## **Summary**

## Assessment of Cardiac Function and Myocardial Metabolism by Nuclear Medicine

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Simultaneous assessment of myocardial perfusion and cardiac function came to be possible by <sup>99m</sup>Tc myocardial perfusion agents. We can use ECG-gated SPECT and first pass radionuclide angiocardiography for it. ECG-gated SPECT made it possible to assess wall motion using wall thickening and QGS (quantitative gated SPECT) analysis, which are useful in various clinical situations. First pass radionuclide angiocardiography gives good assessment of cardiac function during stress, and supports the diagnosis of myocardial ischemia. On the other hand, the assess-

ment of myocardial metabolism is another specific feature of nuclear cardiology. <sup>123</sup>I-BMIPP SPECT is applicable to various cardiac diseases such as ischemic heart disease, and <sup>18</sup>F-FDG PET has been considered as the gold standard of myocardial viability. Recently, gamma camera for <sup>18</sup>F-FDG imaging has been developed, which may make FDG imaging more popular.

**Key words:** ECG-gated SPECT, First pass, QGS, <sup>123</sup>I-BMIPP, FDG.