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I.Yamamoto, S.Yamamura, K.Yamada, J. Aoki, M.Hino, C.Shigeno, K.Torizuka. Kyoto University School of Medicine,Kyoto.

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RADIOIMMUNOASSAY FOR AMINO- AND CARBOXYL TERMINAL PARATHYROID HORMONE IN VARIOUS OF DISORDERS WITH ABNORMAL CALCIUM METABOLISM.

M.Fukunaga, T.Sone, N.Otsuka and R.Morita, Kawasaki Medical School, Kurashiki. I.Yamamoto and K.Torizuka. Kyoto University, Kyoto.

It is well known that not only intact (1-84) PTH and (1-34) PTH showing biological activity but also C-PTH, inactive fragment, exist in plasma. Therefore, in a case of renal failure with high C-PTH, it is difficult to know the possibility of the complication of secondary hyperparathyroidism. We measured the concentration of PTH, using specific RIA for N- or C-PTH, in various of disorders with abnormal calcium metabolism. RIA for N-PTH was done, using human (1-34) PTH for standard, its antiserum for antibody and I-125-human (1-34) PTH for tracer.
On the other hand, RIA for C-PTH was done, using human (65-84) PTH for standard, anti-bovine (1-84) PTH antiserum for antibody and I-125-human tyr-(65-84) PTH for tracer. It is shown that patients with prim. hyperparathyroidism or chronic renal failure associated with bone lesions showed significantly high N-PTH level, and that N-PTH assay is better than C-PTH in evaluation of bone lesions.

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M.Hino, J.Aoki, C.Shigeno,S.Yamamura, K.Yamada, I.Yamamoto, K.Torizuka,M.Fukunaga, R.Morita, Kyoto University School of Medicine, Kyoto and Kawasaki Medical School, Kurashiki.

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Tl-201 AND Tc-99m SUBTRACTUON SCINTIGRAPHY FOR LOCALIZATION OF HYPERFUNCTIONING PARATHYROID GLANDS.

K.Itoh, G.Irie,S.Nakanishi and R.Ishizuka. Hokkaido University Hospital,Sapporo.

Tl-201 and Tc-99m subtraction parathyroid scintigraphy assisted by computer(CASPS) was performed in 59 patients with suspected hyperparathyroidism (HPT). There were 32 patients operated on and 40 hyperfunctioning para-thyroid glands histologically proven on 33 surgical explorations.
True positive rate of preoperative and retrospective localization as to each hyperfunctioning parathyroid glands were 53%(21/40) and 75%(30/40),respectively. Visualization of hyperfunctioning parathyroid glands was statistically significant($p<0.05$) in correlation between ones of less and more than 0.5g in weight. Plain Tl-201 image delineated only one of 15 hyperfunctioning parathyroids which were less than 0.5g in weight.This result was also statistically significant($p<0.05$) in X^2-test. There are two adenoma which concentrated Tc-99m pertechnetate rather than Tl-201 chloride. Tl-201 and Tc-99m subtraction parathyroid scintigraphy is noninvasive and is still a challenging method for preoperative localization of hyperfunctioning parathyroid glands rather than a ultasonography and CT scan.

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