Basic Study of Angiotensin II Kit for Radioimmunoassay

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The determination of plasma angiotensin II, using a radioimmunoassay, had been reported by Valloton et al. and Catt et al. in 1967. Recently, as we had chance to use the radioimmunoassay Kit of angiotensin II which was based on the procedure described previously by Gocke, et al. and was supplied by CEA-CEN-SORIN, we report experience of its use.

(1) Adsorption ratio of ^{125}I-angiotension II for uncleaning glass tube was 1.5-4.0 times higher than they treated with silicone, chromic acid mixture, neutral cleaning material and polyethylene tube. In this fact, it is impossible to use uncleaning glass tube for this assay. The best result was gotten by siliconized tube, but in other three cases, it is possible to use. The calibration curves were almost same when used each of them.

(2) Calibration curves, using four kinds of angiotensin II-free pooled plasma which were prepared from stored blood plasma, heparinized plasma, plasma treated with EDTA and serum, were no significant difference, and if they were stored at –20°C for three months, it was possible to use for caribration curve.

(3) There was no significant difference of calibration curve between 0.2 ml of dextran-coated charcoal suspension and 0.5 ml, but in the decantation, 0.5 ml was better to decrease the counting error than 0.2 ml.

(4) It is not necessary to do pre-incubation for calibration curve, but in the case of patient samples, if pre-incubation is omitted, it is difficult to distinguish between normal and abnormal.

(5) It is necessary for assay to use the arterial blood, and to keep the temperature at 4°C during the measurement, and also necessary to clean the glass apparatus and operate the pipet exactly. As we have seen, it is possible to get the good result when users read very carefully the booklet of instruction for use with Kit.

Quantitative Measurement for Serum Autoantibody by Using Solid-State Competitive Binding Radioassay

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A new, rapid, sensitive and specific solid-state competitive binding radioassay methods for anti-thyroid antibodies and their clinical results were presented.

Cups on a disposable microtiter plate (Cooke Eng. Co.) were coated with human thyroid microsomal suspension. About 1% of radioiodinated Long-acting Thyroid Stimulator (LATS) IgG of very high biologic activity was found to be fixed onto the microsome coated cup by over-night incubation.

Addition to the incubate of unlabeled