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 galli-
um-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, hepatooma 3, meta-
static liver tumor 3, pancreatic cancer 2, malignan-
t 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".

USEFULNESS OF WHOLE BODY SCAN WITH Ga-67-
CITRATE OR Se-75-SELENOMETHIONINE POSITIVE
SCAN TO DETECT EXTRABHEPATIC METASTASIS IN
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Positive liver scan with Ga-67-citrte
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
Ga-67, metastases were often harder and more
dense than these with Tc-MDP. Comparative
study of Ga-scans and Se-scans, the activity of
the metastatic lesions was much higher in Ga-scan.
When focal defect was found in the liver
scan with colloid, whole body
positive scan with Ga-67-citrte is very
useful not only to diagnose hepatoma but
also to detect extrahepatic metastases.

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 ⁶⁷Ga) of hepatocellular
carcinoma managed by the hepatic arterial embo-
lization 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 ⁶⁷Ga incorporation by ⁶⁷Ga scanning.
Dimunition of the tumor was confirmed by angi-
ography that showed either the decrease in or di-
sappearance of tumor vessels. The area of de-
creased tumor vessels coincided with where ⁶⁷Ga
was not incorporated.

The above, therefore, indicates that ⁶⁷Ga scan-
ning contributes to evaluation of post-therape-
utic effect of hepatic arterial embolization
management and prediction of the time of the
next embolization.

STUDY OF IMAGE DIAGNOSTIC METHOD TO INTRA-
ABDOMINAL MALIGNANT LYMPHOMA.
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We study of diagnostic ability and di-
agnostic method to refer infra-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 skedue. 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.