67Ga-citrate could not be found by 111In-BLM. Normal 111In-BLM scintigram, bone marrow (thorac, lumbar vertebrac, and the pelvis) were well visualized in 26 of 34 cases, and little activity concentrated in the heart in 11 of 34 cases.

111In-BLM scan was rather difficult to find out mediastinal lesion than 67Ga-citrate. It was very difficult to find out abdominal lesion by 67Ga-citrate, because 67Ga-citrate were excreted into alimentery tract. But also it may be very difficult for 111In-BLM to find out abdominal lesion, because by 67Ga-citrate only 3 in 20 cases lumbal or pelvic lesion can be found, and only 3 in 20 cases renal lesion can be found.

Conclusion:
1. 67Ga-citrate was more sensitive in tumor than 111In-BLM.
2. 67Ga-citrate was valuable in detecting mediastinal lesion.

Tumor Scintigraphy: Comparison and Clinical Evaluation of 67Ga-Citrate and 75Se-Selenomethionine

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Introduction
In the tumor scintigraphy with 67Ga-citrate and 75Se-selenomethionine in cases with various kinds of tumor, very useful results were obtained clinically.

Method
67Ga-citrate scannings were performed 1–3 times for 1–4 days after an intravenous administration of 2 mCi, and 75Se-selenomethionine scannings several times during 10 minutes to 4 days after the administration of 100–250 µCi.

Result
Abnormal concentrations of 67Ga-citrate were noted in malignant tumors, inflammatory lesions and sarcoidosis, but no accumulation of 67Ga-citrate in benign tumors.

While non-epithelial malignancies such as malignant lymphoma, malignant thymoma, malignant melanoma and mycosis fungoides etc. and liver cell carcinoma were visualized as the hot area on 75Se-selenomethionine scintigrams but 75Se-selenomethionine scanning were negative in inflammatory lesions, benign tumors and carcino-

mas except for liver cell carcinoma.

Conclusion
Because the half life of 67Ga-citrate is shorter than that of 75Se-selenomethionine, the administration of a large dose of 67Ga-citrate is possible, and the tumors were clearly outlined.

On the other hand, 75Se-selenomethionine was administrated only a small dose of its long half life, so the contour of the lesions was not clearly demarcated occasionally.

The abnormal concentrations of 67Ga-citrate were noted not only in malignant tumors (both epithelial and non-epithelial), but also in inflammations, sarcoidosis and normal pulmonary hili.

Therefore, the differentiation of natures of the malignant changes was almost impossible.

While 75Se-selenomethionine was concentrated only in hepatocellular carcinoma and non-epithelial malignant tumors. These results suggest that the abnormal accumulation of 75Se-selenomethionine may be considered as a sign of existence of non-epithelial malignancies except for liver cell carcinoma and its metastasis.