and fed with the same cereal and condensed milk as the child. The effect of adding or omitting vitamine to the diet of the rats and child are shown in the following table.

DIETARY FIGURES ON CASE FED UPON A CEREAL AND CONDENSED MILK DIET.

	Vitamine Given with Cereal at Beginning Diet.		No Vitamine Given with Cereal at Beginning Diet.			Child John G.
	Rat No. 20.	Rat No. 22.	Rat No. 16.	Rat No. 17.	Rat No. 18.	
Weight at beginning of diet	69	50	78	66	76	3,444
Weight at end of diet	88	73	62 Dead	67 Dead	76 Alive	3,920
No. days of diet	13	13	23	22	24	21
Net change in weight	19	23	16	1	0	*476
Total cereal consumed	446	452	768	660	792	
Ave. daily consumption	34	35	32	30	33	
Ave. daily consumption milk	56	56	56	56	56	
Second Period						
Weight of rat when vitamine was stopped	88	73	—	—	—	3,920
Weight of rat when vitamine was resumed	88	89	—	—	—	4,088
No. days elapsed	12	12	—	—	—	9
Net change	0	16	—	—	—	168
Third Period						
Weight when vitamine was resumed	88	89	—	—	76	4,088
Weight at end of period	118	113	—	—	111	4,368
No. days elapsed	11	11	—	—	11	15
Net change	30	24	—	—	35	280

33 (1211)

Influence of pituitrin and of adrenalin on the pupil of normal and ganglionectomized rabbits. A demonstration.

[*From the Department of Physiology and Pharmacology of the Rockefeller Institute for Medical Reserch, New York.*]

By **T. S. GITHENS** and **S. J. MELTZER.**

The impression prevails that adrenalin and pituitrin affect the body in the same direction. The most striking action is the production of a blood pressure rise by both substances. The action of both substances upon the uterus and upon the intestines

* This gain was made on addition of 2 grains of vitamine per day.

are also in the same direction; the difference is only a quantitative one and it is slight. Several years ago one of us (M.) reported before this society that pituitrin acts strikingly different from adrenalin upon the pupil of rabbits on the side in which the superior cervical ganglion has been previously removed. We have recently studied the subject from various angles and wish to demonstrate the obtained results on these three rabbits. In two of these animals the superior cervical ganglion has been removed on one side several days ago; the third rabbit is a normal one. The demonstration shows the following facts. (1) The intravenous injection of pituitrin in a normal animal produces a considerable constriction of the pupil, while adrenalin produces a moderate dilatation of short duration. (2) The intravenous injection of adrenalin causes a maximal dilatation of long duration of the pupil on the side in which the ganglion was removed, while injection of pituitrin causes rather a constriction. (3) When adrenalin and pituitrin are injected simultaneously into a rabbit in which a ganglion is removed the corresponding pupil dilates, but the dilatation is much less than that of the pupil of a ganglionectomized animal which received adrenalin alone.

Two facts stand out clearly: First, the effect of adrenalin upon the pupil is dilatation, while that of pituitrin is constriction; second, with regard to their action upon the pupil pituitrin *counteracts* to a degree the dilating effect of adrenalin.

34 (1212)

Prolonged constriction of the bloodvessels by subcutaneous injection of adrenalin into the ear of a rabbit. A demonstration.

By JOHN AUER and S. J. MELTZER.

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Intravenous injection of adrenin causes a rise of blood pressure which is due to a constriction of the bloodvessels. The rise lasts only several minutes. The shortness of the duration of this rise is explained by the escape of the injected adrenin from the circu-