

10 and 20 ng/100 ml. When 50, 100 and 200 pg of aldosterone was added to the adrenalectomized plasma, the assay values were 4.44 ± 0.50 , 9.67 ± 0.95 and 20.42 ± 1.66 ng/100 ml, respectively. Large amounts of other

competing steroids added to the adrenalectomized plasma gave no significant values. Seven supine normal males gave values of 7.5 ± 2.5 ng/100 ml at 9.00 AM.

Purification and Estimation of Plasma Aldosterone by Reversed Phase Partition Chromatography on Sephadex LH-20 and RIA

M. KIZAKI, Y. TERAYAMA, S. SATO

Section of Endocrinology, Kitasato Biochemical Laboratories.

(Bristol Laboratories of Japan.)

T. KOSHIMIZU

Department of Pediatrics, Kitasato University School of Medicine.

Crude Aldosterone (Aldo.) fraction extracted from plasma by CH_2Cl_2 was further purified by column chromatography on Sephadex LH-20 ($1 \times 30\text{cm}$), which was equilibrated and eluted with distilled water. It is demonstrated that Aldo. and Cortisol were separated clearly into first fraction (55ml to 72ml) and third (80ml to 100ml) respectively. Recovery of added ^3H -Aldo. was 55%–60% with constant yield.

RIA analysis of Aldo. was performed by using the Sorin test kit, which sensitivity was 1ng/dl Aldo. and the values of assay blank ranged from 0 pg to 20pg. The mean

recovery of added Aldo. (25pg–100pg/ml) was 117.5%. The intra-assay variation for each of 5 samples with triplicate determinations ranged from 6.5%–20.5% and inter-assay variation was 13.8%.

Normal values estimated is comparable with others reported (Adults; 6.1 ± 3.7 , Children; $6.5 \pm 1.2\text{ng/dl}$). However, newborns and infants presented on remarkable increase of Aldo. with range from 72.6–108.0ng/dl. Plasma Aldo. levels of clinical patients suffering from primary, secondary Aldosteronism, Adreno-genital syndrome and pregnant were determined also respectively.

Determination of Urinary Aldosterone by Radioimmunoassay

Y. TERAYAMA, M. KIZAKI, S. SATO

Section of Endocrinology, Kitasato Biochemical

Laboratories. (Bristol Laboratories, Japan)

A simple method for determination of urinary aldosterone-18-glucuronide has been