

not only in that area but on the arms as well. Thus the test differentiated a local from a general predisposing factor as the cause of the purpuric manifestations. Three cases of Schonlein's Henoch purpura gave a negative test. However, a positive reaction was obtained in all regions of the body tested in a patient in whom a similar diagnosis was made. The first 3 cases were probably observed during an inactive stage of the disease. In this way the test serves as an indicator of an active capillary toxic factor.

In 14 cases of coronary sclerosis and in 3 cases of coronary thrombosis a positive test of a peculiar type was observed. Instead of the usual bluish discoloration appearing in one hour, there developed at the injection site a brownish area about one centimeter in diameter. This has not been seen in any other condition.

A negative reaction was obtained in hemophilia.

The character of telangiectatic and vascular lesions could also be studied by means of the test. Vascular lesions of nevoid type such as flat hemangiomas gave a negative test when the injection was made at the margin of the affected area. Obviously we were dealing with normal blood vessels. On the other hand, injections into the skin in the vicinity of a lesion of angioma serpiginosum gave a strongly positive venom test, suggesting the presence of altered capillary structure.

Summary. A new capillary fragility test based on intradermal injections of titrated moccasin snake venom is described. This test was found helpful in the management of thrombocytopenic purpura hemorrhagica. Its applicability as a guide to local, general and toxic capillary changes is discussed.

9075 P

Subneural Gland of Ascidian (*Polycarpa tecta*): an Ovarian Stimulating Action in Immature Mice.

B. M. HOGG. (Introduced by H. B. Williams.)

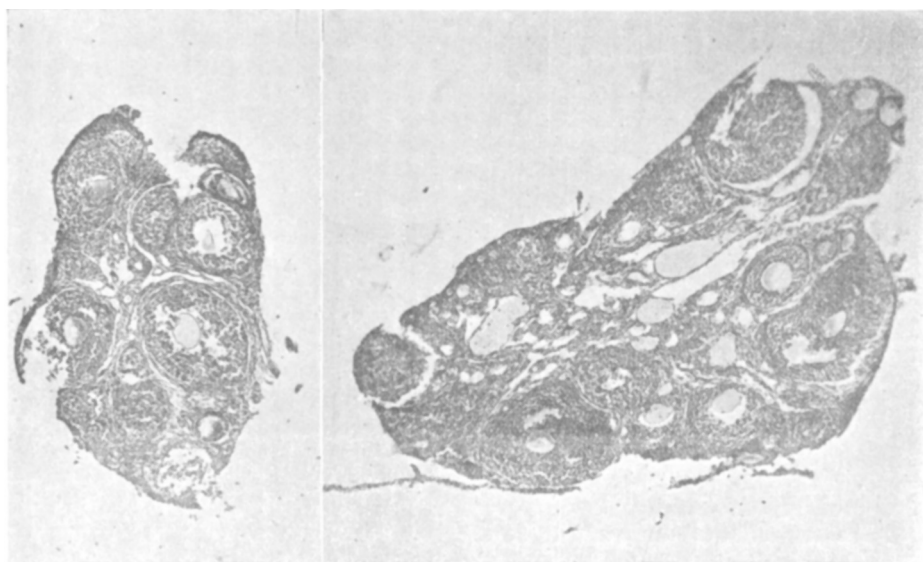
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The subneural gland of the ascidian has long been the subject of controversy in regard to its probable function. On developmental grounds it has been denied admission to phylogenetic series dealing with the pituitary and until quite recently there has been no physiological evidence which might justify including it in such a series on a functional basis.

Butcher¹ demonstrated the presence of the oxytocic principle in the gland of *Molgula* and this result suggested the possibility of obtaining other pituitary effects such as the ovarian stimulating action in immature animals. The present work deals with an attempt to demonstrate such an effect using the gland of the large solitary ascidian *Polycarpa tecta* common in Bermuda waters.

In 1934, through the courtesy of the Bermuda Biological Station for Research, 70 fresh specimens of *Polycarpa tecta* were obtained and the ganglion, subneural gland and dorsal tubercle removed and desiccated in acetone. The dry weight was found to be 45 mg. and from a study of serial sections it was apparent that not more than 20-30 mg. of this weight could be considered glandular substance. Assuming a potency equal to that of mammalian whole gland it was not thought advisable to divide the material among more than 3 test animals. Accordingly, after pulverization and suspension in sterile isotonic saline equal amounts were injected subcutaneously into 3 nineteen-day-old mice. Three control animals received subcutaneous saline. None of the animals died and all were killed and autopsied on the fifth day.

Grossly the ovaries of the test animals were larger and appeared



"A"

"B"

FIG. 1.

Test and control ovaries $\times 70$. "A" control, "B" test.

¹ Butcher, Earl O., *J. Exp. Zool.*, 1930, **57**, 1.

more vascular. The collective weights to the nearest milligram compared as follows: Test, 25 mg.; control, 8 mg.

Microscopic examination of the ovaries showed an increase in vascularity and in the number and size of the follicles in the test specimens. (Fig. 1.)

The number of test animals is small and the response obtained is not striking but the results do seem to suggest further evidence in favor of a pituitary function for the subneural gland.

9076 P

Relation Between Human Vaginal Smears and Body Temperatures.*

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The inaccessibility of ovaries and uterus no longer handicaps the study of ovarian function in the human female since Papanicolaou and his associates¹ established the diagnostic value of vaginal smears. The smear technique, however, is necessarily surrounded with such precautions as to make it too elaborate for general use. In our effort to find a simpler but nevertheless reliable substitute we have correlated body temperature with changes in the vaginal smears on the ground that body temperature is known to vary in a regular manner during the menstrual cycle.²

The cycle of vaginal smears can be conveniently divided into 6 phases: (1) menstrual (3-7 day), (2) post-menstrual (3-6 day), (3) preovulative (1-5 day), (4) ovulative (1-3 day), (5) post-ovulative (5-8 day), (6) premenstrual (3-7 day). Rectal temperatures, taken before rising in the morning, *i. e.*, between 6 A. M. and 7 A. M., and vaginal smears were obtained daily during 5 complete menstrual periods of 4 young adult women without pelvic abnormality.

Table I summarizes the data. The lowest temperatures occur in the ovulative phase, the highest in the premenstrual phase. The

* Fellow of the General Education Board.

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¹ Papanicolaou, G. N., *Am. J. Anat.*, 1933, **52**, 519.

² Seward, G. H., *Psych. Bull.*, 1934, **31**, 153.