F. Endocrine System (except Thyroid)

2314

CLINICAL VALUES OF ADRENAL SCINTIGRAPHY BY 123I-6-8-Iodomethyl-19-Norcholesterol (123I-NCL).

The diagnostic efficacy of adrenal scintigraphy was re-evaluated when compared with computed tomography, adrenal venography and aortography. The cases subjected to the study were 9 cases of Cushing syndrome, 9 cases of primary aldosteronism and 11 cases of pheochromocytoma. The modes of examinations were adrenal venography, aortography and computed tomography besides adrenal scintigraphy. The Cushing syndrome cases were diagnosed 8/9 by RI-scan, 8/9 by venography and 7/8 by computed tomography. The pheochromocytoma cases were diagnosed 9/9 by RI-scan, 8/9 by venography and 6/7 by computed tomography. The pheochromocytoma is still played a large part, but is not effective for pheochromocytoma. Therefore, it is concluded that the diagnostic accuracy for adrenal neoplasms will be improved by the co-use of the above mentioned various radiological studies.

2317

CLINICAL APPLICATION AND EVALUATION OF PARA-
THYROID IMAGING BY COMPUTER-ASSISTED SUBTRAC-
TION TECHNIQUE WITH T1-201 AND I-123.
M. Fukuchi, K. Tachibana, H. Kitani, K. Onoue, Y. Maeda, K. Hamada, A. Kido and K. Nagai, Division of Nuclear Medicine, Rl Center, H- yogo College of Medicine, Nishinomiya.

Before surgery, 6 patients with hyperpara-
thyroidism namely 4 primary and 2 second-
ary hyperparathyroidism were studied for
detection of the lesions by a computer-assis-
ted subtraction technique with T1-201 and
I-123. T1-123 was given orally after pretre-
ated with low-iodide diet. Six hours after
administration of I-123, imaging of the neck
was performed and the counts recorded into
a computer. Then, T1-201 was given by i.v.
injection. The neck counts of the T1-201
was also collected into the computer. The
counts are manipulated by data analysis pr-
gram and subtraction image was obtained.
In 3 cases of 4 patients with primary hyper-
parathyroidism, surgery verified the sub-
traction images. One case, who had accom-
panied with thyroid adenoma, abnormal activity
was observed in both lesions. On the other
hand, in 7 of 8 hyperplastic lesions of 2
patients with secondary hyperparathyroidism,
surgery also verified the subtraction im-
ages. All positive lesions in this series
weighted less than 3.0 g with the smallest
weighing 0.4g. Our study indicate possible
imaging of thyroid lesions at least as
small as those now detected with other tech-
iques in patient with primary and second-
ary hyperparathyroidism.

2316

RE-EVALUATION OF THE DIAGNOSTIC EFFICACY OF
ADRENAL SCINTIGRAPHY—WITH COMPARISON OF
OTHER RADIOLOGICAL EXAMINATIONS.
T. Sasaki, K. Sendai, T. Ishiuchi, K. Matsubara,
H. Kobayashi, O. Kaji, Y. Kodama, S. Okae.

The diagnostic efficacy of adrenal scinti-
graphy was re-evaluated when compared
with computed tomography, adrenal venography
and aortography. The cases subjected to the
study were 9 cases of Cushing syndrome, 9
cases of primary aldosteronism and 11 cases
of pheochromocytoma. The modes of examina-
tions were adrenal venography, aortography
and computed tomography besides adrenal
scintigraphy. The Cushing syndrome cases
were diagnosed 8/9 by RI-scan, 8/9 by veno-
graphy and 7/8 by computed tomography. The
primary aldosteronism cases were diagnosed
9/9 by RI-scan, 8/9 by venography and 6/7
by computed tomography. The pheochromocytoma
cases were diagnosed 0/6 by RI-scan, 10/11
by aortography and 5/5 by computed tomo-
graphy. For the diagnosis of Cushing
syndrome and primary aldosteronism, RI-scan
is still played a large part, but is not
effective for pheochromocytoma. Therefore,
it is concluded that the diagnostic accuracy
for adrenal neoplasms will be improved by
the co-use of the above mentioned various
radiological studies.

2318

EFFECTS OF IRRADIATION ON GLUCOCORTICOID RE-
CEPTOR OF THE RAT LIVER.
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Tanaka, H. Kawamura, A. Miyoshi and T. Miyachi.
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Internal Medicine, Hiroshima University Hos-
pital, Hiroshima, Shizuoka Prefectural Hos-
pital, Shizuoka.

Endocrinological changes after irradiation
were investigated. Irradiation of 10 Gy/ 1
frac. was given on rats liver. The level of Corticosterone (Bk), cyclic Nucleotides by RIA and Glucocorticoid Receptor (GR) by RRA
were measured before and after irradiation.
Protein was determined according to Lowry et
al and DNA was to Burton et al.
After irradiation the level of Bk increased
and arrived at maximal subjected to 1 hour in
serum, 1 day in cytosol and nucleus. It was
considered that above results were due to
release of Glucocorticoid from right adrenal
gland irradiated and severe stress.

The level of GR decreased and reached at
minimal level at 1 day in cytosol. The
decrease of GR suggested GR-Bk complex shifted
from liver cytosol to nucleus.
Kd value (by Scatchard plot) increased 1.5
told after 4days. It was probable that radi-
ation provoked some change in GR after irra-
diation.
There was no remarkable change in the
level of Protein and DNA.
The level of cyclic GMP significantly in-
creased after 1 hour. The mechanism might
suggest the process of regeneration of liver
after irradiation.