Such a procedure offers a means of detecting solutions of spurious or fraudulent Mercurochrome which occasionally appear on the market. The organic compounds were found to be much less toxic for the enzymes than the inorganic mercurials. This inhibitory action or depressant effect of the various mercurials for the muscle enzymes does not run parallel to their antiseptic activity but is rather an index of their toxicity. Thus, Mercurochrome solutions, 1 :250 to 1 :100, while quite sufficient to destroy all bacteria, did not inhibit the action of muscle oxydase to any great extent. On the other hand, solutions of mercuric bichloride (1 :10,000 to 1 :5,000) were markedly depressant for the enzymes and after longer exposures killed them.

8047 P

Response of Adrenalectomized Rats to Phloridzination.

GERALD EVANS. (Introduced by C. N. H. Long.)

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It was shown previously[1] that when fasted rats were kept for 24 hours at ½ atmosphere, glycogen equivalent to 34% of previously existing stores and not accounted for by decreases in other carbohydrate, was laid down. This phenomenon was found not to occur in adrenalectomized rats.

To test further the importance of the adrenals in the new formation of carbohydrate (a) intact rats, (b) adrenalectomized rats and (c) rats with bilaterally demedullated adrenals were given daily 50 mg. of phloridzin in olive oil subcutaneously, and the urinary glucose, non-protein nitrogen and ketones determined.

The success of the demedullation was checked subsequently by serial section; no accessory adrenals were found in these animals.

The results for all are given in Table I. To exclude moribund values those for animals which did not survive at least 36 hours beyond the period of observation were not used in averages given.

It will be seen that the excretion of sugar, nitrogen and ketones is much diminished in adrenalectomized rats. The excretory values (ketones excepted) for demedullated animals equalled or exceeded those of intact animals.

[1] *Am. J. Physiol.*, 1934, **110**, 273.

TABLE I.
Urinary Excretion in Phloridzinized Rats.
Mg./100 gm. rat/day.

			1st day of fast				2nd and 3rd day of fast average			
	No. of Animals	Days Post-Oper.	Dextrose	Nitrogen	Ketones	D/N	Dextrose	Nitrogen	Ketones	D/N
Intact	14	—	624	165	76	3.85	478	148	229	3.18
Adrenalectomized	8	4	345	114	23	3.05	178	68	41	2.65
Both Adrenal Medullæ Removed	3	16	730	189	35	3.86	485	164	126	2.98

The failure of the adrenalectomized animals to excrete larger amounts can not be laid to a general debilitating effect of the operation for at the commencement of the experimental period these animals had all gained slightly (aver. 4 gm.) over the pre-operative weight and their rectal temperatures were not below 37°C.; furthermore, as previously shown[1] such rats when fed have normal glycogen stores.

The D/N ratio for the second and third days of fasting is definitely lower in the adrenalectomized animals than in the normal group.

Conclusion. The breakdown of protein to form sugar which occurs on phloridzination of rats is greatly reduced in the absence of the adrenal cortex.

8048 P

Extent of Absorption of Alcohol at Various Intervals After Oral Administration.

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As a result of calculations based on blood alcohol figures obtained after the oral administration of alcohol compared with similar figures following intravenous administration, Haggard and Greenberg[1] have concluded that a period of about 6 hours is required for

[1] Haggard, H. W., and Greenberg, L. A., *J. Pharm. Exp. Ther.*, 1934, **52**, 167.