

Absent myocardial accumulation of two different radioiodinated pentadecanoic acids

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This article presents two cases with preserved myocardial ^{201}Tl uptake and absent uptake of two kinds of radioiodinated fatty acids: iodine-123-labeled 15-(p-iodophenyl)-3-(R,S)-methylpentadecanoic acid (BMIPP) and iodine-123-labeled 15-(p-iodophenyl)-9-(R,S)-methylpentadecanoic acid (9MPA). Although coronary angiography showed no stenotic lesion and left ventriculography revealed no wall motion abnormality, no myocardial uptake of BMIPP and 9MPA was observed in the first case. In the second case, no myocardial accumulation was recognized even in the initial phase of dynamic SPECT acquired soon after the injection of 9MPA. The results suggest that the non-visualized myocardium was not specific for BMIPP imaging and that rather than the early back diffusion of the tracers from the myocardium, abnormality of the myocardial cell membrane was a possible mechanism accounting for the phenomenon.

Key words: myocardial SPECT, fatty acid metabolism, I-123-BMIPP, I-123-9MPA