

with the vascular supply of the kidney. Consequently, the blood-pressure conditions can be accurately transmitted to a recording instrument. The question then arises, why use an oncometer to obtain records of blood-pressure conditions in the kidney?

10. May not the diuretic effect, which is noted after administration of small doses of such drugs as mercury,<sup>1</sup> for example, be attributed, in part at least, to the increased peristalsis of the ureter, causing, as it does, an increased negative pressure and therefore an increased filtration?

- 29 (75). "**Further observations upon the phosphorized fats in extracts of the kidney**": **EDWARD K. DUNHAM**. (Presented by **PHŒBUS A. LEVENE**.)

Last winter, at a meeting of this society (Proceedings, Vol. I, page 39), the author reported observations showing that extracts from dried kidneys, obtained with the Rosenfeld alcohol-chloroform method, contained from a third to two-thirds of their weights of lecithins. Rubow,<sup>2</sup> of Copenhagen, reported similar results of more extended studies, printed in Danish some months earlier.

During the last few months the author has learned that it is not necessary to boil with absolute alcohol and extract with chloroform in order to obtain the large quantities of extract yielded by the Rosenfeld method. Repeated extraction of the fresh, undried organ, with 85% alcohol at 45° C., will accomplish practically the same result. When making these extracts, it was found that upon cooling, the alcoholic solutions yielded a precipitate from which a substance resembling the protagon of Liebreich could be obtained. It is to this substance that the author directs attention in this report. The yield is from about 0.14% to 0.20% of the fresh organ, or from about 0.6% to 1.0% of the dried kidney.

In order to obtain sufficient material for analysis, the author employed the method used by Cramer<sup>3</sup> in preparing protagon from the brain. The method employed was, in brief, as follows: The minced kidney, freed from obvious fat, was treated twice with 5% sodium sulfate solution at 85° C. to 90° C.; the filtrates were discarded and the coagulum extracted, first with 95% alcohol and

<sup>1</sup> Cushny: A textbook of pharmacology and therapeutics, 1901, p. 623.

<sup>2</sup> Rubow: Archiv für experimentelle Pathologie und Pharmacologie, 1904, lii, p. 173.

<sup>3</sup> Cramer: *Journal of Physiology*, 1904, xxxi, p. 31.

then repeatedly with 85% alcohol, at the boiling points, and the extracts filtered from the coagulum on a hot-water funnel. The filtrates were cooled to from 0° C. to - 5° C., the precipitate was filtered out and purified by boiling with absolute alcohol, diluting the filtrate with water to make 85% alcohol, chilling, filtering, treating the precipitate repeatedly with cold ether to remove cholesterin, dissolving in hot chloroform, reprecipitating by chilling, filtering and expressing all possible traces of chloroform. The resulting product is a white, somewhat crystalline substance, freely soluble in warm 85% alcohol or chloroform, but reprecipitating upon cooling. It contains fatty acids, phosphorus, methyl, sulfur, and, upon cleavage with dilute sulfuric or hydrochloric acid, yields a reducing substance from which an osazone may be prepared.

For purposes of comparison, a similar substance was prepared from beef brains, with the same method. Analyses of these products, two from different lots of beef kidneys and one from beef brains, were kindly made for the author by Dr. Phœbus A. Levene, with the following percentage results :

	From Beef Kidney.		From Beef Brain.	Cramer's Figures for Protagon from Beef Brain.
	(1)	(2)		
C	65.61	65.55	65.76	66.25-66.42
H	11.00	11.09	10.66	10.82-11.07
N	3.17-3.15	3.24-3.26	2.51	2.29
P	2.06	2.19	0.97	1.04
S	0.82		1.33	0.71

The substance from the kidney contains distinctly more nitrogen and phosphorus than that from the brain, and that obtained by the author from the brain contained considerably more sulfur than that prepared from the same source by Cramer. The cleavage products, however, show that all of these substances belong in the same group. The nature of the glucosid which may be obtained from these substances can only be determined by using larger quantities than have as yet been obtained, and the author hopes to report results in this direction in the near future.

30 (76). **"Comparative physiological action of salts of neodymium, præeodymium and lanthanum": B. J. DRYFUSS and C. G. L. WOLF.**

The experiments were undertaken to investigate the compara-