

MONKEY  
SERA  
VS.  
VIRUS

Immunological Response to [redacted] Virus  
of Monkeys Convalescent From ParalySES  
Induced by a Number of Polio-1947 Strains

Strain      Group of  
                 Monkeys

[redacted] { Rh. 193  
                 { Rh. 301

[redacted] { Rh. 482  
                 { Rh. 498

[redacted] { Rh. 224  
                 { Rh. 254

[redacted] { Rh. 463

[redacted] { 513  
                 { 521

[redacted] { Rh. 447

[redacted] { Rh. 388  
                 { Rh. 393

The Immunological Response to [REDACTED] Virus - of Monkeys  
Convalescent From Paralysis Induced by a Number  
of Polio Strains of Recent Human Origin

Rhesus Monkeys convalescent from paralysis induced by the intracerebral inoculation of a number of strains of human polio virus (isolated from Akron, O. and Cincinnati, O. in 1947) were bled 3 months after inoculation. In a number of instances such monkeys were also bled relatively soon after onset of paralysis and then one month and two months after inoculation.

Some of these monkey sera are to be tested for capacity to neutralize Lansing virus in final dilutions of 1:20 and 1:100 of virus.

AUG 28 1948

Sera Used:

— 10 MONKEY SERA TESTED —

PATIENT STRAIN	SERUM LANSING ANTIBODY		MONKEY #	DATE INOCULATED	ACUTE SERUM			CONVAL. SERUM		
	ACUTE	CONVAL.			DATE	DAYS AFTER INOC.	DAYS AFTER ONSET OF PARALYSIS	DATE	DAYS AFTER INOC.	DAYS AFTER ONSET OF PARAL.
[REDACTED]	-	+	513	5/28/48	6/15	18	1	8/28/48	91	74
[REDACTED]	-	+	521	5/28/48	6/8	11	1	8/27/48	91	81
[REDACTED]	-	+	447	5/15/48	6/8	24	4	8/16/48	92	72
[REDACTED]	-	-	193	3/17/48				6/23/48	98	85
[REDACTED]	-	-	301	4/9/48				7/8/48	91	82
[REDACTED]	-	-	224	3/17/48				6/9/48	84	90
[REDACTED]	+	-	254	4/7/48				7/8/48	93	73

AUG 28 1948

Virus used: [REDACTED] Pool. Pass 204 10% saline, 7-6-48, frozen.

Mice used: Maxfield albino (10-12 Gms.) 8 per box

Inoculum: 0.03 cc IE per mouse.

Procedure: Each serum tested was mixed in equal parts (0.2 cc) of 1:10 and of 1:50 Lansing mouse brain virus, making final concentrations of virus 1:20 and 1:100. The mixtures remained at room temp. for one hour and were then inoculated. — A simultaneous titration of the virus in serial dilutions (10<sup>-2</sup>; 10<sup>-3</sup>; 10<sup>-4</sup>) — was also carried out, using saline as diluent.













The Immunological Response to [redacted] Virus - of Monkeys  
Convalescent From Paralysis Induced by a Number of  
Polio Strains of Recent Human Origin -

Rhesus monkeys convalescent from paralysis induced by the intracerebral inoculation of a number of strains of human polio virus (isolated from Akron and Cincinnati, Ohio, 1947) were bled 3 months after inoculation, and also earlier on - relatively soon after onset of paralysis. (v. infra).

The following tests are to determine the capacity of these sera to neutralize the Lansing strain in final dilutions of 1:20 and 1:100 of virus.

AUG 31 1948 AUG 31 1948

Sera Used: - 10 Monkey Sera Tested - ✓

PATIENT STRAIN	SERUM LANSING ANTIBODY		MONKEY: ACUTE SERUM				CONVAL. SERUM.			EST. NEUTR. INDEX		
	ACUTE	CONVAL.	#.	DATE INOCULATED	DATE	DAYS AFTER INOC.	DAYS AFTER ONSET PARALYSIS	DATE	DAYS AFTER INOC.	DAYS AFTER ONSET PARALYSIS	ACUTE	CONV.
[redacted]	-	-	482	5/21/48	6/9/48	19	10	8/21/48	92	83	14	18
[redacted]	-	-	498	5/21/48	6/9/48	19	11	8/21/48	92	81	14	18
[redacted]	-	-	388	4/30/48	6/9/48	40	27	7/30/48	92	<del>79</del>	14	32
[redacted]	-	-	393	4/30/48	6/9/48	40	27	7/30/48	92	<del>80</del>	63?	26
[redacted]	-	-	463	5/19/48	6/10/48	22	11	8/19/48	92	81	24	12

Virus Used: [redacted] Pool, Pass 204 - 10% saline; 7/6/48. Frozen.

Mice Used: Maxfield Albino (10-12 Gms.) - 8 per box.

Inoculum: 0.03 cc I.C. per mouse.

Procedure: Each serum tested was mixed in equal amts (0.2 cc) of 1:10 and 1:50 [redacted] mouse brain virus, thus making final concentrations of virus 1:20 and 1:100. The mixtures remained at room temp for one hour, and were then inoculated. A simultaneous titration of the virus in serial dilutions ( $10^{-2}$ ;  $10^{-3}$ ; and  $10^{-4}$ ) - was also carried out, using saline as a diluent.

# Virus - Neutralization Tests Using Sera of Polio Infected Monkeys

AUG 31 1948

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8/5

243 + (14)

Rh 482

"ACUTE"

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2,33 + (18)

Rh 482

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8/8

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(14)



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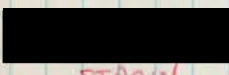
8/8

Rh. 498

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6/8

# Virus - Neutralization Tests Using Sera of Polio - Infected Monkeys

AUG 31 1948

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Rh. 388

8/8 +  
2.43 (14)

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Rh. 388

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AUG 31 1948

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Rh. 393

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(63)  
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8/8

2.2+  
(26)

5/7

# Virus - Neutralization Tests Using Sera of Polio-Infected Monkeys

AUG 31 1948.

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2.5<sup>+</sup> (12)

8/8

8/8

CONTROL titration of (saline)

Virus: for Tests Using Sera of Polio Infected monkeys

AUG 31 1948

10<sup>-2</sup>

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
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10<sup>-3</sup>

1	-		D																															
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10<sup>-4</sup>

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(cont'd)

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60					
10 <sup>-3</sup> {	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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10 <sup>-4</sup> {	4				D																												
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	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LD<sub>50</sub> at 28 days = 10<sup>-3.6</sup>  
 at 60 days = 10<sup>-4.0</sup>