probably indicates that the threshold increases more than proportionately to 1/ diameter, may be correlated with the fact that, in the vagus measured, the myelin sheath is relatively thicker, in terms of percentage of total diameter, in the smaller fibers, thus offering relatively more resistance to a stimulating current. This is not inconsistent with the report of Donaldson and Hoke[3] that the axon occupies one half the total cross sectional area in different animals, our figures for the sizes of fibers which Donaldson and Hoke usually measured being 54% and 46% (for 15 and 10μ fibers) compared with their 50% average.

Qualitatively, threshold may be taken as a satisfactory criterion of which axon group is being stimulated, after a given nerve has been mapped out by means of the oscillograph, but only if the state of the nerve being stimulated is kept fairly constant, with occasional checking against the oscillograph potential record resulting from a given stimulus strength.

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Blood Pressure in Unanesthetized Animals Affected by "Vasopressin," Oxytocin," Pituitary Extract and Other Drugs.

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Recently Kamm, Aldrich, Grote, Rowe and Bugbee[1] separated from pituitary extracts what they believe to be nearly pure vasopressor and oxytocic hormones. These hormones recently were placed on the drug market under the names "Vasopressin" and "Oxytocin". Gargle, Gilligan and Blumgart,[2] Ward, Lyon and Bemis[3] have studied the effect of vasopressin upon blood pressure with uncertain results. This work was undertaken to determine if vasopressin affects the blood pressure in unanesthetized experimental animals and if so in what way does it change it.

Dogs and cats were used. In cats the operative work was done under ether anesthesia and the animals were permitted to recover. In the unanesthetized dogs local 1% procain anesthesia was used.

[3] Donaldson, H. H., and Hoke, G. W., *J. Comp. Neurol.*, 1905, xv, 1.

[1] Kamm, Aldrich, Grote, Rowe and Bugbee, *J. Am. Chem. Soc.*, 1928, l, 573.

[2] Gargle, Gilligan and Blumgart, *New England J. Med.*, 1928, cxcviii, 169.

[3] Ward, Lyon and Bemis, *Am. J. Obst. and Gynecol.*, 1928, xvi, 655.

Experiments were also performed upon dogs under chloretone anesthesia as directed by the original investigators.[1]

In animals under chloretone anesthesia vasopressin caused a rise in blood pressure although histamine produced its typical fall. In unanesthetized dogs and cats the initial injection of vasopressin caused, after a temporary slight rise, a precipitate fall in blood pressure, in some cases as much as 150 mm. of mercury. This was accompanied by a slow pulse, grouped cardiac contractions, pale, dry mucous membranes, with decreased respiration. This was followed by a prolonged rise in blood pressure, in most instances above the normal. All subsequent injections were followed either by a rise in blood pressure or no change.

In an unanesthetized animal pituitary extract caused a rise in blood pressure and oxytocin either no effect or a slight rise or fall in blood pressure.

Acetyl choline caused a decreased blood pressure and an increase after the injection of atropine in unanesthetized dogs. Vasopressin caused its typical fall in blood pressure after atropine administration. The fall in blood pressure caused by vasopressin is probably not due either to choline or histamine.

Vasopressin is far more toxic than indicated in the original communications.