

asymmetry, enlargement, and bizzar shape, according to the extent of the malignant tissues. Lymphoscintigraphy was well corelated to lymphangiography. It was, however, very difficult for interpretation whether an absence of radio-activity might show the involved lymphnodes groups or absence of lymphnodes for normal variation.

2) Ga-67 citrate.

Ga-67 citrate has been reported to be one of the best tumor scanning agents, especially for lymphoma and lung cancer. Lymph nodes or lymphnodes groups involved with tumor cells

of lymphomas accumulated Ga-67, but showed lower accumulation once any treatment began, and interpretations of their scintigram became very difficult.

Utilizing these two nuclides for lymphoscintigraphy, it became much easier for interpretation of lymphoscintigrams in the case of lymphomas.

Lymphoscintigraphy utilizing Tc-99m-sulfur-colloid and Ga-67 citrate is very useful in order to decide clinical diagnosis, staging, planning of treatment and its effectiveness and to observe the clinical course.

A Simplified Method of Spleen Imaging with ^{51}Cr and Whole-Body Loss Rate of ^{51}Cr

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The binding of ^{51}Cr to the red cells was tested under various experimental conditions such as temperature and time of incubation. The previously used procedure took 60 minutes keeping cells at 49.5°C , however it was largely simplified by the present procedure as follows; deplete 20 ml of venous blood into the syringe with 4 ml of ACD and 300 uCi of ^{51}Cr , then heat the mixture upto 56°C in water bath for 10 minutes. The labeling efficiency was 90% and does not need washing before returning the cells.

The spleen image is obtained 2 hours after the injection of the labeled cells.

The radioactivity over the spleen after spleen imaging showed two components having 2 and 5 day half time, and the whole-body loss curve showed 6 and 15 day half time respectively.

The image quality, internal radiation to the patient and external radiation to the technician, and procedure were compared between the two methods using ^{51}Cr and $^{99\text{m}}\text{Tc-Sn}$ as well.