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### Radiolymphadenography Using $^{67}\text{Ga}$ -Citrate and $^{99\text{m}}\text{Tc}$ -Sulfur-Colloid

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$^{67}\text{Ga}$ -citrate has been known as one of the most useful positive scanning nuclides for malignant lymphoma, but it does not always give sharp image of retroperitoneal lymphnodes or abdominal lymphnodes, because of the radioactivities with the  $^{67}\text{Ga}$  uptake to the abdominal organs.

We could get further informations with the aid radiolymphadenography using  $^{99\text{m}}\text{Tc}$ -sulfur-colloid, about the diagnosis, deciding the stage, planning of the method of treatment and its effect, and observation of clinical course.

Remarkable uptake of  $^{67}\text{Ga}$  to lymphnodes is shown in patient with malignant lymphoma before treatment, but markedly decreased uptake is shown after any treatment.

Radiolymphadenography for retroperitoneal nodes using  $^{99\text{m}}\text{Tc}$ -sulfur-colloid in normal case shows lymphnodes chains from inguinal to para-aortic nodes, as the inverted "Y," and this image

is well corresponded to the lymphangiography with lipiodol. Radiolymphadenography of axillary and cervical nodes group is also used.

In patient with malignant lymphoma, scintiphoto of lymphnodes varies its image according to the extent of the nodes involved, such as absence or interruption, marked asymmetry and enlargement.

Comparing these two radiolymphadenographies, using  $^{67}\text{Ga}$ -citrate and  $^{99\text{m}}\text{Tc}$ -sulfur-colloid, we can get more precise informations about the lymphnodes.

These two methods are also simple, painless procedures that require no great skill and no surgical intervention and can be repeated easily.

It is useful to use both  $^{67}\text{Ga}$ -citrate and  $^{99\text{m}}\text{Tc}$ -sulfur-colloid for radiolymphadenography, in order to decide the clinical diagnosis, staging, planning of treatment and its effect, and to observe the clinical course.

### In Vitro Measurement of Globulin Synthesizing Capacity of Lymphocytes using $^{75}\text{Se}$ -Selenomethionine

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Stimulation of lymphocytes by Phytohemagglutinin (PHA) has been observed as increases

in synthesis of DNA, RNA and globulin. Globulin synthesizing capacity of human peripheral