

## 1234

GALLIUM-67 SCANNING IN ABDOMINAL NEOPLASMS  
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With the exception of specific tumors like hepato-  
toma and malignant lymphoma, the accuracy of gallium-67  
imaging in abdominal neoplasms is reported to  
be poor. But most of these reports were described  
in early 70's. With the advance of equipments, im-  
provement of the accuracy and re-evaluation is ex-  
pected in gallium-67 abdominal scanning. On that  
point, we investigated 42 abdominal neoplasms (ga-  
stric cancer 14, colon cancer 6, hepatoma 3, meta-  
static liver tumor 3, pancreatic cancer 2, maligna-  
nt lymphoma 3, ovarian cancer 4, bladder cancer 2,  
other tumor 5) for last two years. Overall sensitivi-  
ty was 67%. In gastrointestinal tumors and mali-  
gnant lymphomas, sensitivity was higher than previ-  
ous reports, respectively 19/28 (68%) and 3/3 (100  
%), but it was only 4/9 (44%) in urogenital tumors  
as before. Because of the low false positive rates  
on adequate bowel preparation, gallium-67 scans  
were useful in evaluating extension, metastasis  
and recurrence of the gallium-67-avid tumors , and  
in assessing the response to various therapies.  
They were also useful in radiotherapy. Simultaneous-  
ly, gallium-67 imaging has the additional advanta-  
ge of providing "total-body information".

## 1235

USEFULNESS OF WHOLE BODY SCAN WITH Ga-67-  
CITRATE OR Se-75-SELENOMETHIONINE POSITIVE  
SCAN TO DETECT EXTRAHEPATIC METASTASIS IN  
HEPATOMA. H. Ochi, H. Nakazima, S. Sawa,  
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Positive liver scan with Ga-67-citrate  
or Se-75-Selenomethionine has been shown to  
be useful in evaluation focal defects seen  
on Tc-99m-colloid liver scan. Since last 2  
years, Ga-67 or Se-75 whole body scan has  
been performed in patients with hepatoma.  
Extrahepatic metastases were found in 12  
cases ( bone 8, lung 3, intrathoracic lymph  
nodes 1 ). Compared to the bone scan with  
Tc-99m-MDP performed at the same period, the  
size and activity of the metastatic bone  
lesions were much different from them with  
Ga-scan in some cases ; for example the ab-  
normal lesions with Ga were larger and more  
dense than these with Tc-MDP. Comparative  
study of Ga-scan and Se-scan, the activity  
of the metastatic lesions were much higher  
in Ga-scan. When focal defect was found in  
the liver scan with colloid, whole body  
positive scan with Ga-67-citrate is very  
useful not only to diagnose hepatoma but  
also to detect extrahepatic metastases.

## 1236

RI IMAGING STUDY OF HEPATOCELLULAR CARCIN-  
OMA BEFORE AND AFTER HEPATIC ARTERIAL EM-  
BOLIZATION THERAPY.  
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The post-therapeutic RI imaging follow up ex-  
aminations (liver and <sup>67</sup>Ga) of hepatocellular  
carcinoma managed by the hepatic arterial embol-  
ization therapy were compared with angiographic  
findings.

The cases examined were the three cases which,  
although diagnosed as hepatocellular carcinoma  
by clinical evidences, did not permit surgical  
resection of the lesion due to a complication in  
the tumor region.

The nuclear medicine investigation revealed a  
gradually diminishing tendency of SOL by hepatic  
gamma scanning and a marked reduction of the  
region of <sup>67</sup>Ga incorporation by <sup>67</sup>Ga scanning.  
Diminution of the tumor was confirmed by angio-  
graphy that showed either the decrease in or di-  
sapperance of tumor vessels. The area of decrea-  
sed tumor vessels coincided with where <sup>67</sup>Ga was  
not incorporated.

The above, therefore, indicates that <sup>67</sup>Ga sca-  
nning contributes to evaluation of post-therape-  
utic effect of hepatic arterial embolization  
management and prediction of the time of the  
next embolization.

## 1237

STUDY OF IMAGE DIAGNOSTIC METHOD TO INTRA-  
ABDOMINAL MALIGNANT LYMPHOMA. N.  
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We study of diagnostic ability and di-  
agnostic method to refer intra-abdominal  
malignant lymphoma. The objective cases  
are 38, and intra-abdominal disease are  
existed in 18 cases. These existence are  
follow, 16 cases in para-aortic area, 2 cases  
in stomach, 2 cases in retroperitoneal and  
one case in each ileo-cecal area, splenic  
portal and uterine body. Ileo-cecal lesion  
and uterine body are solitary existence.  
The true positive rate is 0.61 in Ga-67  
scintigram, 0.82 in lymphography and 0.83 in  
CT scan. In Ga-67 scintigram, there are 2  
cases of false positive and 7 cases of  
false negative. The accuracy is 0.76 in  
Ga-67 scintigram and 0.92 in CT scan.  
Ga-67 scintigram should be performed first-  
ly in diagnostic skeduel. Lymphography is  
most sensitive diagnostic method in lymph-  
tract. CT scan would be performed in the  
case of follow, 1) examination in upper  
abdomen when lymphography shows negative,  
2) planning of radiotherapy.