

TABLE I.

Picrotoxin (mg. per kg.)	Preceded by Barbiturate (fraction of MAD)	CONVULSIONS (Number of trials)	
		+	-
3.00	0	8	0
2.75	0	0	32
2.75	1/10	4	12
2.75	1/50	6	2
2.75	1/100	16	0
2.75	1/500	8	0
2.75	1/1000	12	0
2.75	1/2000	6	0
2.75	1/3000	2	8
2.75	1/5000	0	12
2.5	1/10	0	8
2.5	1/50	6	4
2.5	1/100	12	1
2.5	1/500	16	0
2.5	1/1000	12	0
2.5	1/2000	12	2
2.5	1/3000	0	8
2.25	1/100	4	0
2.25	1/500	6	0
2.25	1/1000	4	2
2.25	1/2000	0	10
2.0	1/100	0	6
2.0	1/1000	0	6

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Glucose Tolerance in Lipoid Nephrosis.

RALPH H. MAJOR AND C. J. WEBER. (Introduced by E. A. Doisy.)

From the Department of Internal Medicine, University of Kansas School of Medicine.

The behavior of patients with lipoid nephrosis to the glucose tolerance test has apparently not been extensively studied. Linder, Hill and Van Slyke¹ in their studies of carbohydrate metabolism in chronic nephritis studied 2 cases but found nothing abnormal in their response to the glucose tolerance test. These observers employed for their tests cutaneous blood obtained by a clean deep prick and made their blood determinations by the method of Hagedorn and Jensen.

We have recently studied the response of 4 patients with typical lipoid nephrosis to the glucose tolerance test and have obtained atypical curves in all these patients. Venous blood was employed

¹ Linder, G. C., Hill, A., and Van Slyke, D. D., *J. Clin. Invest.*, 1925, **1**, 247.

for the blood sugar determinations by the method of Folin and Wu. None of these patients showed glycosuria and for this reason only the blood sugar determinations will be reported.

Fig. 1 shows the results of glucose tolerance carried out on the patients employing 1.5 gm. and 3 gm. glucose per kilo body weight. In none of these tests does the blood sugar rise above 0.10 gm. per

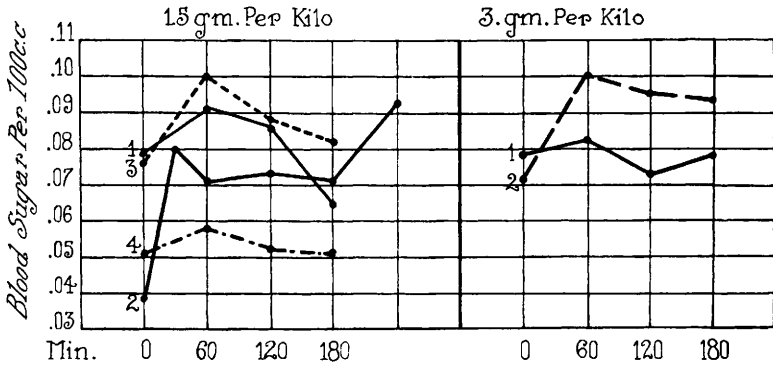


FIG. 1.

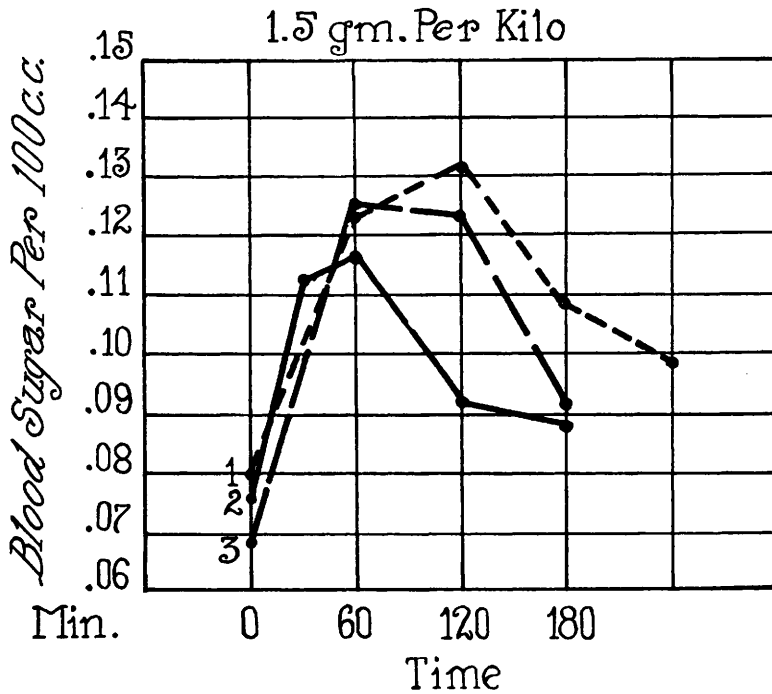


FIG. 2.

100 cc. and we do not see the characteristic sharp peak with rapid fall characteristic of normal individuals.

These patients were placed upon a high carbohydrate diet and treated with diuretics. Following marked clinical improvement, the tests when repeated showed the results charted in Fig. 2. These curves are identical with those of normal individuals.

We have occasionally obtained curves similar to those shown in Fig. 1 in patients with myxedema, mild hyperthyroidism and pituitary disease. Hamman and Hirschman² describe a similar curve in a normal control. The presence of such curves in all 4 of these patients with nephrosis is worthy of further study. It is difficult to explain these curves on the basis of a thyroid deficiency. At the time the curve on patient I, shown in Fig. 1, was obtained, the patient had been taking thyroid extract for 6 weeks and had a normal metabolic rate. The curve on patient III, shown in Fig. 2, which is a normal curve, was obtained on a patient whose metabolic rate on the day of the test was -21 and who had received no thyroid extract.

These atypical curves suggest at once the possible factor of poor absorption from the gastro-intestinal tract. In patients I and II the oral administration of 15 gm. of urea simultaneously with the glucose produced a sharp rise in the blood urea of these patients, proving that the urea was promptly absorbed. In patient IV two glucose tolerance tests carried out by the intravenous method employing 0.2 gm. per kilo and 0.3 gm. per kilo showed blood sugar curves almost identical with the curve of this patient shown in Fig. 1. In patient I an intravenous glucose tolerance test carried out a few days after the test shown in Fig. 2 was performed showed a normal blood sugar curve.

² Hamman, Louis, and Hirschman, I. I., *Arch. Int. Med.*, 1917, **20**, 761.