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A Substance Which Prolongs the Life of Adrenalectomized Cats.

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We have obtained a substance from the cortex of the adrenal (ox), which prolongs the life of adrenalectomized cats.

The water or 0.8% NaCl extract is cleared of much protein and cellular debris by isoelectric precipitation. The substance is then obtained by precipitation with NaCl. Epinephrin is removed by washing.

At present we have used this preparation in the treatment of 21 adrenalectomized cats. Two of these cats are not included in this report, because one died from being overheated, and the other is still alive after 175 days, no injections having been given for 100 days.

The average length of life of untreated adrenalectomized cats may be taken as 5 to 6 days, judging from the work of Marine and Baumann,¹ and our own unpublished results.

The first 5 cats in this study lived an average of 15.6 days, although we were constantly modifying our preparation, and at times there was evidence of deterioration. The results were complicated, or the experiment even terminated in some, by infection (Table I).

TABLE I.

Cat	Survival	Remarks
	days	
BG	17	
BH	8	Respiratory and skin infection
BI	18	Died from pneumonia
BK	18	Died from empyaemia
BO	17	Thyroids removed 17 months before

Average 15.6.

In the remainder of the experiments the methods of preparing the material for injection have been more uniform. Likewise, the survival periods are longer. In Table II we have included experiments which may have been shortened by infections or reduction in kidney tissue.

In Table III there were no complications except in BW. In this cat death seemed to be hastened by the feeding of too much dextrose. Up to this time the cat had been in excellent condition and had eaten well.

TABLE II.

Cat	Survival	Remarks
BM	days 12	Piece of kidney removed one week before last operation
BY	7	Died of acute respiratory infection
BZ	23	Middle ear full of pus
CB	10	Bad skin infection
CC	21	Undrained pus pocket
CD	22	Lungs consolidated
CE	27	Gangrene
CH	21	Lungs consolidated

Average 17.9.

TABLE III.

Cat	Survival	Cat	Survival
	days		days
BR	60	CA	11
BW	28	CF	31
BX	40	CG	14

Average 30.7.

The average survival of the 19 cats was 21 days.

Many of these cats behaved like normal cats, eating well, showing spontaneity and taking an active interest in their surroundings. Manipulations, such as drawing daily samples of blood, or even more drastic procedures, produced no ill effects. The reactions and behavior were a decided contrast to untreated adrenalectomized animals.

The amount of fluid injected was so small that it could not have been a factor in prolonging life or preventing the onset of symptoms.

The essential hormone of the adrenal cortex must have been present in our preparation. Otherwise it is impossible to account for our results.

We propose Cortin as the name for this hormone.

¹ Marine, D., and Baumann, E. J., *Am. J. Physiol.*, 1927, **lxxxi**, 99.