LOW-DOSE, SHORT DURATION DOBUTAMINE RADIONUCLIDE VENTRICULOGRAPHY (DOB-RNV) IN ASSESSING MYOCARDIAL VIABILITY: A COMPARATIVE STUDY WITH DOBUTAMINE ECHOCARDIOGRAPHY (DOB-UCG)

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To evaluate the usefulness of low-dose, short duration (5γ for 4 min.) DOB-RNV in assessing myocardial viability, we compared its findings to 5 min. incremental multistage (5, 10, 20, 30γ) DOB-UCG in 10 patients with hypoperfused asynergic left ventricular segment. The segments were divided into defect (D) or low perfusion (LP) area according to the regional Ti-201 uptake. In DOB-RNV, wall motion improved in 2 of 4 D segments and all 6 LP segments. These 8 segments also demonstrated improvement both in wall motion and in systolic wall thickening in the early stage of DOB-UCG. However, ischemic change (deterioration of wall motion abnormality or ST depression on ECG) occurred in 5 of these segments in the later stage of DOB-UCG. The wall motion in the other 2 D segments did not improve neither in DOB-RNV nor in DOB-UCG. In summary, the findings of DOB-RNV completely agreed with those in the early stage of DOB-UCG on assessing myocardial viability. Low-dose and short duration DOB stress RNV can assess myocardial viability correctly without inducing apparent myocardial ischemia.

WHAT IS THE MOST IMPORTANT FACTOR WHICH EFFECTS THE PROGRESSION OF THE PRE-INFARCTED AREA, THE INFARCTED SIZE AND THE SALVED MICROVASCULARITY?


We studies the factors which effects the progression of the pre-infarcted area, the infarcted size and the salvaged myocardium using Tc-99m Tetrofosmin 555MBq or Tc-99m MIBI in the 36 patients with acute myocardial infarction before and after acute coronary interventions. The results are as follow: A) The factor on the pre-infarcted area is 1) IAD as infarcted artery (partialcorrelation=0.69), 2) Reperfusion injury (0.41), 3) Successful reperfusion (0.36). B) The factors influenced the infarcted size is 1) IAD as infarcted artery (0.72), 2) Collateral flow (0.55), 3) Reperfusion injury (0.51). C) The factors salvaged myocardium is 1) Collateral flow (0.74), 2) Successful reperfusion (0.66), 3) Reperfusion injury (0.53).