

were obtained by cardiac puncture from each rat of both groups from week to week during the course of the vitamin deficient and realimentation periods. Hemoglobin estimations were made by the Cohen and Smith¹ method.

The results indicate that a definite increase in hemoglobin occurs during the vitamin "B" deficient period followed by a very distinct drop during the first few days of realimentation. The parallel changes that developed in the control group of rats indicate that the phenomenon just described may be accounted for by the diminished food and water consumption incident to "B" avitaminosis. Other experiments performed on another species (dog) and extending over a period of approximately 1 year appear to confirm these results.

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Gastric Motility in Relation to Anhydraemia.

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In an attempt to throw some light on the disturbances of gastric motility occurring during the deficiency of what has been spoken of hitherto as vitamin B these experiments were undertaken. Dogs were deprived of water and parallel observations on gastric motility, and blood concentration as indicated by hemoglobin estimations, were made. Except for anorexia and decrease in general activity no abnormal symptoms were in evidence. All of the dogs developed an increase of approximately 20% in hemoglobin (estimated by the method of Cohen and Smith¹) and complete gastric atony. Liberal administration of water produced a rapid decrement in blood concentration, followed by a return of gastric motility to normal within a few days. The results indicate a striking parallelism to exist between anhydraemia and gastric motility. The significance of this phenomenon in relation to disturbances of gastric motility occurring in "B"-avitaminosis will be discussed elsewhere.

¹ Cohen, B., and Smith, A. H., *J. Biol. Chem.*, 1919, xxxix, 489.

¹ Cohen, B., and Smith, A. H., *J. Biol. Chem.*, 1919, xxxix, 489.