Unfortunately precipitin reactions between the immune rabbit serum and control samples of lymph from fasting dogs were common, and in only 4 experiments were such phenomena absent. Unaltered egg albumin in the thoracic duct lymph was not demonstrated. The simultaneous feeding of fat in one experiment did not cause a detectable amount of unsplit protein to appear in the lymph. Ascoli and Vigano attached significance to the fact that if lymph of fasting dogs gave faint precipitates with immune rabbit serum, the feeding of egg albumin produced heavier precipitation. This was true in our experience, but the feeding of 500 cc. of whole sheep blood caused similar effects, showing that the effect is not specific.

By means of anaphylactic reactions[9] absorption of unaltered protein through the lacteals could not be shown. All guinea pigs used in these tests were subsequently given intravenous injections of 1 cc. of 1:1,000 egg albumin in physiologic saline solution or in control lymph of fasting animals approximately one hour after the first intravenous injection, with death in every instance by anaphylactic shock.

Attempts to detect unaltered egg albumin by utilizing atopic reagins (method of Coca and Cole) were entirely unsuccessful.

A possible objection to the work may be that raw egg white is perhaps the least desirable protein to be used in such experiments, since it is often so poorly absorbed in the bowel of the dog.

Conclusion. In the dog, absorption of unaltered egg-albumin from the intestinal tract by way of the lacteals and thoracic duct could not be demonstrated.

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A Test for the Demonstration of Estrin in the Blood of Women.*

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It was previously shown[1] that a mucification of the vaginal mucosa of adult spayed mice may readily be induced by the injection of blood serum from women in the premenstruum or in early preg-

* Supported in part by a grant from the Rockefeller Fluid Research Fund of Stanford University School of Medicine.

nancy. At that time it was generally believed that this change in the test animal was brought about by a specific corpus luteum hormone, but the more recent studies of Robson,[2] Robson and Wiesner,[3] and Meyer and Allen[4] indicate that it is an effect of small doses of estrin.

The induction of mucification of the vaginal mucosa of adult spayed mice may thus be employed as a test for the presence of estrin in the blood of women with various clinical conditions. The procedure at present in use consists of injecting a total of 4.5 cc. of clear blood serum into mice which have been castrated for from 5 to 8 days. The animals are injected subcutaneously 3 times daily with 0.5 cc. and are sacrificed in 72 hours. The vagina is dissected free, fixed in formalin, and mounted in paraffin. Sections are made at different levels and stained with hematoxylin-eosin.

Including the 25 cases previously reported,[1] tested by a slightly different technique, 57 observations have been made on the blood of women at various phases of the menstrual cycle. Of 10 women examined during the early stage of proliferation (days 4 to 7 of a 30-day cycle), 2 gave a positive result and 8 negative; of 15 in the late stage of proliferation (days 8 to 14) 9 were positive and 6 negative; of 18 in the early stage of secretion (days 15 to 21) 15 were positive and 3 negative; of 7 in the late stage of secretion (days 21 to 28) 6 were positive and one negative; of 3 examined within 48 hours of the appearance of the menses one was positive and 2 negative; and of 4 during menstruation one was positive and 3 negative.

These results compare favorably with those found with the method of Frank and Goldberger. This test, in addition, offers a distinct advantage in that the small amount of serum employed enables several mice to be injected with each specimen and no extensive chemical extraction of the blood is required.

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