

ers, that the fall in blood chlorides in obstruction is due to their accelerated passage into the alimentary tract and failure of reabsorption.

¹ Tileston, W., and Comfort, C. W., *Arch. Int. Med.*, 1914, xiv, 620.

² Whipple, G. H., Rodenbaugh, F. H., Kilgore, A. R., *J. Exp. Med.*, 1916, xxiii, 123; Cooke, J. V., Rodenbaugh, F. H., and Whipple, G. H., *J. Exp. Med.*, 1916, xxiii, 717.

³ MacCallum, W. G., Lintz, J., Vermilye, H. N., Leggett, T. H., and Boas, E., *Bull. Johns Hopkins Hosp.*, 1920, xxxi, 1.

⁴ Hastings, A. B., Murray, C. D., and Murray, H. A., *J. Biol. Chem.*, 1921, xlv, 223.

⁵ Haden, R. L., and Orr, T. G., *J. Exp. Med.*, 1923, xxxvii, 365; Dragstedt, L. R., Moorhead, J. J., and Burcky, F. W., *Proc. Soc. Exp. Biol. and Med.*, 1916 xiv, 17, and *J. Exp. Med.*, 1917, xxv, 421.

⁶ Dragstedt, L. R., Dragstedt, C. A., McClintock, J. T., and Chase, C. S., *J. Exp. Med.*, 1919, xxx, 109.

⁷ Dragstedt, C. A., and Moorhead, J. J., *J. Exp. Med.*, 1917, xxvii, 359; Dragstedt, C. A., Dragstedt, L. R., Chase, C. S., *Am. J. Physiol.*, 1918, xlv, 366.

⁸ Cannon, P. R., Dragstedt, C. A., and Dragstedt, L. R., *J. Infect. Dis.*, 1920, xxvii, 139.

3793

Comparative Sensitiveness of Blood Pressure and Intestinal Motility to Epinephrine.

CARL A. DRAGSTEDT AND JOHN W. HUFFMAN.

From the Department of Physiology and Pharmacology, Northwestern University Medical School.

General anesthetics have long been known to depress motility of the gastrointestinal tract. This has recently been studied in some detail by Miller,¹ who reports that ether and chloroform have a very marked depressant effect. We have previously reported that the hemodynamic effect of epinephrine is materially altered by general anesthetics (ether).² Since previous studies on the comparative effect of epinephrine upon blood pressure response and gastrointestinal motility^{3, 4} have been made on animals under general anesthesia it seemed advisable to repeat this on the unanesthetized animal.

Dogs were used. Intestinal motility was recorded from fistulae of the jejunum by the balloon method. Carotid blood pressure was recorded from arteries previously transplanted externally to the skin. Epinephrine was injected intravenously by means of a Wood-yatt pump for varying intervals of time from 2 to 10 minutes. Simultaneous records of blood pressure and intestinal motility have

been obtained from 4 animals to whom neither anesthetics nor any drugs have been administered for 24 hours. In each instance a rise of blood pressure has been seen in the absence of intestinal inhibition. Simultaneous records have also been obtained in 6 animals to whom morphine has been administered, and in 1 animal to whom paraldehyde has been given. In each of the animals a rise of blood pressure was obtained without intestinal inhibition. In every instance a sufficient dose of epinephrine was effective in maintaining intestinal inhibition.

¹ Miller, G. H., *J. Pharm. and Exper. Ther.*, 1926, xxvii, 41.

² Dragstedt, C. A., and Wightman, A. H., *PROC. SOC. EXP. BIOL. AND MED.*, xxv, 22.

³ Hoskins, R. G., and McClure, C. W., *Am. J. Physiol.*, 1912, xxxi, 59.

⁴ Durant, R. R., *Am. J. Physiol.*, 1925, lxxii, 314.

3794

Bartonella Infection in Local Rats.

R. H. JAFFÉ AND D. WILLIS.

From the Department of Pathology, College of Medicine, University of Illinois.

Mayer, Borchardt and Kikuth¹ have shown that the anemia which develops in white rats after splenectomy is due to the activation of a latent infection with microorganisms belonging to the group *Bartonella*. For these microorganisms, they use the name *Bartonella muris*. The infection is general among the rats in Hamburg. There is a severe, acute form to which the rats succumb within a few days, and, a milder form from which they may recover spontaneously or which leads to death within several weeks. The spontaneous disappearance of the parasites may be followed later by a fatal or non fatal recidive.

Lauda² was able to confirm the observations of Mayer, Borchardt and Kikuth on Viennese rats although the infection was not as general as it was in Hamburg. Nauck³ obtained positive results in Peking. Rats from southern Italy showed no *Bartonella* in their blood after removal of the spleen. When injected with the organs of Viennese rats before the splenectomy, they developed a typical *Bartonella* anemia after the operation.⁴

Since rats are so widely used for experimental studies, an examination of local rats for *Bartonella muris* is worth while. Two strains of rats were at our disposal. One was from a standard