photoes is thought to shows successful treatments.

Conclusion:

For clinical diagnosis and follow-up of treat-

ed patient in malignant lymphoma, it is useful to use both <sup>67</sup>Ga-citrate and <sup>99</sup>mTc-sulfer-Colloid for radiolymphadenography.

## Diagnosis of Malignant Tumor by 75Se-Selenite, 197Hg-Cl<sub>2</sub>, and 67Ga-Citrate

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In an attempt to recognize malignant tumor, the authors have used <sup>75</sup>Se-Selenite, <sup>197</sup>Hg-Cl<sub>2</sub> and <sup>67</sup>Ga-Citrate.

Forty nine cases including 21 cases of lung cancer, 10 cases of other malignant tumor, 12 cases of inflammatory lesion and 6 cases of other disease have been scanned.

Good contrast between tumor and surrounding normal tissues was obtained in 14 cases of the lung cancers and 6 cases of the other malignant tumor. Four cases of the esophageal cancers showed negative scan. In all treated cases of the lung cancers, positive scan was not observed.

Of the cases with inflammatory lesions, one case of the pulmonary abscess showed a positive scan with  $^{197}{\rm Hg\text{-}Cl_2}$  and  $^{67}{\rm Ga\text{-}Citrate}$ .

Assays of the specimen of tumor obtained

at autopsy in one case with abdominal tumor yielded concentration of <sup>75</sup>Se 3.8 times the skeletal muscle level.

From a study on the distribution of  $^{75}$ Se in the body, the authors assumed that a good scan can be obtained at 48 hours after injection.

When the nuclide was given to the patient with pulmonary lesion by intravenous and selective bronchial arterial infusion, it was observed that the nuclide showed the result of accumulation according to bronchial vascularity of the lesion.

On the course of treatment to the patients with lung cancer, scintigraphic and angiographic findings showed that the concentration of these nuclide in the tumor tissues reduced as the tumor decreased in size and vascularity.

## Diagnosis of the Malignant Gynecological Tumor Using Silenite (75Se)

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For the diagnosis of the malignant gynecological tumor, Sodium Selenite (75Se) was used. 24 hours after the intravenous injection of 75Se of  $9 \mu \text{Ci/kg}$ , the abdominal local of the patient was scanned.

Two positive cases of the scintigrams were obtained amnog 5 cases of the cancer of the uterus.