

**DIAGNOSTIC ACCURACY OF DIPYRIDAMOLE Tl-201  
TRIPLE HEAD SPECT IMAGING FOR DETECTING  
CORONARY ARTERY DISEASE IN PATIENTS WITHOUT  
MYOCARDIAL INFARCTION**

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The purpose of this study was to investigate the diagnostic accuracy of dipyridamole Tl-201 SPECT using the triple head SPECT system in the detection of coronary artery disease without myocardial infarction.

The study group consisted of consecutive 233 patients with suspected coronary artery disease who underwent both diagnostic coronary angiography and dipyridamole Tl-201 SPECT imaging within 3 months. Patients with acute myocardial infarction or history/ECG evidence of prior myocardial infarction were excluded. SPECT images were obtained after the injection of dipyridamole and 74-92.5 MBq of Tl-201 using triple head SPECT system (TRIAD, Trionix). Total acquisition time was 10-12 min for the stress and 12-17 min for the rest studies.

Sensitivity(SN) and specificity(SP) of Tl-201 SPECT against coronary angiography finding(≥50% diameter stenosis) were as follows.

Overall	Lt main	SN%			SP%
		SVD	DVD	TVD	
89(153/172)	69(9/13)	89(80/90)	89(42/47)	100(22/22)	92(56/61)

(SVD:single vessel disease, DVD:double vessel disease, TVD:triple vessel disease)

**Individual vessel analysis**

Stenosis	SN% in all patients		SN% in SVD		SP%
	≥50%	≥70%	≥50%	≥70%	
LAD	77(82/107)	89(78/88)	88(49/56)	96(45/47)	96(131/136)
LCX	67(46/69)	73(41/56)	94(16/17)	94(15/16)	99(199/201)
RCA	65(51/78)	79(46/58)	89(15/17)	89(15/17)	100(187/187)

In summary, dipyridamole triple head SPECT thallium imaging provides a high degree of accuracy for detecting patients with coronary artery disease and individual coronary artery stenosis. The results are comparable with those of the previous large group studies using single head SPECT despite of excluding patients with myocardial infarction.