TABLE I.
Influence of Steroids on Hypophysectomized Male Rats.

Treatment total Dosage, mg	No. of rats	Body wt., g st.,	Weight end, g	Avg organ wt (mg) Testis	Sem. ves.	Thyroid	Adr.
			Pregneninolone.				
40	3	305	232	887	203	14.8	9.6
200	3	276	207	901	249	13.0	5.2
			Pregnenolone.				
100	3	274	222	1645	145	14.3	6.8
200	6	303	242	1944	151	16.0	6.8
Operated controls	6	281	200	708	133	13.7	7.2
Normal controls	6	240	277	2723	813	25.9	28.2

of the mouse can readily be produced with testosterone propionate. Indeed, Starkey and Schmidt[12] have shown that a single injection of 0.4 mg of this hormone will cause the disappearance of the X-zone at the 6th day. To further test pregnenolone for androgenic activity, eleven 25-day-old female mice were spayed and tested 7 days later. Three mice received a single subcutaneous injection of 10 mg of pregnenolone, 4 mice received 5 mg and 4 mice served as controls (caged separately). All mice were autopsied 10 days later and the weights of the uteri, adrenals and kidneys were nearly identical with those of the control mice. Furthermore, the adrenal X-zone was present and large in all mice indicating the absence of androgenic activity under the experimental conditions cited.

Summary. Pregnenolone is capable of maintaining spermatogenesis for at least 20 days following hypophysectomy. However, this steroid does not influence the seminal vesicles, since the loss in seminal vesicle weight simulates that observed in the hypophysectomized control. Pregnenolone therefore appears to be gametogenic in action.

A single injection (10 mg) of pregnenolone did not influence uterine weight or the adrenal X-zone of the spayed mouse.

Pregneninolone, which has been shown to exhibit androgenic activity, failed to maintain spermatogenesis in the hypophysectomized rat.

[12] Starkey, W. F., and Schmidt, E. C. H., *Endocrinology*, 1938, **23**, 339.

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Vitamin A Absorption in Infantile Eczema.

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It is commonly observed that while most infants with eczema are overnourished, a few intractable cases appear to be underdeveloped and underweight. In most instances, this malnutrition is probably due to prolonged secondary infections, but occasionally this lack of growth and development seems to be primary and perhaps associated, according to some authors, with a disturbance in the physiology of gastro-intestinal tract.

During a period of several months, 4 intractable cases were seen in this hospital. The course of each was characterized by (a) retarded development, (b) malnutrition, (c) severe and more or less generalized eczema (d) pronounced lymphadenopathy (e) marked eosinophilia (between 25% and 35%), (f) protracted respiratory infections with frequent episodes of broncho-pneumonia (low grade and present for several months in 2 cases), and finally (g) lack of response to topical and dietetic treatment.

TABLE I.
Blood Vitamin A Absorption Curves in Infants with (Cases 5 to 8) and without (Cases 1 to 4) Eczema.

Case No.	Age (mo)	Sex	Diagnosis	Vit. A blood levels (blue units) in hrs 0	3	6	9	12
1	54	M	Neurodermatitis of popliteal spaces	5	250	200	100	25
2	3	F	Cleft palate	5	100	300	100	
3	18	M	Acute mastoiditis	25	100	30	30	
4	1	F	Impetigo contagiosa	5	75	50	75	5
Mean				10	131	145	76	15
5	14	M	Infantile eczema	13	25	50	40	10
6	11	M	Infantile eczema	11	66	41	10	5
7	7	F	Infantile eczema	8	12	19	16	7
8	5	M	Infantile eczema	5	50	25	12.5	5
Mean				9	38	34	20	7

It appeared possible that the respiratory infections and malnutrition could be accounted for on the basis of vitamin A deficiency resulting from a defect in intestinal absorption (frequently seen in patients with cystic fibrosis of the pancreas). Vitamin A absorption tests, therefore, were carried out in these 4 infants and in 4 control cases.

Methods. The procedures used were those described by Clausen and McCoord[1] and by May and McCreary.[2] Vitamin A blood levels were determined before and at stated intervals after the ingestion of oleum percomorphum. The dose of fish oil concentrate varied according to body weight (0.1 cc of oleum percomorphum representing 6,000 units of vitamin A per pound of body weight). The vitamin A content of the blood was estimated by a modification of the Price-Carr reaction as described by Clausen and McCoord.[1]

Results. Table I shows the results obtained. The vitamin A blood levels in the infants with eczema (cases 5 to 8) were relatively flat as compared to those obtained in the control cases (cases 1 to 4). The mean values for the two groups are indicated in the table and show the striking differences observed.

Conclusion. In 4 infants with intractable eczema associated with retarded development and malnutrition, the absorption of vitamin A from the intestinal tract was found to be impaired.

1 Clausen, S. W., and McCoord, A. B., *J. Pediatrics*, 1938, **13**, 635.

2 May, C. D., and McCreary, J. F., *J. Pediatrics*, 1941, **18**, 200.

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Lipids of Muscle and Brain in Rats Deprived of Tocopherol.

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The changes in chemical composition of tissues associated with vitamin E deficiency include alterations in the amounts of the lipid components. In rabbits with muscular dystrophy Morgulis, Wilder, Spencer, and Eppstein[1] found pronounced increases in the total lipids and especially in cholesterol, and the increasing proportion of cholesterol esters ap-

1 Morgulis, S., Wilder, V. M., Spencer, H. C., and Eppstein, S. H., *J. Biol. Chem.*, 1938, **124**, 755.