mean recovery rate of added digoxin ranged from 0.0 to 2.0 ng/m*l* was 105.9%. Fifteen serum samples obtained from patients under digoxin administration were determined by two different kits. An excellent correlation (r=0.941) was obtained from these two values. Two m*l* of 18% P E.G. was added on the same samples in order to separate the B and F, then each samples were centrifuged after 1, 5, 10, and 20 minutes, respectively. There were no significant differences between these resulted values. The reco mended P.E.G. volume seemed to be 2.0 m*l* for each assay tubes.

Serum levels of digoxin reached to peak during 1 or 2 hours after oral administration. The relationship between the digoxin levels in serum and the various function was examined which were obtained by mechanocardiogram or dye dilution method. There were significant correlation partially, between the digoxin levels and heart rate, ejection time, mean transit time, cardiac index, or stroke index, respectively.

Measurement of Plasma Aldosterone by a Simplified Radioimmunoassay Using ^{125}I-Aldosterone

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We previously described on a simple method for the measurement of plasma aldosterone by radioimmunoassay omitting the chromatography —an extractioh method—(Clinical Endocrinology 25:673,1977).

In order to evaluate a new simple direct radioimmunoassay method not employing the extraction step for determination of plasma aldosterone, a critical comparison was made between a previously reported extraction method and a new direct method without extraction. For the former method, an Aldok-kit (CEA-IRE-SORIN), and for the latter method an Aldosterone-RIA kit (Dinabot RI Labo.) was used as indicated in the instruction manual. ^{3}H-aldosterone was used as a tracer for the former method and ^{125}I-aldosterone for the latter. The specificity of antibodies, compared using several steroids, was very highfor both antibodies employed.

Intra-assay variations were 8.8% by the extraction method (CIS) and 7.6% by the direct method (Dinabot). Plasma aldosterone determinations were well correlated (r=0.98, Y=1.08X+0.77, n=50. Y stands for the extraction method and X for the direct method.)

Plasma aldosterone concentrations by the new direct method in normal subjects were 6.5±3.1 ng/100 m*l*, in the patients with essential hypertension 7.5±3.9 ng/100 m*l*, in primary aldosteronism 43.1±10.5 ng/100 m*l*, in renovascular hypertension 17.9±6.5 ng/100 m*l*, in pseudo-aldosteronism 2.2 ±0.5 ng/100 m*l*, and in SIADH 2.1±0.4 ng/100 m*l*.

From these results it was concluded that the new direct method was a very useful, simple, speedy, and reliable method for measuring plasma aldosterone, and there was no need to use a liquid scintillation counter.