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

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Crude Aldosterone (Aldo.) fraction extracted from plasma by CH₂Cl₂ was further purified by column chromatography on Sephadex LH-20 (1×30cm), 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±1.2ng/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

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A simple method for determination of urinary aldososterone–18–glucuronide has been