

same extractive technic to other organs (spleen, liver) does not yield a preparation of similar pharmacological properties.

Summary. Some technical factors which are of importance in the preparation of extracts of the renal pressor substance (the "renin" of Tigerstedt and Bergmann) have been investigated. A method which has been found to be satisfactory for the preparation of potent extracts of this substance is described in detail.

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Metabolism of Nitrogen, Calcium, Magnesium and Phosphorus in Thymectomized Rats.

MARTA SANDBERG, DAVID PERLA AND OLIVE M. HOLLY.

From the Laboratory Division, Montefiore Hospital, New York City.

In the course of our work on the influence of the glands of internal secretion on mineral metabolism in albino rats, nitrogen, calcium, magnesium and phosphorus metabolism in thymectomized rats was studied.

Twenty male and 22 female albino rats were used, 6 animals of each sex being kept as paired feeding controls. They were thymectomized at 7 weeks of age. Details regarding procedure and meth-

TABLE I.

Date	Thymectomized Rats				Paired Feeding Controls			
	% of Intake		Intake mg	% of Intake Retent.	% of Intake		Intake mg	% of Intake Retent.
	Total N Urine	Excre- tion Feces			Total N Urine	Excre- tion Feces		
Control Period:								
Feb. 25-Mar. 2	11	10	294	79	15	10	290	75
Mar. 3-9	15	12	265	73	17	11	268	71
*								
Mar. 14-18	28	21	291	51	23	18	290	59
Mar. 19-23	25	24	287	51	18	15	290	67
Mar. 24-30	29	20	297	51	18	19	302	63
Mar. 31-Apr. 6	27	19	297	54	21	20	300	59
Apr. 7-13	33	24	320	43	20	19	318	61
Apr. 14-20	39	23	313	38	22	20	315	58
Apr. 21-27	37	23	310	40	18	19	308	63
Apr. 28-May 4	38	20	310	42	25	21	311	54
May 5-11	38	21	310	41	24	17	313	59
May 12-18	40	22	342	38	25	16	340	59

*Thymectomized on March 11th.

ods of analysis will be found in a previous publication.¹ Urinary nitrogen excretion increased progressively from 13% of the intake during the control period to 40% 10 weeks after operation. In the paired feeding controls the urinary N excretion increased from 16% of the intake to 25% only, during the same time. The increase in N excretion was accounted for by urea N. Fecal N excretion, expressed in percentage of intake, remained unchanged. The drop in N retention was more pronounced in the thymectomized rats than in the paired feeding controls, though a positive N balance was maintained at all times and the gain in weight was normal in both groups. No difference was found between thymectomized and control animals regarding the excretion of NH₃ nitrogen, uric acid, creatinine and creatine. There was no change in the calcium, magnesium and phosphorus metabolism.

Our studies are being extended to include the metabolism of sulfur and glutathione in thymectomized rats.

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Immunizing Effect of Old Tuberculin on Experimental Tuberculous Infection.

RICHARD H. FOLLIS, JR. (Introduced by Arnold R. Rich.)

From the Department of Pathology and Bacteriology, The Johns Hopkins University, Baltimore, Md.

Several years ago Rothschild, Friedenwald, and Bernstein¹ showed that hypersensitivity could be separated from immunity in experimental tuberculosis in the guinea pig. After rendering the animals both hypersensitive and immune by infection with an attenuated strain of tubercle bacilli, they desensitized them with large doses of Old Tuberculin. Upon reinfection with virulent organisms, the animals' immunity was found to be unimpaired. These observations have been confirmed by other investigators.²

¹ Sandberg, M., and Perla, D., *J. Exp. Med.*, 1934, **60**, 395.

¹ Rothschild, H., Friedenwald, J. S., and Bernstein, C., *Trans. Nat. Tuberc. Assn.*, 1931, p. 149; *Bull. Johns Hopkins Hosp.*, 1934, **54**, 232.

² Boquet, A., *Compt. Rend. Soc. Biol.*, 1932, **112**, 1168; Cummings, D. E., and Delahant, A. B., *Trans. Nat. Tuberc. Assn.*, 1934, p. 123; Derick, C. L., Branch, E. A. G., and Crane, M. P., *Am. Rev. Tuberc.*, 1934, **32**, 218; Siegl, J., *Beit. z. klin. d. Tuberk.*, 1934, **84**, 311; Birkhaug, K., *Acta Tuberc. Scand.*, 1937, **11**, 25; Higginbotham, M. W., *Am. J. Hyg.*, 1937, **26**, 197.