In experiment 1, ¼ cc. of adrenalin chloride (Parke, Davis and Company) was injected subcutaneously every one quarter of an hour for 6 hours. Experiment 2 differed from 1 in that the injections of adrenalin were continued for 4 hours only. In experiments 3 and 4, adrenalin injections were also stopped at the fourth hour, but they were followed at that time by the subcutaneous injection of 5 units of insulin per kilo.

TABLE I.
Fat Content of Plasma of Arterial Blood of Dogs. mg. %.

Exp. No.	Days fasted	Before injection	Hours after injection			
			2	4	6	8
1	4	557	978	1431	1668	
2	1	804	974	1196	1258	
3	2	508	526	936	717	462
4	5	543	709	829	859	1120

It will be observed in Table I that subcutaneous injections of adrenalin may give rise to lipemia. Apparently insulin overcame the lipemic action of adrenalin in experiment 3. It is generally known that insulin reduces the lipemia of diabetes. Rony and Ching[3] have shown that insulin has the same effect on post-prandial lipemia.

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Effect of Pituitary Extracts on Basal Metabolic Rate.

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Previous studies on the effect of pituitary extracts on basal metabolic rate have not been conclusive, although an increase has been indicated. The work of Oliver Kamm who succeeded in separating the oxytocic and vasomotor principles of pituitrin, has made it possible to fractionate their effects on metabolism. In the present experiments the metabolic rates of male rats fasted approximately 24 hours, were determined in a Haldane-Pembrey apparatus, before and after the subcutaneous injections of chloretone-free pitocin,

[3] Rony, H. R., and Ching, T. T., PROC. SOC. EXP. BIOL. AND MED., 1930, xxvii, 533.

pitressin and pituitrin (surgical). The limit of error of the method was considered to be ± 5%.

A slight increase in metabolic rate was observed after the injection of pitocin. Doses ranging from 2.5 to 80 units per kilo showed an average rise in the oxygen consumption of 32% above the basal level, during the first hour after injection. Part of this rise, probably about 16%, was due merely to the effect of the injection. The average increase for the second and third hours after injection was 13%. The rise was not directly related to the size of the dose.

Results with small units of pitressin (17-40 units per kilo) were variable. Doses from 50-100 units per kilo decreased the oxygen consumption 22% in the first hour after injection. The average oxygen consumption for the second and third hours did not differ significantly from the basal.

Pituitrin (surgical) produced an average fall of 19% in the oxygen consumption in the first hour after injection and 7% in the 2 succeeding hours. A summary of results is shown in Table I.

TABLE I.
Effects of Subcutaneous Injections of Pituitary Extracts on Basal Oxygen Consumption.

Substance Injected	Number of Experiments averaged	Dose	1st hr. after injection, % of basal	2nd-3rd hr. after injection, % of basal
Sterile water	7	0.5-2.5 cc.	+16	+6
Pitocin	8	10-80 units per kilo	+32	+13
Pitressin	13	17-40 units per kilo	+5	—1
Pitressin	5	50-100 units per kilo	—22	—10
Pituitrin	6	0.5-1.5 cc.	—19	—7

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