

redka's vaccine) and protective inoculations of serum, all the injections being given subcutaneously to make them more comparable with those in man. When later, these vaccinated mice were fed with living cultures, no protection was shown, sickness usually fatal occurred exactly as in the untreated cases. After an interval, all of the mice that recovered were re-fed with the living culture and all contracted the disease again, showing that no immunity had been established.

Rats being less susceptible than mice, the experiments were repeated upon them. The vaccinated animals when fed with living cultures were not protected but those which had been previously fed with small doses of the living virus, were completely immune to subsequent feeding with large doses. Experiments are now being carried out to see if these rats are also immune against intra-peritoneal and sub-cutaneous inoculations and if it is a strictly specific immunity.

Experiments on treatment, specific and otherwise, gave negative result in mice; in rats the investigations are still being carried on.

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The relationship of the left suprarenal capsule to the sugar production of the liver in dogs.

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We have obtained certain results bearing on the relationship between the left suprarenal capsule and the left splanchnic nerve-control of the glycogenic function of the liver which, in view of the topical interest in this subject, we believe it well to report at present, especially since it will take some considerable time to complete the investigation of which they form a part. The percentage amount of reducing substance in the blood of the inferior vena cava, opposite the hepatic veins, was determined by Reid's method at varying periods after stimulation of the left splanchnic nerve. In the first series of results given in the table the left suprarenal capsule was intact; in the second series this gland was excised.

TABLE.

PER CENT. REDUCING SUBSTANCE IN BLOOD OF VENA CAVA INFERIOR OPPOSITE ENTRANCE OF HEPATIC VEINS IN DOGS FED WITH EXCESS OF CARBOHYDRATE.

A. Without Excision of Suprarenal.

No. of Expt.	Before Stimulating.	During Stimulation.	After stimulation Removed.	Remarks.
16	0.136	0.176 (7 min.) ¹	0.184 (10 min.) ²	No rise in blood pressure.
18	0.124	0.110 (7 min.)	0.144 (30 min.)	
19	0.130	0.176 (10 min.)	0.148 (30 min.)	
20	0.199	0.265 (5 min.)	0.415 (30 min.)	
21	0.151	0.195 (7 min.)	0.168 (23 min.)	
24	{ 0.132	0.154 (7 min.)	—	
	{ 0.121 (30 min. later)			
25	{ 0.194	0.280 (5 min.)	—	
	{ 0.213 (30 min. later)			
32	{ 0.111	0.166 (9 min.)	—	
	{ 0.122 (30 min. later)			

B. After Removal of Left Suprarenal Capsule.

27	0.118	{ 0.124 (10 min.)	—	
28	{ 0.120	{ 0.109 (25 min.)	—	
	{ 0.082 (30 min. later)	{ 0.101 (5 min.)		
29	{ 0.171	0.177 (16 min.)	—	
	{ 0.173 (30 min. later)			
30	{ 0.163	0.113 (15 min.)	—	
	{ 0.127 (30 min. later)			
31	{ 0.249	0.270 (5 min.)	—	
	{ 0.248 (25 min. later)			

In every case, but one (no. 18) in which the suprarenal was intact there was a distinct increase in the reducing power of the blood, but when the suprarenal was exsected no increase occurred (except a slight transitory increase in no. 31). The blood pressure rose in all cases except no. 18.

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Comparison between the blood flow in the arm and in the hand.

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In 1909 the authors published a plethysmograph method for determining the rate of blood flow in the arm (Heart, I., 87) The results obtained by this method for normal individuals, partly

¹The time periods in brackets indicate when the specimens of blood were removed in (1) after the beginning of stimulation; in (2) after the stimulation had been discontinued.