RENNAL DYNAMIC STUDIES USING Tc-99m DTPA BEFORE AND AFTER EXTRACORPOREAL SHOCK-WAVE LITHOTRIPSY. E.Ohtake, H.Murata, H.Matsuda, M.Yokoyama and H.Toyama. Tokyo Senbai Hospital, Toranomon Hospital and University of Tsukuba, Tokyo and Ibaraki.

This study was undertaken to evaluate the renal function before and after extracorporeal shock-wave lithotripsy (ESWL). Forty-six cases were examined in this study. They were 31 patients with renal stone, 14 with ureteral stone and one with renal and ureteral stones. Sequential renal images of the vascular phase, and the functional and excretory phases were taken by a gamma camera (ZLC-7500, Siemens), after intravenous injection of 15 mCi of Tc-99m DTPA. Data were stored every ten seconds for 30 minutes by a computer (Scintipac-2400, Shimadzu). Renograms and factor analyses were generated using these data.

The renal hypofunction induced by shock-waves was observed for a time. Renal functions were improved in half patients after a month of ESWL. The main causes of unimproved renal functions were urinary tract infection and the formation of stone street.

Factor analyses were superior to conventional renograms in detailed studies of renal functions.


We evaluated the value of the localization of adrenal scanning in 38 patients. We have performed adrenal scanning using I-131 adosterol. In the 38 patients, 26(76.5%) proved the localization, so 13 out of 18 patients with primary adrosteronism (13/18), 4 patients with pheochromocytoma (4/4) and 2 patients with ganglioneuroma (2/2) were proved the localization of the adrenomas. The adrenal scanning using I-131 MIBG was performed in the 2 patients with Sipple syndorome. Both of them were proved of the localization of the adrenomas. This study showed the adrenal scanning was comparatively effective in lateralizing adrenomas in the patients with primary adrosteronism. So in 6 out of 18 patients, supression scannings were performed, but the value of supression scanning was not recognized in this patients.

CLINICAL USEFULNESS OF MEASUREMENT OF PERCENT UPTAKE VALUES OF I-131-ADOSTEROL WITH SPECT IN UNILATERAL CASES IN ADRENAL IMAGING. J.Ishimura, M.Suehiro, K.Tachibana and M.Fukuchi. Department of Nuclear Medicine and RI Center, Hyogo College of Medicine, Nishinomiya, Hyogo.

This paper describes the clinical usefulness of the measurement of percent uptake values of I-131-Adosterol with SPECT in such cases. Twelve unilateral positive cases were studied in this study. In final diagnosis, 3 cases with hyperfunctioning adrenal cortex (H-group) were 2 cases with adrenoma of Cushings syndrome and a cases with pheochromocytoma with cortical hyperplasia, 9 cases with normal functioning adrenal cortex (N-group) were 3 cases with primary and metastatic adrenal malignancy, a case with giant renal cyst and 5 cases of surgical removal of unilateral gland. The method of measurement of percent uptake values was the standard method with SPECT that previously reported. The percent uptake values of H-group ranged from 1.1% to 3.1% with a mean of 1.97±0.84%. On the other hand, the percent uptake values of N-group ranged from 0.3% to 1.0% with a mean of 0.64±0.28%. These data show there is no overlap in percent uptake values between H-group and N-group. In unilateral positive cases, the measurement of percent uptake values with SPECT is useful for the evaluation of the adrenocortical imaging.