In further experiments, 60 minutes before the administration of dextrose into the bowel the animals were given subcutaneously 50 mg of thiamin, 5 mg of riboflavin, 25 mg of pyridoxin and 100 mg of nicotinamide respectively.

Table II

No.	Vitamin given before	mg dextrose found after 30 min.	mg dextrose absorbed	absorbed dextrose %
1	thiamin	178	22	11
2	,,	187	13	6
3	,,	180	20	10
4	,,	189	11	5
5	,,	174	26	13
6	riboflavin	196	4	2
7	,,	189	11	5
8	,,	200	—	—
9	nicotinamide	187	13	6
10	,,	200	—	—
11	,,	192	8	4
12	pyridoxin	174	26	13
13	,,	178	22	11
14	,,	196	4	2

It can be seen from the tables that *vitamins of the B complex (thiamin, riboflavin, nicotinic acid and pyridoxin) decrease the absorption rate of sugar from the bowel.*

According to my view, this effect depends on the exhaustion of the phosphorylation—may be on the exhaustion of the enzyme phosphorylase—if large doses of the vitamins are given, whereby dextrose, needing also phosphorylation, becomes incompletely absorbed and used.

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Zusammenfassung

Die Vitamine des B-Komplexes vermindern die Zuckerresorption im Darm. Durch die Phosphorylierung von Thiamin, Riboflavin, Nikotinsäure und Pyridoxin wird – wahrscheinlich – die Phosphorylase erschöpft. Dextrose, die phosphoryliert werden muß, kann dann nur in kleinerer Menge resorbiert und verbraucht werden.

Inhibitory Effect of Simultaneous Administration of Antasten and Tween 20 on Gastric Secretion Induced by Histamine or Vagal Stimulation

IVY *et. al.*[1] have recently shown that the wetting agent Tween 20 which is a polyoxylene derivate of sorbitan monolaurate, produces urticaria when given intravenously in dogs. GROSSMAN and ROBERTSON[2] then found that the urticaria is accompanied by gastric secretion which they were able to prevent or reduce by pre-treatment with Benadryl (β-dimethylaminoethyl benzhydryl ether hydrochloride) Inasmuch as Benadryl does not inhibit histamine-stimulated gastric secretion, they thought that the mode of action of Benadryl on secretion stimulated by Tween 20 must involve another mechanism. They stated that if histamine is released when Tween 20 is administered, Benadryl must block its formation and not its action on the gastric glands.

[1] A. C. IVY, C. A. TANTURI, R. HERNANDEZ, and E. BAROSO, Arch. Derm., in press.

[2] M. I. GROSSMAN and C. R. ROBERTSON, Proc. Soc. Exper. Biol. & Med. *68*, 550 (1948).

Anyhow, one can conceive another explanation, namely that the condition (permeability ?) of the gastric secreting cells is altered by the action of Tween 20, and then Benadryl is capable of blocking the histamine effect within the gastric glandular cells. Starting from this assumption the author made some experiments on anæsthetized dogs with pouches of the entire stomach. Tween 20 was administrated intravenously by continuous injection at a rate of about 1 mg/kg/hr. After about 20–30 minutes the gastric secretion started, reached a maximum, but then disappeared in about one hour. Without stopping the administration of Tween, histamine was then given intravenously by continuous injection. When the gastric secretion rate reached a steady state, 0·1 g of Antasten (2 *N* phenylbenzylaminomethyl imidazoline) was given intravenously in massive dose. In all experiments the secretion immediately decreased to 35–50 p.c. of the steady state value. In about 30 minutes the secretion rate again rose to the preceeding value. A second injection of Antasten gave the same effect.

To throw light upon the role of the histamine as a normal gastric secretagogue, experiments were made in which gastric secretion was induced by electrical stimulation of the vagi in the neck *ad modum* VINEBERG[1]. When simultaneously with the nerval stimulation Tween was injected as above, Antasten almost completely blocked the gastric secretion. In about 30 minutes the secretion returned to the preceeding value. The experiments indicate, that the acidity is much more influenced than the peptic activity. Without Tween no inhibition by Antasten was achieved neither in histamine—nor in vagus—stimulated gastric secretion. On cats, attempts in producing gastric secretion by Tween 20 or blocking the histamine-induced secretion by Antasten during Tween-administration have been unsuccessful so far.

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Zusammenfassung

Nach Vorbehandlung mit dem benetzenden Mittel Tween 20 gelang es, sowohl die durch Histaminwirkung als auch durch Vagusreizung erzeugte Magensaftsekretion mit dem Antihistaminpräparat Antasten zu hemmen. Ohne Vorbehandlung mit Tween 20 wird keine Hemmung durch das Antihistaminpräparat hervorgerufen. Es ist möglich, daß Tween 20 die Permeabilitätsverhältnisse in den magensaftsezernierenden Zellen verändert, so daß Antasten die Histaminwirkung in den Zellen selbst blockieren kann.

[1] A. M. VINEBERG, Amer. J. Physiol. *96*, 363 (1931).

Sur un comportement singulier de la L(—)-phénylalanine en présence d'extraits testiculaires

On oppose depuis KREBS[1] les D-acidaminodéhydrases largement répandues, faciles à extraire des tissus à l'aide des solutions salines, aux L-acidaminodéhydrases moins actives et d'extraction beaucoup plus malaisée[2].

[1] H. KREBS, Z. physiol. Chem. *217*, 191 (1933).

[2] M. POLONOVSKI et P. BOULANGER, Bull. Soc. Chim. Biol. *20* 1298 (1938).