^{131}Cs Myocardial Uptake

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Myocardial scanning with ^{131}Cs has been carried out in the department of radiology in Chiba University since three years. Normal hearts don't always show normal (N) types in ^{131}Cs uptake. Sparse (S) type takes up forty per cent of normal hearts, so it cannot prove all myocardial ischemia. ^{131}Cs is taken in not only cardiac muscle but also striated muscle, so exercise with striated muscle is suspected to decrease myocardial uptake. Our experiments show that ^{131}Cs myocardial uptake with whole body exercise is lower than that without exercise. Exercise before scanning affects myocardial uptake of ^{131}Cs.

Study on Renal Angioscanography

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After selective renal arteriography using a Kifa red catheter with 2 side holes near the tip, we perfused 200~500 μCi ^{131}I-MAA through the same catheter, and took the serial angioacanograms. We evaluated angioscanography in comparison with other radiological diagnostic approaches in 25 patients. In renal malignancies corresponding to the renal mass positive scannings were obtained, but in rare cases with necrotic malignancies, the same defects as on the renoscintigrams were demonstrated. Although gas in the colon ocassionally could not permit the full evlauation of renal infarct in arteriography, angioscanography followed by arteriography could provide us exact information about the blood supply in the kidney. In cystic kidney with impaired renal function, other radiological diagnostic procedures sometimes could not provide us exact localization of the cysts. As being not influenced by associated impaired renal function and gas in the colon, we could obtain exact cystic condition on the angioscanograms. In acute hydronephrosis, angioscanography was consistent with renoscintigraphy, but in atrophic stage, in contrary to invalid renoscintigram, angioscanograms could reveal distribution of capillary net work.

Occasionally, suprarenal neoplasm can not be disclosed by pnenmoretroperitoneum or arteriography before it becomes considerable sige. In a case with suspected pheochromocytoma, with exception of equivocal finding in pneumoretroperitoneum, other radiological diagnostic procedures failed in demonstrating the neoplasm, but serial positive angioscanograms during 3 days were obtained.

In angiography of a patient with liposarcoma originating from pararenal tissue, the nlarged space between the atrophic kidney and vertebra had a faint suspicious vessels. But on the angioscanograms, marked positive scanning was obtained according to the suspected area.

In general, speaking of the localization of the lesion, angioscanograms are valuable diagnostic procedure in the lesion of the cortex of the kidney with inpaired renal function, suprarenal and pararenal mass.