This is to report the effect on the blood sugar level of cats of a "heat liability," produced by giving ice water by stomach tube, according to the method devised by Cannon. Eight animals have been used and all have given concordant results, of which those for one cat shown in the figure are typical. From inspection of the curves (and deducting the effect of the similar procedure in which water at body temperature was given), it appears that such a heat liability induces a pronounced mobilization of carbohydrates and increase of blood sugar value. In spite of the fact that the fall in body temperature is immediate, this mobilization of sugar seems to get under way slowly and is only noticeable after an hour or more. From then on it rises slowly to a maximum during the next hour or two and then, even more slowly, falls; in only two cases out of the eight did the blood sugar value return to normal within the five or six hours during which the animals were kept under observation.

3017

Experiments with adrenal insufficiency.

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More than two years ago we began experiments to determine whether it would be possible to prolong the life of adrenalectized animals by the administration of adrenal preparations.

Adrenalin injected intramuscularly or subcutaneously every hour or two after the removal of both adrenals did not prolong life. The average length of life for the 7 cats studied was 19.7 hours. The amounts injected at one time were from 0.25 cc. to 0.5 cc. of 1:1000 adrenalin intramuscularly or subcutaneously. The adrenals had been removed from these cats at one operation.

The remainder of the experiments were conducted upon cats whose adrenals had been removed at different operations from two to ninety days apart. The operation was through the lumbar path.

Five cats which were injected intravenously or intramuscularly with material obtained by ether extraction of the dried cortex (beef) lived an average of sixty hours. Two cats injected intravenously or intramuscularly with glycerol extract of the cortex lived an average of forty-five hours.

Nine cats which were injected intramuscularly or intraperitoneally with alcohol soluble material from the cortex lived an average of forty hours. One animal receiving intraperitoneal injections of olive oil extract of the cortex lived ninety-three hours.

The average length of life of all of these cats (17), not including those injected with adrenalin, was 49.8 hours.

On the other hand, 22 adrenalectomized cats injected intravenously, intramuscularly, intraperitoneally or subcutaneously with whole saline extracts of cortex lived an average of 146.6 hours.

3018

Comparative reduction values of carbohydrates by Hagedorn-Jensen, Meyer-Benedict and Folin-Wu Methods.

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Dutcher and Thomas,[1] Greenwald, Samet and Gross,[2] Williamen and Davison,[3] Rowe and Wiener,[4] have published data on the reduction value of mono and polysaccharides by several commonly employed sugar methods. None of these investigators, however, have examined the behavior of carbohydrates toward potassium ferrocyanide, the principle of the Hagedorn-Jensen method. In this paper a comparison is presented of the values obtained by this method with those obtained by employing the Lewis-Benedict and the Folin-Wu procedures.

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[4] Rowe, A. W., and Wiener, B., *J. Am. Chem. Soc.*, 1925, xlvi, 1698.