Ejection fraction (EF2), as a quantified wall motion index, was calculated from the maximum and minimum of time-activity curve obtained for each of eight sections, divided surrounding the volume center, of the left ventricle on gated RI angiograms by LOA (45°) scanning. The mean and SD of pixel phase data were also calculated for each section. On TI201 myocardial scintigrams obtained almost simultaneously by LOA (45°) scanning, the left ventricle was divided into 40 sections with a central section at its volume center and early and late (2.5 hrs.) images of each section were recorded quantitatively. From these, washout index was divided by the formula: (early image - late image) x 100/early image. Localized wall motion abnormalities on RI ventriculography were recorded with myocardial infarction of long standing. Values were recorded as abnormal when aberrant from normal 11-mits calculated as the mean + 25.D. of data from 8 normal subjects for RI angiograms and 12 for myocardial scintigrams.

Results: (1) The sections without regional wall motion abnormalities are almost normal myocardium perfusion. (96%) (2) Areas showing low wall momentum with phasic abnormalities exhibited greater abnormalities in myocardial perfusion than areas showing low wall momentum alone or areas showing phase abnormalities alone.