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Clinical significance of scintigraphy and computed tomography. J.Ishimaru, K. Machida, J.Nishikawa, A.Tasaka. University of Tokyo, Tokyo.

In 53 cases with adrenal diseases, we studied the clinical usefulness of the scintigrams (RI) using ^{131}I -19-iodocholesterol or ^{131}I -adosterol. R.I. was very useful clinically in the diagnosis of adrenal disease, including, the suppression test. Computed tomography (CT) was also sensitive in the detection of adrenal tumor, although CT is slightly inferior to RI. However, considering the relatively high radiation dose and a long time to perform RI study. It is concluded that CT is the first choice in the detection of adrenal disease between RI and CT.

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COMPARATIVE STUDY OF COMPUTERIZED TOMOGRAPHY IN ADRENAL DISEASES. M.Fukunaga, T.Fujita, C.Shigeno, T.Harioka, Y.Dodo, Y.Nakano, R.Morita and K.Torizuka. Dept. of Radiology and Nuclear Medicine, Kyoto University Hospital. Kyoto.

A combination study of computerized tomography(CT) and adrenal scintigraphy with I-131 Adsterol was performed on 3 cases with essential hypertension and 11 cases with various adrenal diseases including with 3 primary aldosteronism, 4 Cushing's syndrome(2 adenoma, 2 hyperplasia), 3 pheochromocytoma(2 adrenal, 1 ectopic) and 1 metastatic adrenal tumor. Then, the diagnostic efficacy of these techniques was evaluated.

Adrenal scintigraphy with I-131 iodocholesterol represented the functional state of the adrenal cortex, and had the advantage over the CT for the localization of aldosteronoma with moderate to high function and for the identification of the hyperplasia due to ectopic ACTH syndrome.

CT, on the other hand, had the advantage over the scintigraphy in delineating the aldosteronoma with low function or ectopic pheochromocytoma.

Both techniques are complementary, rather than competitive, and the combination study would provide the precise information on the adrenal diseases.