

ing the tip of the quartz rod on various points along the cord. In this way, an increase or decrease in rate of beat was obtained, with the length of the period of exposures and the locus of application of the rod as determining factors. In general, an increase in rate of beat was obtained by short exposures of a given region, and a decrease in rate following longer exposures. The rate of beat could also be slowed by placing the rod on the nerve cord at points of entrance of inhibiting nerves. Rapid recovery of normal rate followed exposures in which the induced variations were not marked.

It was early noted that any pressure on the nerve cord due to too heavy a contact of the rod had to be avoided since it slowed the rate of beat or even blocked conduction.

In many experiments where the normal rate of beat was studied for a considerable period of time, there were distinct indications of a rhythm consisting of a series of slightly faster beats alternating with a series of slower ones. Short exposures did not abolish this rhythm, although it increased the rate of beat throughout.

Cutting transversely through the heart muscle did not eliminate the synchronism of the beat in the two parts of the heart, nor did it affect the conducting power of the nerve cord during exposure.

No change in rate of beat of the entire heart could be demonstrated by direct exposure of the heart muscle itself, nor could the beat be influenced by exposure of the suspensory ligaments. Immediately local contractions of muscular tissue followed exposure of isolated ganglion cells situated in the muscle tissue.

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Effect of Estrin Injections on Reproductive Organs, Hypophysis, Kidney, Adrenals, Thyroid and Blood Vascular System.*

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Female sex hormone obtained from human pregnancy urine, prepared and assayed as previously described (D'Amour and Gustavson¹) was daily injected into 4 immature dogs (3 females and 1

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¹ D'Amour, F. E., and Gustavson, R. G., *J. Exp. Pharm. and Therap.*, 1930.

male) over a period of time 6 to 17 weeks in duration. The daily doses varied from 25 to 800 rat units. At the end of 4 months histological examination of the dog receiving the largest dosage revealed essentially no pathology in the heart, arteries, liver, spleen, adrenals and thymus. The tubules of the kidneys contained some albumin; the glomeruli were normal. Hyperplasia of the thyroid was marked. Maxillary prognathism in these dogs was demonstrable. The anterior lobe of the hypophysis was much smaller than in the normal dog. The cytoplasm of the chromophobes of this lobe was diminished in amount. The posterior lobe seemed relatively much larger than in the normal dog. The nipples of all dogs enlarged. The external genitalia and uterus of the female dogs *increased* in size. Hyperplasia of the glands of the uterine endometrium was pronounced but no hemorrhagic discharge was observed. The ovaries of the experimental dogs were less than half the size of the control dogs, containing relatively more stroma and no mature follicles.

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An Egg White Digest Medium for the Gonococcus.*

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The culture medium described below has been found to yield a more plentiful growth of gonococcus than any we have employed. Additional advantages are transparency, low content of protein, and ease of preparation.

Dissolve 40 gm. of powdered egg white[†] in a liter of 0.45% NaCl solution and adjust the reaction to pH = 7.0-7.4. Rub into a paste and add to the solution 4 gm. of a special high-test trypsin;[‡] plug the mouth of the flask with cotton and incubate on a water bath at 48° C.—with occasional agitation—for 10-12 hours. This temperature prevents spoilage by inhibiting the growth of most micro-

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† We have used both Merk's and Mallinckrodt's preparations of egg white and found them equally satisfactory. They are purchased under the label: "Albumin egg, impalpable, powdered."

‡ This trypsin, which we found superior to the others we have tried, was kindly furnished us by Dr. David Klein of the Wilson Laboratories, Chicago.