

internist palpates the brachial artery or the ophthalmologist looks at the fundus of the eye and an inaccurate, understandardized opinion is given in most cases. Localized sclerosis is known to occur at the base of the brain, in the circle of Willis and in certain organs. The method would be of no value in such cases, but sclerosis is more often a generalized than a localized picture. We hope that this method may prove to be of some use in determining the likelihood of sclerosed vessels, and the degree to which vessels are sclerosed.

The interposition of thick horny skin makes observations very difficult. Negroes are of no value because of a pigment refraction.

While many of the above observations have been repeated on the same individual we are not entirely satisfied with the method and shall try to improve it. The final report on the clinical efficiency of this method should include hundreds and perhaps thousands of measurements. In our next report we shall classify measurements according to age—blood pressure and disease groups.

If we had omitted our known pathologic cases in making the graph, a more uniform curve would have resulted showing the correlation between age and fragility of the capillaries.

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Effect of Some Imidazoles on Gastric Secretion.

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Histamine and pilocarpine are imidazoles which are known to stimulate gastric secretion.

Since gastrin preparations give a strong Pauly reaction and produce a number of the pharmacological effects of histamine, the question of the identity of histamine and gastrin has been raised¹ although some differences in the chemical properties of gastrin preparations and histamine are known to exist.² Koch, Luckhardt and Keeton² concluded from their work that gastrin appears to be a basic imidazole derivative. They studied the effect of 3 imidazole derivatives, namely, histidine, methylimidazole HCl and hydroxymethylimidazole HCl, on gastric secretion with negative results.

¹ Ivy, *Physiol. Reviews*, 1930, **10**, 282.

² Koch, Luckhardt and Keeton, *Am. J. Physiol.*, 1920, **52**, 508.

Ivy and Javois³ found also that histidine subcutaneously did not stimulate gastric secretion. Because of these facts we thought that it would be worth while to study the effect of other imidazoles on gastric secretion.

Professor Rose of the University of Illinois supplied us with imidazole proprionic acid, imidazole aldehyde, d-imidazole lactic acid and imidazole acrylic acid. Professor Hurd of Northwestern University supplied us with imidazole.

These imidazole derivatives were injected subcutaneously into 3 Pavlov pouch dogs a number of times in doses of from one to 5 mg. with negative results. Larger amounts were not used because Burgess, Sacks and Ivy⁴ have had gastrin preparations which were active in less than 0.5 mgm. doses.

These 5 imidazoles were also injected intravenously in dogs prepared for recording blood pressure changes. None of them in from one to 5 mg. doses had any effect on blood pressure.

It is interesting that β -imidazole ethylamine HCl is a very potent excitant of gastric secretion, whereas imidazole and the ethylamine HCl⁵ are inactive.

Conclusion. Imidazole, imidazole proprionic acid, imidazole aldehyde, l-imidazole lactic acid, and imidazole acrylic acid in doses of from one to 5 mg. have no effect on gastric secretion or blood pressure.

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Experimental Hepatogenous Cholecystitis.

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Gall bladder bile in dogs cultured in our laboratory has been shown by Rewbridge¹ to be almost invariably sterile.

In a series of experiments in which biliary stasis had been present for varying periods of time *B. welchii* and lesser numbers of cocci and *B. coli* were grown from the bile in 76% of cases. Biliary stasis had been produced not only by ligating the cystic duct, care being

³ Ivy and Javois, *Am. J. Physiol.*, 1925, **71**, 583, 591, 604.

⁴ Burgess, Sacks and Ivy, unpublished data.

¹ Rewbridge, Allan G., and Hrdina, Leo, *PROC. SOC. EXP. BIOL. AND MED.*, 1930, **27**, 528.