Harrison, *et al.*,[14] have shown that their principle inhibits the acute pressor effect of renin and that it is extractable from dog kidney and presumably when so obtained effective in the hypertensive dog.

If the promise of our preliminary findings is substantiated by further work this type of treatment will be studied in essential hypertension in man.

Conclusions. 1. Daily intramuscular injections of hog renin for 4 months produced striking reductions in the blood pressures of renal ischemic hypertensive dogs, whereas heat inactivated hog renin and active dog renin were without effect. 2. No toxic manifestations resulted from renin treatment or from the reductions in blood pressures. 3. The serums of the dogs treated with active hog renin neutralized the acute pressor effect of renin in assay animals. 4. The mechanism of these reductions in blood pressure is not clear. Most probably an immune (antihormone?) response to heterologous hog renin is involved.

11905

Effect of Angiotonin on the Gall Bladder and the Duodenum.

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Angiotonin was first described by Page and Helmer[1] who prepared it by incubating a renin solution with a pseudo-globulin ("activator") fraction of blood serum. Substituting our renin[2] into their process, we too were able to prepare angiotonin. During the period of testing and comparing our product with the original angiotonin some additional pharmacologic actions were observed.

Gall Bladder. Two different series of preparations were used to demonstrate a contraction-stimulating action on the gall bladder. The first group of experiments was performed upon the guinea pig gall bladder (15 tests) according to the *in vitro* technic of Doubilet and Ivy.[3] Strong contractions were observed when rela-

[14] Grollman, A., Williams, J. R., Jr., and Harrison, T. R., *J. Biol. Chem.*, 1940, **134**, 115.

* Florsheim Fellow.

[1] Page, I. H., and Helmer, O. M., *J. Exp. Med.*, 1940, **71**, 29.

[2] McEwen, E. G., Harrison, S. P., and Ivy, A. C., PROC. SOC. EXP. BIOL. AND MED., 1939, **42**, 254.

[3] Doubilet, H., and Ivy, A. C., *Am. J. Physiol.*, 1938, **124**, 379.

tively large amounts (2.5-4.0 mg) of angiotonin were added to the bath. The second group of studies was performed on 6 dogs which were anesthetized with ether or nembutal. The gall bladder was prepared by the method of Ivy and Oldberg[4] for making direct

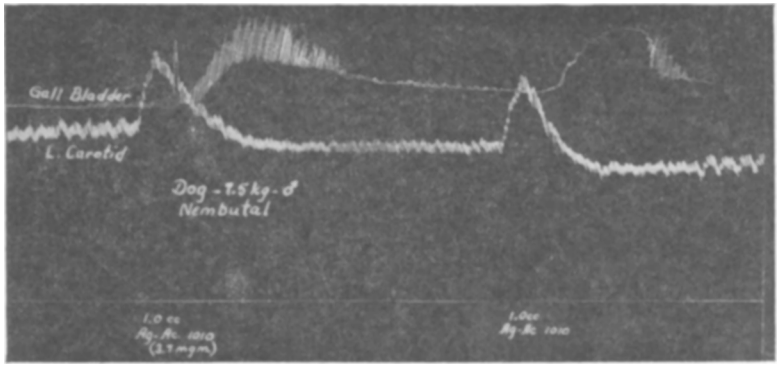

FIG. 1.
Effects of intravenous administration of angiotonin acetate on blood pressure and intracystic pressure of the dog. (In the second response the respiratory excursions have been damped out of the gall bladder curve.)

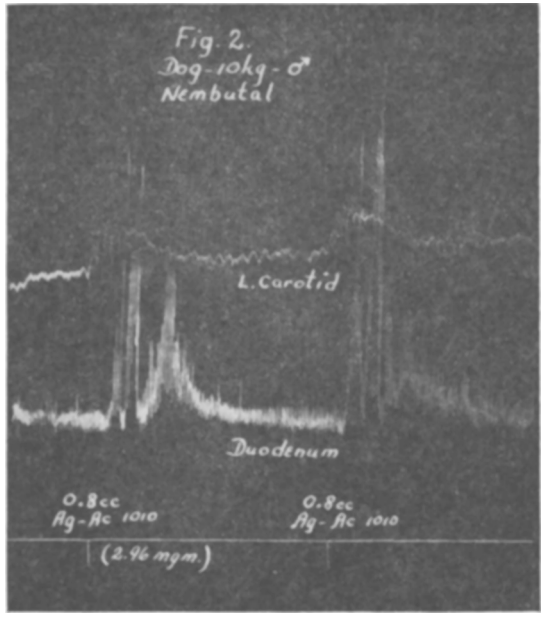

FIG. 2.
Effects of angiotonin acetate on blood pressure and duodenum of the dog.

[4] Ivy, A. C., and Oldberg, E., *Am. J. Physiol.*, 1928, **86**, 599.

recordings of intra-cystic pressure. It was found in all of 23 tests that the injection of angiotonin into the femoral vein in doses of 0.26-0.64 mg per kilo of body weight caused a prompt contraction of the gall bladder (Fig. 1).

Duodenum. In their original publication Page and Helmer[1] demonstrated that angiotonin would stimulate the tonus and peristaltic motion of isolated strips of rabbit ileum. We have determined whether such an effect could be demonstrated in the intact animal. In 15 dogs the distal segment of the duodenum was exposed and a finger-cot balloon was inserted into the lumen through a stab wound. This was fixed with a purse string suture through the serosa and attached to a water manometer. Tonus and motility were recorded upon a kymograph. It was found that the intravenous administration of angiotonin in doses of 0.15-0.52 mg per kilo of body weight resulted in a marked increase in both tonus and peristaltic activity (Fig. 2).

Control tests using renin and "activator" solutions separately were uniformly ineffective in all of these tests. In addition, it was observed that neither atropine sulphate (0.2 mg per kilo) nor ergotoxine (0.15-0.3 mg per kilo) inhibited the action of angiotonin upon the gall bladder or the duodenal musculature.

Conclusion. Angiotonin stimulates contraction of the isolated gall bladder of the guinea pig and of the *in situ* gall bladder and duodenum of the dog.

11906 P

A New Form of Virus Pneumonitis Occurring Epidemically Among Newborn Infants.

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A number of reports in the recent literature have called attention to the occurrence of pneumonia in atypical form suggestive of a virus etiology. However, none of them, excepting that of Goodpasture, Auerback, Swanson and Cotter[1] refers to virus pneumonia occurring in infants. The latter authors described pathological changes characteristic of a virus infection of the lungs in 5 babies (ages varying

[1] Goodpasture, E. W., Auerback, S. H., Swanson, H. S., and Cotter, E. F., *Am. J. Dis. Child.*, 1939, **57**, 997.