

Rh 2195

SALINE CONTROL - 10^{-2}

DATE	DAY	REMARKS
July 13, 1951	0	
	1	
" 15	2	
16	3	
17	4	
18	5	
19	6	
20	7	total paralysis of larvae. Killed for virus.

Comparative test for neutralizing antibody vs own virus
in 3 mo and 3 yr serum of patient

July 31 1951

Virus: Gen II. (2-26-48) 20% susp. Amp. 2 and 4 combined.

Ser to be tested: 3 mo serum 12-2-47
3 yr serum 6-3-50

Selection of dose of virus: $10^{-2.7}$ (final)

Procedure:

- a 3 mo serum 2.2 cc undil.
b 0.4 cc undil. + 1.2 cc saline $\rightarrow$ 1.6 cc 1:4
c 0.4 cc 1:4 + 1.2 cc saline $\rightarrow$ 1.6 cc 1:16. Discard 0.4 cc.
d 3 yr serum 1.2 cc undil.
e 0.4 cc undil. + 1.2 cc saline $\rightarrow$ 1.6 cc 1:4
f 0.4 cc 1:4 + 1.2 cc saline $\rightarrow$ 1.6 cc 1:16 Discard 0.4 cc
g Saline control 1.4 cc saline.

Virus: ~~0.25 cc 20% (1:5) + 24.75 cc saline $\rightarrow$ 25 cc virus 1:500~~
0.5 cc 20% (1:5) + 24.5 cc saline $\rightarrow$ 25 cc virus 1:250.

Add to each tube a-f 1.2 cc virus 1:250 and do g 1.4 cc.
Final virus dil. = 1:500 = $10^{-2.7}$

Leave at room temp. (76°) for one hour and in refrigerator overnight.

Immediately prior to inoculation of monkeys prepare 10 fold virus dilutions in saline:

$$\begin{aligned} 10^{-2.7} \\ 10^{-3.7} &= 0.3 \text{ cc } 10^{-2.7} + 2.7 \text{ cc saline} \\ 10^{-4.7} &= 0.3 \text{ cc } 10^{-3.7} + 2.7 \text{ cc } " \\ 10^{-5.7} &= 0.3 \text{ cc } 10^{-4.7} + 2.7 \text{ cc } " \end{aligned}$$

Inoculate 0.5 cc into right Abdominal area of each of 4 rhesus monkeys

Aug 10: from [redacted] serum is now present.

10-6-47 2.5 cc (1 mo)
5-15-48 1.5 cc (0 mo)
9-16-47 1.5-6 cc (14 days)
12-2-47 1.6 cc (3 mo)
6-3-50 enough (3 yr)

preparation	dilution	chassis no	results.
3 mo serum	1:16	2249	- p5 p7 - term 9
		2250	- p6 - " 9
		2251	- p9 pr. 10
		2252	- p5 D7
3 mo serum	1:4	2253	- p7
		2254	- p9
		2255	- p7
		2256	- p8 D10
3 mo serum	undil.	2257	- p9
		2258	- p6
		2259	- p20
		2260	- p9
3 yr serum	1:16	2261	- p10
		2262	- p10
		2263	- p7
		2264	- p8
3 yr serum	1:4	2265	- aff. inj. and flow of cerebrosp. fluid! Ren. fac. p6 D9
		2266	- t1
		2267	- p7
		2268	- p10
3 yr serum	undil.	2269	- p7
		2270	- p7
		2271	- p10
		2272	- p7 D10
Virus dil.	10 ^{-5.7} (1:500,000)	2273	-
		2274	-
		2275	-
		2276	-
Virus dil.	10 ^{-4.7} (1:50,000)	2277	-
		2278	-
		2279	-
		2280	-
Virus dil.	10 ^{-3.7} (1:5000)	2281	- p5 p12
		2282	- p5 D9
		2283	- p6 term 9
		2284	- p11
Virus dil.	10 ^{-2.7} (1:500)	2285	- p9
		2286	- p5 - D8
		2287	- p9
		2288	- p6 term 9

Mar 4.2

- serum neutralization

Rh. 2249

3 month serum 1:16

Date	Day	Remarks
Aug. 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	Atal paralysis rear legs + deltoid right.
8	8	Prostrate
9	9	" " Killed, discarded.

Rh 2250

3 m mth serum 1:16

Date	day	remarks.
Aug 1	1	
2		
3		
4		
5		
6	6	Total paralysis of rear legs.
7	7	Prostrate. " " " "
8	8	Prostrate. " " " "
9	9	Prostrate. Killed, discarded.

serum neutralization

Rh. 2251

3 month serum 1:16

Date	day	remarks.
Aug 1 9 10	1 9 10	paralysis of left rear + 1/2 arm. Cannot sit or stand prostrate. Killed.

- serum neutralization.

Rh. 2252

3 month serum 1:16

Date	day	remarks
Aug. 1	1	
2	2	
3	3	
4	4	
5	5	Paralysis of both fronts.
6	6	+ partial rear legs.
7	7	dead in "cage." Dissected.

serum dilution neutralization.

Rh. 2253

3 month serum 1:4

Date	day	remarks
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	paralysis of left arm - partial paralysis of lower
8	8	paralysis
9	9	" " killed
10	10	" "

serum dilution neutralization

Rh. 2254

3 month serum 1:4

Date	day	remarks
Aug 1	1	
9	9	total paralysis of rear legs + partial trunk legs.
10	10	prostrate. killed.

[redacted] ^{dilution}
serum / neutralization

Rh. 2255

3 month serum 1:4

Date	day	remarks
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	paralysis of left arm - tremor.
8	8	prostrate.
9	9	" "
10	10	" " killed.

serum dilution neutralization

Rh. 2256

3 month serum 1:4

Date	day	remarks
Aug 1	1	
2		
3		
4		
5		
6		
7		
8	8	Partial paralysis of arm (deltoid)
9	9	prostate.
10	10	dead.

serum dilution neutralization.

Rh 2257

3 month serum undiluted

Date	day	remarks
Aug 9 1910	9 10	total analysis of lowers. Cannot sit or stand prostate. Killed.

- serum dilution neutralization

Rh 2258

3 months serum undil.

date	day	remarks
Aug 1	1	
9	9	weakness of lowers.
10	10	partial paralysis of lowers
11	11	the same.
12	12	" "
13	13	" "
14	14	" "
15	15	" "
16	16	" "
17	17	" "

serum dilution neutralisation

Rh 2259

3 month serum unutil.

Date	day	remarks
Aug 20	20	Total analysis of uppers and lowers. Cannot sit or stand.

serum dilution neutralisation

Rh 2260

3 month serum undiluted.

Date	day	remarks
Aug 1	1	
9	9	analysis of left arm
10	10	prostate. Killed.

Rh. 2261

3 year serum 1:16

Date	Day	Remarks
Aug 1	1	
10	10	clumsy - nervous.
11	11	" " and paralysis right deltoide
12	12	the same
13	13	the same + partial paralysis right rear limb.
14	14	the same.
15	15	" "
16	16	" "
17	17	" "



Serum dilution neutralization

Rh. 2262

3 year serum 1:16

Date	Day	Remarks.
Aug 1	1	
10	10	Whole paralysis of rear legs + right arm. Cannot sit or stand
11	11	Killed.

Serum dilution neutralization

Rh. 2263

3 year serum 1:16

Date	Day	Remarks.
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	paralysis of lowers (partial) + left deltoid probable
8	8	
9	9	"
10	10	" Killed.

Rh. 2264

- serum dilutions neutralization

3 year serum 1:16

Date	Day	Remarks.
Aug 1	1	
8	8	Total paralysis of lower + left arm
9	9	prostrate
10	10	" killed.

Rh. 2265

3 year serum 1:4

Date	Day	Remarks.
Aug 1	1	
2		
3		
4		
5		
6	6	Partial paralysis of lowers (can sit)
7	7	Total paralysis of lowers + uppers.
8	8	prostrate
9	9	dead in cage.

- serum dilution neutralization.

Rh. 8266

3 year serum 1:4

Date	day	remarks.
Aug 1	1	this morning O.K. but one hour later dead in cage. Dissected.

serum dilution neutralization

Rh. 2267

3 year serum 1:4

Date	Day	Remarks.
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	Some paralysis of lower & upper
8	8	prostate
9	9	" " Killed.
10	10	" "

Rb. 2268

3 year serum 1:4

Date	Day	Remarks.
Aug 1	1	
10	10	partial paralysis of lowers - can sit but not stand
11	11	" " " " " "
12	12	" " " " " "
13	13	" " " " " "
14	14	the same
15	15	" "
16	16	" "
17	17	" "

serum dilution neutralisation

Rh. 226g

3 year serum unstimulated

Date	day	remarks
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	paralysis left arm - slightly atactic - weakness lower
8	8	Whole part. of lower + both arms.
9	9	prostrate
10	10	" killed.

serum dilutions

Rh. 2270

3 year serum until.

Date	Day	remarks.
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	weakness lowers
8	8	prostrate
9	9	"
10	10	" killed.

serum neutralization

9 y em serum undiluted

Rh 2271

Date	day	remarks.
Aug 10	10	partial paralysis of lower, trunk muscles and left arm. cannot sit or stand
12	12.	Killed.

serum neutralization

Rh. 2272

3 year serum undil.

Date	day	remarks.
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	analysis of both fronts
8	8	prostate
9	9	
10	10	dead. discarded.

Virus control

Rh 2273

10-57

date	day	remarks
Aug 1	1	
" 20	20	killed for histology.

[redacted] virus culture

Rh 2274

10-5.7

Date	day	remarks.
Aug 1	1	
20	20	killed for histology

virus control

Rh 2275

10-5.7

Date	day	remarks
Aug 1	1	
20	20	killed for histology

virus control

Rh

2276

10-5.7

date	day	remarks
Aug 1	1	
" 20	20	Killed for histology

Rh 2277

10^{-4.7}

Date	day	remarks
Aug 1	1	
" 28	28	killed his body

virus control.

Rh

2278

10-4.7

Date	day	remarks
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Aug 1	1	
28	28	Killed for histology.

Kimscombe

Rh 2279

10-4.7

Date	day	remarks
Aug 1 20	1 20	killed for history

transcribed

Rh

2280

10-4.7

Date	day	remarks
Aug 1	1	
20	20	killed for histology.

Rh. 2281

10-3.7

Date	day	remarks.
Aug 1	1	
2	2	
3	2	
4	4	
5	5	paralysis of bowers and joints. Cannot sit or stand.
12	12	definite paralysis of bowers
13	13	prostrate.
14	14	" " Killed.

Virus control.

Rh.

2282

$10^{-3.7}$

Date	day	remarks.
Aug 1	1	
2		
3		
4		
5	5	paralysis of fronts and lowers. cannot sit or stand
6	6	prostrate.
7	7	
8	8	minely dead.
9	9	dead in cage.

virus control

Rh. 2283

10-3.7

Date	day	remarks
Aug 1	1	
2		
3		
4		
5	.	
6	6	Paralysis of lowers and uppers. Cannot sit or stand.
7	7	Prostrate
8	8	
9	9	"matted" - killed.

virus control

Rh.

2284

$10^{-3.7}$

Date	day	remarks
Aug 1	1	
11	11	weakness of lowers
12	12	
13	13	partial paralysis of lowers.
14	14	the same.
15	15	" "
16	16	" "
17	17	" "

Rh 2285

10^{-2.7}

Date	day	remarks
Aug 1	1	
9	9	peculiar behaviour - nervous - atactic - weakness lowers.
10	10	partial paralysis of lowers + right deltoid.
11	11	" " " " + " "
12	12	" " " " + " "
13	13	" " " " + " "
14	14	" " " " + " "
15	15	the same.
16	16	" "
17	17	" "

Rh 2286

10^{-2.7}

Day	date	remarks
Aug 1	1	
2	2	
3	3	
4	4	
5	5	paralysis of rear legs + right front.
6	6	total paralysis of legs + arms
7	7	paralysis.
8	8	dead. discarded.

virus control.

Ph. 2287

$10^{-2.7}$

Date	day	remarks
Aug 1 9 10	1 9 10	paralysis left arm. prostrate. Killed.

Rh. 2288

10^{-2.7}

Date	day	remarks
Aug 1	1	
2	2	
3	3	
4	4	
5	5	
6	6	partial paralysis of lower
7	7	total " " center dead.
8	8	nearly dead.
9	9	" " killed.

virus test July 31. 1951.
Weights of monkeys on Aug. 10.

A. 3 not used monkeys from the same batch.

Nr.

2209 : 3055 gram.
2290 : 2000 "
2291 : 2585 "

B. 3 monkeys which are paralyzed but still can sit, eat and drink.

Nr.

2250 : 2675 gram.
2261 : 2330 "
2285 : 2855 "

C. monkeys which do not show any symptoms.

Nr.

2265 3005 gram
2284 2935 "
2281 3010 "
2280 3320 "
2279 2610 "
2278 3530 "
2277 2420 "
2276 2720 "
2275 2450 "
2274 2640 "
2273 3535 "

AUG 16 1951

Neutralizability of [REDACTED] Strain by Human Convalescent Serum Derived from Another Patient During Same Outbreak

Purpose - Sera from patient [REDACTED] yielded negative or negligible neutralization with own virus.

Is this due to the fact that the patient developed little or no antibody for the virus in its own alimentary tract? or

Is it possible that the [REDACTED] strain is difficult to neutralize?

Therefore - test serum of patient [REDACTED] (developed polio in Cincinnati 1947 same time as [REDACTED] is also Brunhilde-like as is [REDACTED])
3 year serum neutralized [REDACTED] virus (see test of Apr 6, 1951)
- 1:256 + against 320 PD₅₀ of virus

Procedure: Test undiluted [REDACTED] serum of 5-31-50 against 10⁻² and 10⁻³ (final) dilutions of [REDACTED] Virus

Virus Used - Vial No. 24 - same as that used in test of 7-31-51

- Tube 1 - 1.1 cc of Rice Serum + 1.1 cc of 1:50^{*} virus
" 2 - 1.1 cc of " " + 1.1 cc of 1:500 virus
" 3 - 1.1 cc of Saline + 1.1 cc of 1:500 virus
" 4 - 1.1 cc " " + 1.1 cc of 1:5000 virus

Leave at room temp - 1 hr + in refrigerator overnight
(the dil. 1:5000 made the next morning, just before inoculation)

Inject 0.5 cc of each mixture into each of 4 rhesus monkeys.

* $\frac{1}{2}$ cc virus undil. (= 1:5!) + $4\frac{1}{2}$ cc saline $\rightarrow$ 5 cc virus 1:50. $\frac{1}{2}$ cc 1:50 + $4\frac{1}{2}$ cc saline $\rightarrow$ 1:500. $\frac{1}{2}$ cc 1:500 + $4\frac{1}{2}$ cc saline $\rightarrow$ 1:5000.

Neutralization test Rice serum + Sloferkamp Virus.

AUG 17 1951

material rhesus m. remarks.

A Unadil. 3 yr serum [redacted] [redacted] Virus 1:500 equal amounts. 10^{-3}	2322	Killed neg.	X
	2323	D6 histot. neg.	X
	2324	Killed neg.	X
	2325	D23 <u>histot</u> neg (rotten) checked by ABS.	X

0/3

B Unadil. 3 yr serum [redacted] [redacted] 1:50 equal amounts. 10^{-2}	2326	Killed neg.	X
	2327	Killed neg.	X
	[redacted]	[redacted]	[redacted]
	2329	Killed neg.	X

0/4

C Sabine [redacted] Virus 1:5000 equal amounts. 10^{-4}	2330	T4 <u>histot</u> neg. checked by ABS	X
	2331	p6	-
	2332	Killed neg.	X
	2333	Killed neg.	X

1/3

D Sabine [redacted] Virus 1:500 equal amounts. 10^{-3}	2334	p8	-
	2335	p12	-
	2336	p9	-
	2337	p4	-

4/4

Wardle serum + virus 1:500

Ph. 2322

date day remarks

Sept. 16 29 killed for histology

Rh. 2323

date day remarks

AUG 18 1951 1

" 23 6 dead in cage.

Autopsy. no gross lesions except a slight but definite hemorrhagic enteritis.

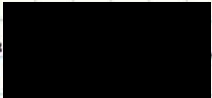
Sections CNS in Hentke

Mutil. [redacted] serum [redacted]

virus 1:500

RH 2324

date	day	remarks
AUG 18 1951	7	
Sept 19	32	Killed for histology

Unit  serum  virus 1:500

Rh. 2325

date	day	remarks
AUG 18 1951	1	
Sept 9	23	this morning dead in cage. Throat swollen. Autopsy: slight enteritis. pieces found in henker.

Undil. [redacted] serum + [redacted] times 1:50

Rh 2326

date	day	remarks
AUG 14 1951		
Sept 16	24	killed for histology

Until [redacted] [redacted] virus 1:50

RA. 2327

date day remarks

AUG 18 1951 /

Sept 14 32 Killed for virus

Undist.

num +

virus 1:50

Rb 2328

date	day	remarks
AUG 18 1951	✓	
Sept 14	32	killed previous

Undil. serum + virus 1:50

Rh. 2329

date day remarks

AUG 18 1951 /
" 21. 4 according to Scott bloody diarrhea. 1 gram chlamydia. aridly
" 22 5. much improved. No treatment.
the other m. in the same cage d. 15.
23 6 improved.

shortness 8-21 Sh. Jensen III

Apr 16 29 killed for histology.

date	day remarks
AUG 18 1951	
Aug. 21.	This morning dead in cage. Shows slight bloody faeces around the anus.
	Sections CNS in Zenker. - Autopsy: slight enteritis (but no bloody faeces.) - some fluid in pericardium and pleural cavity.
	Smear of faeces: 1 ancylostoma egg in the faeces .
	Stool culture P-21: Sh. flexneri III

Rh 2331

date	day	remarks
AUG 18 1951	1	growing to 1000 strands. chlomyacin treatment.
" 22	5	facies soft. did not eat his food. T 100.
		no prevention chlomyacin
23	6	looks still ill. weak.
24	7	clumsy - tremor of head.
25	8	prostrate.
26	9	dead. discarded.

short culture 8-21:
Sh. floridensis III

Viruses 1: 5000

Rh 2332

date	day	remarks
AUG 18 1951	1	
" 22	5.	faeces with blood and slime. did not eat his food. T 100.4. chloromycetin.
23	6.	seems improved.
Sept 11/9	32	killed for histology

RA 2333

date day remarks

AUG 18 1951

" 22

5

frises OK but did not eat his food. T 102°.
chromomycin as precaution.

Sept 14 32 Killed for histology

virus 1:500

ph 2334

date	day	remarks
AUG 18 1951	1	
" 25	8	Adul paralysis of lowers and uppers. Killed for virus.

RA 2335

date day remarks

AUG 18 1951 /

25	8	somewhat clumsy.
26	9	the same
27	10	weak in lower
28	11	" " "
29	12	very definite partial paralysis of lower.
30	13	the same. Killed, dis. Cured (Aug 31).

date day remarks
AUG 18 1951 1

" 26 9 weakness of lowers - paralysis of right arm
27 10 prostate
28 11 killed, discarded

Rh 2337

date day remarks
AUG 18 1951 7

26 g partial paralysis of lowers
27 70 probable
28 11 killed, diseased