is performed immediately after redistribution imaging, an additional redistribution could be happened if we follow the patient longer. To prove the guess authors performed the additional delayed imaging 24 hours after reinjection of $^{201}$T1.

Subject patients were 20 ischemic heart disease patients who showed irreversible perfusion defect (s) on standard pharmacologic (dipyridamole) stress-redistribution images. Immediately after redistribution images were obtained, 37 MBq thallium was injected at rest, and images were reacquired at 10 minutes and 24 hours after reinjection. Four sets of images (stress, redistribution, reinjection, and delayed images) were then analyzed qualitatively by three independent physicians. Left ventricle was arbitrarily divided into 10 segments (anterior, septal, inferior, and lateral walls in short axis image, anterior, apical, and inferior walls in vertical long axis image, septal, apical, and lateral walls in horizontal long axis image). Myocardial uptake was divided into 4 grades (0 for absent, 1 for severely reduced, 2 for moderately reduced, 3 for suspiciously reduced, and 4 for normal uptake).

There were 45 irreversible perfusion defects in 20 subject patients, of which 21 (46%) showed improved thallium uptake after reinjection. Among these 21 segments 2 demonstrated further improvement of uptake on 24-hour delayed images. Of the 24 regions determined to have persistent defects after reinjection, 10 (41%) showed improved uptake on delayed images. Therefore improved thallium uptake on 24-hour delayed images was demonstrated at 12 (26%) of total 45 regions.

In conclusion, in addition to reinjection imaging, 24-hour delayed imaging after reinjection was also helpful to identify severely ischemic but viable myocardium.

## 35. Comparison of $^{99m}$Tc-MIBI Myocardial Uptake at Rest with Reinjection and 24-hour after Reinjection Images of $^{201}$T1

**Hee Seung Bom, Ji Yeul Kim**
**Joo Hyung Park, Young Keun Ahn**
**Jong Choon Park** and **Jung Chaee Kang**

*Department of Nuclear Medicine,*
*Chonnam University Medical School*

Clinical role of $^{99m}$Tc-MIBI myocardial scintigraphy in the diagnosis of coronary artery disease (CAD) is now well accepted, however, the role of it in the identification of viable myocardium in patients with chronic CAD has not yet been clarified. To determine the usefulness of rest-injected $^{99m}$Tc-MIBI