

Resting ^{123}I -BMIPP scintigraphy in diagnosis of effort angina pectoris with reference to subsets of the disease

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This study was undertaken to assess the diagnostic value of resting ^{123}I -BMIPP scintigraphy in patients with effort angina pectoris. One hundred and four patients underwent scintigraphic and angiographic examinations. The subsets of the patients were stable effort angina pectoris (stable type) in 27 cases, new onset of effort angina pectoris (new onset type) in 21 cases, and worsening effort angina pectoris (worsening type) in 35 cases. The remaining 21 cases were subjects without evidences of coronary artery disease (non-CAD). ^{123}I -BMIPP was injected under resting and pain free condition, then data for single photon emission tomography (SPECT) were acquired. The positive regional ^{123}I -BMIPP defects in three coronary territories were visually judged on the tomographic images. The overall sensitivity to diagnose the patients was 62.6% (52/83) and the overall specificity to exclude non-CAD subjects was 95.2% (20/21). The detection rate in each subset of the disease was 48.1% (13/27) in stable type, 47.6% (10/21) in new onset type and 77.1% (27/35) in worsening type ($p < 0.05$ versus two other types). For detection of stenosed vessels, the overall sensitivity was 41.4% (56/148) and the overall specificity was 93.8% (152/164). The rate of detection of stenosed vessels was 31.7% (13/41) in stable type, 31.4% (11/35) in new onset type, and 55.6% (40/72) in worsening type ($p < 0.05$ versus two other types). Vessels with 75% stenosis were more sensitively detected in the worsening type (33.3%; 4/12) compared to the remaining two types (8.3%; 1/12) even though the difference was not significant. The resting ^{123}I -BMIPP scintigraphy was therefore valuable in diagnosing patients with effort angina pectoris and involved coronary arteries especially in the subset of patients with worsening type.

Key words: ^{123}I -BMIPP, stable angina pectoris, unstable angina pectoris