

previously injected, this same period occupied 11 seconds; in the third occlusion, 11 seconds; and in the fourth and last occlusion, 15 seconds.

Pike² has shown that intravenous injection of curare after complete elimination of the medulla brings about a constant fall in blood pressure which is, in general, about equal to the fall observed after division of the dorsal roots of the spinal nerves. Langley³ confirmed this observation in 1919. This fall is not to be confused with the effects immediately following injection of curare, as its duration persists as long as paralysis of the skeletal musculature. Tillie⁴ has stated that the dose of curarin by which the vasomotor nerves are affected is 100 to 300 times as great as that which induces paralysis of the skeletal muscles.

Since it would appear, then, that under the conditions of these experiments, the skeletal musculature and not the vaso-motor mechanism is directly affected by curare, we may be justified in concluding that the skeletal musculature is responsible in some degree for the rapid initiation of the height of the anemic rise, and in a considerable degree for

1. The length of the latent period before response to occlusion.
2. The duration of the anemic rise of blood pressure.

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The influence of suprarenalectomy in rabbits on antitoxin (diphtheria) formation.

By DAVID MARINE.

[From the Laboratory Division, Montefiore Hospital,
New York City.]

Previous reports by Také and Marine on hemolysin formation in suprarenalectomized rabbits and by Jaffe and Marine on agglutinin (typhoid) formation in suprarenalectomized rats have shown that both hemolysin and agglutinin formation are increased in suprarenalectomized animals. The antibody titer may

² Pike, *Quart. J. Exp. Physiol.*, 1913, vii, 1.

³ Langley, *J. Physiol.*, 1919, liii, 120.

⁴ Tillie, *Arch. exp. Path. u. Pharmacol.*, 1890, xxvii, 1.

Rabbit No.	Sex	Age in days	Date second suprarenalectomy	Dates and amount T.A. injected cc.						Dates and result of Schick tests				Total T.A. injected cc.	before neg. Schick	No. days to neg. Schick
				Nov. 12	Nov. 15	Nov. 22	Nov. 30	Dec. 5	Dec. 8	Nov. 19 1/40 M.L.D	Nov. 26 1/80 M.L.D	Dec. 3 1/40 M.L.D	Dec. 10 1/40 M.L.D			
374	M	150	Nov. 5	1/4	1/4	1/4	1/2	1/2		+	+	—	—	1	1/4	21
463	M	318	"	1/4	1/4	1/4	1/2	1/2		+	+	—	—	1	1/4	21
458	F	Adult	"	1/4	1/4	1/4	1/2	1/2		+	+	—	—	1	1/4	21
454	M	335	"	2/5	1/2	1/2	1	1	1	+	+	—	—	2	2/5	21
459	M	Adult	"	1/2	1/2	1/2	1	1	1	+	+	+	—	4	1/2	28
382	M	621	control	1/2	1/2	1/2	1	1	1	+	+	+	—	4	1/2	28
487	F	331	"	1/2	1/2	1/4	1/2	1/2	1/2	+	+	+	+	2	3/4	pos.
488	F	331	"	1/4	1/4	1/4	1/2	1/2	1/2	+	+	+	+	2	1/4	28
490	M	256	"	1/2	1/2	1/2	1	1	1	+	+	+	+	4	1/2	28
491	M	254	"	1/2	1/2	1/2	1	1	1	+	+	+	+	4	1/2	28
493	F	247	"	1/4	1/4	1/4	1/2	1/2	1/2	+	+	+	+	2	1/2	pos.
492	M	223	"	1/4	1/4	1/4	1/2	1/2	1/2	+	+	+	+	1	1/2	18

be two or three times greater than in controls, using the same doses of antigen.

It seemed desirable to test antitoxin formation also in supra-renalectomized animals. The method used consisted of injecting subcutaneously in the right flank the standard toxin-antitoxin mixture (1 cc. equals 0.1 L.+ dose) of the New York Board of Health furnished us through the courtesy of Prof. William H. Park. The Schick tests were made at weekly intervals, using in order the right lower, right upper, left lower and left upper abdomen as sites. The details and results are given in the preceding table.

Of the 5 doubly supra-renalectomized rabbits which survived in good condition, 4 had negative Schick on the 21st day and one on the 28th day. Of the 7 controls, 4 were negative on the 28th day, 2 were still positive on the 28th day and one (492) was negative on the 18th day. It is noteworthy that this control showed a negative Schick earlier than any of the other rabbits and with less toxin-antitoxin. Nothing unusual in the clinical appearance of the rabbit was detected. It died about four months later while attempting ether anesthesia, and at necropsy acute dilatation of the heart with pulmonary edema and congestion were the prominent findings. With this exception it may be stated that the supra-renalectomized rabbits formed antitoxin as rapidly as, and in this series more rapidly than, the controls.