This mechanical device might also be found useful in the exsanguination of organs.

9740 P

Crystalline Vitamin B-6.*

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Vitamin B-6 was designated by György[1, 2] as the "rat pellagra-preventing" principle present, as defined by his biological test, in such materials as yeast, liver, rice bran, etc. He indicated that this active substance had the properties of a nitrogen base.[3]

Starting with rice bran, we have been able to isolate the crystalline hydrochloride of a nitrogen base having the properties of Vitamin B-6 as defined by György. The hydrochloride is freely soluble in water and sparingly in alcohol and acetone. It is obtained as white platelets melting at 204-206°C. with decomposition. The chemical composition is being studied and will be reported at a later date.

The biological testing of our crystalline substance was carried out by Dr. W. L. Sampson of the Merck Institute of Therapeutic Research. The method used was the curative rat method as suggested by Moll.[4] In this procedure rats are maintained on a Vitamin B-6 deficient ration, similar to that used by György, except that a good grade of corn starch is substituted for rice starch. When the rats have developed severe symptoms of the deficiency, a single dose of the test material is administered by mouth. The effective dose is that amount which will produce a healing of the symptoms within a period of 14 days. Our crystalline preparation was tested by this method at dose levels of 0.100 mg., 0.050 mg., and 0.025 mg. The protocols are shown in Table I.

The degree of the symptoms is indicated by a scoring system similar to that given by Halliday and Evans.[5]

* Received for publication December 30, 1937.

1 György, P., *Nature*, 1934, **133**, 498.

2 Birch, T. W., György, P., Harris, L. J., *Biochem. J.*, 1935, **29**, 2830.

3 Birch, T. W., György, P., *Biochem. J.*, 1936, **30**, 304.

4 Private communication.

5 Halliday, N., and Evans, H. M., *J. Nutrition*, 1937, **13**, 657.

TABLE I.

Rat No.	Start		After 14 days	
	Symptoms	Weight	Symptoms	Weight
0.100 mg. level				
84-45	++++	51	0	77
86-19	++++	59	+	82
87-12	+++	39	0	59
87-31	+++	66	0	83
87-50	+++	57	0	80
89-25	+++	49	+	60
89-40	++++	58	0	84
81-6	+++	54	0	68
81-20	+++	49	+	70
89-20	++++	40	++	53
0.050 mg. level				
90-28	+++	38	+	43
84-11	+++	76	0	85
0.025 mg. level				
99-3	++	36	+++	36
99-47	++	52	dead in 12 days	
99-20	++	42	" " 11 "	

From these results it appears that a single curative dose of the crystalline preparation is no more than 0.100 mg.

9741 P

Reversed Iontophoresis of Histamine from Human Skin. Its Bearing on Histamine Theory of Allergic Wheal.

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By standardization of both metallic and absorbent electrode material, an iontophoretic method has been developed which permits the detection of histamine in dilutions as high as 1:5,000,000 by the formation of wheals in the human skin.[1] The method has been serviceable in the development of a procedure for assaying histamine in human, rabbit, and guinea pig blood. Thus, histamine can be assayed directly in the blood of rabbits killed by the intravenous administration of histamine. Only 0.1 cc. of blood is required.

When histamine is administered by the galvanic current so that a wheal forms in the human skin, the positive pole is applied to force

[1] Abramson, H. A., and Alley, A., *Arch. Phys. Ther., X-Ray, Radium*, 1937, 7, 327.