wise filtration around the center of filter membrane prevents a leakage of the solution.) (2); the larger size of filter membrane (at least 26 mm in diam.), the better. (3); for washing procedure of the tubes high concentration of albumin solution should be used.

Radioimmunoassay of Insulin by Modified Method of Hales and Randle

T. TAKAHASHI, K. NAKAHARA and K. YOSHIKUBO

Department of Radiology
S. TAKAMIYA and Y. NODA

Department of Internal Medicine, Jikei University School of Medicine, Tokyo

The purpose of this paper is to report the insulin blood level measured by the method modified by Hales and Randle.

a) Method
Mixtures of 0.5 ml of standard insulin and/or assay sample, 0.5 ml of 125I-Insulin and 0.5 ml of insulin binding precipitate is incubated for 24 hours at 4°C. 0.1 ml of normal G.P. serum and anti γ-globulin serum compound is added to it and the mixture is centrifuged for 15 min at 2500 γ pm to avoid supernatant.

The precipitate is washed by buffer solution and it is centrifuged twice. The precipitate is counted.

b) Calculation

\[ \frac{B}{B_0} \]

Where B is counting rate and B₀ is counting rate at the insulin level zero. B/B₀ is obtained by the standard curve made by the standard insulin and the insulin level of the material is calculated.

c) Insulin level of the normal individuals.
The insulin level at the fasting time measured by this method is 35.2 ± 4.0 (μg/ml). The level is 125.2 ± 8.4 (μg/ml) at one hour after ingestion of 50g of glucose, 80.2 ± 14.7 (μg/ml) at two hours and 44.6 ± 7.4 (μg/ml) at three hours.

It is found that the standard deviation of the blood sugar level is large in the same patients.
This method is simpler and easier than the original method.

Immunooassay of Human Growth Hormon with a Double Antibody Method

T. TSUSHIMA, M. IRIE, K. SHIZUME and K. NAKAO

The Third Dept. of Int. Med., Faculty of Med., University of Tokyo, Tokyo

The present report describes a double antibody procedure for radioimmunoassay of human growth hormone (HGH) utilizing 125I human growth hormone tracer. All dilutions were made with veronal buffer, pH 8.6, containing 0.5% bovine serum albumin. Anti human growth hormone serum was obtained from guinea pig which received five weekly subcutaneous injections of 1 mg HGH (Raben) emulsified in complete Freund's adjuvant. The appropriate dilution of antiserum (1:100000) was that which binds about 20-40% 125I-HGH added when no unlabelled growth hormone is present.

Anti guinea pig gamma globulin serum was obtained from rabbit and dilution of 1:2 was