ORIGINAL ARTICLE

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Does myocardial thallium-201 SPECT combined with electron beam computed tomography improve the detectability of coronary artery disease? —Comparative study of diagnostic accuracy—

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Objective. The aim of this study is to evaluate the diagnostic accuracy of myocardial ^{201}Tl SPECT combined with EBT for detecting CAD.
Methods. The study was based on 34 patients with suspected CAD, who had EBT and myocardial ^{201}Tl SPECT. The CAD was diagnosed by the findings of coronary arteriography. Sensitivity, specificity and accuracy of EBT, myocardial ^{201}Tl SPECT and the combined diagnosis on a per vessel basis and a per-patient basis were studied.
Results. The sensitivity for detecting CAD of myocardial ^{201}Tl SPECT, EBT and the combined diagnosis was 85%, 77%, and 62%, respectively. No significant difference in the accuracy of myocardial ^{201}Tl SPECT, EBT and the combined diagnosis was observed on a patient basis and per vessel basis. In the over 70 yr age subgroup, the sensitivity and accuracy of EBT for detecting LAD lesion were significantly superior to those of myocardial ^{201}Tl SPECT. Regardless of age-based subgroups and gender, the combined diagnosis did not contribute to an improvement in diagnostic accuracy.
Conclusion. Although the sensitivity of EBT for detecting LAD lesion in patients over 70 yr of age was significantly higher than that of myocardial ^{201}Tl SPECT, in the detectability of CAD, combined use of myocardial ^{201}Tl SPECT and EBT offers no improvement.

Key words: coronary artery disease, single photon emission computed tomography, thallium-201 chloride, electron beam computed tomography