hydroxylase deficiency. ACTH administered to 5 subjects produced a mean increase in plasma DOC from 4.8 to 25.8ng/100 ml. Angiotensin II infused at a rate of 10ng/kg/min for 30 min into 4 subjects did not increase mean plasma DOC. Similarly, dietary sodium restriction or postural change did not increase plasma DOC.

These results confirm that DOC secretion in primarily under anterior pituitary control. From the basal level of 4.4ng/100ml and from its biological activity compared to aldosterone, the major mineralo-corticoid, it would seem that DOC plays a minor role in electrolyte homeostasis in normal man.

The Assay of Catecholamine by Radiometric Method (Report 1)

Approach to Plasma Catecholamine Assay

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In 1968, Engelman described double-isotope derivative method for plasma catecholamine assay and reported its concentration in normal resting adults and some other condition. He used column procedure in collecting plasma samples, but it needed relatively large amounts of plasma, 10 ml. And soon later, in 1973, Coyle assayed fetal and newborn rat cerebral catecholamines, using the same enzymatic procedures as Engelman, and its method could save the more time than his method. If we could apply his column procedure and Coyle's assay to plasma catecholamine determination, we should save more time and plasma itsself. This assay exhibited linearity with amounts of catecholamine ranging from less than 0.1 to 6 ng for norepinephrine.

This sensitivity is enough to assay plasma catecholamine concentrations which is contained in blood 0.13 to 0.52g/l according to Engelman, though norepinephrine and epinephrine cannot be distinguished one from the other by this procedure.