

26 (1401)

Chemistry of the blood in scurvy.

By ALFRED F. HESS and JOHN A. KILLIAN.

[From the Bureau of Laboratories, Department of Health, New York City.]

The urea content, CO₂ combining power, percentage of sugar, diastatic activity and calcium content of the blood were ascertained in a number of cases of infantile scurvy. Two abnormal variations were found: (a) a moderate acidosis, figures under 40 or 45 obtained according to the Van Slyke method; (b) a deficiency of calcium. Neither appeared to be a basic factor or to run a course parallel to the scorbutic process.

	Date.	Ca, (Mg. per 100 C.c.)	Notes.
1	May 23	3.04	No tetany.
2	" 14	6.9	
	" 23	6.8	Marked rickets.
3	" 22	7.2	
	June 4	11.4	Prune Juice (15 c.c.) for 12 days.
4	May 22	5.5	Cod Liver Oil for 13 months.
5	" 22	3.2	
	June 4	8.4	Banana for 12 days.
6	" 22	4.5	Lactose 8 days.
	" 4	11.0	" 20 days.
7	Nov. 19	5.2	Moderate rickets.
	" 26	5.6	

The accompanying chart shows the results of calcium tests carried out according to the Halverson and Bergeim deproteinization method with 5 c.c. or more of plasma. The normal content is about 10 mg., so that it will be seen that there was a striking calcium deficiency. None of the cases had convulsions; nor can the results be accounted for by the presence of tetany.