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The thyroid factor in diabète gras.

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The fact that diabète gras can be produced by suppressing thyroid function through almost complete removal of the thyroid, points to the share of thyroid deficiency in mild diabétes. This assumption is strengthened by the fact that all thyroids in the dogs after partial duct ligation showed marked atrophic areas on microscopical examination.

It seems then that obesity does not predispose to diabètes as it is generally believed, but that obesity results from mild diabetes, as in middle aged patients. If general adiposity would be the predisposing factor in diabètes, one cannot see why it should affect the Langerhans islands, leaving intact the secreting acini of the pancreas. Since the external secretory apparatus must also become affected by the fat deposit, symptoms or signs of a disturbance in the digestive pancreatic apparatus must establish itself in genuine diabetes. It is a fact that pancreatic acini remain intact in diabetes mellitus. The clinician at least is not aware of a disturbance in the latter.

Another argument: If obesity predisposes to diabetes, a lowered glucose tolerance should frequently be found in obese persons. Paullin[1] made glucose tolerance tests in 26 cases of obesity without renal disorders. Five of these patients showed a lowered sugar tolerance and two of them later actually developed glycosuria.

That mildness of diabetes varies directly with thyroid dysfunction may be concluded from the experiments of Wilder[2] and his coworkers. Throughout these experiments in human diabetes the glucose tolerance varied inversely with the basal metabolism. The tolerance rose when the metabolic rate fell and fell when the

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1 Paullin, J. E., *J. Am. Med. Assn.*, 1921, lxxvii, 1996.

2 Wilder, R., Boothby, W. M., and Beeler, C., *J. Biol. Chemist.*, 1922, li, 311.

rate rose. Furthermore, throughout all their experiments the basal metabolic rate varied with the general condition of the patient. When the rates were lowest the glucose utilization was best and acidosis was either controlled or decreased. When the basal metabolic rate rose sugar tolerance was diminished and acidosis increased.

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Some experimental observations on the retina of the gecko.

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The association of visual purple or rhodopsin with the visual function of the rods in dim or twilight vision as maintained in the duplicity theory of von Kries (Nagel,[1] Helmholtz,[2] Parsons,[3] and Hartridge[4]) is generally regarded as well substantiated.

As to the genesis of this pigment, numerous ideas have been advanced, although it is generally held that it is a product of the epithelial pigment cell (Garten[5] and Kolmer[6]).

In the present work on the gecko retina, which is cone-free,

[1] Nagel, W., Handbuch der Physiologie des Menchen, Bd. 3, 1905.

[2] Helmholtz, H. von, Handbuch der physiologischen Optik, Bd. 2, 1911.

[3] Parsons, J. H., An Introduction to the Study of Colour Vision, 1915.

[4] Hartridge, H., "Vision," pp. 486-588, Starling's Human Physiology, 1920.

[5] Garten, S., Graefe-Saemisch Handbuch der gesammten Augenheilkunde, 1907, Bd. 3, Kap. 12, 130 pp.

[6] Kolmer, W., *Pflüger's Archiv.*, 1909, cxxix, 35.