

As the labyrinthine symptoms recur after complete decerebration, the nervous paths concerned in the process of compensation may be roughly localized in the cerebrum above the level of the corpora quadrigemina.

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**Diuretic effects of the caffeine group.**

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The knowledge concerning the diuretic action of caffeine and theobromin has been obtained almost entirely through work on rabbits. It is from this work that the many explanations of how these drugs act in producing diuresis have arisen. The dog was early recognized as being somewhat refractory or uncertain in his response, and consequently but little work has been done on this animal. It has seemed to us however that the dog's urinary function is much more comparable to that of man than is the rabbits, and we have accordingly carried out a series of diuretic experiments using dogs as the experimental animals.

The dogs used were placed on a fixed diet, with a fixed daily intake of water. We have collected and analyzed the urine in twenty-four periods in order to avoid the frequent and unexplained variations which occur in shorter periods. Drugs were withheld until a comparatively constant daily output of urine both in quantity and composition was obtained. Caffeine, theobromin or theobromin sodio-salicylate was then given in dosage varying from 0.05 to 0.2 g. three times a day, for periods of from one to five or more days. They were given with the food and in capsules.

The results may be summarized as follows: With none of these drugs, in the dosage employed have we seen any appreciable increase in the urine output. On the contrary there has been almost invariably a decrease. When the drug is given for one day only, the decrease may occur on that day or the one following. When given for several days the decrease usually continues during the entire period, although in some instances the urine output

may return to the normal level on the fourth or fifth day. In general the larger doses have produced the more marked decrease. The total nitrogen, urea and sodium chloride decrease fairly proportionately to the water. During the period of drug action, that is when the output of urine is definitely decreased, the renal function seems unimpaired, since water, urea and sodium chloride added to the regular diet, are excreted by the kidney in a normal fashion. Phenolsulphonophthalin also is excreted in the same percentage as during the control period. We have analyzed the blood during the control period and during the period of drug action. In this latter period, when the urine output is below the normal, the non-protein nitrogen, urea nitrogen and sodium chloride in the blood are decreased. This does not appear to be due to an increase in water in the blood since the percentage of water is also slightly decreased.

From these results we conclude that there may be two factors which determine the diuretic action of these drugs in the dog and probably in man, one an action on the kidney, similar to that in the rabbit tending to cause diuresis, a second and determining one on the tissues in general, as a result of which water and excretory products are held back by the tissues.

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**Cholesterinized alcoholic extracts versus acetone insoluble fraction of pure tissue lipoids as antigen for Wassermann reaction.**

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In the last few years a number of workers in this country have reported favorably on the use of cholesterinized antigens for Wassermann reaction. According to some reports, these so-called reinforced antigens gave even more satisfactory results than the acetone-insoluble fraction of tissue lipoids advocated by Noguchi.<sup>1</sup>

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<sup>1</sup> Noguchi and Bronfenbrenner, *Jour. of Experimental Medicine*, 1911, Vol. XIII, No. 1, p. 43.