

# True Uric Acid in Hyperuricemia of Pre-Eclampsia and Eclampsia.\*

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The determination of uric acid in blood with the aid of uricase by Blauch and Koch<sup>1</sup> partitions the ordinary value, obtained by direct reduction of phosphotungstate, into true uric acid and non-uric acid fractions. Thus they report that for normal blood only two-thirds (about 2 mg %) of the ordinary value consists of true uric acid. A rise in blood uric acid is a well established finding in pre-eclampsia and eclampsia.<sup>2</sup> We have applied the uricase method to the hyperuricemia of these pregnancy toxemias in order to determine how much of it is contributed by true uric acid and by non-specific material.

*Methods.* Blood uric acid was determined before and after uricase treatment according to Blauch and Koch, except that the color was developed by the Folin method.<sup>3</sup>

*Results.* Two cases of pre-eclampsia and 3 cases of eclampsia were studied (Table I). It is apparent that the blood uric acid in these conditions is practically all accounted for by true uric acid.

*Summary.* Using the uricase method for the determination of blood uric acid from 89 to 96% of the hyperuricemia of pre-eclampsia and eclampsia consists of true uric acid.

TABLE I.  
True Blood Uric Acid in Pre-eclampsia and Eclampsia. Values in mg %.

Case		Before uricase treatment	After uricase treatment	True uric acid	% true uric acid
M.	Pre-eclampsia	4.85	.27	4.58	94
S.	"	7.58	.39	7.19	95
P.	Eclampsia	5.45	.58	4.87	89
K.	"	6.11	.57	5.54	91
H.	"	9.88	.42	9.46	96

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<sup>1</sup> Blauch, M. B., and Koch, F. C., *J. Biol. Chem.*, 1939, **130**, 443.

<sup>2</sup> Cadden, J. F., and Stander, H. J., *A. J. Obst. and Gynec.*, 1939, **37**, 37.

<sup>3</sup> Folin, O., *J. Biol. Chem.*, 1933, **101**, 111; 1934, **106**, 311.