

## Summary

### Problems for Analysis of Regional Wall Motion Using ECG Gated Myocardial SPECT Imaging

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Several issues arose during analysis of cardiac function using ECG-gated myocardial SPECT imaging. First, the analysis program did not depend on a direct radioactivity counts as in equilibrium radionuclide angiography, but on the extraction of the myocardial margin. Consequently, spatial resolution was an important consideration in the analysis. The auto-analyzing program could be used in cases with poor quality images. Poor time resolution was also a weak point of the gated SPECT program. In the present study, we compared observation of regional wall

motion obtained by Quantitative gated SPECT program (QGS) and echocardiography in patients with subacute phase myocardial infarction. The QGS indices of regional wall motion were correlated with the echocardiography indices, although mild asynergy could not be detected by any of the QGS indices. Further basic research on the analysis of regional wall motion using gated SPECT is needed.

**Key words:** ECG gated SPECT, Regional wall motion, QGS (Quantitative gated SPECT), p-FAST.