They stated that crude ether extracts of the adrenal cortex of the dog had this effect also.

We can now report that purified extracts of adrenal cortex, prepared for administration to human beings and obtained from three different sources,[3] also possess this property. These tests were repeated several times with each preparation with positive results.

Several questions arise; among them are the following. Is the reaction of adrenal cortical extracts caused by some oxidation product of a cortical substance such as Mason, Myers and Kendall have prepared?[4] Is it due to a preformed substance which stimulates the growth of the capon's comb, such as the one which was isolated from adrenal cortex by Reichstein?[5] Or is this effect caused by the cortical factor or factors essential to life?

If this test is a reaction for a specific cortical hormone as well as for the "male hormones" it may prove to be a more valuable test than if it were for the latter alone.

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PERMEABILITY OF THE BLOOD-C. N. S. BARRIER TO SODIUM BROMIDE IN EXPERIMENTAL POLIOMYELITIS[1]

CHANGES in the permeability of the blood-C. N. S. barrier are known to occur in a number of pathological conditions involving the central nervous system.[2] Perhaps the most widely used method for determining such alterations in permeability is that devised by Walter.[3] The concentration of bromide in the serum and spinal fluid is determined after oral administration of NaBr, and the degree of permeability given by a ratio (concentration in serum/concentration in spinal fluid) which is expressed as the permeability quotient (P. Q.)

In the present investigation slight modifications were made of Walter's original method. For example, NaBr was administered subcutaneously twice daily for two consecutive days. Each injection consisted of forty-five milligrams per kilogram body weight. Approximately eighteen hours after the last injection, samples of blood and spinal fluid were obtained and quantitatively analyzed for NaBr. Chemical analyses were made by methods differing in several respects from those employed by Walter. These modifications were necessary to adapt the method to the smaller amount of spinal fluid available from monkeys. Since the NaBr persisted in the body fluids for several weeks following administration, only one test was made on each animal, *i.e.*, the P. Q. was not determined on the same animal for both the preparalytic and paralytic stages.

The average P. Q. value for 19 normal monkeys was found to be 1.72 with a probable error $(= \pm 0.8453\frac{\Sigma(v)}{n\sqrt{n-1}})$ of $\pm$ 0.029. Eighteen preparalytic monkeys gave an average value of 1.01 with a probable error of $\pm$ 0.0137. The value for frankly paralyzed monkeys was approximately the same as for the previous group, the average P. Q. for eleven animals being 0.99 with a probable error of $\pm$ 0.0132.

The data obtained so far indicate that NaBr passes into the spinal fluid more readily in poliomyelitic (low P. Q.) than in normal monkeys (high P. Q.). Since a low P. Q. value for Br^- is generally attributed to an increase in blood-C. N. S. barrier permeability,[2] the results of the present investigation point to the occurrence of a similar change in experimental poliomyelitis.

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