

flammation" some evidence of this should be easily obtained. Examination of Nagano's data will disclose that on the basis of it the statement is not correct. Subsequent to the period at which his data were interpreted as the result of catarrhal inflammation he, in each instance, obtained data nearly identical with the data obtained from a loop at a time when he considered the membrane normal.

We have demonstrated normal peristalsis in loops prepared as described as long as 7 months after their preparation. At this period sodium chloride and glucose, in various concentrations, were being absorbed at a rate which was within the limits of error of the rates of absorption of these substances in the same animal some months previously. The rate of secretion from a loop does not increase with time. There is a considerable variation in the rate of secretion in different intestinal levels as there is at the same level during various periods of the day, but there is no evidence of a weekly or monthly variation when taken as a whole. Furthermore, histologic examination of the loop wall even months after preparation of the loop discloses no microscopic change in any of its structures.

These are criteria upon which one should be able to obtain some evidence of the change in the wall as a membrane. We have failed to find any evidence which would lead us to believe that these intestinal loops are not normal and that this condition does not continue over many months with ordinary care. Secretion from the loops 7 months after their preparation discloses enzyme activity.

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Note on the Failure of Anterior Lobe Extract to Pass from Fetus to Mother.*

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In a previous paper¹ we showed that ovulation can be induced in the pregnant rabbit by intravenous injection of concentrated human urine of pregnancy or anterior lobe extract of beef.† This observation was the basis of further experiments here reported.

* This research was aided by a grant from the Linton Fund.

¹ Snyder, F. F., and Wislocki, G. B., *Johns Hopkins Hosp. Bull.*, 1931, **49**, 103.

† The concentrated urine of pregnancy referred to is the so-called "luteinizing" hormone prepared by Parke, Davis & Co. The extract used was stated to contain 50 rat units per cc. The experiments with anterior lobe were carried

Since a pregnant rabbit could be made to ovulate by injecting either of these substances, it appeared that this phenomenon might well be used to investigate the possibility of the passage of anterior lobe substance from fetus to mother. We used 6 pregnant rabbits. The rabbits were opened under ether anesthesia by laparotomy. The injections were made through the unopened uterus directly into the fetuses by the aid of a syringe and a fine gauge needle. In all instances the material was injected into the peritoneal cavity or the neighboring musculature of the rump of the fetus. Into a fetus in one rabbit we injected 1 cc. of concentrated human urine of pregnancy. Into the fetuses in the other 5 rabbits various amounts from 2 to 8 cc. of anterior lobe extract (beef) were injected. Two days later the mother was opened again under anesthesia, so that the ovaries could be examined. At the same time the fetuses were observed to see that they were still living and their circulation intact. In the observations reported, all of the fetuses were alive at the termination of the experiments, so that failure of the anterior lobe extract to cause ovulation in the mothers can not be attributed to fetal death.

TABLE I.

Effect on ovaries of pregnant rabbits of injecting concentrated human urine of pregnancy (P. D. & Co.) or anterior lobe extract (P. D. & Co.) into the fetuses.

No.	Day of pregnancy	Amt., mode of administration	Examination of ovaries of mother 2 days later	
1	28	1 cc. conc. urine of pregnancy into 1 fetus	No ovulation	
2	29	2 cc. ant. lobe extr. into 1 fetus	"	"
3	26	2 cc. ant. lobe extr. into 1 fetus	"	"
4	26	6 cc. ant. lobe extr. into 3 fetuses	"	"
5	26	6 cc. ant. lobe extr. into 3 fetuses	"	"
6	26	8 cc. ant. lobe extr. into 4 fetuses	"	"

The results are shown in Table I. In no instance did ovulation occur in the mother after injection of anterior lobe extract into the fetuses. The series is small, but in 3 instances relatively large amounts of anterior lobe extract were injected into the fetuses. Although we have not investigated the minimum dosage of this substance required to make a pregnant animal ovulate, our previous experiments show that 2 cc. of anterior lobe extract injected into the blood stream of the mother during the last half of pregnancy induces ovulation. The effectiveness of our preparation of anterior

out with the aid of anterior lobe extract of the hypophysis (beef) prepared by Dr. Bugbee of Parke, Davis & Co. More detailed information concerning these products is to be found in our previous paper.

lobe extract was controlled by injecting 2 cc. of the same extract intravenously into animal 4 and 1 cc. into animal 2 four days after the failure of the injection into the fetuses to produce ovulation. Following each of these, subsequent injections of the extract directly into the mother, ovulation occurred.

Apparently the tissues of the fetus or the placental barrier withheld the passage from fetus to mother of an amount of the substance sufficient to produce ovulation. These results indicate that anterior lobe extract is probably not transmitted from fetus to mother. It is possible, however, that with even greater dosage, or by direct introduction of the extract into the fetal blood stream, the substance might be induced to pass the placental barrier in sufficient amount to cause ovulation. Nevertheless the failure of anterior lobe extract to pass the placenta in the present experiments and to exhibit a biological effect in the mother is in keeping with observations on the failure of transmission of active principles of other glands (adrenalin, insulin, pituitrin, and parathyrin) (Snyder and Hoskins,² Hoskins and Snyder.³)

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A New Symptom Complex in Vitamin-G Deficiency in Rats.

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The diversity of symptoms resulting from vitamin-G deficiency and the lack of uniformity of results even in the same laboratory lead to confusion in evaluating the real significance of any one symptom. The present report deals with a new symptom which thus far has been found to occur regularly.

Some of the symptoms of rats on vitamin G deficient diets described most frequently by other investigators are dermatitis occurring at various sites on the body,¹ a peculiar oedematous dermatitis of the digits,³ alopecia,² blood stains on wrist and forepaws,³ and

² Snyder, F. F., and Hoskins, F. Meredith, *Anat. Rec.*, 1927, **35**, 23.

³ Hoskins, F. M., and Snyder, F. F., *Proc. Soc. Exp. Biol. and Med.*, 1927, **25**, 264.

¹ Goldberger, J., and Lillie, R. D., *Pub. Health Rep.*, 1926, **41**, 1025.

² Chick, H., and Roscoe, M. H., *Biochem. J.*, 1927, **21**, 698.

³ Chick, H., and Roscoe, M. H., *Biochem. J.*, 1928, **22**, 790.