The purpose of this study is to evaluate leg muscle perfusion with Tl-201 SPECT. Thirteen patients with peripheral arterial disease underwent this examination. A cuff was applied above the knee bilaterally and the cuff was inflated to 50 mmHg above the brachial systolic pressure. During deflation of the cuff, 2 mCi of Tl-201 was injected intravenously. SPECT image of the lower leg was obtained by rotating digital gamma camera(Toshiba, GCA-70A) with on-line minicomputer(Toshiba, GMS-55A).

Stress image and redistribution image were compared with clinical symptoms and arteriographic findings.

In conclusion: 1) Tl-201 SPECT perfusion image of lower leg was obtained. 2) SPECT image can be divided into anterior tibial muscle and posterior tibial muscle component. 3) SPECT perfusion distribution was correlated with arteriographic findings and clinical symptoms.

The purpose of the study is to make clear the difference of the scinti-images between the arterial and venous thrombus in rabbits, with Ga-67-fibrinogen-DAS-DFO and In-111 oxine platelet.

Arterial thrombosis model was induced by perivascular application of a silver nitrate solution on surgically isolated femoral artery; venous thrombosis model was induced by perivascular application of a formalin on the femoral vein. Scinti-images of fresh thrombus showed the excessive accumulation of Ga-67-fibrinogen-DAS-DFO and In-111 oxine platelet both on arterial and venous thrombus. Ga-67-fibrinogen-DAS-DFO showed their significant accumulation both on 1-day-old arterial and venous thrombus, but there was no its accumulation neither on 2-day-old arterial nor venous thrombus.

Then, there was no difference of the accumulation of Ga-67-fibrinogen-DAS-DFO and In-oxine platelet on the fresh arterial and venous thrombus. The difference of Ga-67-fibrinogen-DAS-DFO accumulation on the fresh and old thrombus between the artery and vein, was not recognized.