terminal convulsions. These animals showed a mean blood glucose level of over 1420 mg per 100 cc (limits 1334 and 1500+), a level far exceeding that of the rabid mice which died following administration of 20% glucose. This level, although high, is presumably only one factor in causing the death of these normal animals, dehydration being another such factor. Wierzuchowski[2] has reported that the blood glucose level of dogs may be brought up to over 3500 mg per 100 cc before death occurs.

Summary. Mice in the symptomatic stages of various neurotropic virus infections are more susceptible than normal mice to the lethal effect of intraperitoneally injected glucose. The dehydration produced by intraperitoneal glucose appears to be a major factor in this differential susceptibility.

10899

Effect of Adrenalectomy on Fat Absorption Measured by Fat Excretion in the Stool.

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Contrary to the view of the Verzar group,[1, 2, 3] Barnes, *et al.*,[4] concluded that adrenalectomy has no significant effect on the absorption of fat in the form of corn oil or the methyl esters of the fatty acids of corn oil. The experiments comprising this report represent a corollary of the earlier work. In the experiments of Barnes and coworkers, fat absorption was measured in the usual way and in what might be termed an acute manner. A single large dose of fat was administered 4 days after adrenalectomy. In the present experiments, fat absorption was studied over a longer time, as a matter of fact, over a period of days, after removal of the glands and under ordinary conditions of nutrition through the simple expedient of following the excretion of fat in the stools in relation to the amount of

2 Wierzuchowsky, M., *J. Physiol.*, 1936, **87**, 311, 85 P.

1 Judovits, N., and Verzar, F., *Biochem. Z.*, 1937, **292**, 182.

2 Verzar, F., and Laszt, L., *Biochem. Z.*, 1935, **276**, 11.

3 Verzar, F., and McDougall, E. J., *Absorption from the Intestine*, Longmans, Green and Co., 1936.

4 Barnes, R. H., Wick, A. N., Miller, E. S., and MacKay, E. M., PROC. SOC. EXP. BIOL. AND MED., 1939, **40**, 651.

TABLE I.

Exp.	Group	Sex	No. Rats in Group	Days	Avg body wt at start, g	Avg body wt at end, g	Food intake rat/day, g	Fat intake rat/day, g	Stool fat rat/day, g	Stool fat % of food fat	Stool rat/day, g	Urine excretion per day 2-day period, g
1.	Controls	♀	9	14	128	142	8.6	1.03	.089	8.7		1.3
	Adrenalectomized	♀	7	14	126	132	7.0	0.83	.092	11.0		9.1
	Controls	♂	10	14	166	216	12.9	1.54	.159	10.3		2.8
	Adrenalectomized	♂	7	14	166	177	10.0	1.19	.135	11.3		21.0
2.	Controls	♀	5	14	142	161	6.8	1.63	.017	10.4	.26	
	Adrenalectomized	♀	5	14	145	150	7.4	1.78	.017	9.5	.28	
	Controls	♂	10	14	168	186	8.8	2.11	.113	5.4	.83	
	Adrenalectomized	♂	8	14	170	165	6.1	1.47	.053	3.6	.82	

fat ingested in the diet. This, of course, involves an error due to fat secretion by the lower intestinal tract, but in this case, the amount of stool fat from this source is a negligible item.

In experiment 1, our stock diet[5] in the form of a dry mash and in experiment 2, a synthetic paste diet (5, page 183) was fed. As a drinking fluid, a 0.5% NaCl and 0.2% $NaHCO_3$ mixture was allowed *ad lib.* Eight out of 35 adrenalectomized rats did not survive this regime. Data on these are not included in the averages. Evidence of adrenal insufficiency is found in the low weight gain of the adrenalectomized groups and the marked diuresis in these animals (Table I, Exp. 1).

The adrenalectomies and sham operations on the control rats were performed as usual.[5, 6] Food intake and stool collection observations were commenced a day later. The stools were collected over 24-hour periods and dried for analysis. "Fat" refers to the petroleum ether extract dried at 100°C, of either the food or the stools, as the case may be.

The data presented in Table I show very clearly that, under the conditions of these experiments, the absorption of fat is not influenced by adrenalectomy. Nor, if we assume that all of the stool fat is secreted by the intestinal mucosa, is there evidence that this excretion of fat is affected by removal of the adrenal glands.

Summary. Under fairly normal conditions of nutrition, salt solution being supplied as drinking fluid to maintain the adrenalectomized rats, adrenalectomy has no influence on the absorption of fat from the food. With adequate food intakes, the removal of the adrenal glands does not affect the excretion of fat in the stool.

10900

Effect of Heterologous Antigonadotropic Sera on the Course of Pregnancy in Rats.

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Recently Thompson[1] has reported on abortion produced in dogs with serum of a dog immunized over a period of 3½ years with

5 MacKay, L. L., and MacKay, E. M., *Am. J. Physiol.*, 1927, **83**, 179.

6 MacKay, E. M., and MacKay, L. L., *J. Exp. Med.*, 1926, **43**, 395.

1 Thompson, K. W., *Endocrinology*, 1939, **24**, 613.