animal to respond. She was treated in every way as the other injected animals, except that she had been spayed 6 weeks previously and hence her uterus had not been primed by the follicular hormone.

As a control on any possible traumatic effect of the stimulus, a series of untreated rats were operated and threads drawn through the uteri at the appropriate time. They were examined at the onset of the next oestrus a few days later. In no case was any effect of the stimulus found, either upon the oestrous cycle or upon the uterus.

It is to be concluded that under the proper conditions placentomata may be induced in normal and spayed rats by treatment with a lipoid extract of the corpus luteum. Either this extract or a related one has previously been demonstrated to be active in fulfilling the other known functions of the corpus luteum.

5013

Calcification of Arteries in Rats fed Viosterol.

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Indications that irradiated ergosterol administered perorally causes deposition of calcium in the arterial walls have appeared in the literature. Hückel and Wenzel[1] obtained thickening of the anterior portion and roughening of the inner surface of the aorta in rabbits. Hermann[2] found weight loss and evidence of calcification in the kidneys in rats. Hess[3] found hypercalcemia in infants.

Experimental production of calcification of arteries in laboratory animals such as the rat, which does not normally show this condition, would afford material for study of possible influences which hasten, retard, or remove the deposition.

Methods and Results. Four adult male albino rats were placed in separate cages, and fed a balanced basal ration. To each of 3 of

[1] Hückel and Wenzel, *J. Am. Med. Assn.*, 1929, xciii, 1427.

[2] Hermann, Siegwart, *Klin. Wochensch.*, 1929, viii, 1752.

[3] Hess, A. F., Lewis, J. M., and Rivkin, H., *J. Am. Med. Assn.*, 1928, xci, 783.

these 1.5-2.0 cc. Viosterol (Irradiated ergosterol 100 D in oil) mixed in cheese or bread crumbs was fed daily. The fourth rat was fed a like quantity of cheese and oil. The hair became rough and coarse in the Viosterol fed rats within about 10 days and was shed gradually until the skin could be seen. The animals appeared restless and lost weight until at the end of 50 days their weight was reduced 50%. One of the animals died after 55 days, one after 67 days, and the third was killed after 74 days. X-ray examination of the third animal showed a definite shadow in the position of the aorta from its beginning throughout the thorax and abdomen. Macroscopic examination confirmed the X-ray findings, dense annular calcification being evident even to the branches of the iliacs. Similar examination of the other animals revealed the same findings but in less degree. Microscopic examination of areas of the aortae showed the intima to be the chief site of deposition with involvement of the media in the most extensive and thickly calcified areas. The control rat was in healthy condition and showed a normal arterial system at conclusion of the experiment. Further study is in progress.

5014

A Direct Method for the Estimation of Venous Blood Pressure.

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(Introduced by Samuel R. Haythorn.)

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After an examination of the methods in vogue for the determination of the pressure of the venous blood and after a consideration of the difficulties involved in their use, we have succeeded in measuring the venous pressure by inserting a needle into the median basilic vein and observing the rise of the blood in a vertical tube. This simple and direct procedure was first used in 1735 by Stephen Hales, a British clergyman, who inserted tubes into the crural artery and the jugular vein of a mare and observed both arterial and venous pressures. The method has since been neglected, 2 other procedures being now in general use. The indirect, tambour method of Eyster and Hooker[1] is effective only when the veins are distinctly visible.

[1] Hooker, D. R., and Eyster, J. A. E., *Bull. Johns Hopkins Hosp.*, 1908, xix, 274.