

In conclusion, our method and result presented above are useful for quantitative assessment of

active bone marrow distribution.

### **Clinical Evaluation of Radiolymphadenography in Patient with Malignant Lymphoma Utilizing $^{67}\text{Ga}$ -citrate and $^{99\text{m}}\text{Tc}$ -Sulfur-Colloid**

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$^{67}\text{Ga}$ -citrate is the most useful radiopharmaceutical for scanning of malignant tissues especially malignant lymphoma. The abdominal lymph nodes, however, can be hardly visualized, because of normal distribution of  $^{67}\text{Ga}$  activity to abdominal organs, such as liver, spleen and kidneys and excretions into bowel.

Scintiphotogram of abdominal lymphnodes can be easily got utilizing  $^{99\text{m}}\text{Tc}$ -sulfur-Colloid. The lymphnode images by this method is well corresponded to the image of lymphangiography by lipiodol.

In this study, radiolymphadenography of both nuclides were investigated and these results were compared with each other.

Scintiphotoes with  $^{99\text{m}}\text{Tc}$ -Sulfur-Colloid were taken 2–3 hours after 2 or 3 mCi of subcutaneous injection on the back of the both feet with local anesthesia.

Scintiphotoes with 1–2 mCi of  $^{67}\text{Ga}$ -citrate were taken, 48–72 hours after intravenous injection

following after saline enema.

Remakable uptake of  $^{67}\text{Ga}$ -citrate to affected lymphnodes was observed in neck, axilla, mediastinum, and even in abdomen, before treatments. These uptake however decreased with any effective treatments and gave false positive images, then became false negative. It was very difficult to evaluate these images.

Normal  $^{99\text{m}}\text{Tc}$ -Sulfur-Colloid scintiphoto showed lymphnodes chain groups from inguinal area to abdominal-para-aortic area, in the shape of inverted "Y".

In patient with malignant lymphoma scintiphotoes vary according to the degree of involvement, such as absence or interruption, marked asymmetry and enlargement.

Normalization on both scintiphotoes is thought as successful treatment. For clinical diagnosis and staging, follow-up of course and treatment, it is useful to use both nuclides for radiolymphadenography.

### **Studies on Iron Metabolism of Pathogenesis of Anemia Associated with Uterine Myoma**

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Anemia associated with uterine myoma may be caused by indirect hormonal influences to iron metabolism that introduced by tumour formation, by dysmenorrhea and by regulation of these physiological phenomena.

The mechanism of the anemia associated with

uterine myoma has been considered as iron depletion by blood loss, but the mechanism of this anemia is yet uncertain.

The purpose of this study was to clarify the mechanism of this anemia associated with uterine myoma from the view of iron metabolism.