

mM) was significantly accelerated when compared with physiological level of 6.24mM. Also four half life decay of ^{85}Rb accompanied by the four times increase of Rb concentration does not affect on the ^{86}Rb uptake of RBC.

(5) Free ^{86}Rb separation by resin column. After incubation of ^{86}Rb , RBC and serum with digitalis free ^{85}Rb EKT-test tube with special resin column made this separation with

ease.

(6) Effect of RBC aging on ^{86}Rb uptake was measured. Stored RBCs more than 2 weeks old could not be used as standard for this study.

Preliminary fundamental study proved this method is feasible for the assay of plasma digoxin level. Clinical study is now being progressed.

Study on peripheral circulation of the muscle clearance with radioactive iodine —A study of measuring condition—

H. FURUDATE

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We have made collimators for the study of peripheral circulation by the muscular clearance of radioactive iodine and made a comparative study of Tsuyatscan, isoresponce curve, resolution and sensitivity. As a result of this examination, we demonstrated that long cylindricol collimator with the in side diameter of about 10mm is suitable for the measurement of peripheral circulation.

Next, we examined in respect of some

measuring conditions using rabbits. The longer time constant and the more volume of injection, the smaller the muscle clearance. Therefore, we must measure fixed time constant and fixed volume of injection. The muscle clearance showed an extremely high level as compared with the subcutaneous clearance. There is no difference between right and left leg in the muscle clearance.

Studies on Cerebral Circulation Applying Intravenous One Shot of RISA

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We try to find a clinical test for cerebral circulation which gives less distress to the subjects. We would like to say that cerebral circulation must be considered as the problem about both brain and heart.

(Method, Results & Discussion) We use the cardiac function test already reported at the meeting of this society; that is the simultaneous recording of radio-activity from RISA in heart and brain. These records