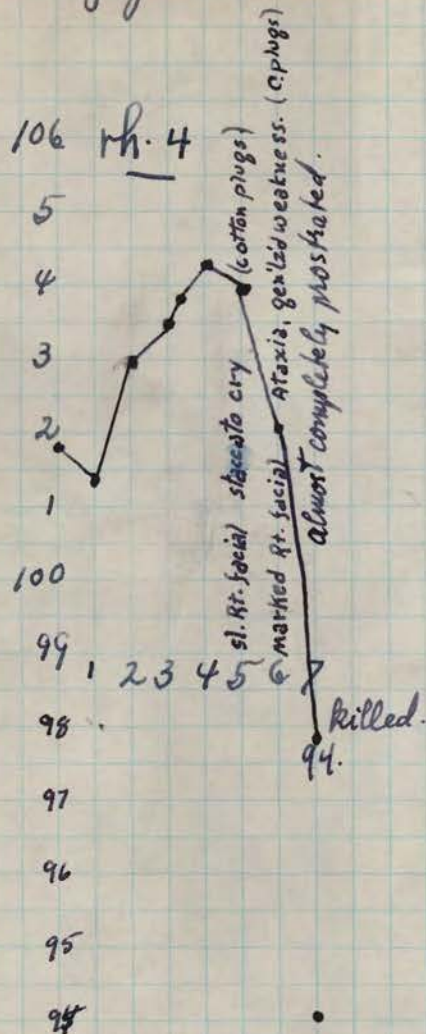


5-9-40

Polio monkey cord passage
glycerolated cord - 10% susp. in saline - 2^{cc} 1. Cerv.



Cotton plugs were inserted in both nostrils on the 5th day, removed after 24 hours. Fresh plugs were inserted on the 6th day & removed at death. Both sets of plugs were kept in the ice box until 5-16-40 when they were pooled. There is large amounts of mucus & sanguinopurulent material were extracted first with 5cc. distilled water. This extract was centrifuged at high speed for 20 mins. The supernatant was then removed & cultured (0.2 cc.). ~~The sediment plus~~ 15% ether was then added. The sediment, plus 10cc. distilled water, were added to the cotton plugs & allowed to extract overnight in the ice-box.

Culture of supernatant grew

Culture of etherized supernatant was sterile.

Long cotton plugs sterilized.

8 daily = about 50 plugs.

when removed keep in bottle on ice.

Rh. 9

5-14 1 long cotton plug inserted $\bar{c}$ wire + forceps into each nostril.

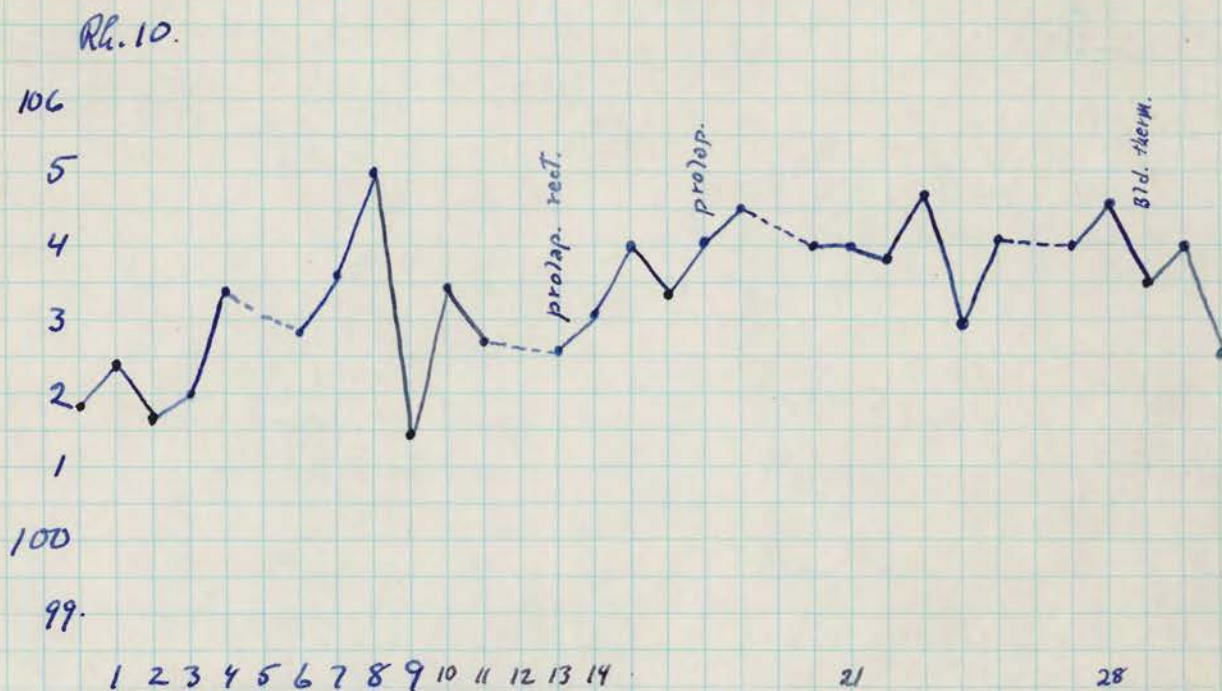
5-15 both plugs removed, are well saturated $\bar{c}$ sanguinopurulent material

	Date 1940	Total Cell Vol.	RBC			Hb		
			Cell Vol %	M/ mm	³ size	Vol. Bl. gm. %	Cells gm %	Hb/RBC g/g
Monkey 1	5-11	36.6	36.0	4.491	80	10.2	27.9	22.7
Monkey 2	5-11	37.8				11.9	31.4	
Monkey 3	5-11	34.7	35.3	4.288	81	9.8	28.3	22.9
Monkey 4	5-11	35.1	34.2	4.508	76	10.2	29.8	22.6
Monkey 5	5-11	42.9	41.8	5.552	75	13.2	31.5	23.7
Monkey 6	5-11	38.3				11.3	29.6	
Monkey 7	5-11	41.1				11.7	28.5	
Monkey 8	5-11	39.8				12.3	30.8	

May 21.

Cervical sympathetic plexus of Rh. 8

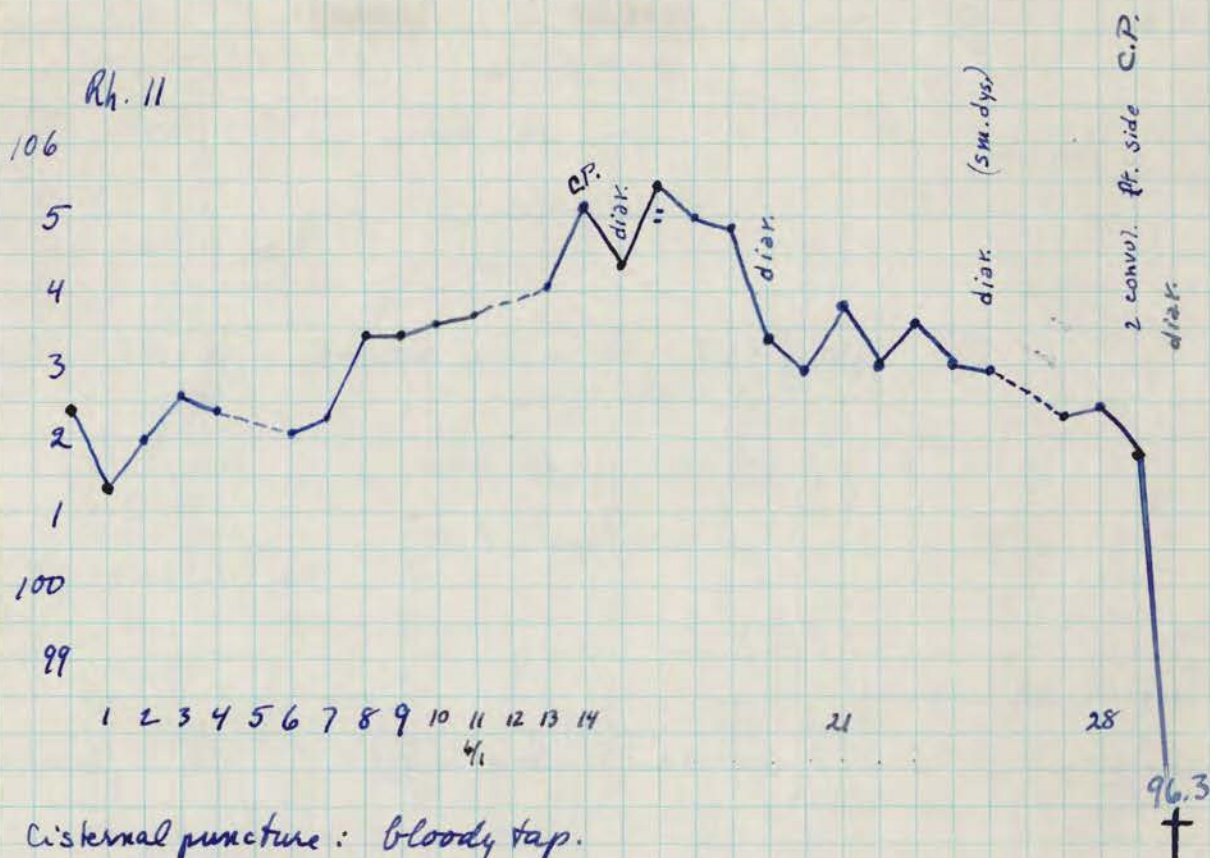
0.9 cc. I.C.



May 21

Abdominal sympathetic plexus of Rh. 8

0.75 c.c. I.C.



June 4. Cisternal puncture: bloody tap.

June 19. Seen in about 4 convulsions today, characterized by head turning far to left & jerking of head to left, also clonic jerks of left arm & leg. On the first occasion he was lying prostrate on rt. side, on the second, he lunged from the wire cage & his rt. hand & foot, the left extremities lunging. He seemed out of touch & surroundings but immediately on cessation of fit, he resumed normal activity. Pupils are equal, round, & regular & react to light after the fit he apparently sees O.K.

4³⁰ PM. Cisternal puncture immediately after a convulsion. clear fluid under incr. pressure (sput.) 8 cells.

June 20 Numerous fits similar to those described above. Found prostrate this AM. Seems to be blind. Pupils v. sluggish to light - hippus also observed. Fundi seemed normal. Bright yellow-white discs, gray retina & normal vessels; choroidal vessels well seen. No hemorrhages or exudates.

Had several convulsions on the table while being examined. Started & clonic movements of head, turning to left, then eyelids blinking, left eye turned outward & upward. Then left arm, then lt. leg & finally the seizure became generalized - rt. extremities were first tonic then clonic.

Animal was sacrificed.

Autopsy Nothing except 2 small areas of apparent degeneration in the medulla. Rest of brain & cord appeared normal grossly. (over)

6-20 Cultures (A) 6 c.c. whole blood in broth (clotted)

6-22 no growth.
6-24

(B) pooled viscera (lung liver kidney adrenal spleen) 0.1 cc planted on
1. blood agar staph — same 7-6
2. Sabourauds (room temp) 00 mold mold only 7-6.
3. Sabourauds (37°C) 00 00 no growth
June 21 22 23 24 25 7-6-40

(C) pooled C.N.S. (^{ceru. & lumbr.} cord, medulla, ~~mid brain~~, occip. cortex motor cortex) 0.1 cc on
1. blood agar 1 cont. 0 contain only 7-6.
2. Sabourauds (room) 00 00 no growth
7-6-40
3. Sabourauds (37°C) 00 00 no growth
June 21 22 23 24 25 7-6-40

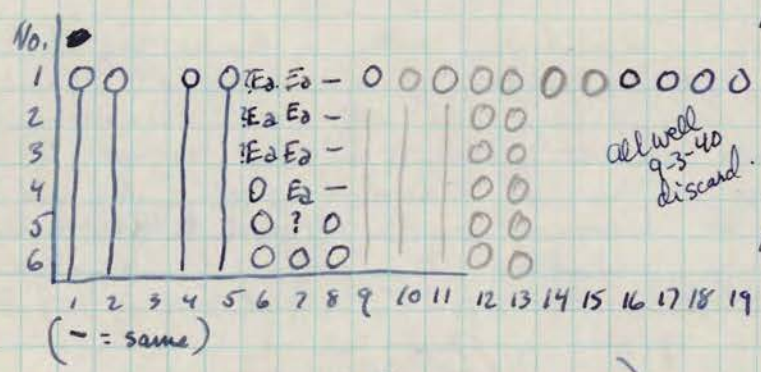
Animal inoculations.

6 mice Pooled viscera (as above in B)
0.03 cc I.C.
1.0 cc I.P.

Pooled viscera (as in B)
0.2 I.C. 3.75 cc I.P.

G.P. 70 (wh.)

6-20

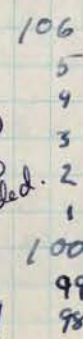
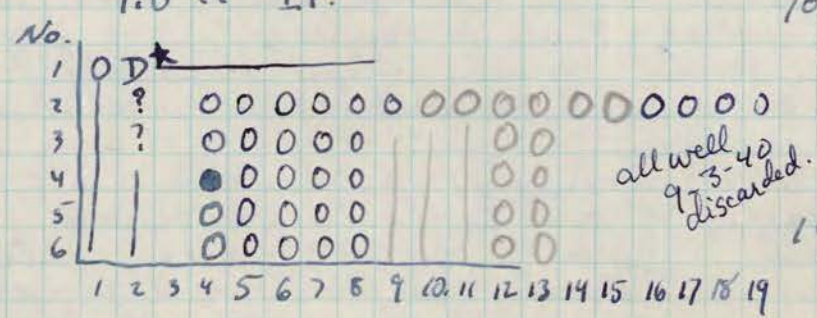


6 mice. pooled C.N.S. (as above in C)
0.03 cc. I.C.
1.0 cc I.P.

G.P. 69
br.

Pooled C.N.S. (as in C)
0.1 cc I.C. 0.8 cc I.P.

6-20



* touch of brain on B Agar: 6-24. many large moist white colonies: gram neg. fat short bacilli.

transmit
perforation
re-infection
too vigorous
temp. making

Pres. gen. weak.

6-26 sacrificed:
peritonitis, perforated
recto-sigmoid junction
many organisms
feces lying free in
peritoneal cav.

6-20 1 monkey (see No 51) rec'd. pooled C.N.S. 2cc I.C. + 14cc. I.P.
(Specimens of C.N.S. were taken for section + for storage in glycerine.)

Rh 11 cont'd.

Microscopic ^{Pathology} ~~Histology~~ on Rhesus 11

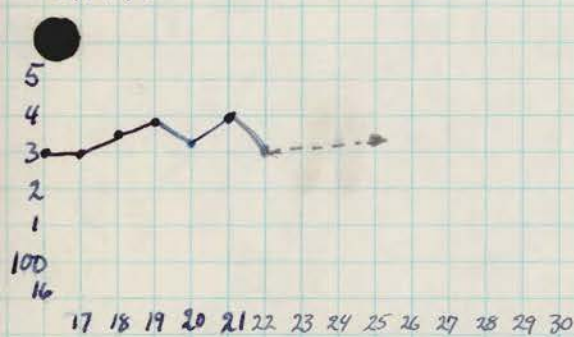
2 levels of medulla and 3 of cord - negative

Motor cortex - one side - meninges - neg; some ischemic change in N cells
other side - focal infiltration $\bar{c}$ polymorphonuclear
leucocytes in meninges; ischem. ch. N cells

Occipital Cortex - pyknosis of small nerve cells

lungs, liver, adrenals, kidney - negative

G.P. 70

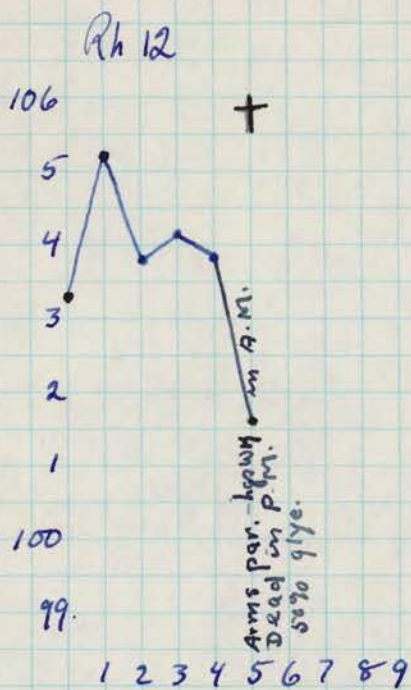


May 21.

Spinal cord of Rh 8.

2.0 cc. I.C.

4.0 cc. I.P.



May 21.

Adrenal glands of Rh. 8.

2 cc. I.C.

6.5 cc. I.P.

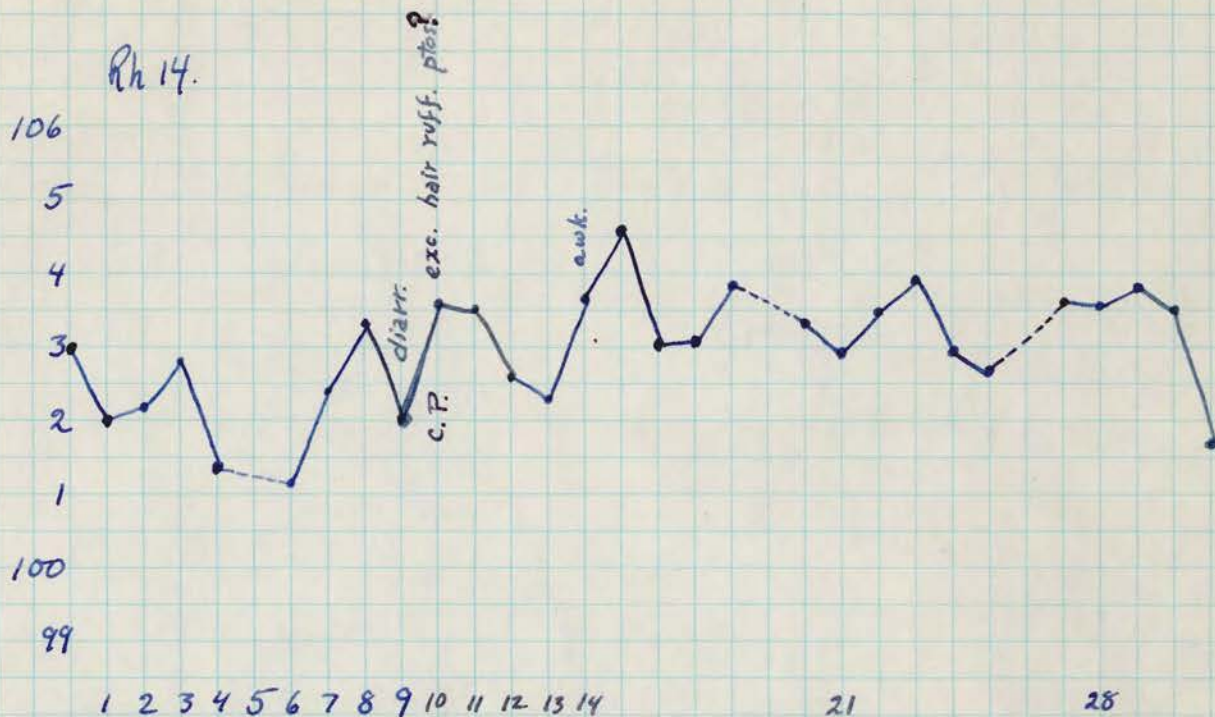


May 21

20% Salivary glands of Rh. 8.

2 cc. I.C.

18 cc. I.P.



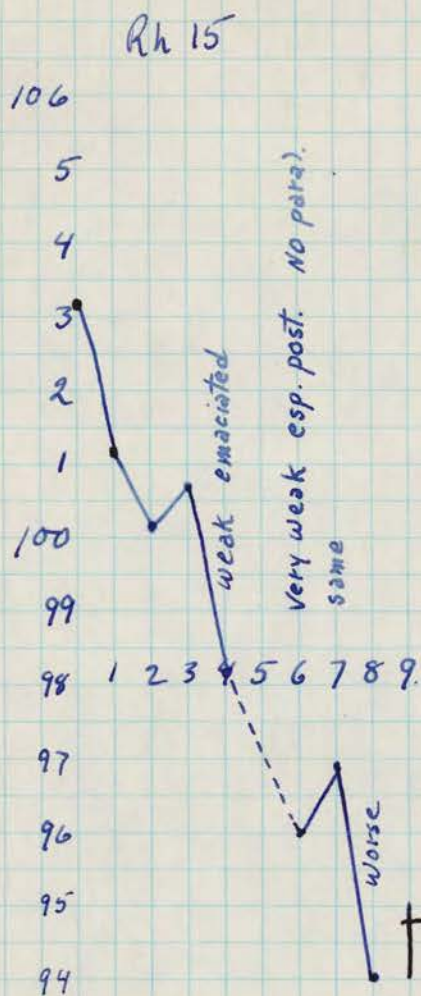
May 31. Cisternal puncture: bloody tap. fluid cleared somewhat, but Pandy + many RBC.

May 21

20% Tonsils of Rh 8.

M?

0.75 cc I.C.



Microscopic

3 levels of cord (+meninges)
- negative

5-30-40

Found dead.

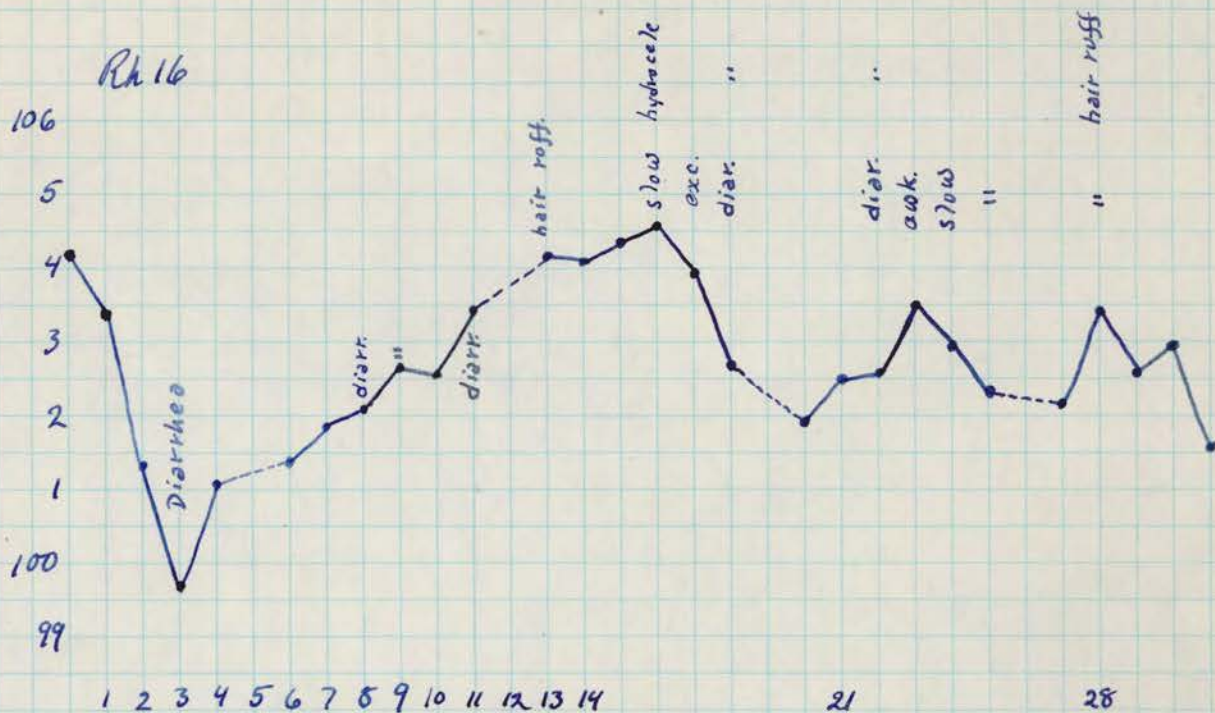
Autopsy: many fine adhesions betw. omentum & intestine. No good reason for - Everything else O.K.

May 21.

Nasal mucosa

of Rh 8.

2 cc I.C.
5.5 cc. I.P.



May 21

Intestine 20% (Parasymp. plexuses) of Rh 8.

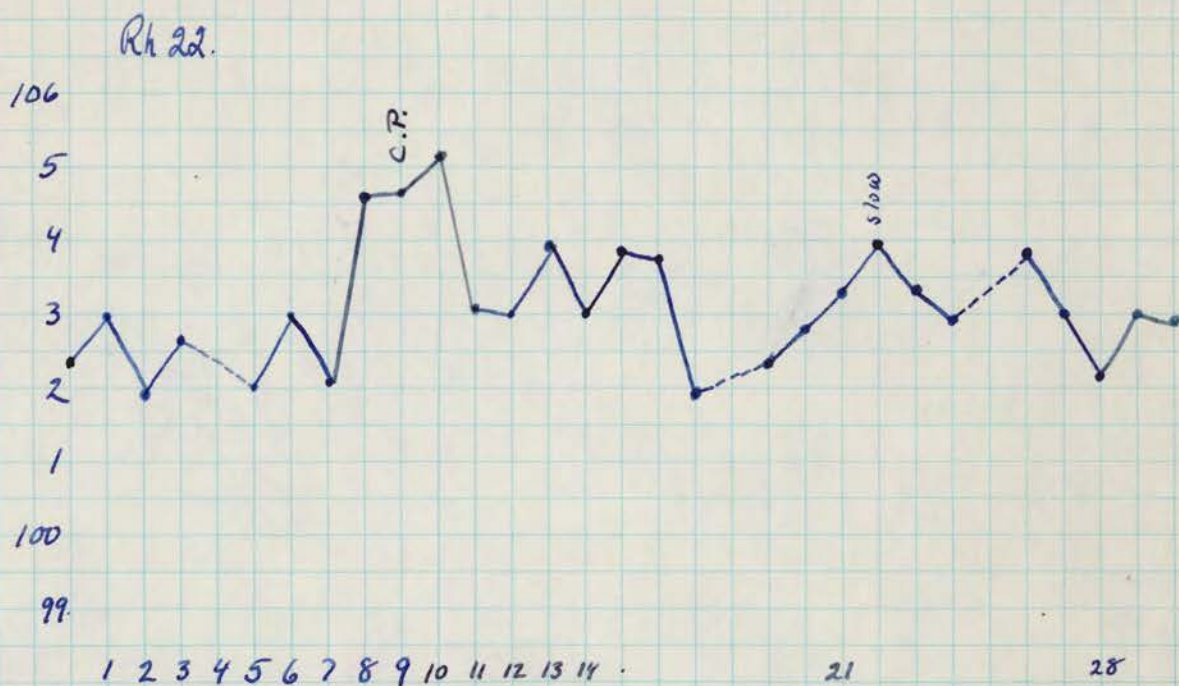
2cc. I.C.
42cc I.P.



May 22.

Olfactory bulbs of Rh. 5

1cc. I.C.

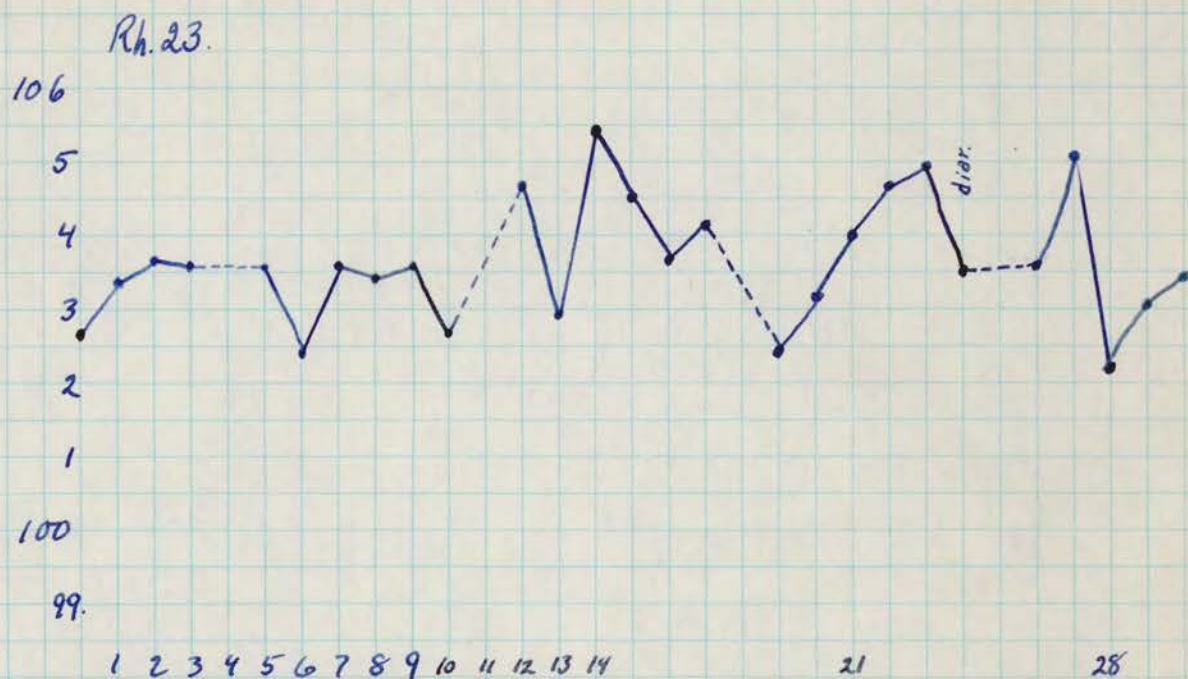


May 31 Cisternal puncture: fluid clear Pandy neg 10 cells, all lym.

May 22

Cervical sympathetic plexus of Rh 5

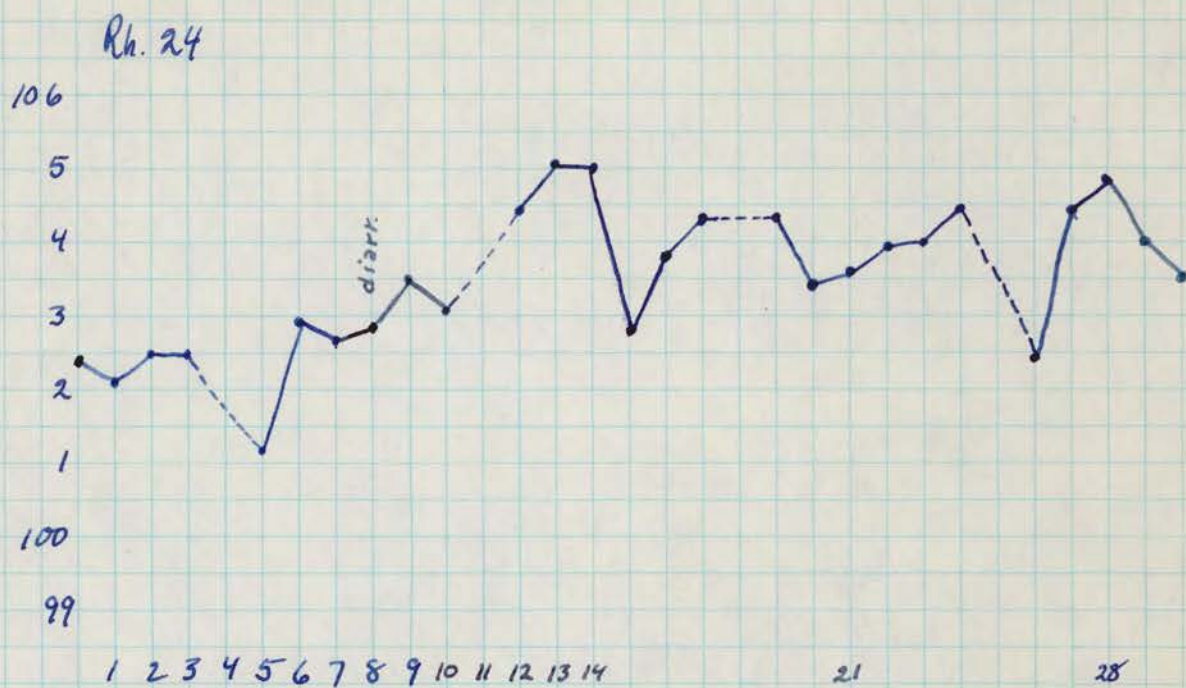
0.75cc IC.



May 22.

Abdominal sympathetic plexus of Rh 5

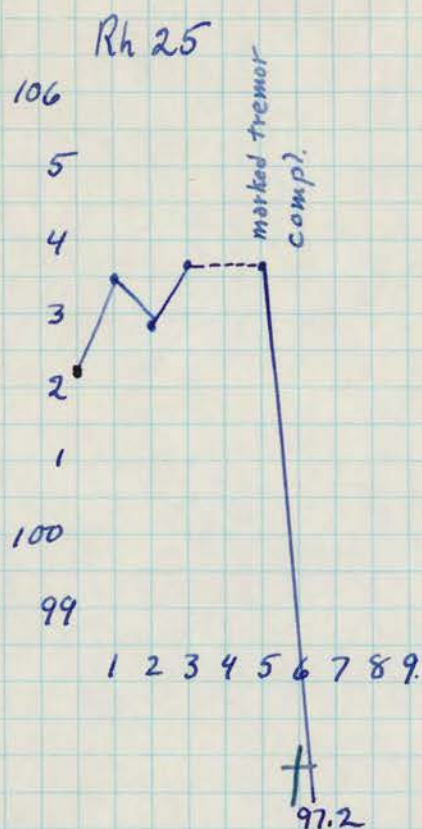
0.75cc. I.C.



May 22.

10% Spinal cord of Rh 5

2 cc. I.C.



May 28 chloroformed, cord removed, put in 50% glyc.

May 22.

Adrenals 10% of Rh 5

2 cc. I.C.

6 cc. I.P.

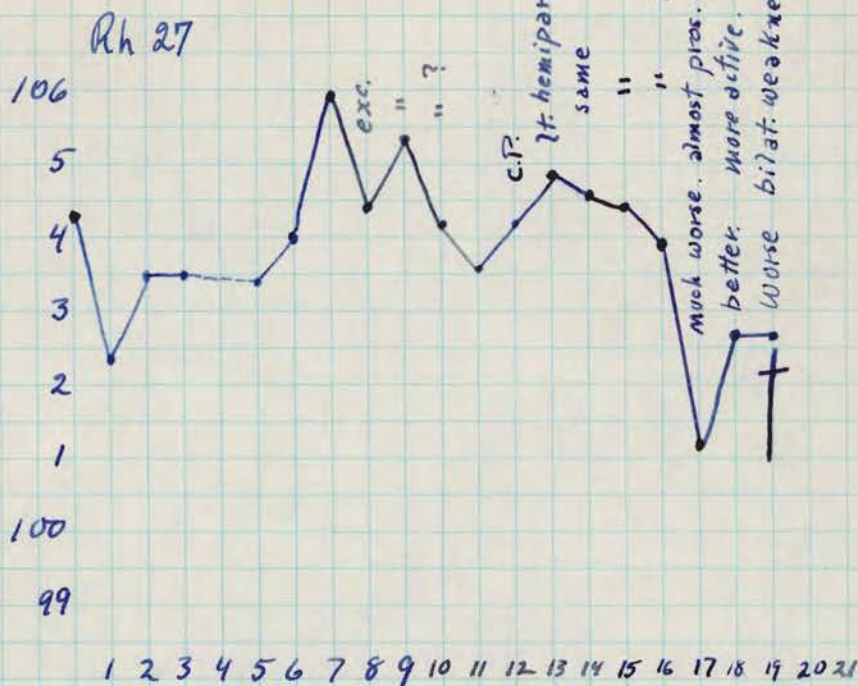


June 26. coughed sev. times

May 22.

Salivary glands 20% of Rh 5

2 cc. I.C.
50 cc. I.P.



Microscopic

3 levels of cord
and one of medulla
— negative

June 3 Cisternal puncture: traumatic bloody tap. Fluid cleared in a few moments. Many R.B.C., 34 WBC 32 Lym 2 polys.

June 7 Cist punct: bloody tap.

June 10 Today the animal seemed worse, was generally weaker the more so on the left side. He could climb but poorly. Cry was high pitched & feeble.
Sacrificed.

autopsy: no gross brain lesion
lungs neg for the.
spleen yellowish nodules from which pus-like material was expressed.
smear neg. for organisms & gram stain.
many acid-fast bacilli
liver showed a few similar nodules.

~~at~~ Intestines showed heavy infestation
the esophagostomeum & invasion of abd. wall.

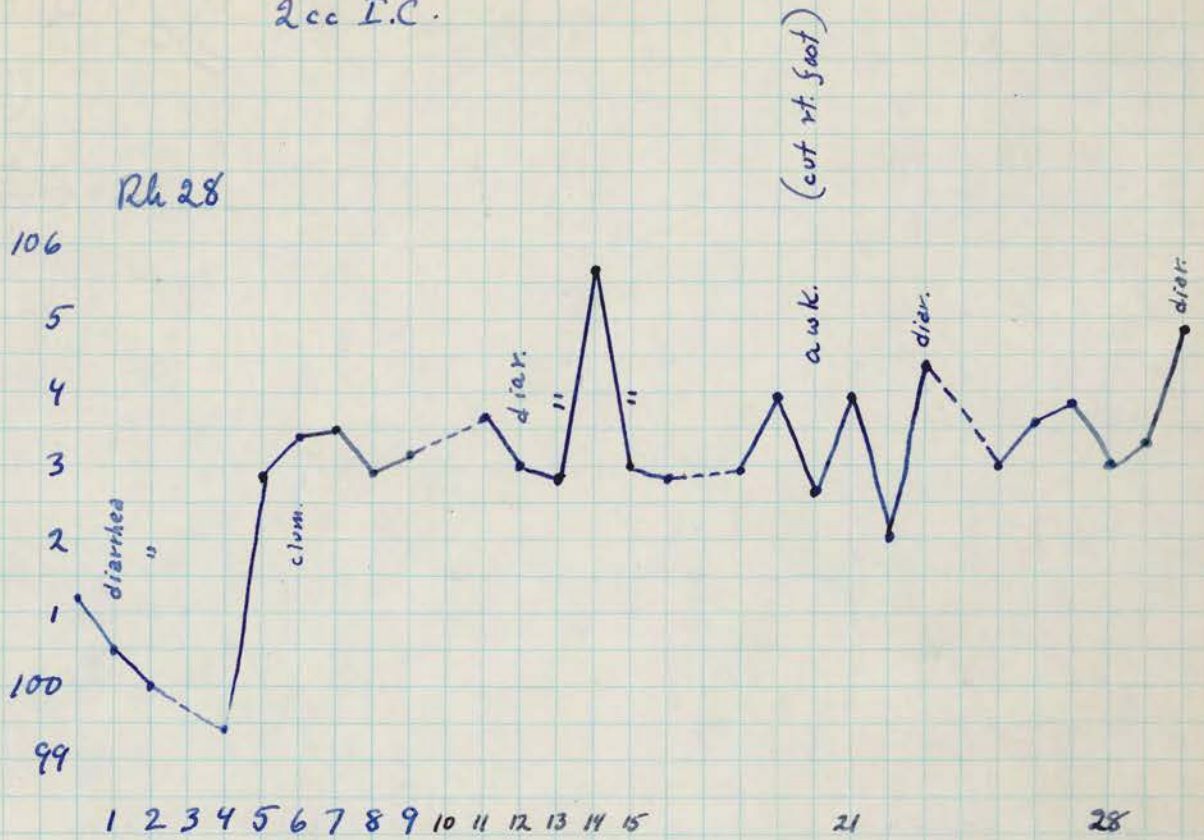
The spinal cord was removed under sterile precautions & ground in normal saline & sand. This suspension (10%) was lightly centrifuged, 0.1 cc of supernatant was cultured and the remainder injected into Rh 50, 2 cc. I.C. 9 cc I.P.

Culture June 11 no growth.
" 13 several colonies staph.

May 23

Tonsils 10% of Rh 5

2cc I.C.



May 23

Nasal mucosa of Rh 5.

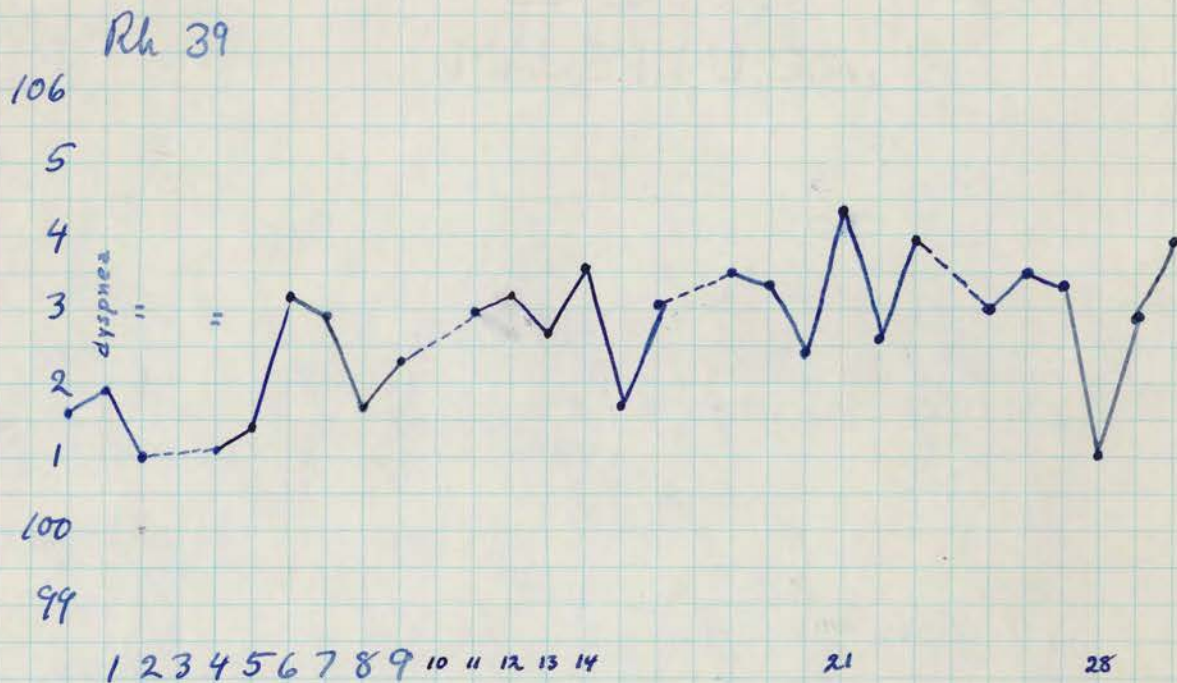
2 cc I.C.
about 5 cc I.P.



May 23

Intestine ♂ Rh 5

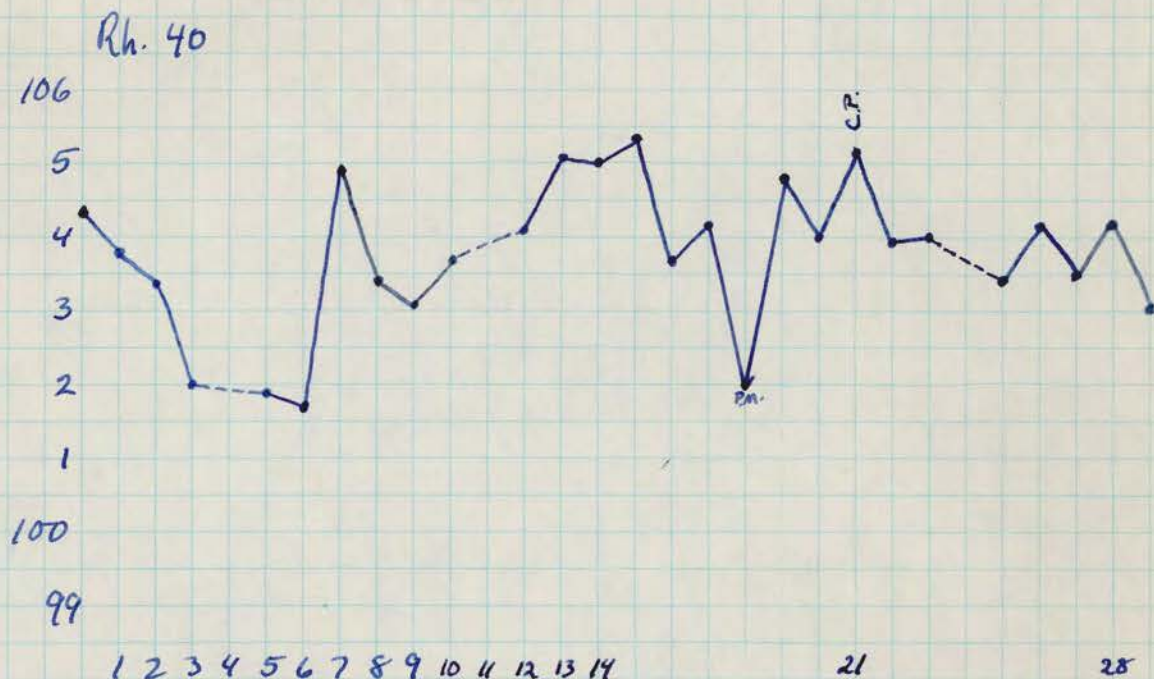
2cc I.C.
30cc I.P.



May 22.

Olfactory bulbs of Rh 3
1.0 cc. I.C.

68



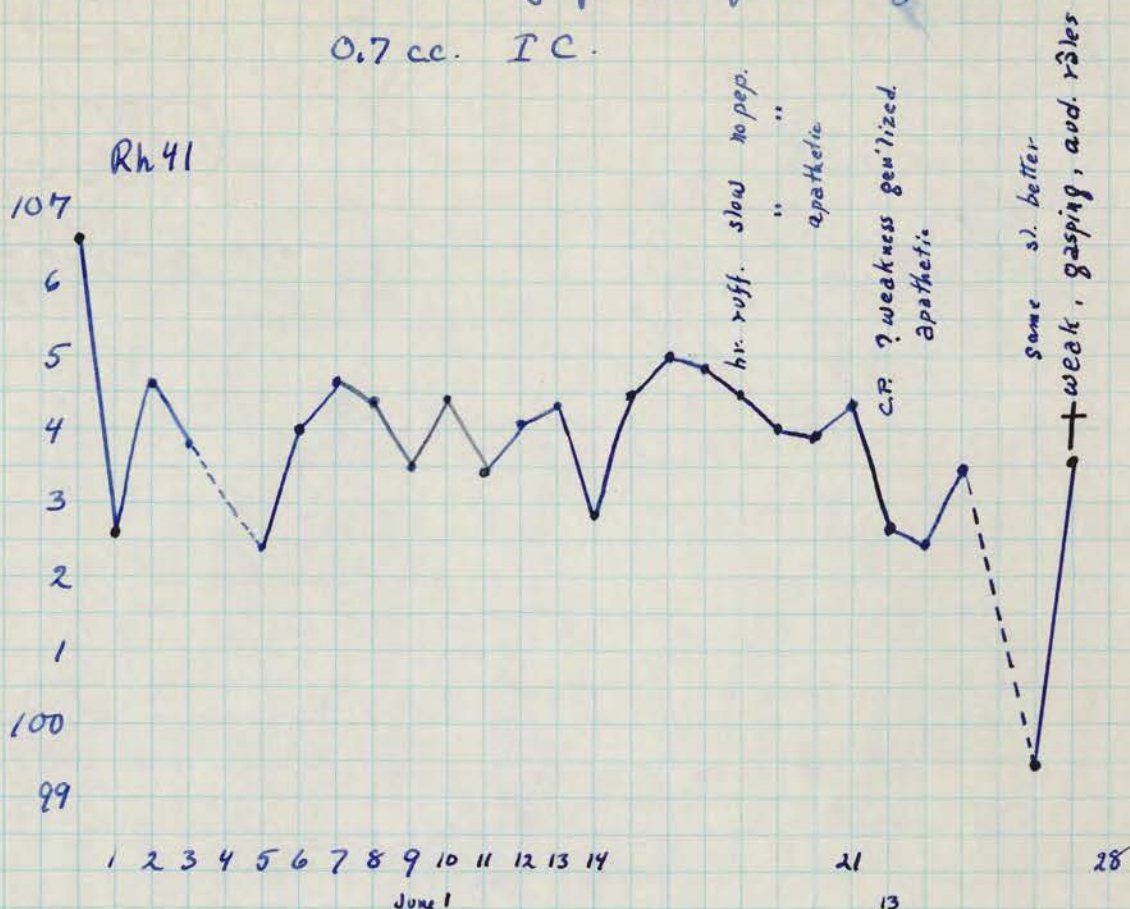
June 13 Cist. punc. clear fluid 18 cells 17 lym. 1 large mononuclear cell.

PM = afternoon temp.

May 22

Cervical sympathetic plexus of Rh 3

0.7 cc. I.C.



June 13 Cist. punc. clear fluid, incr. pressure. 6 lym.

June 18. Animal much worse immediately after taking temperature. Probsted. died shortly. Autopsy. military tbc. involving spleen, liver, kidney (1 nodule) omentum, mediastinum, lungs & pericardium. Acid fast bacilli demonstrated on smear of nodule from spleen.

The mediastinum was a mass of green yellow caseous material, ~~the~~ ^{air containing} right lung was practically non-existent, being adherent to the st. chest wall. Large caseous areas in costo phrenic space. Pericardium was densely adherent to right lung.

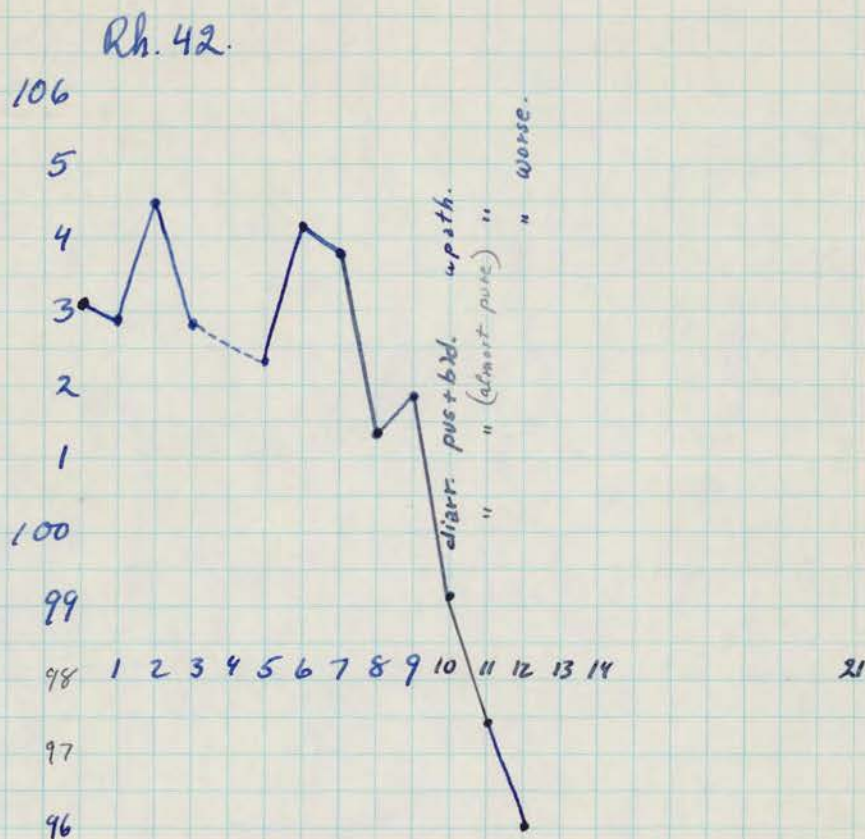
Sections of spinal cord were removed & placed in 50% glyc. & in Zenker's. Brain was not examined.

Microscopic - 4 levels of cord (+meninges) - negative
1 medulla (-meninges) -

May 22

Abdominal Sympathetic plexus of Rh 3

0.75 cc. I.C.



June 4 Found dead Autopsy: colon filled w slimy purulent & bloody material
Large hemorrhagic & ulcerated areas.

Microscopic - 3 levels of cord - negative

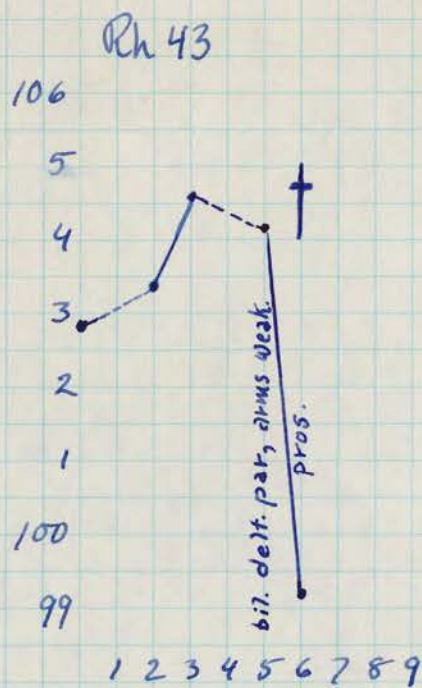
Meninges - negative

Acute colitis

May 22

Spinal cord of Rh 3.

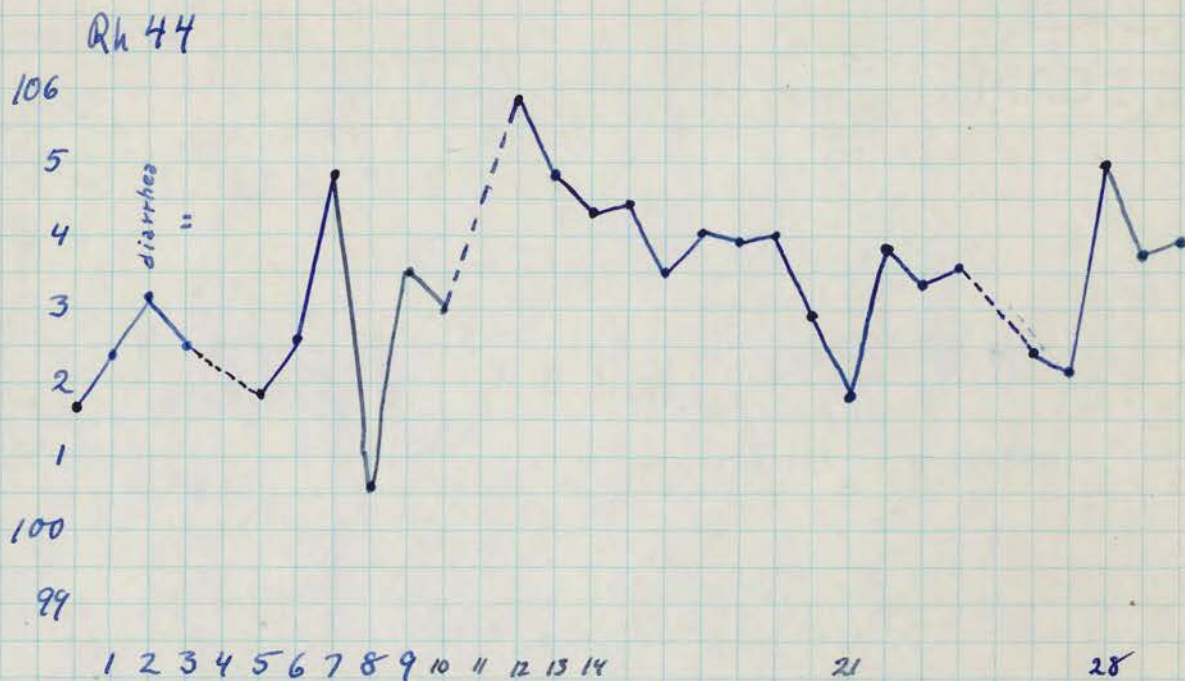
2cc. I.C.



May 22.

Adrenals 10% of Rh 3.

2cc I.C.
4.25cc I.P.

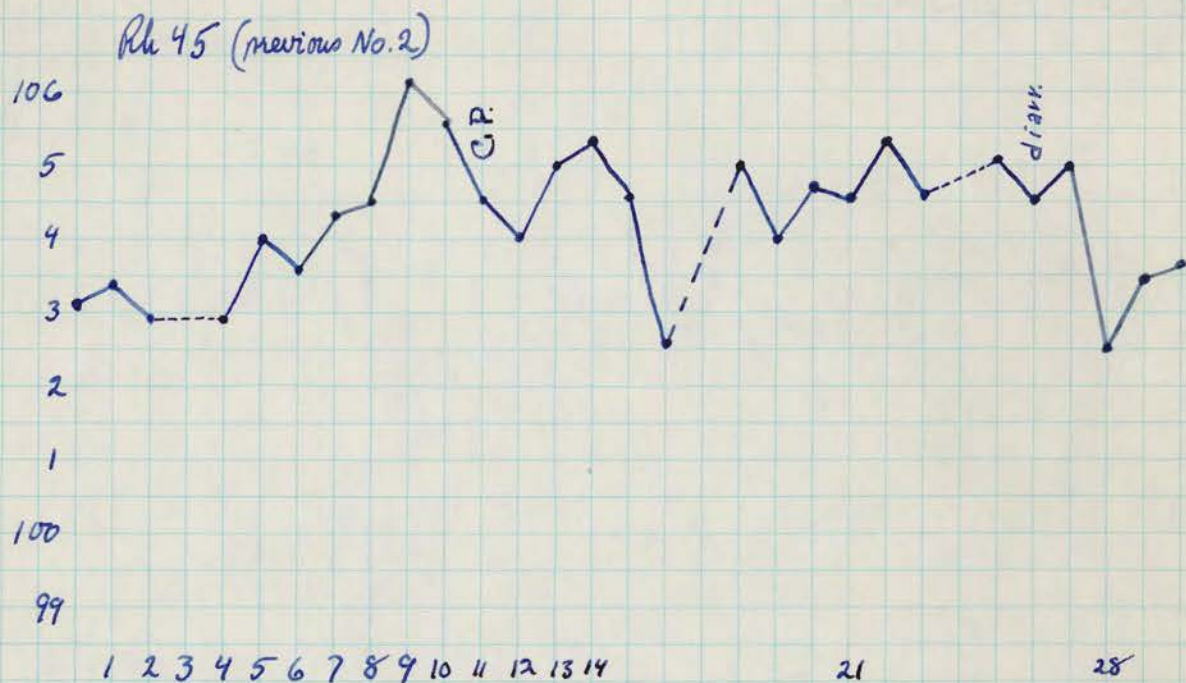


May 23

Salivary glands of Rh 3

2cc I.C.
21cc. I.P.

CR



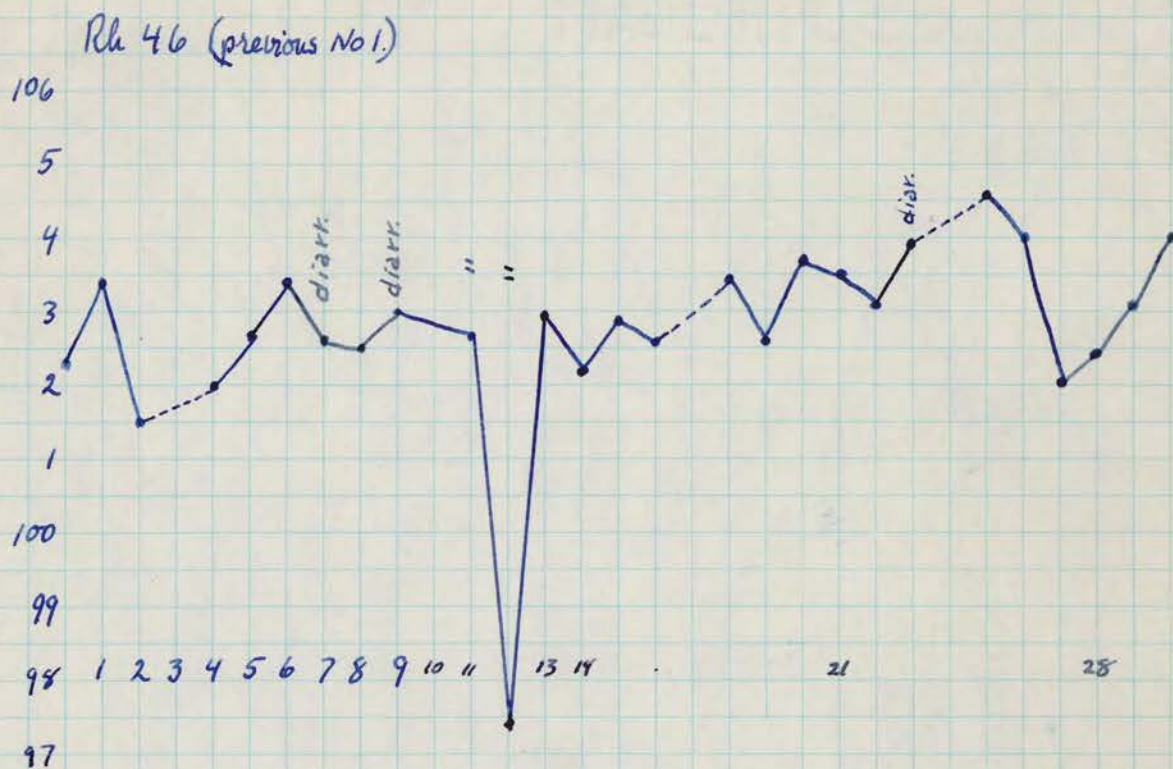
June 3 Cisternal puncture : clear fluid 23 cells - all lym.

May 23

Tonsils

of Rh 3.

1.7 cc I.C.



June 4

stool culture taken.

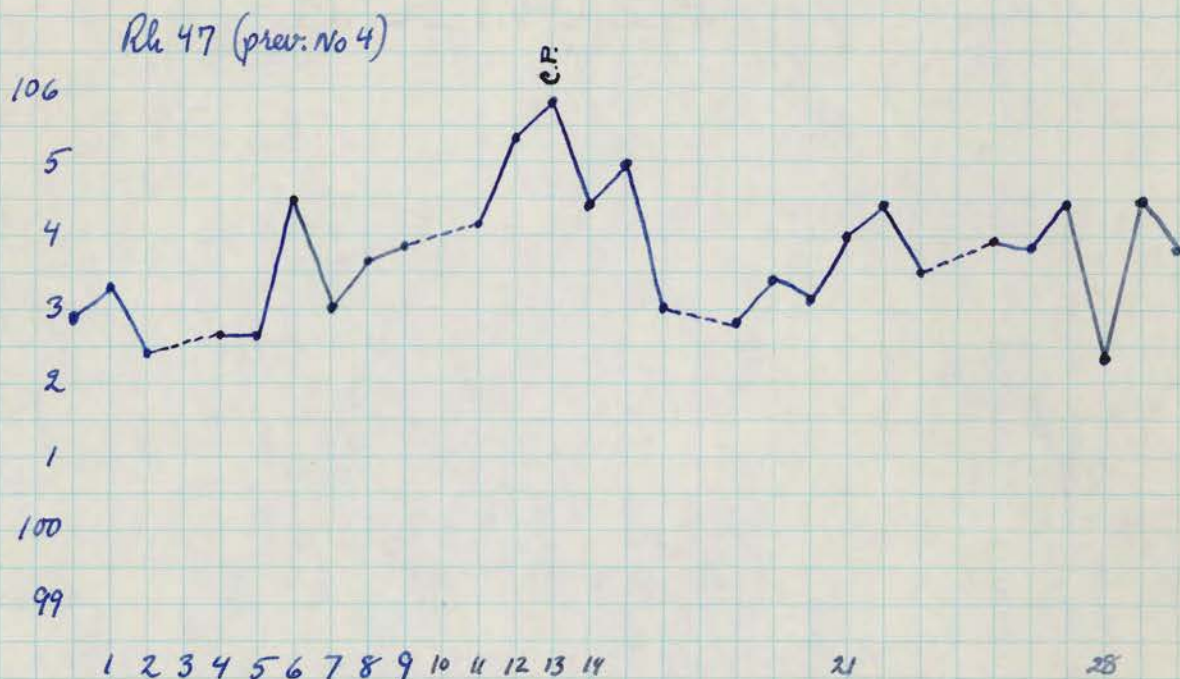
Sulfathiazol by gavage gr. 8 (Dr. Cooper) at 9 P.M.

May 23

Nasal mucosa of Rh 3.

2cc. I.C.

3cc. I.P.



June 5 Cist. punc. sl. turbid fluid
cell count after dilution $\frac{1}{2} + \frac{1}{2}$ in Tuerch's : 8 cym.

May 23.-1940

Intestine

of Rh 3.

2cc IC.
27cc IP.

Rh 48 (prev. No 6) (Not a toxoplasma monkey)

106

5

4.†

3

2

1

100

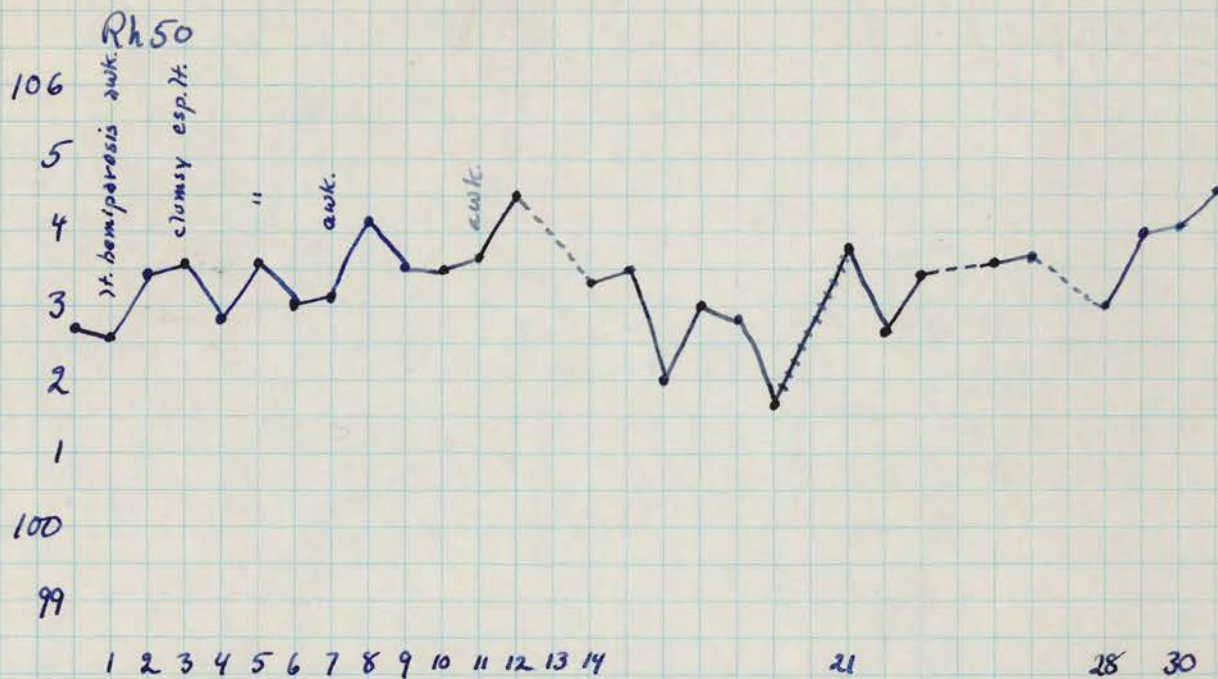
99

1 2 3 4 5 6 7 8 9

June 10.

Spinal cord 10% of Rh 27

2 cc I.C.
9 cc I.P.



June 21.

Spinal cord & medulla of Rh 32.

2cc I.C.

14cc I.P.

Rh 53

106

5

4

3

2

1

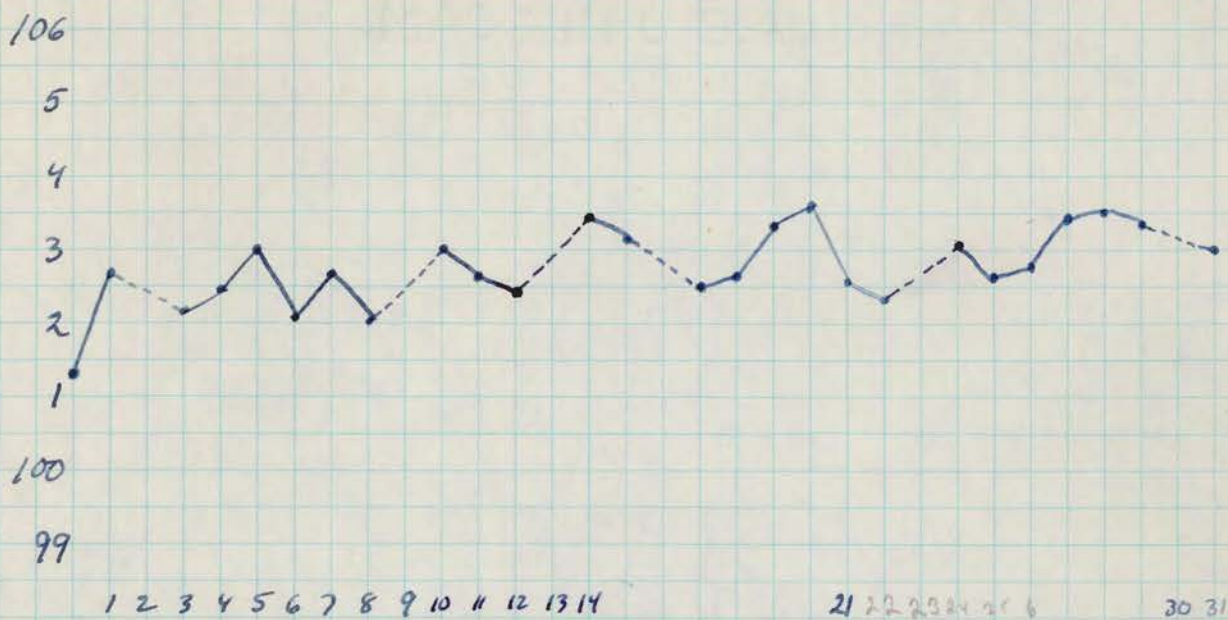
100

99

1 2 3 4 5 6 7 8 9 10 11 12 13 14

21 22 23 24 25 26

30 31



June 21.

Spinal cord & medulla of Rh 35

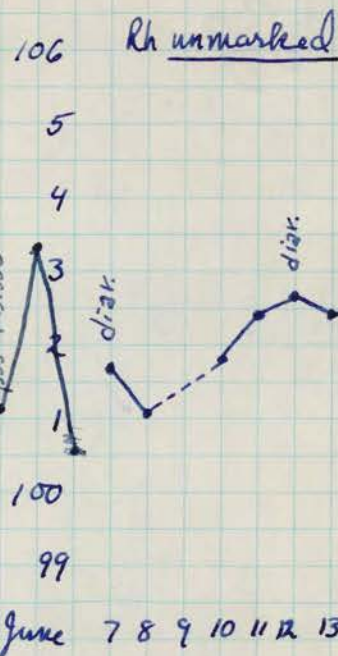
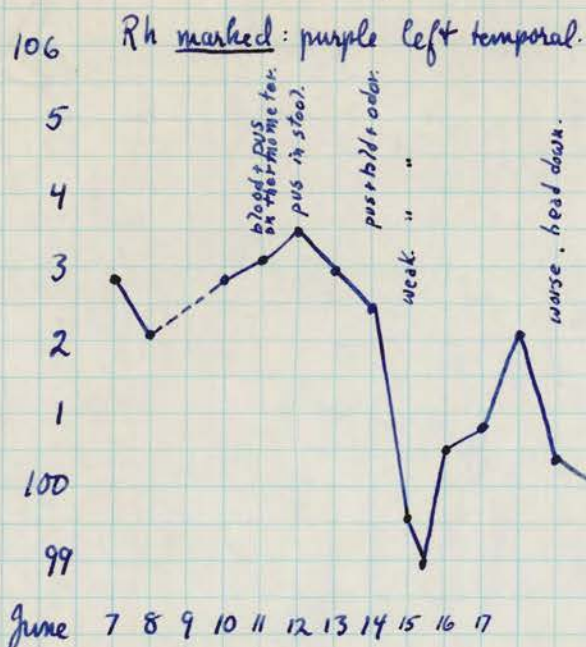
2cc. I.C.

19.5cc. I.P.

Rh 54.

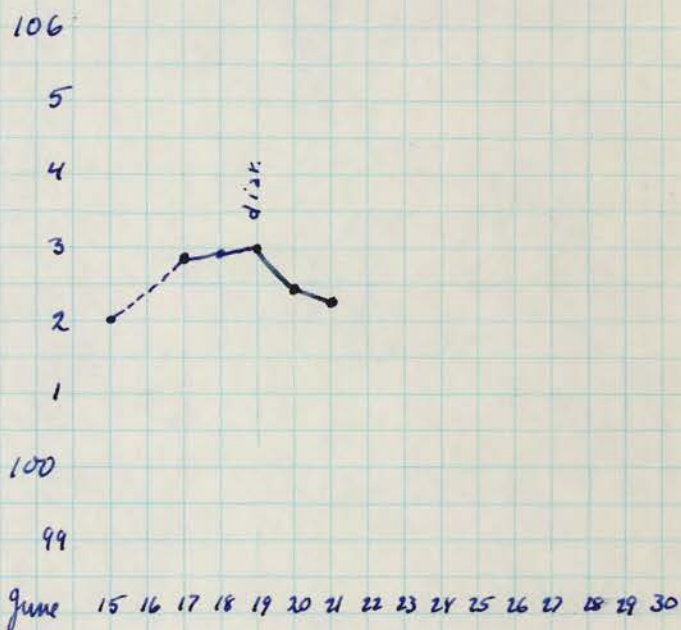


Normal monkeys



June 11 Dysentery.
June 15 sulfathiazol started.

Rh unmarked (cont'd)



50 64
51 65

		<u>Rh</u>	<u>Page</u>	<u>Rh</u>	<u>Page</u>	<u>Rh</u>	<u>Page</u>
55	2	104	74	10	126	20	89
56	3	105	75	13		21	116
57	4	106	76	14	121	2A	
58	10	107	77	16	120		
59	16	108	78	17	66		
60	30	109	79	22	124		
61	25	110	80	23	128		
62	21	111	81	24	92		
63	14	112	82	26	117		
64	24	113	83	28			
65	19	114	94	29	113		
66	28	115	95	31			
67	9	116	84	33	129		
68	20	117	85	37	99		
69	15	118	86	38	130		
70	17	119	87	39	118		
71	26	120	88	40	111		
72	22	121	90	44	92(back)		
73	29	122	97	45			
74	11	123	98	46			
75	5	124	101	47	122		
76	68	125	102				
77	69	126	104				
78	33	127	105				
79	36	128	107				
80	39	129	108				
81	42	130	110				
82	46						
83	49						
84	52						
85	38						
86	32						
87	48						
88	41						
89	54						
90	51						
91	35						
92	45						
93	55						
94	12						
95	57						
96	58						
97	43						
98	62						
99	63						
100	70						
101	71						
102	72						
103	73						

Treatment accorded material collected from -

Nasal Plugs.

- I. The juice was pressed out by means of a syringe. 2cc. of this undiluted juice was saved for etherization and I.C. injection.
- II. Remainder of undiluted juice, when present, was combined in the following:-
First extract { 5 or 7 cc. normal saline was added to the plugs which were macerated and again squeezed dry in aid of syringe.
- III. Both the undiluted juice and the first extract were centrifuged for 10 mins. at about 2000 Rev. To the supernatants was added 15% ether. Sediment was saved.
- IV. 10cc saline was added to the plugs for the second extraction. Plugs were left in saline for 24 hours, juice was then squeezed out by same method, & combined with sediments and saved for nasal instillation.
- V. The etherized fractions were left in refrigerator for about 18 hrs, then centrifuged for about 20 mins at 2000 rev. The supernatant was re-centrifuged for 1 hour at 2000 rev, and cultured.
- VI. Each monkey to receive A.) about 2cc undiluted juice (I) intracerebrally under local (novocaine) anaesthesia.
B.) 5cc. of second fraction (II) intraperitoneally
C.) 1cc. of third fraction (vide PIV) in each nostril twice daily

Saliva

Saliva was obtained from [redacted] and [redacted]: very thick tenacious material measuring approx. 4cc. in volume was ground in a mortar in sand and taken up in 10 cc. saline.

[redacted] fluid in mucopurulent material 11.5 cc in volume, ground in mortar in sand without addition of saline.
Both specimens centrifuged for 20 mins at about 2000 rev.

A.) Supernatant liquids shaken in 15% ether for 10 mins, then refrigerated for 18 hours. Centrifuged for 20 mins at 2000 rev. Supernatants re-centrifuged for 1 hour at 2000 rev. Cultured and saved for I.C. & I.P. inoculations

B.) Sediments of original material mixed in 10cc saline & saved for I.Nas.

Each monkey to receive A.) etherized material 2cc. I.C. and, in case of Fletcher 7cc. I.P. and, Keagle 3cc. I.P.
B.) Non-etherized material, 1cc. in each nostril.

Stools

1. a.) In the case of Vandemburgh, Keagle, and McGee
20 gms. of stool was ground in a mortar c 100 cc distilled H₂O.
b.) goldensleeve, 14 grams solid stool c little liquid
matter was ground... in 100 cc distilled water.
c.) Fletcher, 1 gram material recovered from fecal fistula
was ground in 27 cc. enema returns.
2. Stool suspensions were centrifuged for 30 mins 6th N.
Supernatants pipetted off & divided in 2 parts. (except Fletcher's)
Part A untreated, reserved for nasal instillation.
Part B 50 cc. of stool suspension (supernatant) plus
7.5 cc ether was shaken for 10 mins & refrigerated
for 18 hours. 28 cc. of each mixture was
centrifuged for 30 mins 6th N., supernatant
pipetted off and recentrifuged for 1 hour at
about 2000 rev. Supernatant liquid carefully
drawn off and cultured
and reserved for I.P. injection.
In case of Fletcher about 27 cc. of his material (l.c.)
was prepared in the same way.

Part A Each monkey receives untreated stool, 1 cc. in each nostril twice daily

Part B. " " " etherized stool, about 20 cc I.P.

Results of cultures (48 hrs.)

nasal juice for I.C. 0.05 cc. cultured.
 1 hemolytic 1 non-hemolytic colony.
 gram + cocci, ibid

nasal plugs 2nd extract for I.P. 0.1 cc cultured.
 2 colonies, one green + one non-hemolytic. Green: gram + cocci nonhem: ditto

saliva 0.1 cc cultured.
 no growth.

stool 0.1 cc. cultured.
 1 hemolytic colony.
 gram + (?) cocci

nasal juice for I.C. 0.05 cc cultured.
 no growth? in media is a deep colony - gram + cocci.

nasal plugs 0.1 cc cultured.
 no growth.

stool 0.1 cc cultured.
 ? few large gram neg. rods.

nasal juice 0.05 cc. "
 no growth.

nasal plugs 0.1 cc. "
 no growth.

saliva 0.1 cc "
 1 col: gram + bacilli, many in pairs

stool 0.1 cc. "
 1 green col. } non-hem. col.
 cocci - ? gram +. } same.

nasal juice
 no growth.

nasal plugs
 no growth.

stools
 no growth.

nasal juice
no growth.

nasal plugs
no growth.

stool.
no growth.

0.05cc cultured.

0.1cc cult.

0.1cc ..

Results of cultures. (2 days)

1 ##

nasal plugs undiluted (1 ether) ^{0.1 cc.} many white cols.
1st extract (comb. c undil.) " " "

saliva no growth
enema returns 1st injection " "
2nd " "

Nasal plugs. undil. no growth
" 1st extract (comb. c undil.) 1 white colony.

saliva (supernatant for I.C.) no growth.

saliva remainder no growth.

stool + enema. (0.1 cc cultured) 5 gray cols } at 48 hrs.
1 white " }

nasal plugs undil. no growth.
" 1st extract comb. c undil. no growth.

Red page numbers in Book II

Rhesus	Page	Rhesus	Page	Rhesus	Page	Rhesus	Page
		100	70	153 Anth.	113	206	46
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		103	73	156 Anth.	116	209	44
		104	74	157 Anth.	117	210	53
		105	75	158 Anth.	118	211	56
		106	76	159 Wils.	161	212	47
		107	77	160 Wils.	162	213	54
		108	78	161 Hunt.	158	214	41
		109	79	162 Hunt.	159	215	58
		110	80	163	32	216 Wils.	166
		111	81	164	31	217 "	165
		112	82	165	33	218 "	167
		113	83	166	36	219 "	168
		114 Pers	26	167	37	220 "	164
		115 Pers	27	168 Hood.	122	221 "	171
		116	84	169 Hood.	123	222 "	174
		117	85	170 Hood.	124	223 "	169
		118	86	171 Hood.	125	224 "	170
		119	87	172 Hood	126	225 "	172
		120	88	173 Hood	127	226 "	173
		121	90	174 Hood	128	227 "	176
		122 Anth.	97	175 Hood	129	228 "	177
		123 Anth	98	176 Hood	130	229 "	178
		124 Darg.	176	177 Hood	131	230 "	179
		125 Darg.	166	178 Hood	132	231 "	180
		126 Hood.	120	179 Hood	133	232 "	181
		127 Hood.	121	180 "	134	233 "	182
		128 Rip.	145	181 "	135	234 "	183
		129 Rip.	146	182 Hood	136	235 "	175
		130	50	183 Hood	137	236	42
		131	154	184 "	138	237 Chicago	191
		132	155	185 "	139	238	23
		133	23	186 Hood	140	239	52
		134	24	187 Hood.	141	240	53
		135 Anth.	100	188	38	241	157
		136 Anth.	101	189	34	242	157 bis
		137 Anth.	102	190	156	243 Pers	29
		138 Anth.	103	191 Wils.	163	244	30
		139 Anth.	104	192 Rip.	147	Cy 245 Rip.	148
		140 Anth.	105	193	51	246 Rip	148 bis
		141 Anth.	106	194 Darg.	188	Cy 247 Hunt	160 bis
		142 Anth.	107	195 Hunt.	160	248 Hunt	160 ter
		143	20	196 Pers	95	249	157 ter
		144	27	197 Hood.	142	250 Wils.	175 bis
		145	28	✓ 198 Anth.	112 bis	251	24
		146 Anth.	108	✓ 199 Anth.	111 bis	252	19
		147 Anth	109	200	153 bis	253 Wils.	166 bis
		148 Anth	110	201	153 ter	254 Hood	135 bis
		149 Anth	111	202 Chicago	189	255	17
		150 Anth	112	203 sc	190	256	22
		151	29	204	40	257 Wils.	170 bis
		152	25	205	43	258	22
						259	73 bis
2A 21	260	First	25				
	261	Anth.	8				
	262	Anth.	9				
	263	Anth.	10				
	264	Anth.	11				
	265		12				
	266	Anth.	13				
	267	Anth.	14				
	268	Anth.	15				
	269	Anth.	16				
	270	Weng.	pass. for gut.				
	271	Weng.	pass. for gut.				
	272		37				
14 8	273	Weng.	21				
	274	Hood	18				
16 7	275	Wils.	163 bis				
	276		2				
	277		3				
	278	Weng.	pass. Mot. cont.				
20 89	279		192				
21 3	280		193				
22 11	281		196				
23 16	282		197				
24 14	CYN 283	Pers	31				
	CYN 284	Pers	32				
26 4	285	Pers	36				
	312	64	286 Pers	35			
	313	61	287 Pers	34			
29 Root	314	62	288	33			
314	315	66	289 Pers	44			
	316		290 Pers	40			
	317		291 Pers	41			
33 17	318		292 Pers	42			
	319		293 Pers	43			
	320		294 Pers	38			
	321	65 bis	295 Pers	37			
37 Anth 99	322	in order after	296 Pers	39			
38 18	323	157 ter.	297	46			
39 5	324		298 Pers	48			
40 50	325		299 Pers	47			
	326		300 Pers	49			
	327		301 Pers	45			
	328	in order after	302 Pers	34 bis			
	329	157 ter.	303	54			
	330		304	55			
	331		305	56			
47 9			306	57			
			307	58			
			308	59			
			309	60			
			310	65			
			311	63			

	<u>Rh</u>	<u>Page</u>	<u>Rh</u>	<u>Page</u>	<u>Rh</u>	<u>Page</u>
m v pass.	95	1	387	48	282	25 bis
"	96	2	388	49	268	47
			389	52.		
I sciaté.	339	27	390	53		
"	340	3				
"	341	28				
"	342	4				
	343	5				
	344	6				
	345	7				
	346	8				
	347	10				
	348	14				
	349	50				
	350	51				
	351	15				
	352	16				
	353	17				
	354	11				
	355	12				
	356	13				
	357	9				
	358	20				
	359	18				
	360	19				
	361	24				
	362	25				
	363	26				
	364	21				
	365	22				
	366	23				
	367	← this no. used by M. Guet for salicylate, mostly otherwise known as Rh 5 normals				
	368	9 bis				
	369	29				
	370	30				
	371	31				
	372	32				
	373	33				
	374	34				
	375	38				
	376	39				
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	386	46				

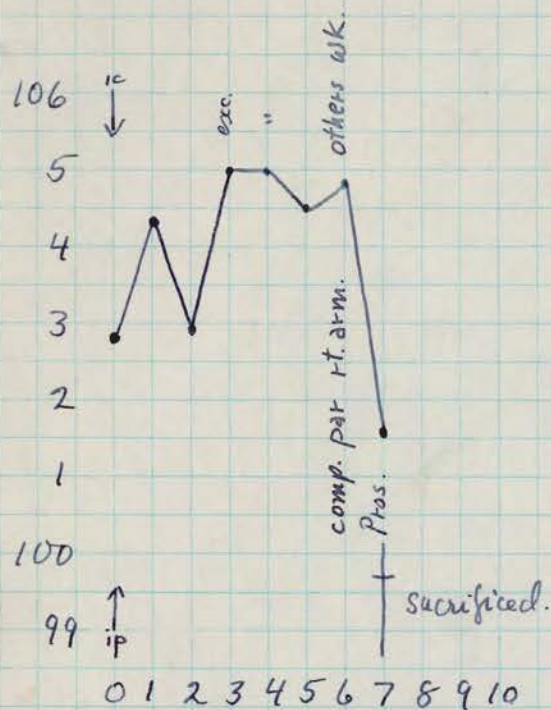
11-25-40

Passage of pooled monkey cord Rh 12, 25, 34 (m.v.)
sections from cervical & lumb. enlargements
total wgt. 1.5 gm. ground & sand
suspended in 15cc normal saline.

(formerly injected i Anderson
factory bulbs)

Rh 95

2cc i.cer. 13cc i.p.



12-2 sacrificed- autopsy.

cord & medulla in 50% glycerine.
1 gm of lumbar & cervical enlargement
used for intrasciatic injection Rh 340, 342

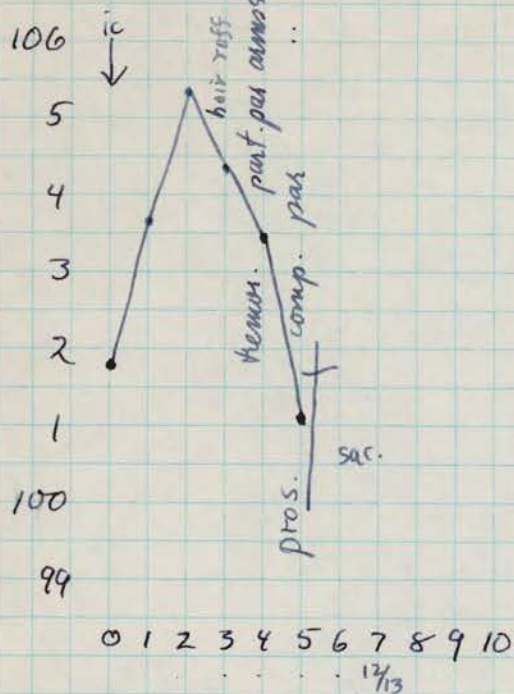
12-6-40

M-V Passage.

suspension 10%
Frozen cord, Rh 95.
Thawed. quite large particles settled
out in syringe. Resuspended.

Rh 96

2cc icer.



12-11 autopsy

OK.

cord removed, small portion used for
intrasciatic injection (Rhs 339, 341)
remainder stored in glycerine.

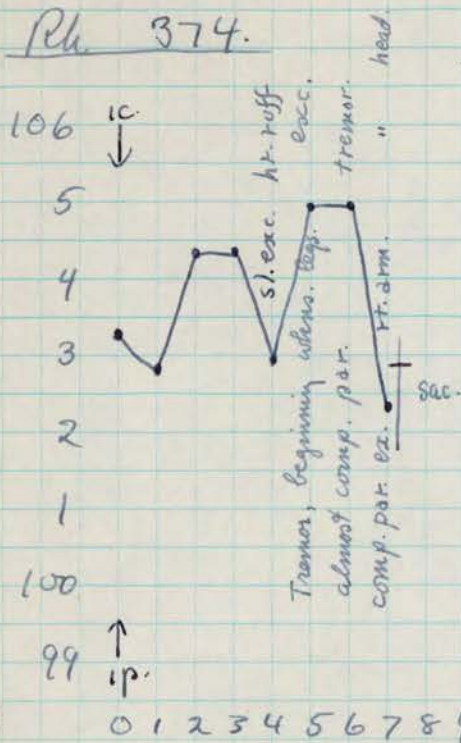
12-16-40.

Rh 339- Spinal cord

0.9 GM.
 (cerv. + lumb. enlarge)
 9.0 cc. dist
 water. sand,
 v. lgt. centrif.

Rh 374.

2cc icet. 6cc ip.



12-23 autopsy. no Hx.
 cvs neg gross.
 mes in 80 sections cord 3 med.
 glyc. " "

Microscopic - typical poliomyelitis exp lumb + cerv. cord.

12-11-40

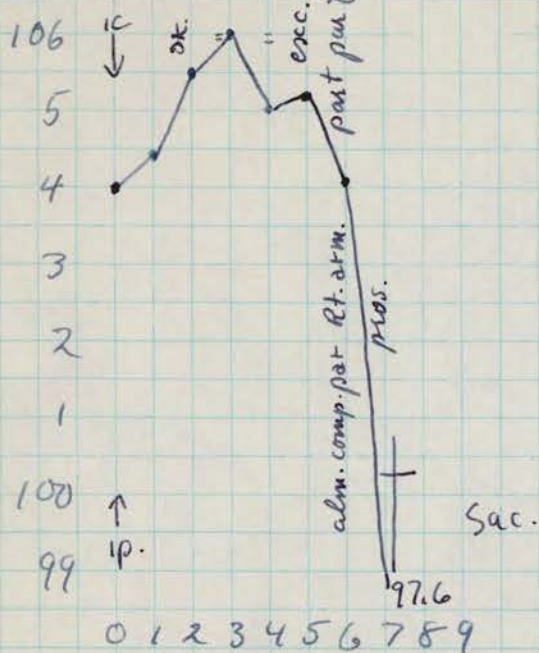
Intrascutic polio

19

Rh 340 - Spinal cord 1.25 Gm - 12.5 cc
dist water - sand
lgt. centrif.

2 cc icet 9 cc ip.

Rh 360



12-18 autopsy no hbc.
cns neg. gross.
mes in so. sections cord 3 med.
glyc. " "

Microscopic - massive neuronal destruction at all levels of cord, heavy perivasc. reaction + numerous foci of necrosis + neuronophagy in medulla.

12-17

Rh 341

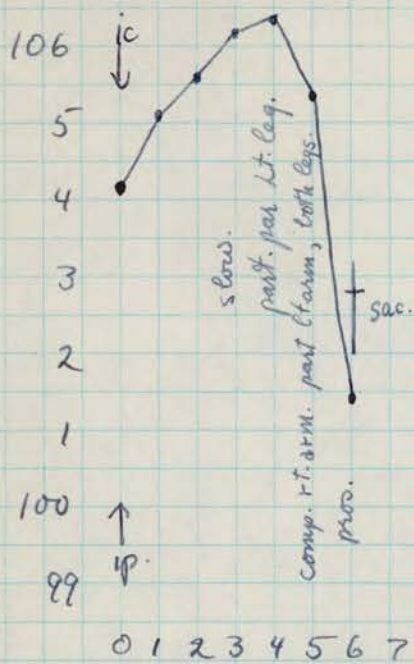
Spinal cord:

1 Gm. - 10 cc distilled water, sand, lgt. centrif.

Rh 380

2cc icer

7cc ip.

12-23 autopsy : no tbc.

pres in 80. CNS : hemorrhagic cavity 1cm in diam. site of injection Rt. front.

glyc. sections cord 3 med.

Microscopic : many foci of AHC necrosis + neuronophagia.

Intrasciatic poliomyelitis

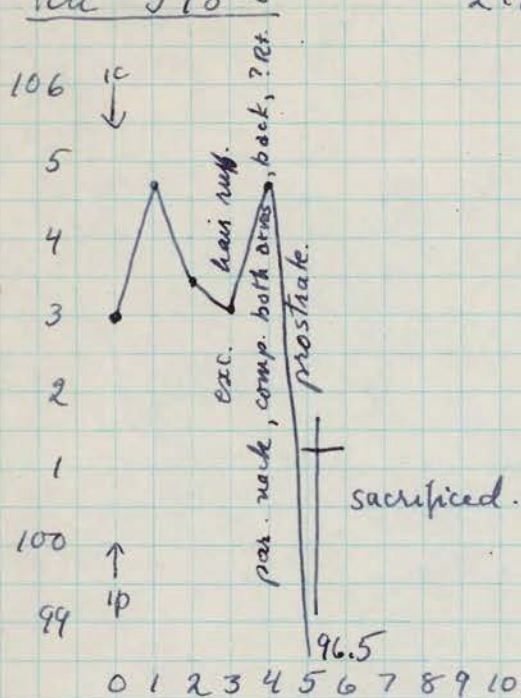
12-10-40

Rh 342. - Spinal cord

0.7 Gm from lumbar + cervical
enlargement, sand.
7cc dist. water.
v. lgt. centrif.

Rh 348

2cc i.c.t. 3cc i.p.



12-11 lulls head to left. Mid it before injection

12-15 autopsy

no flx.
cns.

pres in 80.

sections cord 3, medulla.
glyc. " "

Microscopic : poliomyelitis, acute & scarcely an
A.H.C. preserved.

Intrasciatic poliomyelitis

12-10-40

Rh 342 - olfactory bulbs.

dist. H₂O
0.05 GM. - 1.5 cc.
suspended first in
1 cc., no sand.
0.5 cc used to rinse
mortar. Drawn up
directly in syringe.

Rh 343.

1.2 cc i.c.e.r.



1-10 : Blood taken for Calcium & phosphorus.

1-11 : Ca 10. mg %.

1-14 no convulsions seen last 2 days.

1-14 autopsy. no h.c.
cvs. neg gross. brain in 10% formalin.
sections - cord 6 med.
glyc. " "

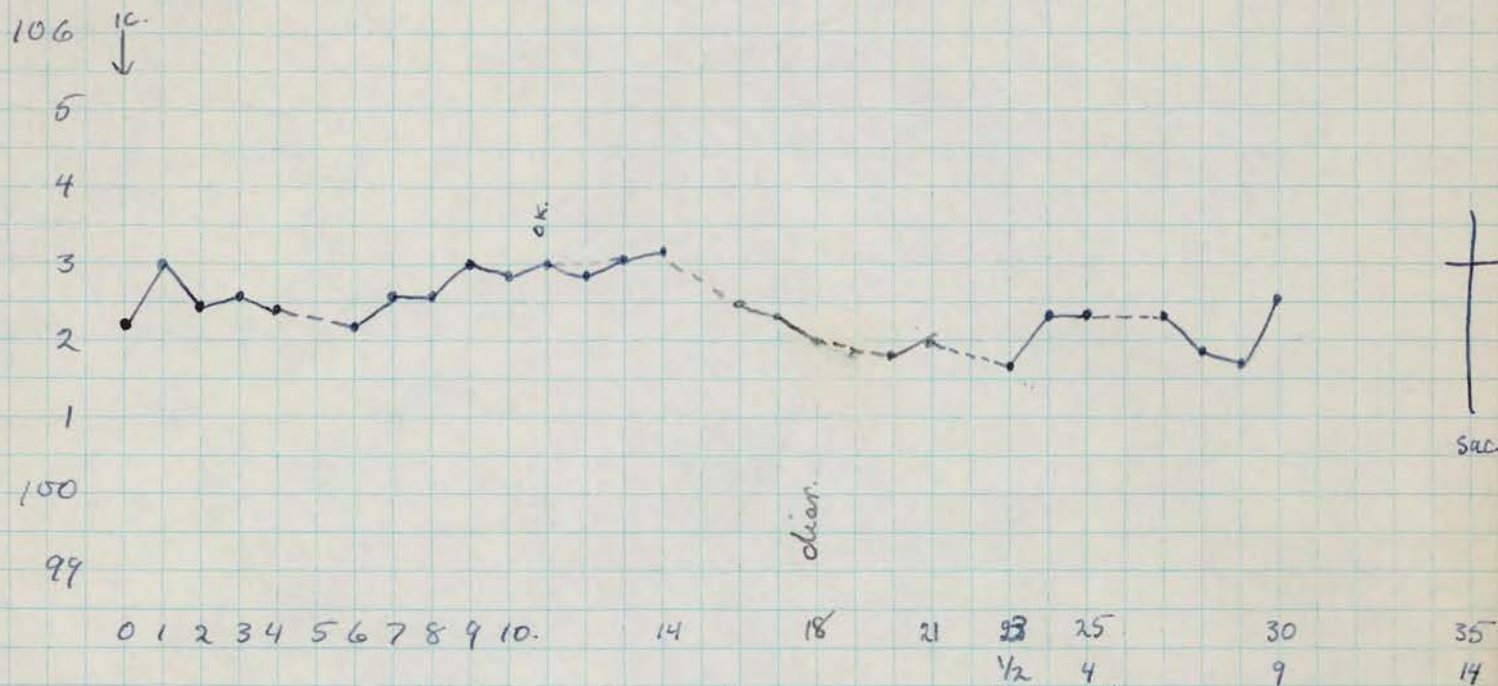
Microscopic - perivascular cellular accumulations in
cervical cord, (slight) + lumbar c.
remaining levels negative.

Intrasciatic poliomyelitis

12-10-40

Rh 342 - abdominal sympathetic plexus 0.1GM - 3cc
dist. water.
sand, lgt.
centrifugation

Rh 344. 2.2cc i.cer.



12-10 very clumsy, falls awkwardly - ?? beginning "case paralysis"
12-12 less clumsy, has widening of wrists.

1-14 autopsy: no tbc.
cvs neg gross.
sect. cord 6 med.
glyc " "

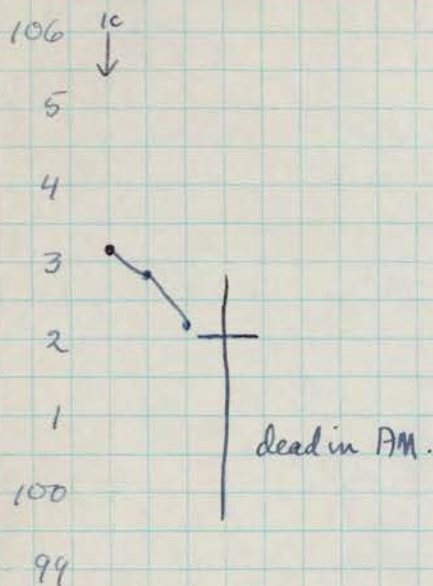
Microscopic: 6 levels of cord, 1 medulla negative

12-10-40

Intrasciatic poliomyelitis
Rh 342 - cervical sympathetic ganglion
 0.056M - 2cc distilled
 water. Sand
 centrif. lightly.

Rh 345

1.5cc i.cer.



12-12. autopsy brain abscess at site of injection Rt. front. lobe.
 loaded w gram + diplococci.

Intrasciatic poliomyelitis

12-10-40

Rh 342 -

salivary glands

4.5 gm - 23cc

distilled water.

ground c sand-cent
(2cc. saved.) Gply

original material cultured
on BAP. 3 white hem cols. on
streak, 2 off.

12-13 material etherized c 15% ether
shak. 10", overnight in cold.

12-14 centrif 1/2 hr at 8N.
culture: no growth 48 hrs.

Rh 346

2cc i.cet.

106 ic



5

4 •

3

2

1



died in AM.

100

99

0 1 2 3 4 5 6 7 8 9 10

12-11 autopsy.

no tbc.

cats - small hemorrhagic cavity site of injection size of pea.

sections - cord 6, med.

glyc. - " "

microscopic

pyogenic meningitis

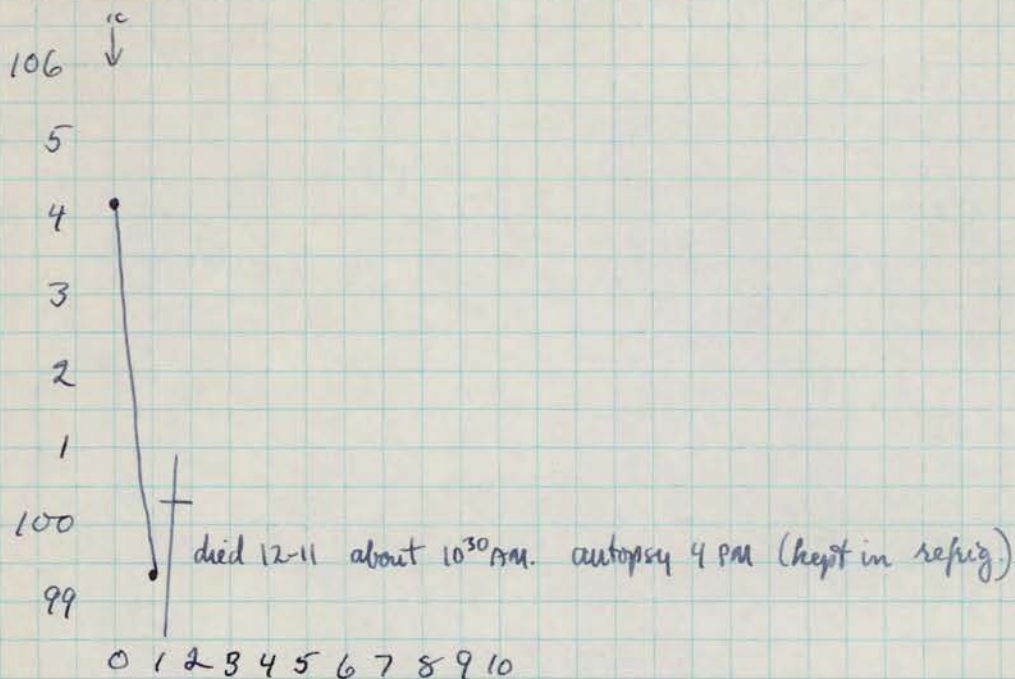
12-11-40

Intraspinal polio.

Rh 342 - salivary glands (repeat injection)

Rh 357.

2 cc i.c.v.

12-12- autopsy

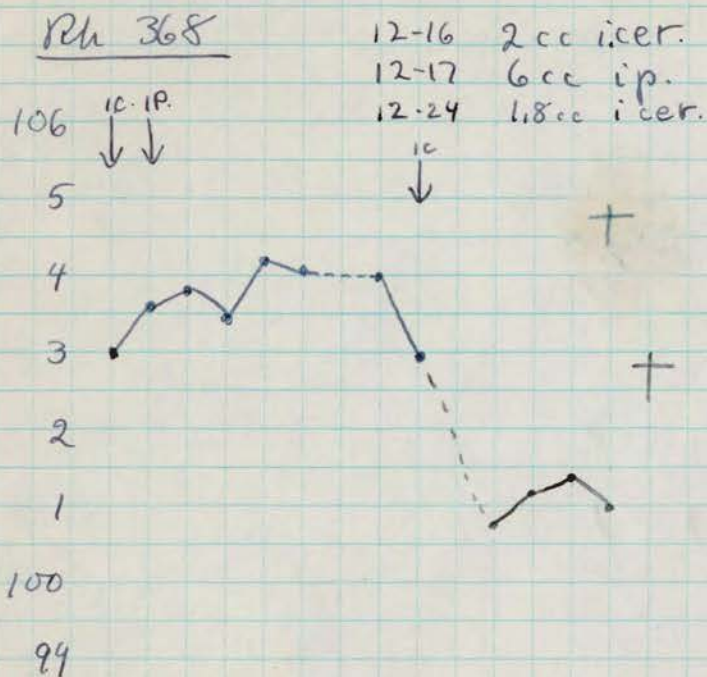
no hbc.

CNS nothing abnormal
sections, usual
glyc. "

Microscopic - Perfect example of pyogenic meningitis
with nerve cells well preserved.

12-16

Rh. 342 - salivary glands (etherized)



0 1 2 3 4 5 6 7 8 9 10 12 14
17/30

12-26 - bloody diar.

27 diar

28 "

29 "

30 Found dead autopsy.

pres in 80.

cvs neg.

hemorrhagic enteritis.

bloody colon contents.

sections. usual

glyc. "

(note.)

Microscopic - Negative

Intrascatic poliomyelitis

10

12-10-40

Rh 342 - adrenals. 0.7 G.M. - 7cc distilled water.
ground & sand. cent. lgtly.
2+cc saved.

Rh 347.

12-10: 2cc i.cer. 12-11: 2cc ip.
12-17 1.8cc i.cer.



1-14 autopsy

no tbc.
ca's neg gross.
sect. cord 6 med.
glyc. " "

Microscopic : medulla several meningeal vessels show moderate
perivascular cellular reaction.
cervical cord slight perivasc. cell. "
lumbar cord 1 vessel shows " "
otherwise negative.

Intrasciatic poliomyelitis.

11

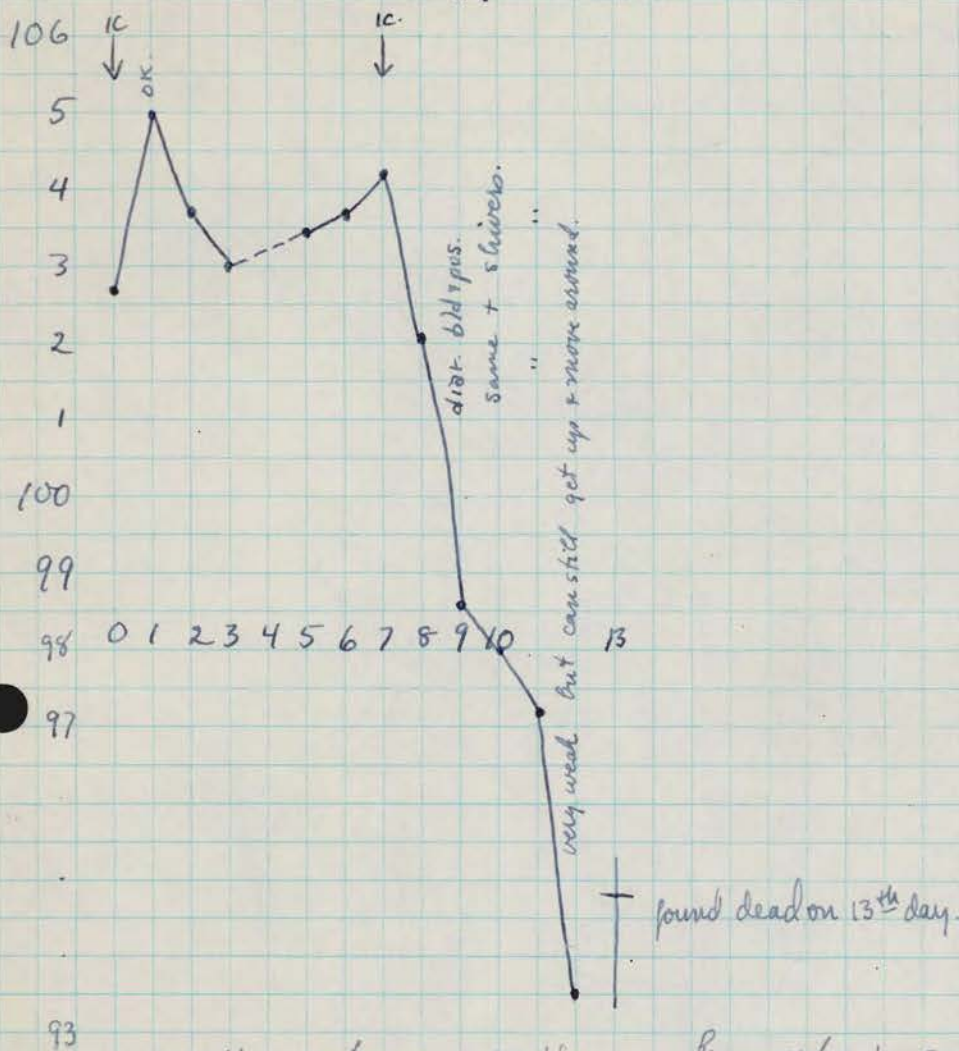
12-11-40.

Rh 342 - Nasal mucosa.

0.6 gm - 6cc dist. water.
sand, centrif. ^{4.7cc} SN etherized c
15% ether. Shaken 10 min overnight
in icebox. 2 centrif. Cult. 0 ²⁴/₄₈
about 2cc saved.

Rh 354.

12-11 2cc icer.
12-18 1.9cc icer.



12-24 autopsy. no tbc.

hemorrhagic enteritis.

pulmon. adhesions

smear of meninges - no bacteria.

mes in 80

cvs neg gross.

sections cord 6, med.

glyc.

Microscopic - ~~Moderate~~ Negative

Moderate cellular infiltration in meningeal vessels
of cord and medulla.

Intrasciatic poliomyelitis

12

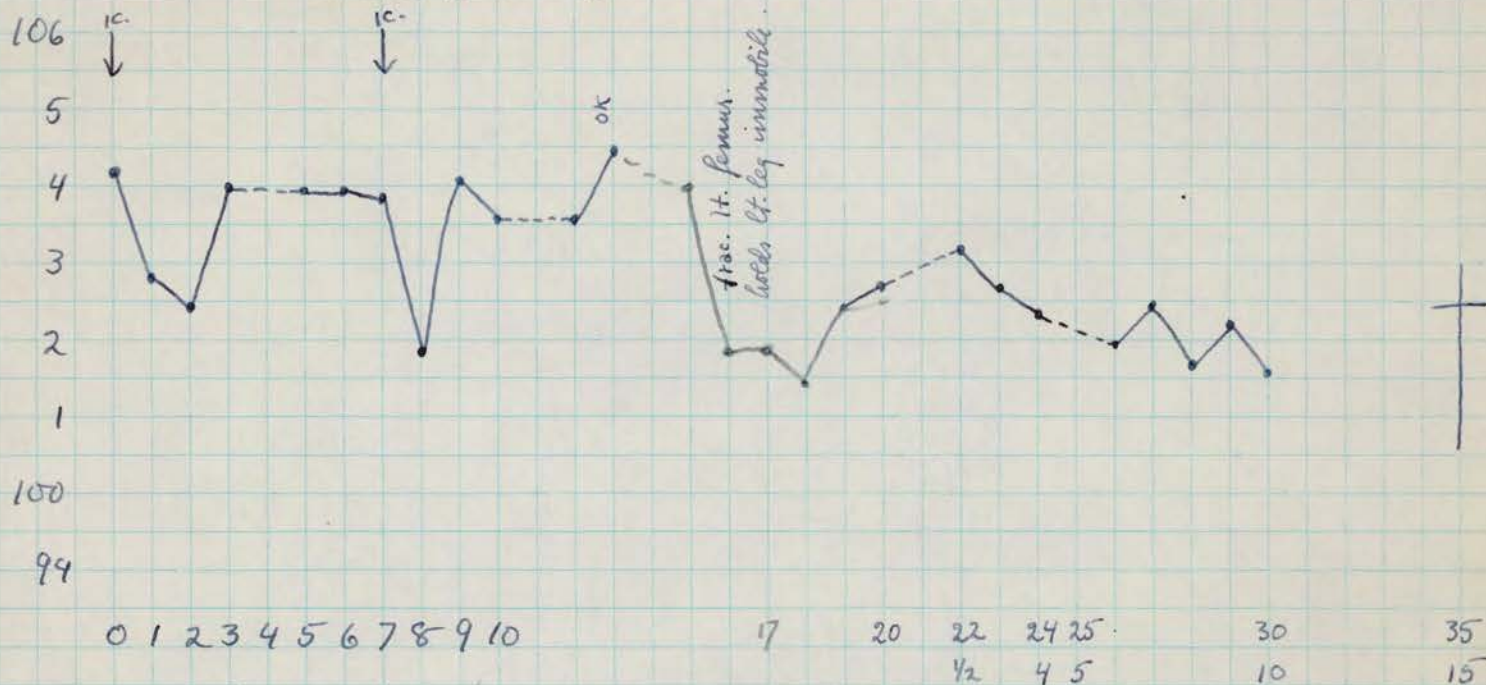
12-11-40

Rh 342 -

Tonsillar-pharyngeal tissue. 0.5 GM-6cc dist water. Sand, lgt. centrif. 5^{4.2cc} etherized 15% ether. Shake 10" overnight in ice box. 2 centrif. culture 0 24 hrs, 48 hrs (about 2cc saved)

Rh 355

12-11 2cc icet.
12-18 1.5cc icet.



12-26 - broken left femur

27 - doesn't use left leg

1-6 large callus lt femur, Rh still holds left leg immobile. otherwise OK.

1-15 autopsy : no tbc.
cns neg. gross.
sections cord 6, med.
glyc. " "

Microscopic

slight perivasc. cell. accumulation in meningeal vessel of medulla and lumbar cord.
otherwise negative.

Intrasciatic poliomyelitis

12-10-40.

Rh 340 - cervical sympathetic ganglia 0.05 GM - 1.5cc distilled water.
sand, centrif.

Rh 351

0.85cc i cer.



1-8 ^{10 AM} Monkey seen in a clonic convulsion involving left arm & leg lasting about 1 min, ending in tonic phase. Perfectly normal immediately after. Vision O.K. 6 PM. another brief convulsion involving left arm. Eyes stared into space during fit, OK afterwards.

1-9 fits observed this AM & one this PM. after exercise. (Both 343 & this monkey had simultaneous fits after I chased them around.) Today's fits same as yesterday except left side of face involved (eye & mouth) also turned head far to left in jerky movements. was absolutely OK afterwards.

1-10 Blood for calcium and phosphorus.
Ca: 10 mg. %

1-11 much worse, prostrate, continuous convulsion, generalized.
autopsy viscera. neg.
brain removed in toto, preserved in formalin 10%.
mes in 80. sections cord G.
glyc. cord.

Microscopic

slight perivasc. cell. accumulations in meninges of thoracic level.
other levels negative

Intrasciatic poliomyelitis.

12-10-40

Rh 340 - Abdominal sympathetic plexus. 0.1 GM
3.0 cc
dist. water
sand, lgt. centrif.

Rh 352.

2.1 cc icet.



1-14 autopsy no tbc. large cyst in liver
cns neg. gross.
sect. cord 6 med.
glyc. " "

Microscopic perivascular cell accumulations in meninges of
medulla
cervical cord
lumbar " } otherwise negative.
thoracic (v. slight)

Intrasciatic polio.

17

12-10-40

Rh 340 - adrenal glands 0.7GM. - 7cc dist. water
sand, lgt. centrif.

Rh 353

12-10
2 cc icet.

12-11
2 cc ip.

12-17
2 cc icet.

(2 cc saved)



1-14. autopsy.

no flc.
cns neg. gross.
sections cold 6, med.
glyc. " "

Microscopic

slight perivascular cell reaction in meninges
cervical level.

otherwise negative

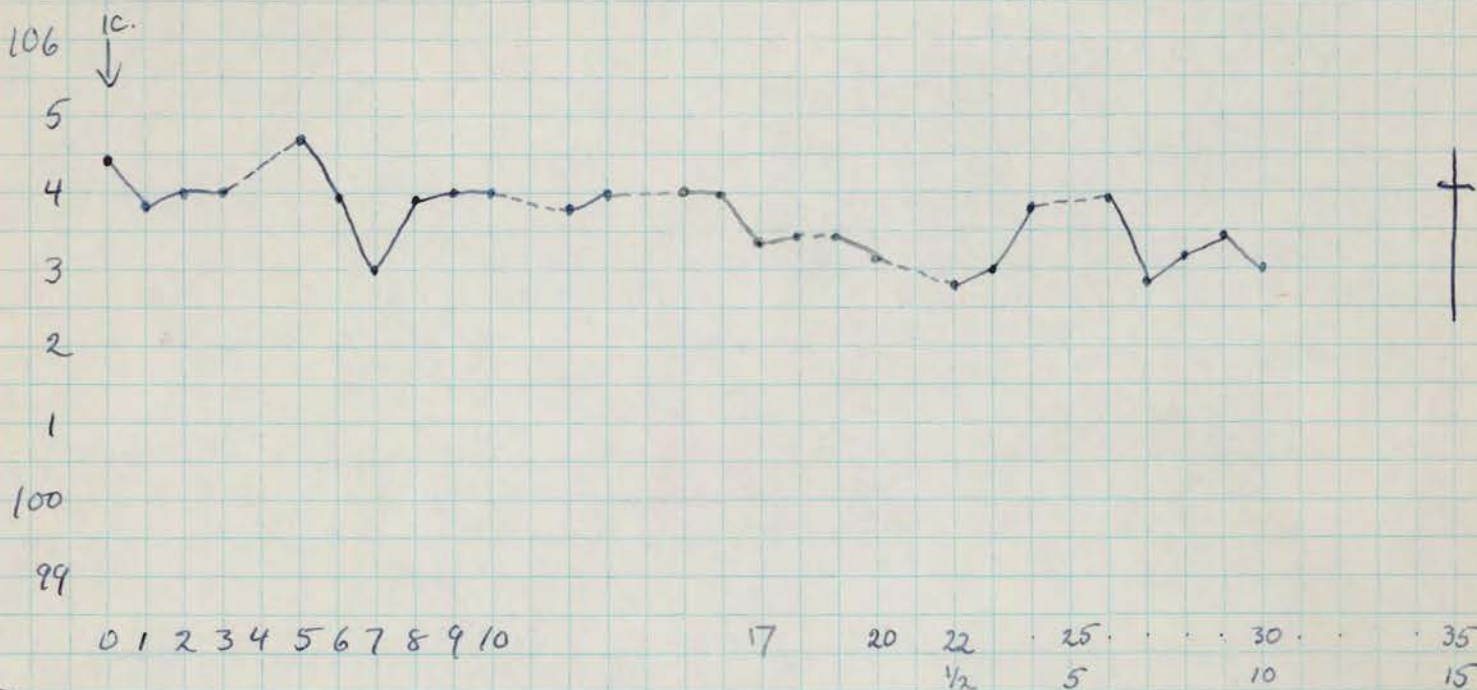
12-11-40

Rh 340 - olfactory bulbs. 0.15 gm. -

no sand, 1.5cc
dist. water.
taken up as for 342,
directly in syringe.

Rh 359

1.4cc icet.



1-15 autopsy.

no tbc.
cvs neg. gross.
sections - cord 6, med.
glyc. " "

Microscopic

perivascular cell. accum. in meninges of

medulla

thoracic cord (v. slight)

Remaining levels negative.

Intrascatic polio.

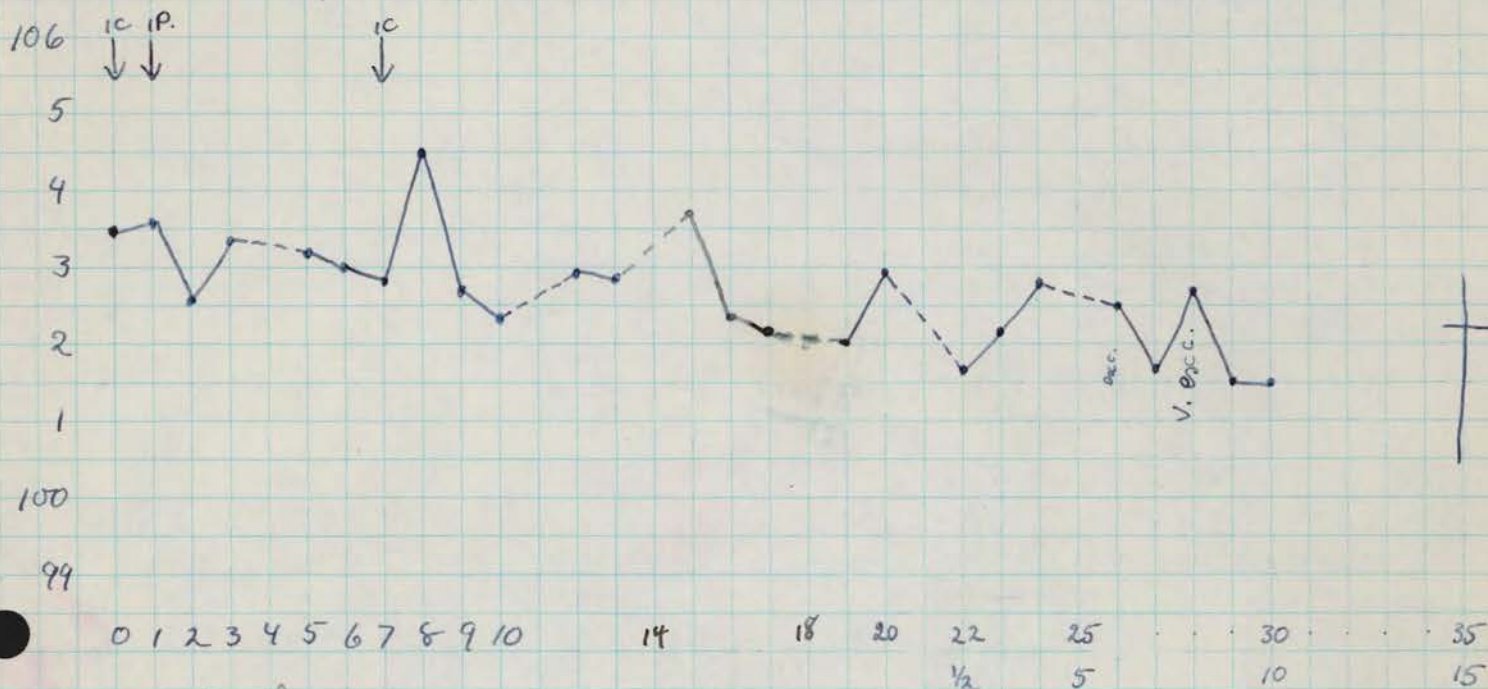
(injected)
12-11-40Rh 340 - salivary glands 4.2 GM. - 26 cc water
ground i difficulty, sand.
overnight on ice.

(2 cc saved)

Rh 358

12-11: 2cc ice. 12-12 15cc ip.

12-18: 1.75cc ice.

12-27- diarrhea
28 " - hair ruff.

1-15 autopsy.

no tbc.
cvs. neg gross
sections cord & med.
glyc. " "Microscopicperivasc. cell. reaction in meninges of
Medulla.

all other levels neg.

Intrasciatic polio.

21

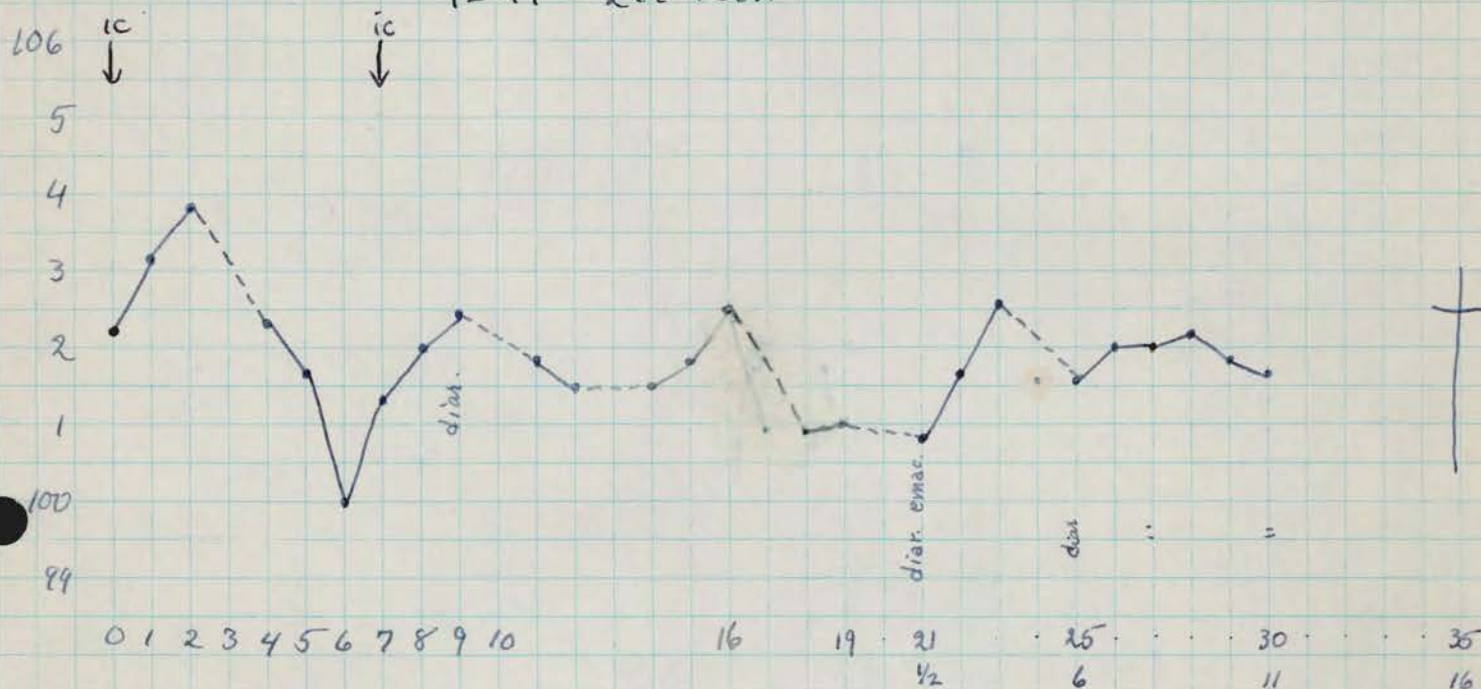
12-12-40

Rh 340. - Nasal mucosa -

0.55GM - 8cc dist water
sand, centrif.
6cc SV. etherized c 15%
ether, shaken 10 mins
overnight in cold.
2 centrif.
culture. no growth 24 hrs.
72 hrs
(3cc saved)

Rh 364.

12-12 2cc icet.
12-19 2cc icet.



1-16 autopsy: no H.C.
cvs neg. gross.
mesence Sect. cord 6, med
glyc. " "

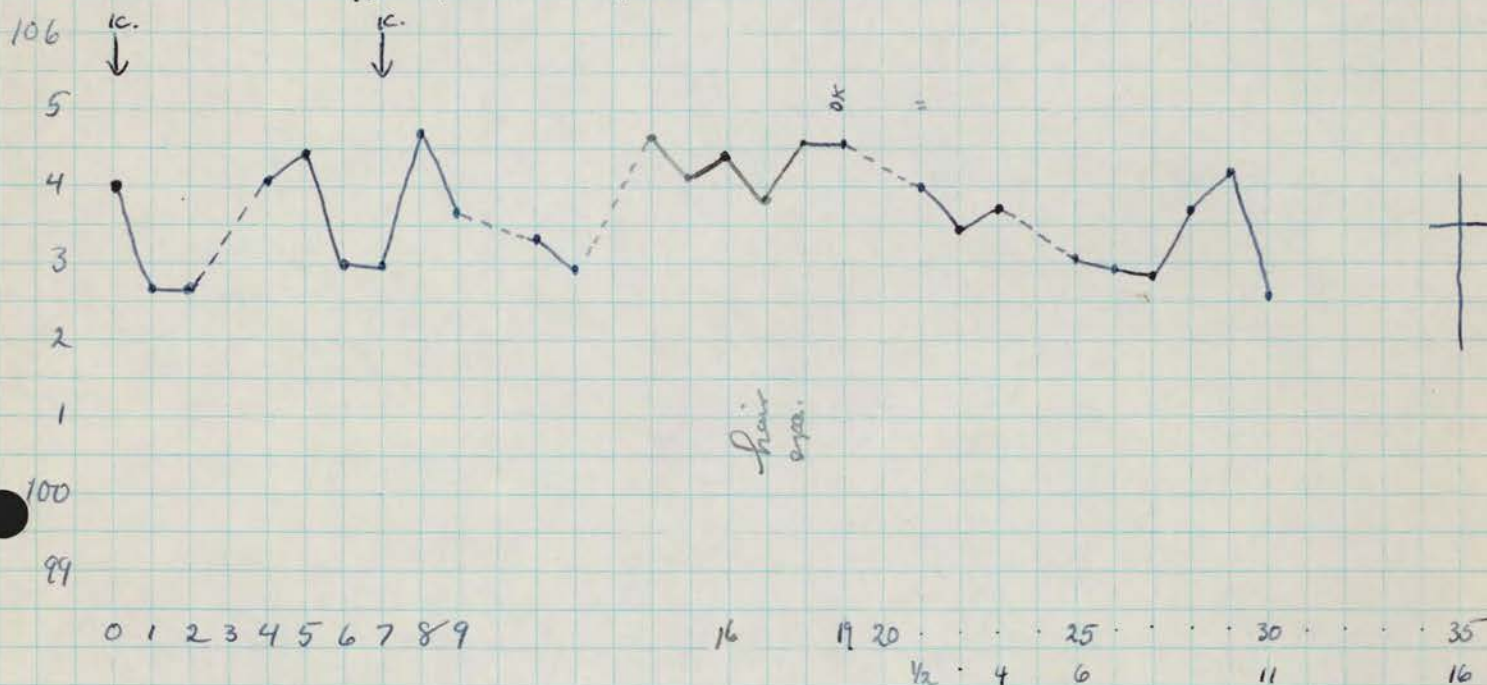
Microscopic Negative.

12-12-40

Rh 340 - Tonsillar-pharyngeal tissue. 0.4 Gm - 6 cc
dist. water, sand.
by centrif. 20m. 8N.
4 cc. SN. etherized
shaken 10 mins
overnight in cold.
2 centrif.
culture. no growth 24 hrs.
2 wh. cels. 72 hrs.
(1.2 cc saved.) - n.hem.

Rh 365

12-12 2cc icer.
12-19 1.2cc. icer.



1-16 autopsy: no tle.
cars neg gross.
pres in 80 sections: cord 6, med.
glyc. " "

Microscopic

Heavy cellular infiltration in meningeal vessels
of lumbar cord esp. at anterior median fissure.
Other levels - negative.

12-16.

Rh 339 -

Salivary glands

6.6 gm - 33 cc
dist. water
sand. centrif.
4 N. 10"

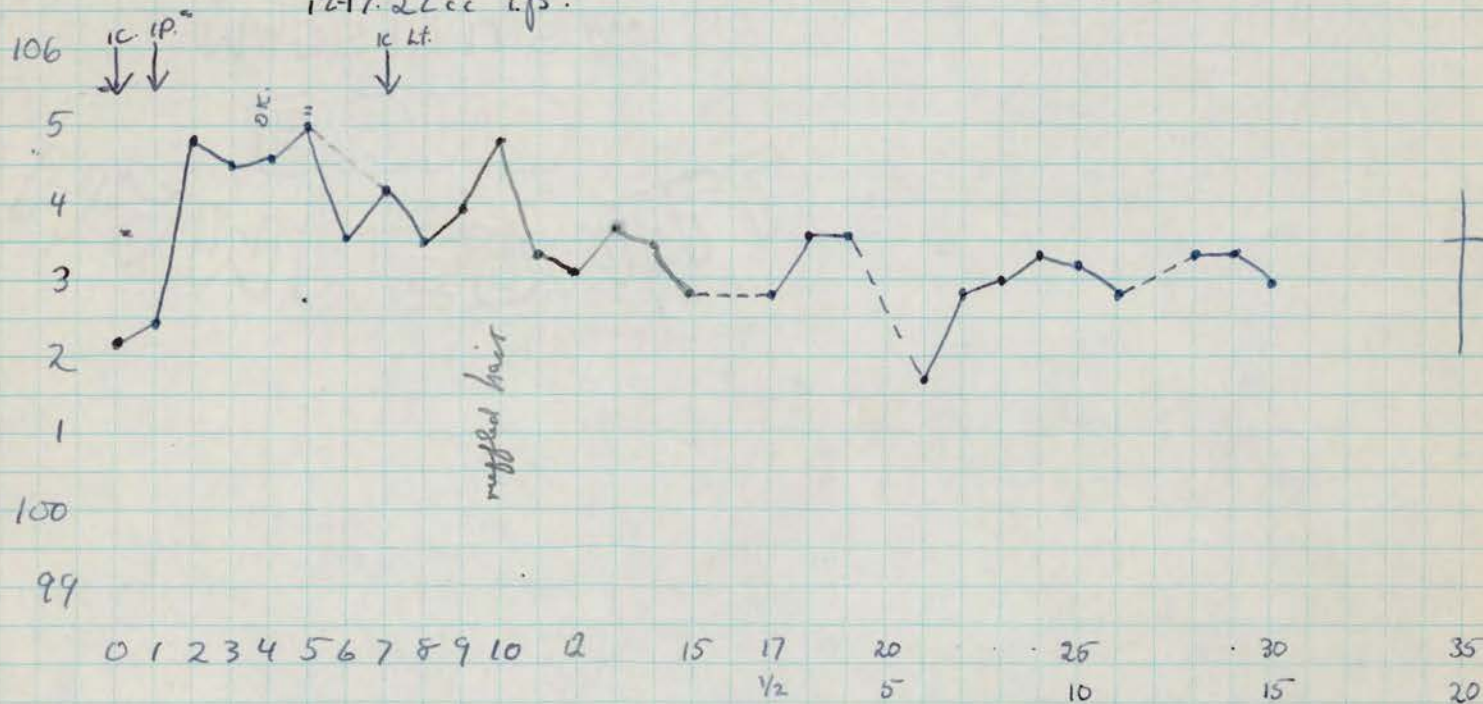
Rh 369

12-16 2cc i.cer.

12-23 2cc i.cer. on left side.

(2cc saved)

12-17 22cc i.p.



1-20 autopsy

no Hx.

pres in 80

CNS. neg gross.
sections cord 6, med.
glyc. " "

Microscopic

perivasc. cell. accumulations in

medulla - 1 vessel in substance, 2 in meninges.

Cumbar } - sl.
cervical }
thoracic - 0

otherwise negative.

12-16

Rh 339. — Adrenal glands0.65 GM. — 7cc
dist. water. sand.
lgt. centrif.

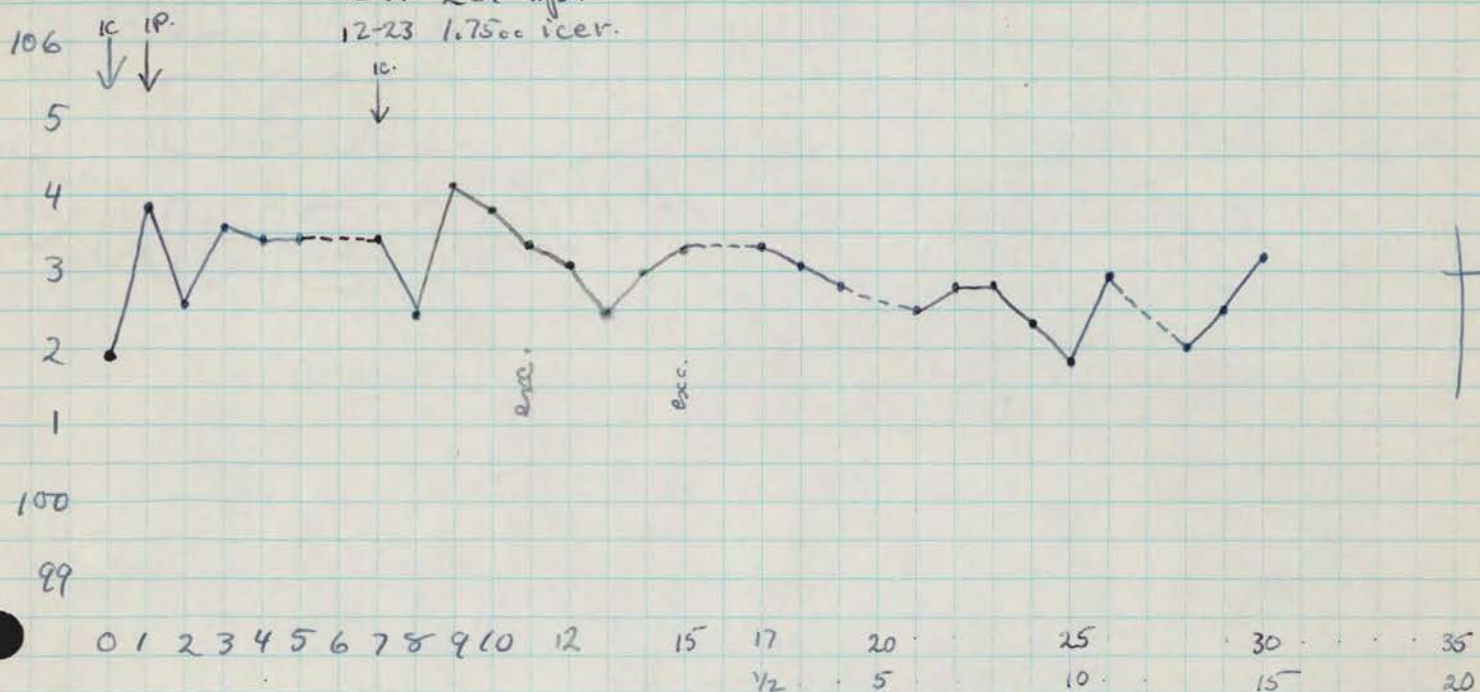
(2cc saved)

Rh 370.

12-16 2cc icer.

12-17 2cc ip.

12-23 1.75cc icer.



1-20 autopsy.

mes in 80

no hlc.

CNS neg gross.

sections cord to med.

glyc. " "

Microscopic perivascular cellular accumulations in
Medulla - 2 meningeal vessels & 1 in substance.
 1 lumbar level - meningeal vessel.
 other levels entirely negative

12-16-40

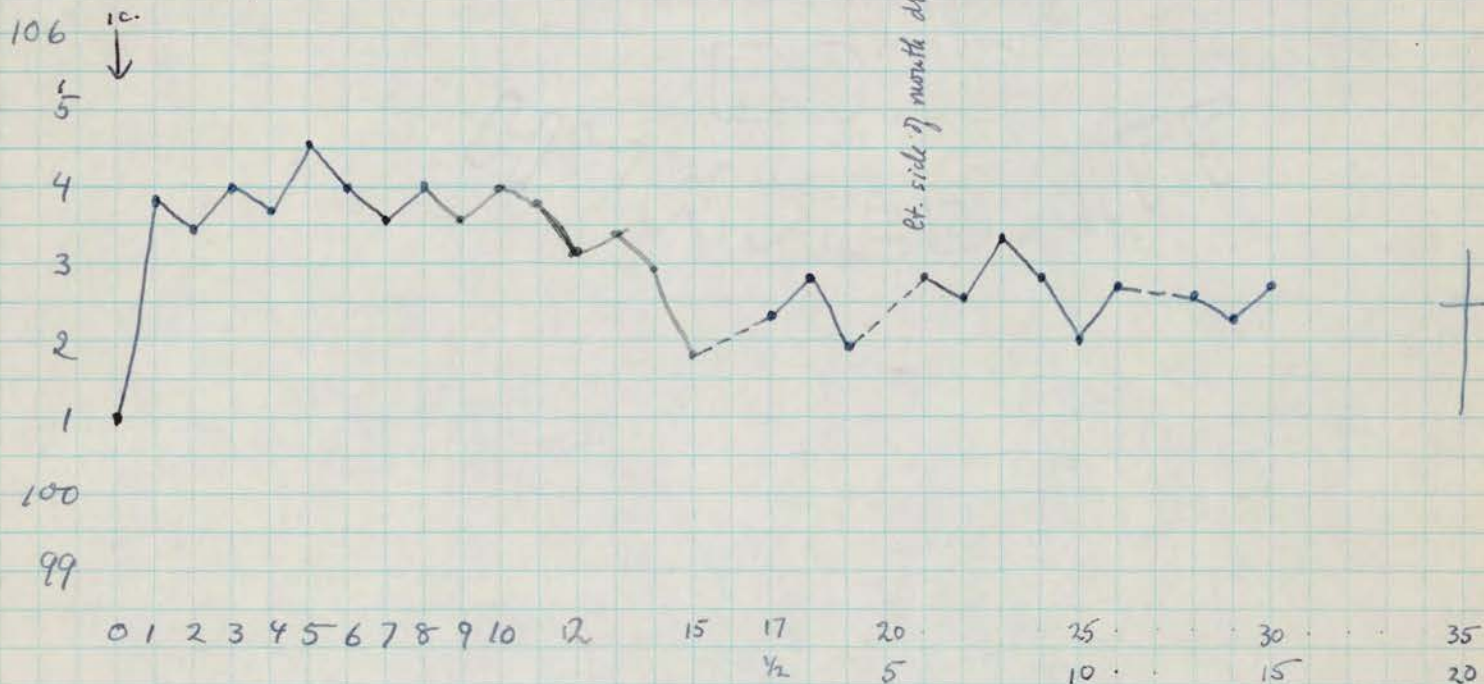
Rh 339

<sup>when he grimaces
eyes OK</sup>
abdominal sympathetic plexus

taken up in 2.5cc distilled water
sand, eqt. centrif.

Rh 371

2.1cc icer.



12-16. Cruise rt. supraorbital region & anterolateral region rt frontal bo

1-20 autopsy

pres in 80

no hlc.
CNS neg gross.
sect. cord 6, med
glyc. " "

Microscopic

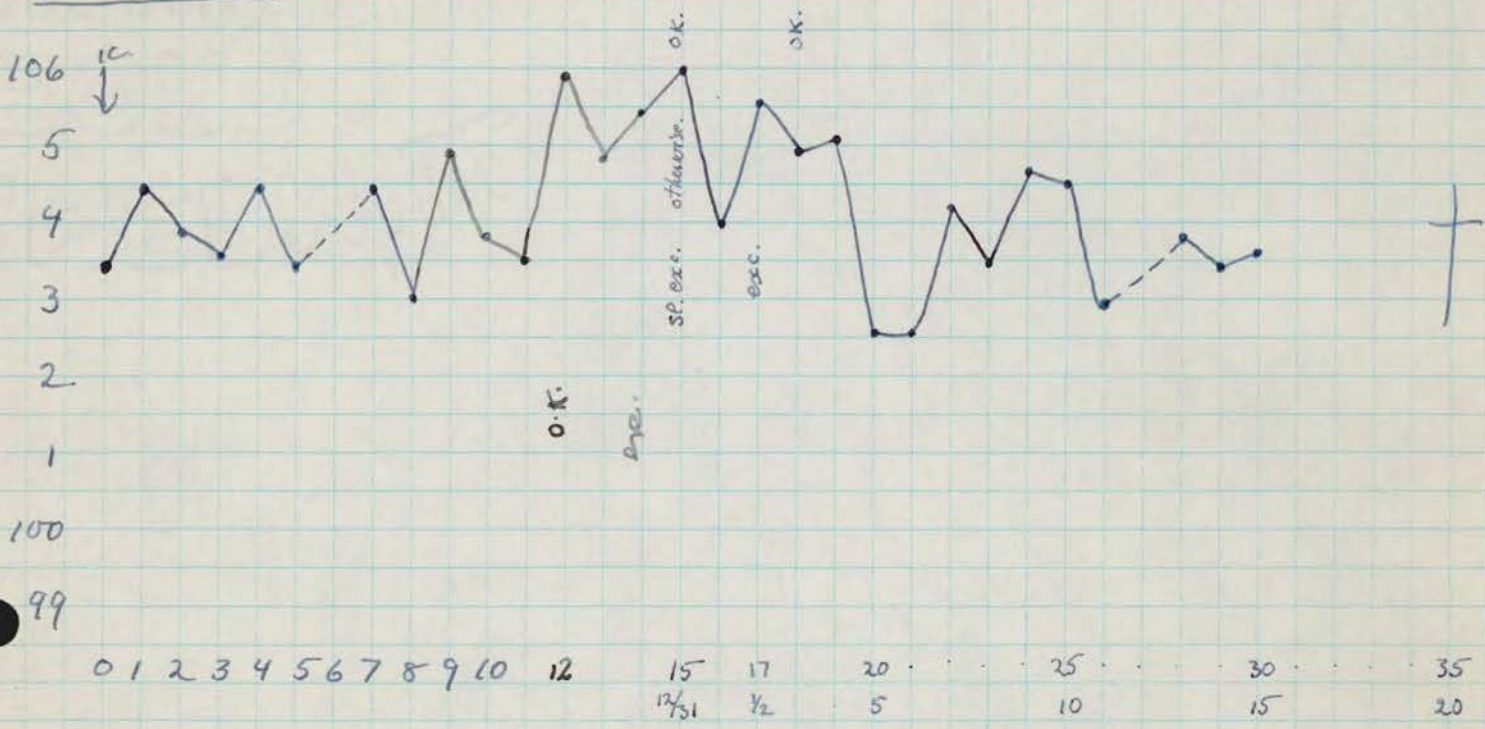
perivascular cell. accum. in meninges of
lumbar cord and ~~the~~ cervical cord (slight)
other levels negative.

12-16-40

Rh 339 - cervical sympathetic ganglia

2.5 cc distilled water - sand.
lgt. centrif.

Rh 372. 2.0cc icecr.



1-20 autopsy no tlc.
cor. neg gross.
sections cor'd to med
glyc. " "

Microscopic perivascular cellular accumulations in
lumbar cord - meninges ^{1 level} moderate; ^{2 levels} quite heavy
cervical
medulla .. slight in several vessels
other sections negative.

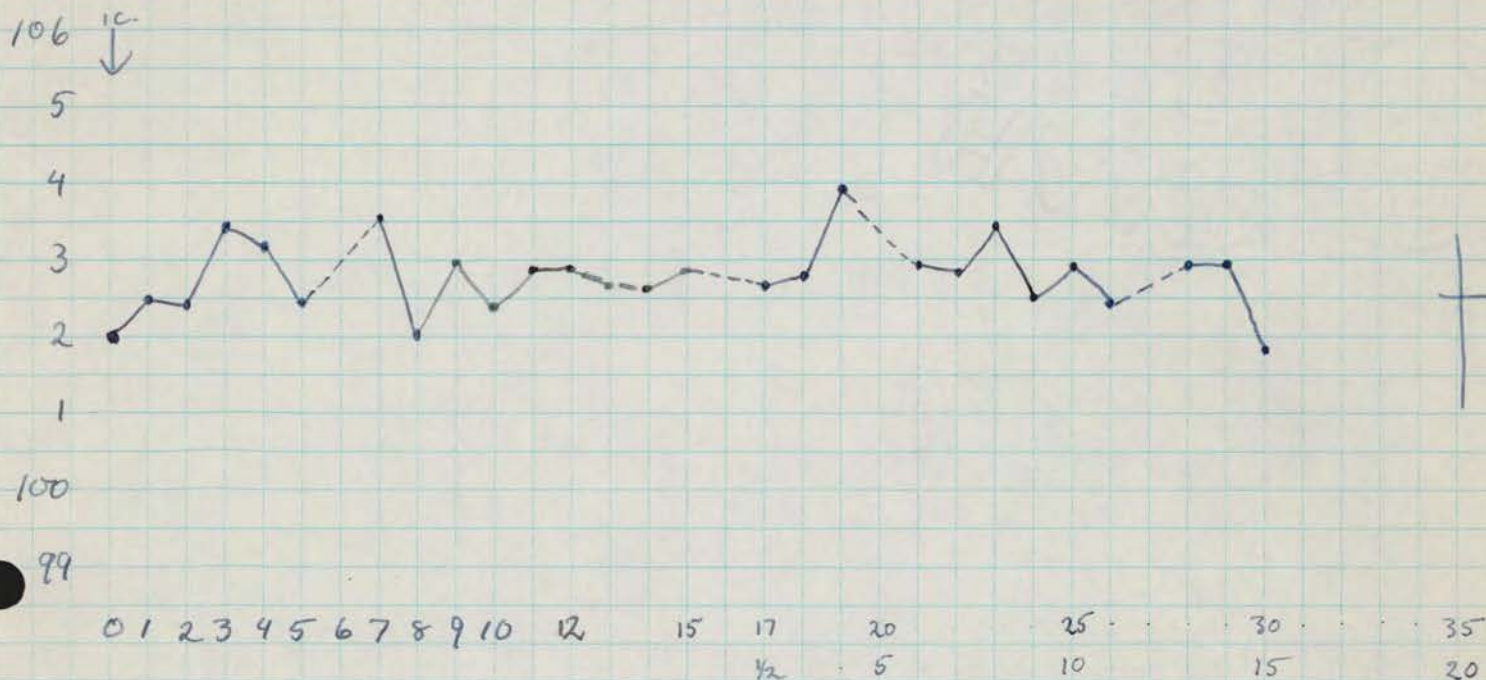
12-16-40

Rh 339 - olfactory bulbs

2cc dist. water, no sand
 (1.5cc to take up, 0.5cc rinse mortar.)
 Taken up directly in syringe.

Rh 373.

1.6 cc i.c.t.

1-20 autopsy

pres in 80.

- no flc.

cns neg. gross.

sect. C 6 med.

glyc c "

Microscopic

slight perivasc. cell. infiltration in
 meningeal vessels of medulla & cervical cord.
 Sections otherwise negative.

12-18

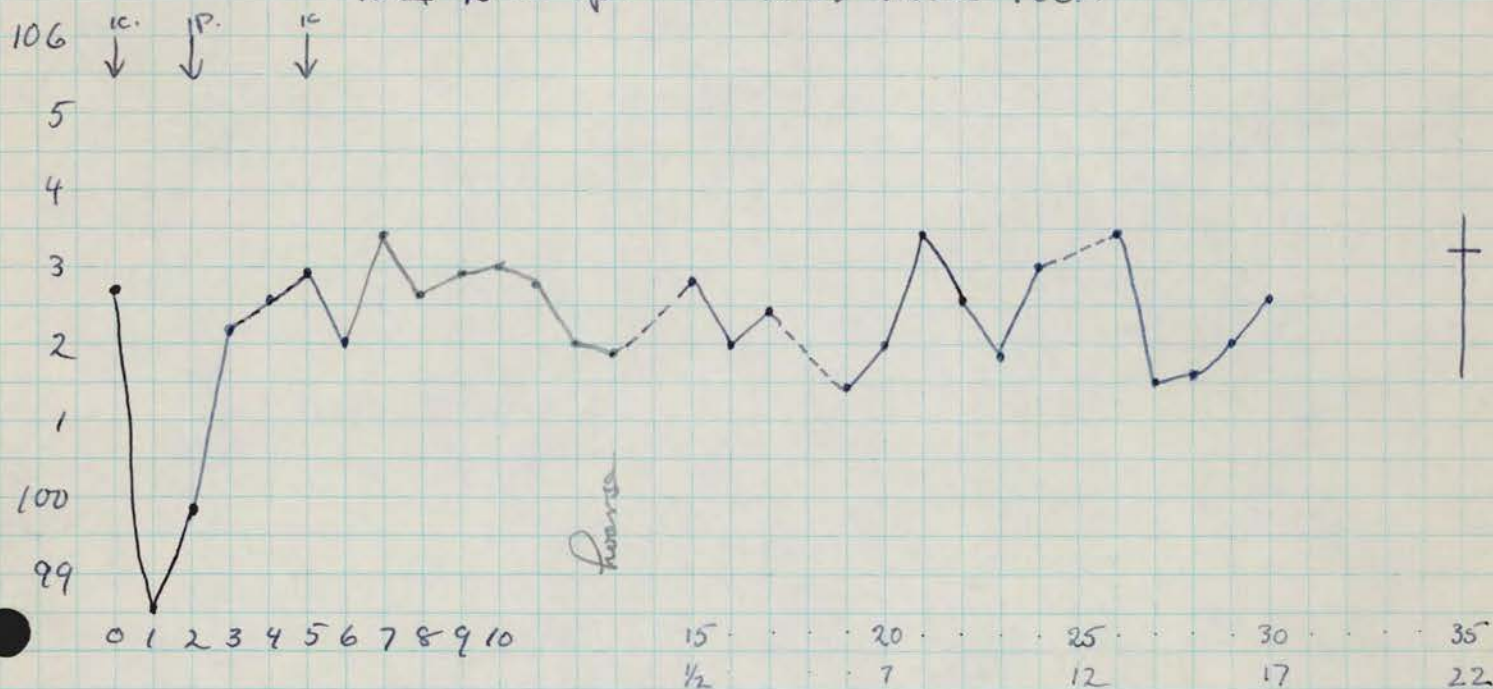
Rh 339 - 1 L EUM 12.2 GM - 6 lcc dist water
sand, centrif.
etherization as for others.culture : 1 wh. sp. hom col prob. off
the smear (contam) 48 hrs
2cc saved.

Rh 383.

12-18 2 cc icer.

12-~~20~~ 43 cc ip.

12-23 1.75 cc icer.



1-22 autopsy: no the
cas neg gross.
pres in 80 sect. c. 6 M.
glyc " "

Microscopic slight infiltrative lesions in meningeal vessels of
medulla incl. choroid plexus
and lumbar level of cord
otherwise negative.

12-17.

Rh 341 - cervical sympathetic ganglia. - 2.5cc
dist. water - sand
eq. centrif.

Rh 375

12-17 2.5cc i.c.c.



1-21 autopsy

pres in 80.

no H&E

crs neg. gross

sect. C6 m.

glyc " "

Microscopic

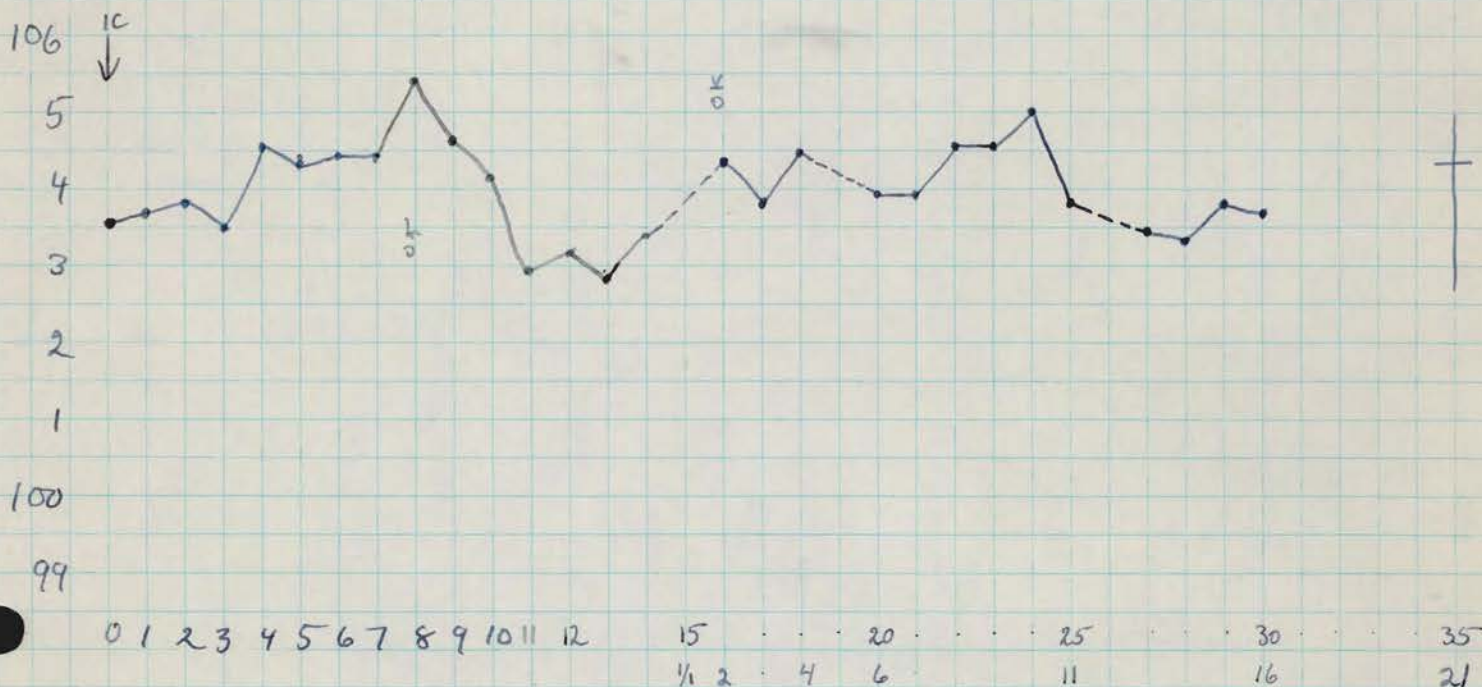
: infiltrative lesions in medulla - (meninges)
otherwise negative

12-17

Rh 341 - Abdominal sympathetic plexus.
 1.5 cc dist water.
 sand. centrif at low

Rh 376.

12-17 : 1.25 cc i.cet.



1-21 autopsy. no tlr.
 pres iso. cars neg gross.
 sect. C.G. M
 glyc " "

Microscopic : perivasc. cell. accum. in meninges of :-
lumbar cord, 1 vessel, quite heavy
cervical " , v. slight
 Remainder negative

12-17.

Rh 341

Adrenals 1.2 Gm. - 12cc dist water
sand, centrif.Rh 377.

12-17 2cc icet.

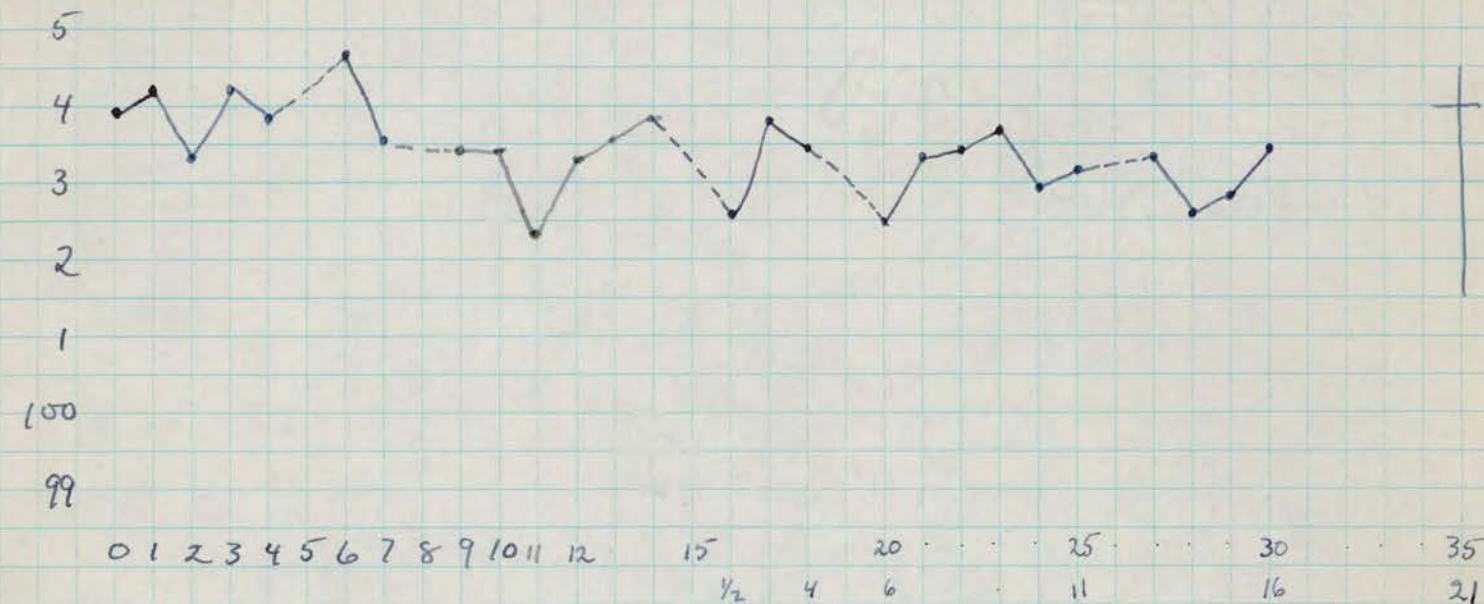
12-18 6cc ip.

2cc saved.

12-24 2cc icet.

106
↓ 10 ↓ 10

↓ 10

1-21 autopsy

notic.

CAS. neg gross.

pres. in 80

sect. C 6 M.

glyc " "

Microscopicperivascular cellular infiltration in meninges of
Medulla, 1 vessel.Lumbar cord, 1 vessel, heavy.

Remainder entirely negative

12-17

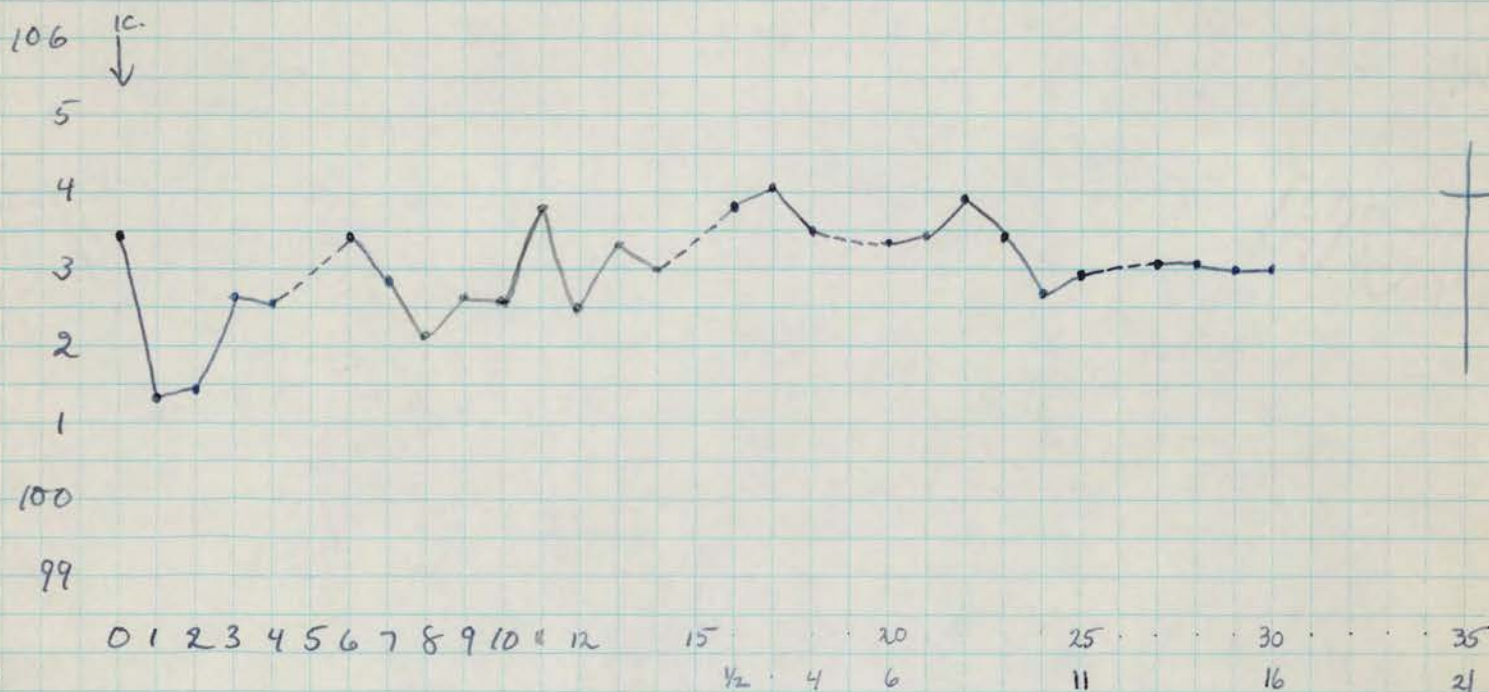
Rh. 341

Olfactory bulbs.

2.5 cc. dist.
water
no sand
no centrif.

Rh 379.

2.2 cc. icecr.



1-21 autopsy note.
cars neg gross.
presin 80. sect. c 6 of
glyc " "

Microscopic

Negative

12-19

Rh 341 - Tonsillo-pharynx.

0.4 GM - 6 cc
dist. water.
sand etc ether
as for others.

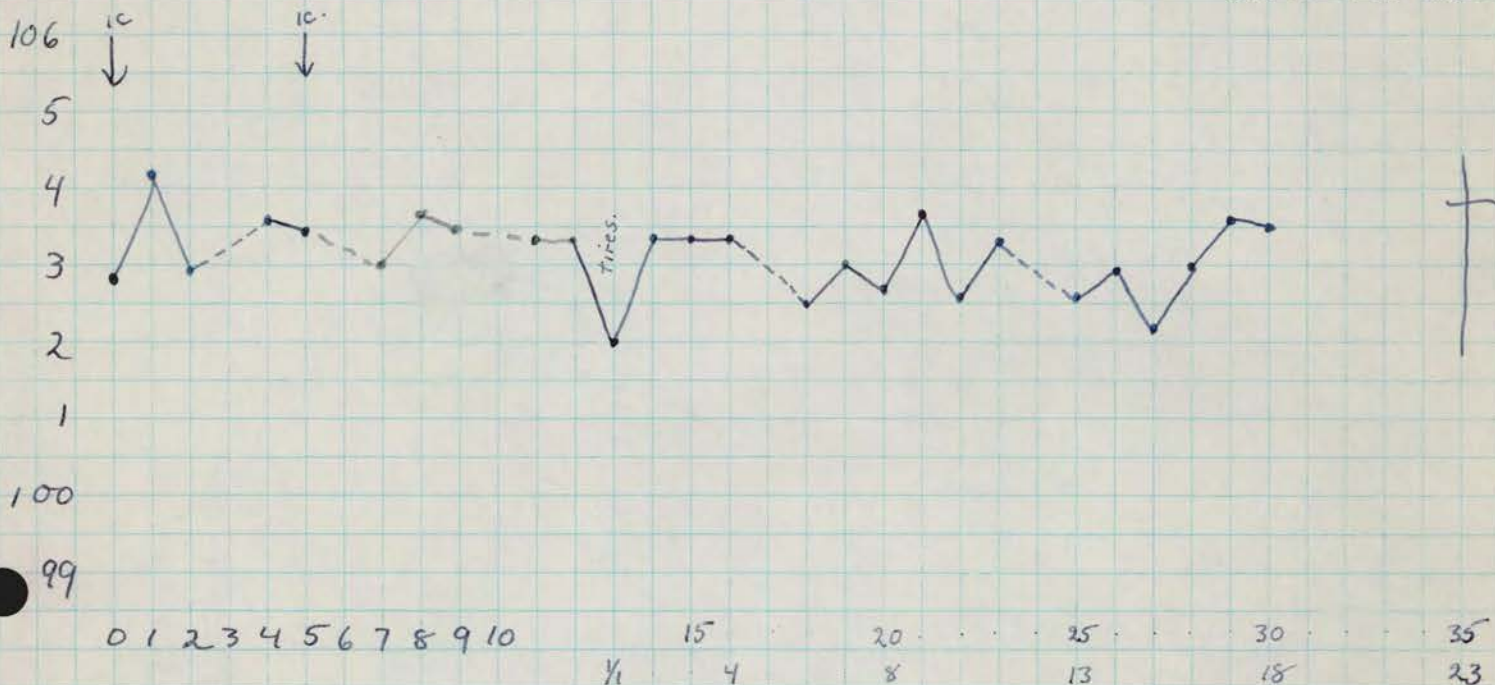
Culture 2 wks non hem.
cols. (off smear?)
at 24 hrs. - 48

Rh 384

12-19 2cc icer.

12-24 2cc icer.

about 2 cc saved.



1-23 autopsy no Hb.
cvs neg gross.
pres in 80 sect. C 6 M
glyc " "

Microscopic heavy perivasc. cell. infilt. in several meningeal vessels
in medulla & lumbar level of spinal cord
other levels entirely negative.

12-19

Rh 341 - Nasal mucosa

0.7 Gm.
8 cc dist water
sand, ether
as for others.

culture no growth 24h
48
(about 2 cc saved)

Rh 385 12-19 2 cc icet.

12-24 2 cc icet



1-23 autopsy
pres in 80

no Hx.
CNS neg gross.
sect CG m.
glyc " "

Microscopic

perivasc. cell. infiltration in meninges
medulla (1 vessel in substance.)
lumbar cord, sev. vessels & 1 glial focus in retic substance
? focus in gray m.

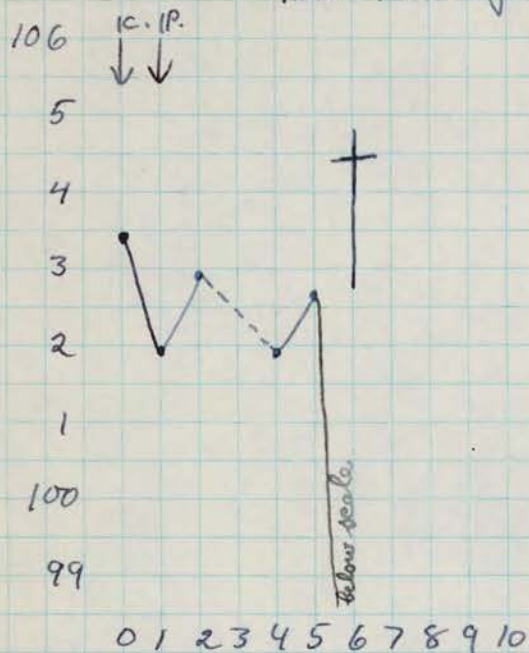
12-19

Rh 341 - IL FOM

12.8 Gm. - 64cc
dist. water. - sand.
same ether. procedure
as for others.

Rh 386

12-19 2cc i.cer.
12-20 46cc i.p.



culture: no growth 24 hrs.
1 contain at 48
(2cc saved)

12-25 - moribund, bloody diarrhea, - Sacrificed - Numerous ves. hagostomum
omentum adherent to stomach.
remainder of viscera O.K.
glyc. + Zenkers Cord (6), med. (mes in 80)

Microscopic - Negative

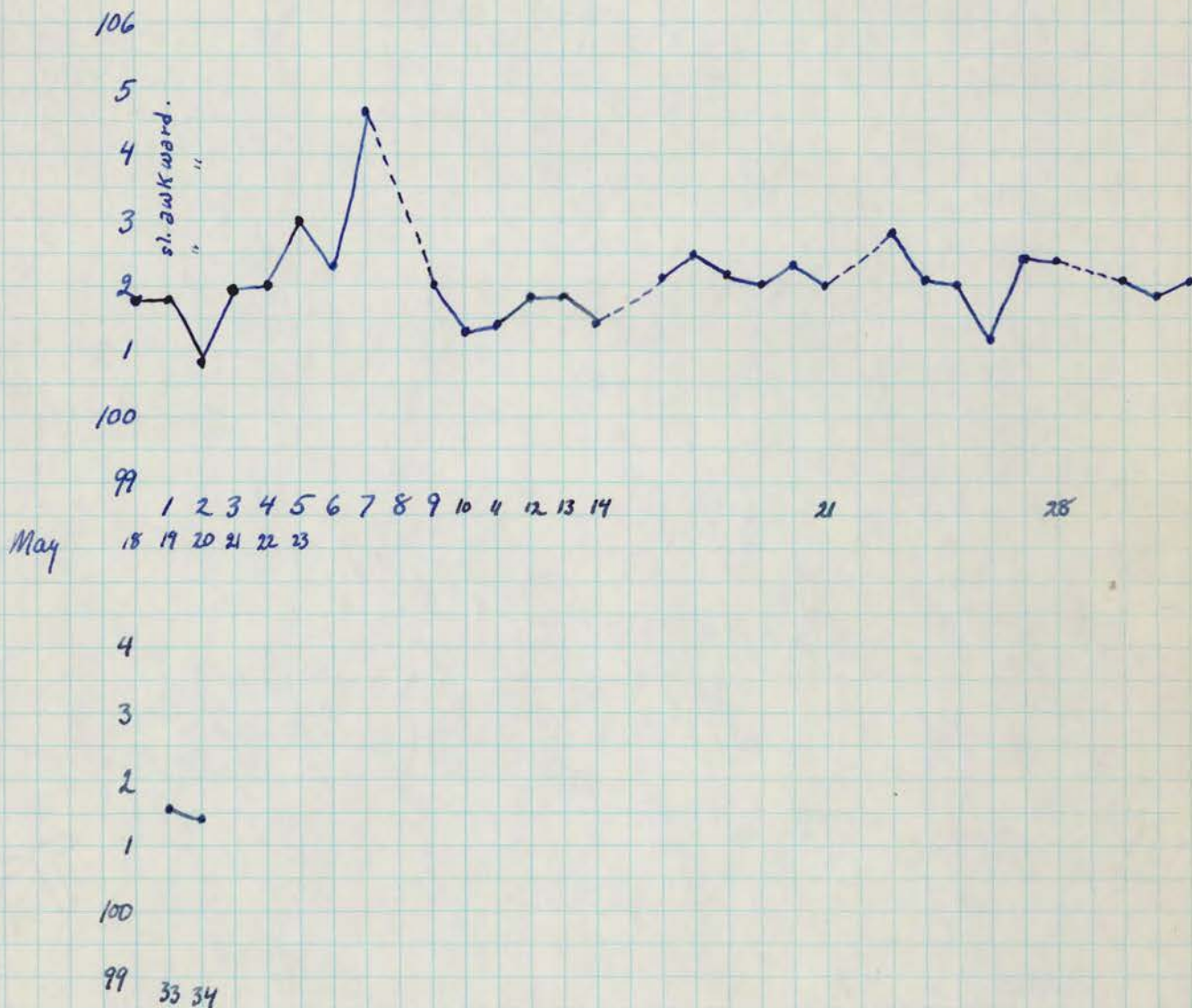
Few cells in one mening. vessel in medulla.

5-18-40

Polio -

Extract from pooled nasal plugs of Rh. 4. (Surv.)
 Etherized (sterile) supernatant 2 cc. I.C. } on 5-18
 " " " 0.5 cc. I.P. }
 Sediment, plus second extract of plugs: 1.5 cc. per nostril on 5-18 and 5-19.

Rh. 2. A.



May 21

Pooled nasal plugs from 24-48 hrs. in Rh's 3, 5, 7, & 8

2 cc. I.C.

3 cc. I.P.

1.5 cc. I. nas. per nostril on May 21,

Rh 19

106

5

4

3

2

1 †

100

99

1 2 3 4 5 6 7 8 9

(Nasal plugs treated in same manner as those given Rh 18.)

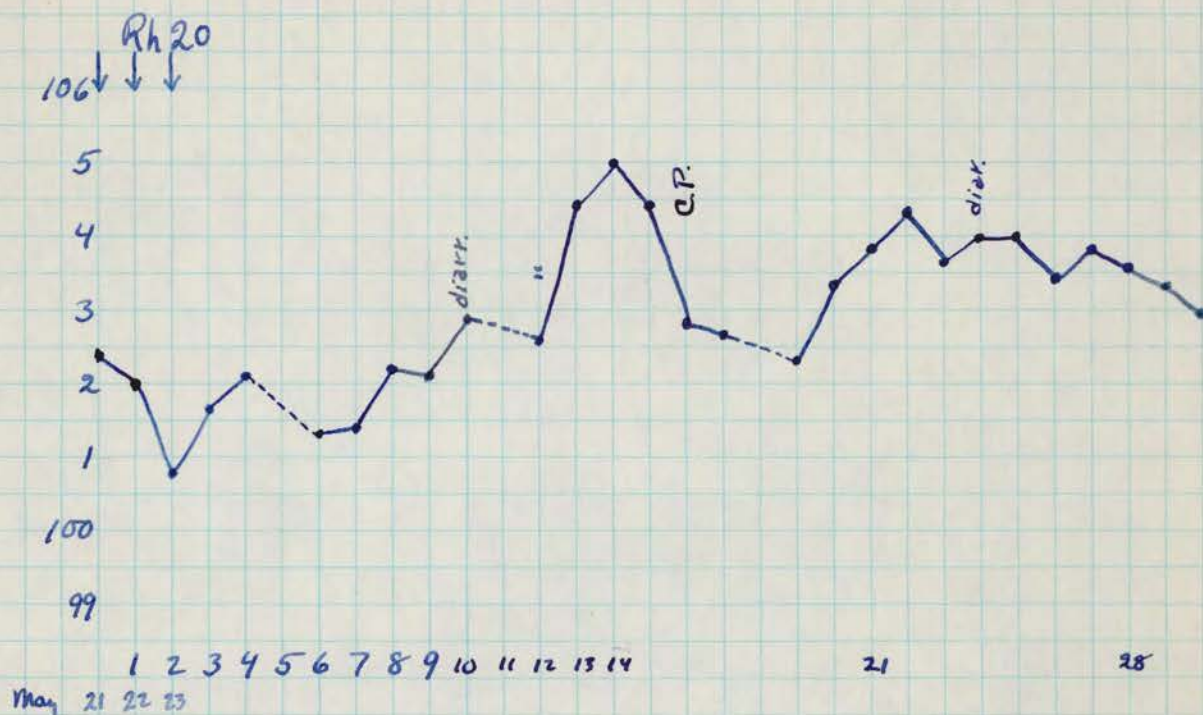
May 21.

Pooled nasal plugs from 48 to 72 hrs. in Rh's 3, 5, 7 & 8

2 cc I.C.

4 cc I.P.

1.5 cc. Inas. per nostril on May 21, 22, 23 (↓)



(Plugs treated in same manner as those given Rh 18)

June 7 Cist. punc. clear fluid 14 cells.

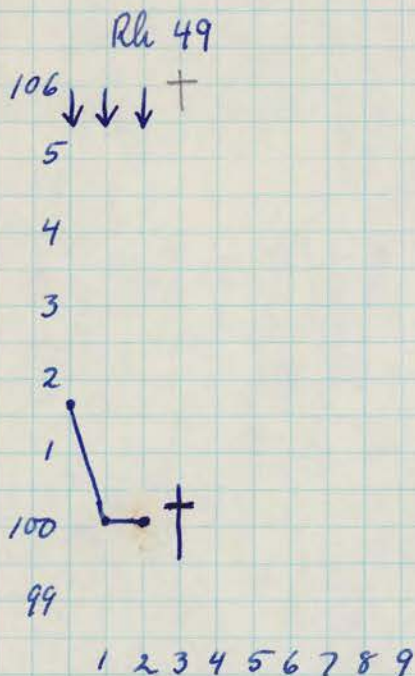
May 23

Pooled nasal plugs from 96 to 120 hrs. in Rhs 3, 5, 7 & 8.

2 cc. I.C.

4 cc. I.P.

1.5 cc. I nasal per nostril on May 23 (6 hrs. after anaesthetic), 24 (↓)



4-26

Found dead in A.M.

Autopsy. Bilateral pneumonia, most marked consol in R.M.h.
" fibrinous pleurisy & adhesions.
" vis. pericardial fluid.

12-12-40

Rhs 340 } pooled nasal plugs 48-96 hrs.
342 }

prepared as before.

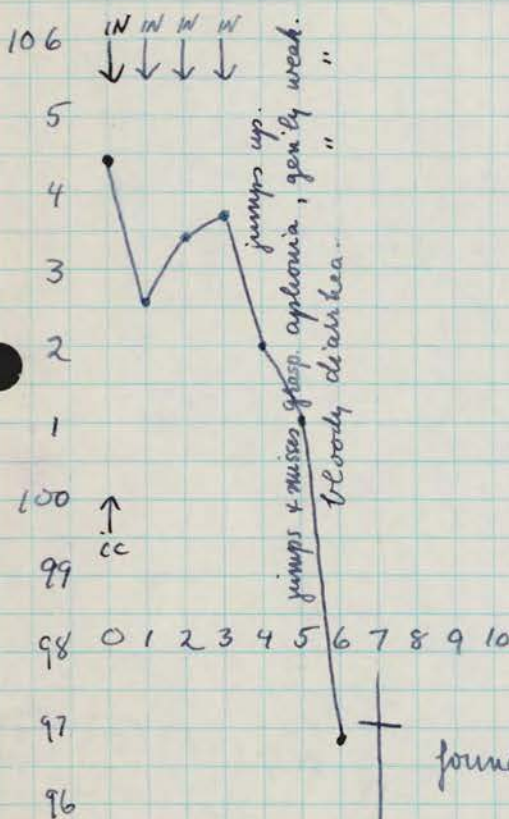
1. undil 1.2 cc } i.cer.
1st ext. 0.8 cc }

cult: no growth 24 hrs.
2 non hem. wts 72 hrs

2. 1st ext. 2.0 cc saved.

3. 2nd ext. intranasal ↓ pc). (4x)

Rh 362 ^{worse}



found dead. 12-19. autopsy

mucous, pus, blood in colon.
CNS one bulb v. soft
mes in 80. sections bulbs, med. cord 6
glyc.

Microscopic - Negative

St. cell. inf one mening. vessel in lumbar cord

12-19

Rh 340
342

pooled nasal plugs

48-96 hrs.

Rh 282.

(Bender olfactory bulbs.)

1st ext. 2cc icet.



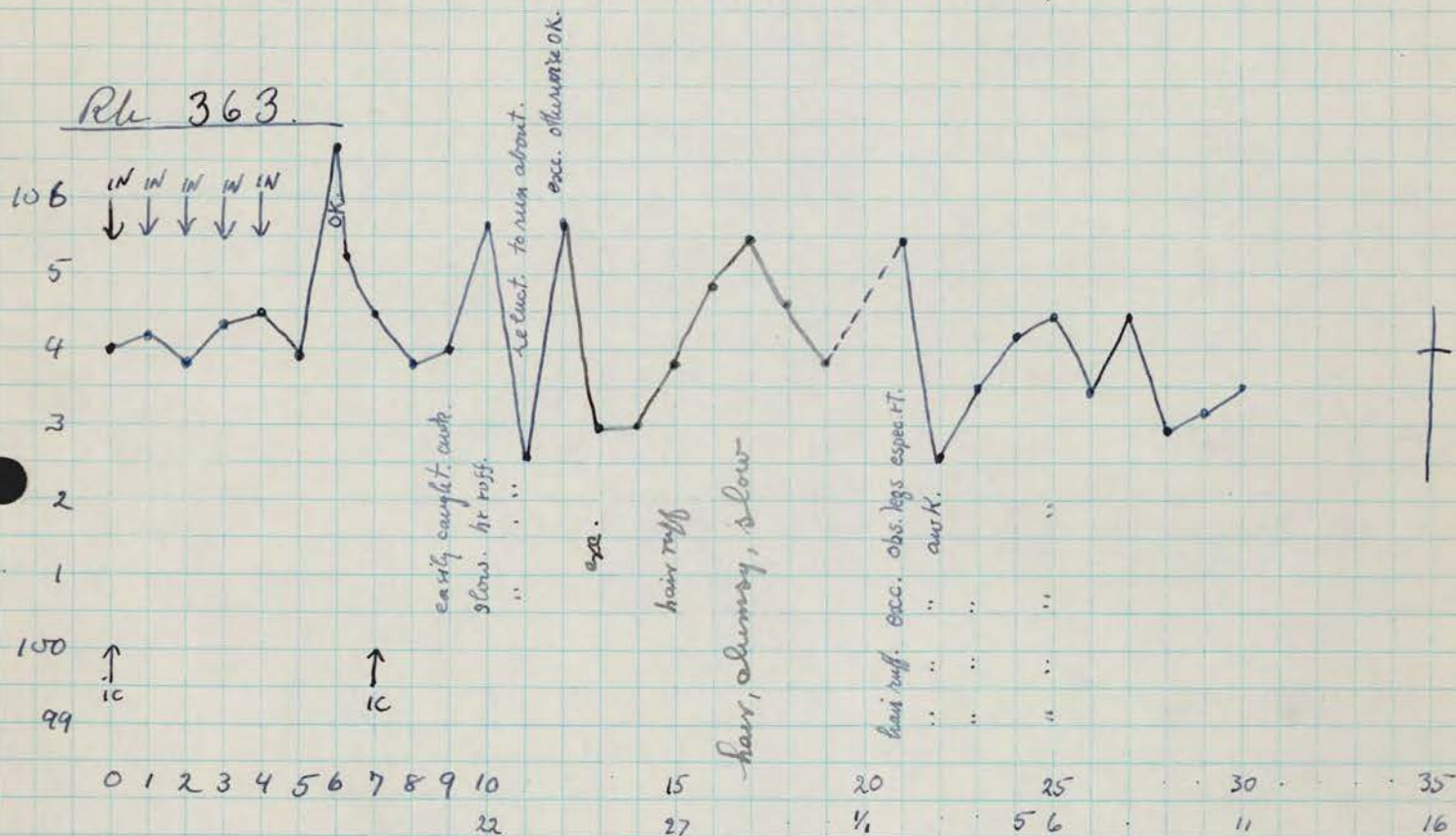
1-23 autopsy.

mes in 80.

no tlc
CNS neg gross
sect. C & M
glyc " "Microscopicperivasc. cell. accum. in meninges of
medulla
lumbar level of cordotherwise NEGATIVE.

Intrasciatic polio.

12-12-40

Rhs. 340 } pooled nasal plugs
342 }96-168 (340)
96-144 (342)1. undil. 1.0 cc } i.cet
1st ext. 1.0 cc }culture no growth
24, 72 hrs.2. 1st ext. about 2cc saved. (2cc injected ^{i.cet.} 12-19)3. 2nd ext. intranasal ↓ p.c? (5x)

12-12 scalp bleed a lot at injection ? sinus puncture.

1-16 autopsy no thc. adhesion R.V.h. to parietes.
 cavs - thickening dura at point of injection
 pres. in 80. sections cord 6, med. bulbs
 glyc

Microscopic : perivascular cellular accumulations in meninges
 of medulla (slight)
 lumbar &
 sacral levels of cord (moderate)
 otherwise negative

12-20

Intrasciatic polio.

Rh 339 } pooled nasal plugs 48-96 hrs.
341 }

before
cent.

after.

1. { undil. 1.0 cc.
1st ext. 1.5 cc.

2 cc.

same procedure as for 0-48.

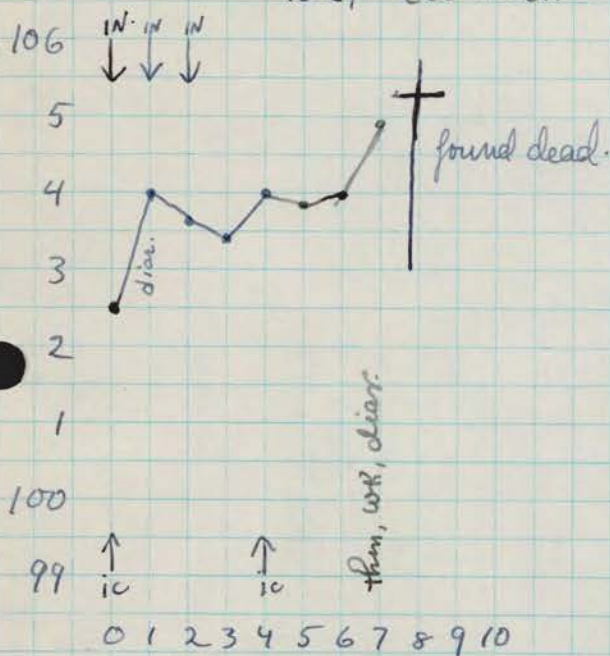
2. 1st ext. 3.2 cc. 2cc. saved.

3. 2nd ext same as for 0-48.

Culture no growth 72 hrs

Rh 387: 12-20 2cc icet { undil
1st EXT.
12-24 2cc icet.

1cc each nostril p.c). ↓.



12-27- thin, emaciated, leg weak, diar.

12-28- Found dead in A.M. autopsy:

mes. inso.

no tbc.

CNS - tissues very soft.

sections cord 6, med, ant. py sub. bulb (1)
glyc. " " "

Microscopic - Pyogenic Meningitis

12-20.

Intrasciatic polio.

Rhs 339 } pooled nasal plugs

96-120 hrs.

before
cent.

341
after.

1. { undil. 0.8 cc.
1st ext. 1.7 cc.

2 cc

same procedure as for 0-48.

2. 1st ext. 3.0 cc. 2cc saved.

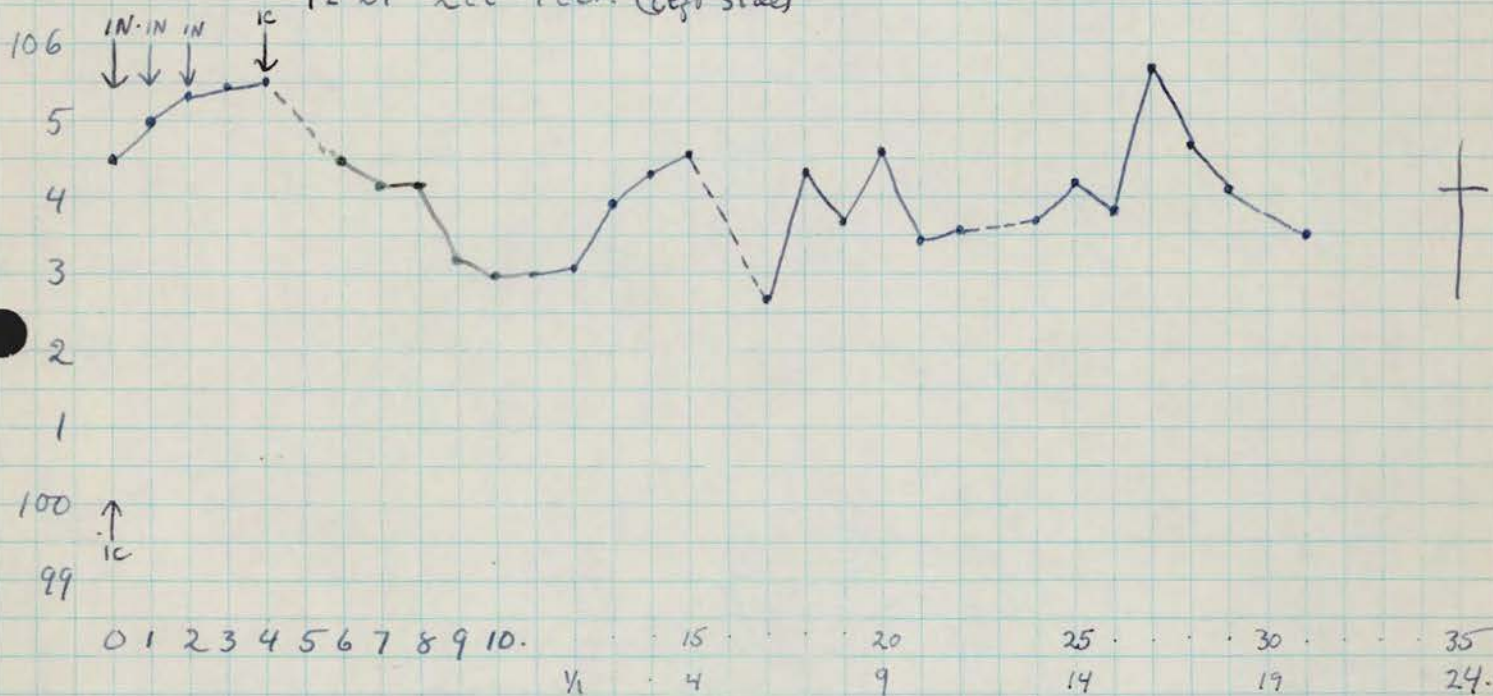
culture no growth 24 hrs.
1 w/ non-hem col
at 72 hrs.

3. 2nd ext. same as for 0-48.

Rh 388.

12-20. 2 cc icer. { undil
1st EXT.
12-24 2 cc icer. (left side)

1 cc each nostril ↓ pc.



1-24 autopsy

pres in 80

no flc
CNS neg gross.
sect. C6 M bulbs.
glyc " "

Neg- cell infiltr - mening. vess. in cord

11-4-40.

POOL

Rhs. 10, 136, 137, 159

medulla
cord
choroid.

10: Lumb. cord, choroid plex.

136 medulla

137

159

Lumb. cord.

8.26M - 82cc
distilled water
sand - centrif.

2cc saved.

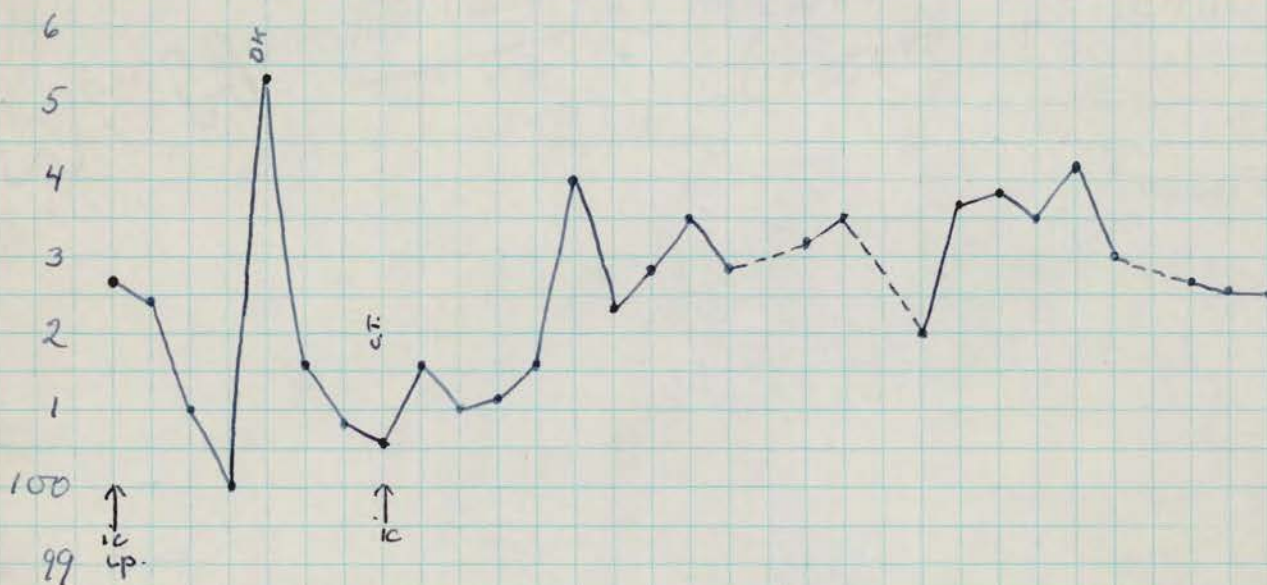
Rh 279

11-4 2cc i. cer.

20cc i. p.

11-11 2cc i. cer.

107



0 1 2 3 4 5 6 7 8 9 10

15

18

20

25

30

35

1/2

1/4

4

9

11-11-40

cisternal tap

clear fluid

560 RBC.

2 WBC. in undil.

4 monos 2 polys E acetic acid.

12-9.

autopsy

no tbc.

cvs neg gross.

pres in 80.

sections: cord 6, medulla, thalamus, choroid.
glycerine: " " "

Microscopic

Cellular infiltration of

- 1) meningeal vessels in cord
- 2) " " " " " medulla
- 3) choroid of lateral ventricles
- 4) ~~gt~~

Glial focus in medulla

11-4-40

Pool

Rhs

10, 136, 137, 159

medulla
cord
choroid

see p. 192.

G.P. 81

0.2cc icet. 7cc ip.

106

5

4

3

2

1

100

99.

0 1 2 3 4 5 6 7 8 9 10

$\frac{1}{10}$

15

20

25

30

21

23

24

25

26

27

$\frac{12}{1}$

4

G.P. 82.

106

5

4

3

2

1

100

99.

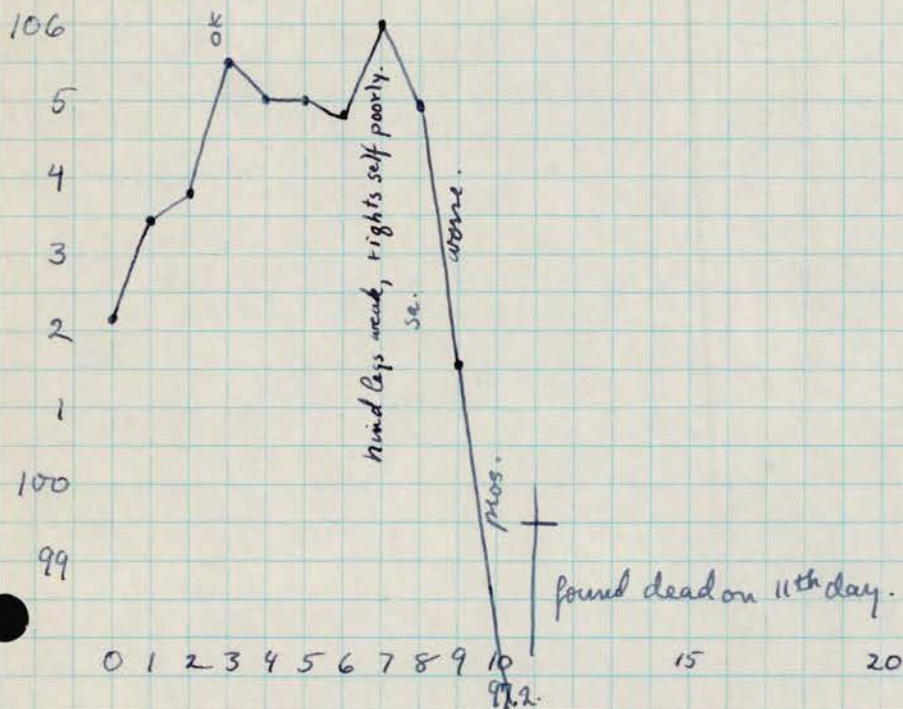
12-4-40.

G.P's 81 + 82 who were inoculated $\bar{c}$ pooled Rhesus
CNS. (Rhs 10, 136, 137, 159.) on 11-4-40 were
reinfected with ^{Virus} lymphocytic choriomeningitis on
the 30th day.

(av. wt 280 gm)

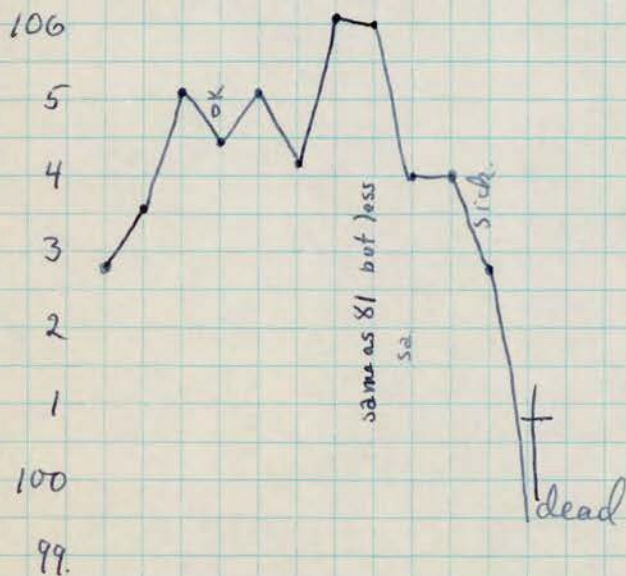
L.C.M. frozen mouse brain emulsion, thawed + stirred.
0.25cc subcutaneously. (belly)

G.P. 81.



G.P. 82.

0.25cc subcut.



12-4-40

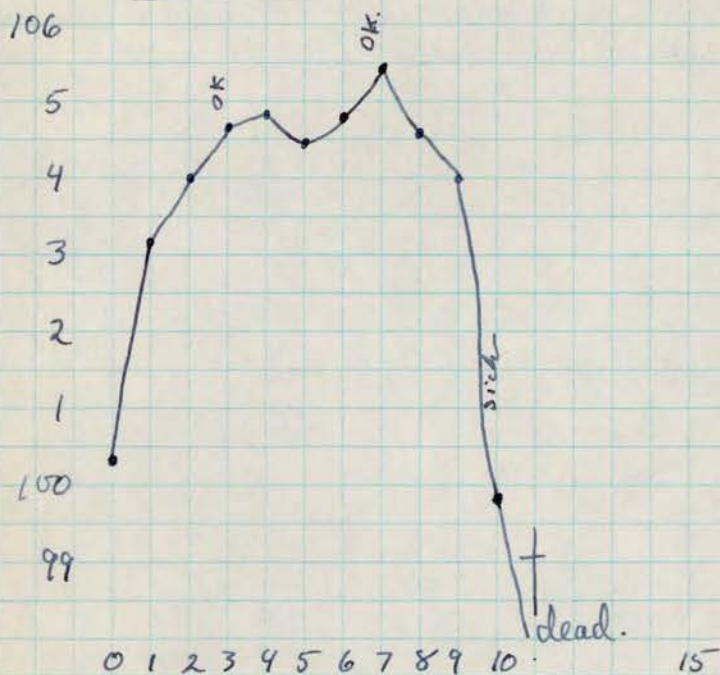
Controls.

Lymphocytic choriomeningitis.

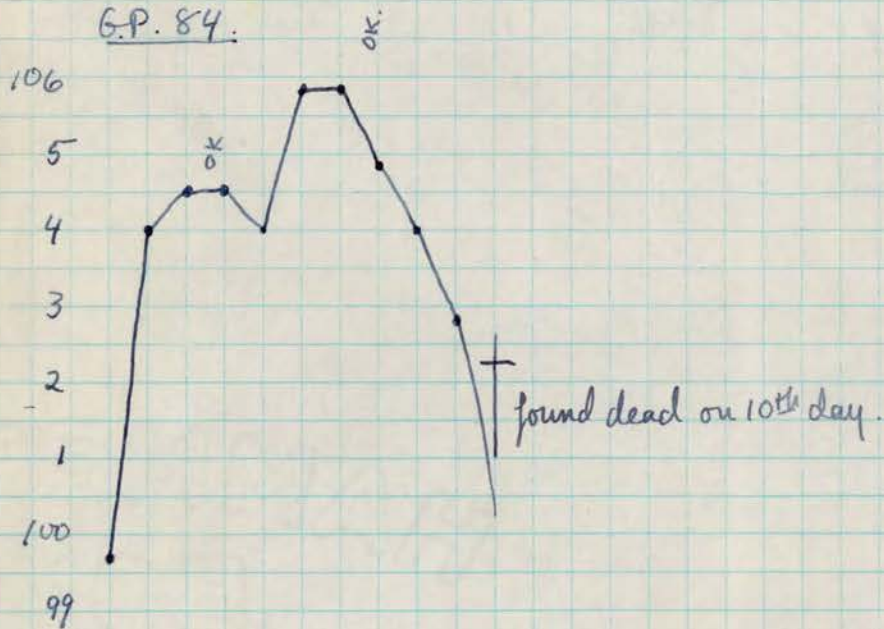
(av. wt. 330 gm.)

0.25 cc subcutaneously (belly)

G.P. 83



G.P. 84:



11-4-40 POOL Plus 10, 136, 137, 159 medulla } see p.
cord
choroid

mice . 0.03cc i.c.e.r. 1.0cc i.p.

1 - 0 D
2 - 0 D
3 - 0 ^{cns} myriads gram + cocci.
4 - 0 }
5 - 0 }
6 - 0 }
7 - 0 }
8 - 0 }
9 - 0 }
10 - 0 }
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 20 25 30
1/5 11 16 20 21 12 4

12-4.
reimoculated
= LCM.
(vide infra)

12-4-40

Lymphocytic choriomeningitis, test on above mice, for immunity to.
mouse brain emulsion frozen for 1 month. Thawed + stirred w/ pipette.
0.03cc i.c.e.r. (1 died immed. after injection.)

1 - 0 0 0 0 0 ^{cns} D
2 - 0 0 0 0 0 ^{cns} ^{cns} ^{cns} D
3 - 0 0 0 0 0 ^{cns} ^{cns} ^{cns} ^{cns} ^{cns} ^{cns} ^{cns} D
4 - 0 0 0 0 0 ^{cns} D
5 - 0 0 0 0 0 ^{cns} D
6 - 0 0 0 0 0 5 5 5 5 ^{beta} ^{sa} ^{sa} ^{sa} 0 0 0 0 0 0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 20 Disc. 12-24.
Phy

12-4-40

controls 5 mice between 6-8 wks old.
LCM. 0.03cc i.c.e.r.

1 - 0 0 0 0 0 ^{cns} D
2 - 0 0 0 0 0 ^{cns} D
3 - 0 0 0 0 0 ^{cns} D
4 - 0 0 0 0 0 S D
5 - 0 0 0 0 0 5 OK 0 0 0 0 0 0 0 0 0 0 0 0 Disc. 12-24
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 20
12/24.

9-30

P 136

Polio virus (Armstrong)

~~191~~

$\frac{1}{2}$ mouse brain + $\frac{1}{2}$ cord ground 5 sand
suspended in 5 cc plain broth
0.03 cc i.c.r. 0.4 cc i.p.

11 mice injected, 1 died immmed. after.

[illegible]

10-7 Passage: No 2 brain + spinal cord 0.5 gm in 5cc broth.
0.03 cc i.c.r. 0.6 cc i.p. in each of 7 mice

1 - D
2 - O ^{CNS}_D ← Killed. bacterial infection (Gr. + cocci-brain & meninges)
3 - O O O ^{Pst P}_{legs} ← sacrificed. 1/2 brain in glyc. 1/2 brain & sp. cord ~~pst~~ combined i #5 & injected
4 - O O O S ^{Pst CNS}_{Pst P} } sacrificed 10-13 brains & cords in glycerine see below under 10-11
5 - O O O O O ^{Pst CNS}_{LH} } 2 sections of cord of 1 in Zenker's
6 - O O O O O O O ^{Cong Comp. D}_{Fat nec + Neck.}
7 - O O O O O O O O ? O O O JUMPY. Sa. Sa. Sa. O O O O O O O O O O O O O O O O OK
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
11/12/20

10-8 No 3 - brain & cord stored in glycerine

10-11 Half brain & all sp. cord of #5 P136, and #3 Passage.
ground & suspended in 10% broth.

0.03 cc i.cer. into mice injected $\bar{c}$ material from following patients

1 dead. ~~10-13 1 dead~~ controls 2 dead. 10-13 2 dead
 1 dead. ~~10-13 1 dead 4 ok.~~
 1 dead
 1 dead ~~10-13 9 OK (P. 111)~~
 1 dead

~~10-13 13-71A. Small~~

POLIO
MICE

0.03cc i.cer.
(about 2cc material frozen)

1	2	3	4	5	6	7	8	9	10	11	12	13	14					20
						$\frac{1}{1}$			4				8		11			14

$10 - 0000000000$

9-00 000 000 000 3 ^{Part} _{TRIP} P.R.T.

[illegible]
$$\frac{69}{71} = \frac{90}{100}$$

04-81-01

drawn 10-16

L	h	1/h
---	---	-----

○ ○ ○ ○ ○ ○ ○

0	0	0	0	0	0	0
---	---	---	---	---	---	---

○ ○ ○ ○ ○ ○ ○

○	○	○	○	○	○	○
---	---	---	---	---	---	---

2020-2021

$\frac{1}{x^2} = x^{-2}$

0300 1227

0 0 0 0 0 0 0

0 0 0 0 0 0 0

○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○

Brain & lungs.

0 0 0 0 0 0 0

○ ○ ○ ○ ○ ○ ○

○ ○ ○ ○ ○ ○ ○ ○

9 9 9 9 9 9

ce. $\frac{1}{2}$ hour. For

10. 10. 10. 10.

10-22-40.

Rhesus 29 - medulla & meninges, 1 Gm taken up in 10cc plain broth. no sand. no cent.

Hy = hydrocephalus, jumpy

0.03cc i.cer. } into each of 11 mice.
0.75cc i.p. }

	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
1-D																									
2 - Hy S S D																									
3 - S S OK																									
4 -																									
5 -																									
6 -																									
7 -																									
8 -																									
9 -																									
10 -																									
11 -																									

Found dead in PM. Brain & viscera partly decomposed.

Brain no organisms on smear. culture: 2 contaminants off

Brain Passage 10-28

passed 11-5.

The streak

all OK Disc 12-24.

10-28. Passage Brain #2. 10% broth. 0.03cc i.cer. 0.6 i.p. (4 died)

1 -																									
2 -																									
3 -																									
4 -																									
	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

all OK Disc 12-24

11-5. Passage 1/2 brains #3 & 4 of original mice. 10% susp. broth. 0.03cc i.cer. 0.4 cc. i.p.

1 -																									
2 -																									
3 -																									
4 -																									
5 -																									
6 -																									
	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

all OK. Disc 12-24

Monkey

medulla.
sections spinal cord present in 80% al.

CYN 245	6	
Rh 251	6	
276	6	
220	6	
253	6.	
350	6	+ bulbs.
343	6	
344	6	
347.	6	
352	6	
353	6	
355	6	
356	7 -	3 L 2 T 2 C 1 M.
359	7 -	same.

Wgt. of
colon contents.

8.5 (semisolid)

1.8

7.0

4.4

4.0

3.0

Mean 13.1 GM.

range 3 → 28.5.

28.5 GM

semisolid.

4.4 - 44 cc.

3.0 GM - 30 cc. colon contents

17.9 - 89.5 cc

1.4 - 20 cc.

EXTRACT

AMT.
ETHERIZED

AMT.
INJECTED

% of extract injected

28.5 GM. - 100 cc.

50 cc

36 cc.

36

21.8 GM. - 218 cc.

36 cc (3rd ETHER)

26 cc.

12

17.0 GM. - 85 cc.

? (3rd ETHER)

22 cc.

25

4.4 GM - 44 cc.

? (2 ETHER)

30 cc.

68

4.0 GM - 20 cc.

?

12 cc.

60

3.0 GM. - 30 cc

?

26 cc (2 cc of this incr.)

86

	<u>Wenger</u>	<u>Arthurs</u>	<u>Hood</u>	<u>Wilson</u>
Pons + medulla	3.5 - 25 sal.	3.0 - 30 water	3.0 - 30 saline	
Spinal cord	2 - 20 "	10% "	1.9 - 19 "	
mesencephalon	5 - 50 "	5.8 - 50 "	5.0 - 50	
F+Occ Cortex.	5 - 50 "	5.7 - 57 "	5.0 - 50	
Motor cortex.	5 - 50	5.0 - 50 "	4.6 - 46	
Ant. Perf. Subst.	5.6 - 56 "	3.9 - 39 water	2.4 - 24	
dienceph.	4 - 40	3.6 - 36	3.0 - 30	
<u>olfact. bulbs</u>				
Sup. cerv. symp.	0.8 - 3	0.25 - 2.5 water	0.5 - 2.5 sal.	
Abd. symp. plexus.	0.65 - 3	1.0 - 5 "	2.7 - 13.5	
adrenals	2.8 - 14	3.4 - 17 "	3.3 - 16.5	2.9 - 15 cc.
salivary glands	16.3 - 80	13.6 - 68 "	10.0 - 50	11.9 - 60 cc
viscera	9.5 - 47.5	9.5 - 47.5 "	10.6 - 53	10.4 - 52 cc
cx + ing. l.n.	2.8 - 14	4.8 - 24 "	7.4 - 37	4.3 - 21.5 cc
cerv. l.n.	5.1 - 25	15. - 75 "	14.1 - 70.5	13.8 - 69 cc.
mesent. l.n.	6.5 - 32.5	2.8 - 14 "	5.8 - 29.0 cc.	9.5 - 47.5 cc.
ileum	repeat. 10 - 50	10 - 50	proport + 18 GM. 10 - 50 sal.	10.8 GM. - 84 cc
colon	10 - 50	9.3 - 46 "	10 - 50 use 10	22.0 GM. - 110 cc.
nasal mucosa	1.3 - 10	1.7 - 15 "	1.7 - 8.5	1.5 GM. - 15 cc.
Tonsils + pharynx.	0.5 - 5	3.3 - 16.5 "	1.6 - 8.0	2.5 GM. - 25 cc.
Colon contents	17 - 85	-	4 - 20	21.8 GM. - 218 cc.
ileum "	1 - 10	? - 10	3.2 - 16	8 GM. - 80 cc

C.N.S. 10% suspension - up to 5 Gms.

olfact. bulbs in 2 cc., suspending first in 1.5 cc, then using 0.5 cc to wash mortar.

Superior cervical sympathetic suspend in not less than 2.5 cc.

abdominal sympathetic "

? adrenals

salivary glands

viscera

lymph nodes

up to 10 GMS. - suspend in 20%

use all, suspend in 20%

Ileum & colon

open & remove contents gently w/ tongue depressor. Cut wall in 3 wash in flask w/ gallons of tap water, until latter is clear. Remove fat.

?

weigh. Use ~~at~~ 10 GM

Mince thoroly, grind w/ sand

suspend in 20%.

Centrifuge & save sediment

Etherize supernatant w/ 15% ether.

Shake 10" & store in ice box.

Ileum & colon contents

do not suspend in washings from gut wall.

suspend in 20% water, unless too thick a mixture results.

Then use 10%. ? Use all available contents up to 20 GM.

Take 70 cc & Centrifuge 20 min. at 6 N - SAVE sediment & resuspend it in part of original suspension

261 neg. few cells mening.

259 +

218 { thoracic - infilt. perivasc.
lower cerv. ## outfall heavy
degen roots.
228 { Clark col. ## on one side.
perivasc. inf.
~~Lumb. cord.~~

200. Root colon.

240. Bonnett Rh Sp. cord
+

239 Bonnett Cyn. Sp. Cord
+

265 ##

255 + perivasc. infilt.
outfall neuron

211 neg.

210 cell infilt 1 meningy vess.
Lumb. cord. ~~otherwise~~ se neg

161 medulla perivascular
in choroid.

179 few cells around 1 vess.
in periph nerve. Lumb.

212 ^{Lumb.} + neur ph.

216 ~~---~~ +++ outfall on 1 side.

CervicalThoracicLumbarMedull

218 { neuronoph.
outfall AHC. ++ (centis)
infect in gray m.
pericase infect. ++
degen. roots. ++

+
+

1 side +
+
+
++

small focal accum

195 interst. accum
in meninges
& around roots. lower?

192 neg.

T I S S U E S

T E S T E D

MONKEYS INOCULATED INTRASCIATICALLY Rh. NO.	DAYS AFTER INOCULATION BEFORE PARALYSIS	NO. DAYS PARALYZED WHEN SACRIFICED	SPINAL CORD	OLFACT. BULBS	NASAL MUCOSA	TONSILS	SALIVARY GLANDS	INTESTINE	ABDOM. SYMP.	CERVICAL SYMP.	ADRENALS
3	65	32	POLIO 5 days	T?	T?		(21cc IP)	(27cc IP) DEAD 1 day	DEAD 12 days Dysentery.	DEAD 27 days miliary tbc.	T?
5	5	2 (found dead)	POLIO 6 days.	T?			(50cc IP) Pt. hemipar. 13th day. sacrificed 19th day. tbc. intest.	(30cc IP)		T?	
7	5	3 (found dead)	POLIO 6 days.				(60cc IP) DEAD 2 days.	(23cc IP) DEAD 2 days.		Pass. Rh 32 6-21	Pass. Rh 35 6-21
8	4 3	2 1	POLIO 5 days.	Pass. Rh 9 6-20		DEAD 8 days. NO CAUSE at autopsy.	(18cc IP)	(42cc IP)	Pass. Rh 11 6-20		

Tissues (completely) negative

<u>Nasal plugs</u>			<u>Patient</u>	<u>Stool</u>	<u>Patient</u>	<u>Urine</u>	<u>Patient</u>	<u>Saliva</u>	<u>Patient</u>
108	67		Mcgee	58	Mcgee	53	Lake	X 68 few cells in morning	Fletcher
111	106	63	Keagle	59	Keagle	54	Beisch	26	Whitt
113	105	91	Richardson	X 70 (few cells in morning)	Keagle	52	Ashwill	44	Smith
	104	X 85	McElfresh	72	Fletcher	X 99	Hoover	2	
	103	21	Whitt	61	Giddens	50	Lambert		
	100	16	Cobb	73	Vandenberg	17	Ituff		
	101	22	Stevens	60	"	38	Belden		
	102			79	Richardson				
	114	125	X	80	McElfresh				
	115	124		83	Jack				
		128	X	84	Seal				
	117	129		47	Cobb				
	118	192							
	119	195		187					
	120	196		186					
	121	194		183					
		215		179					
		211		178					
		208		177					
		207		176					
		202		173					
		203		171					
		219		169					
	220	222		168					
	223	225							
	245	226							
		227	228	229	230	232	233	234	
	247	235							
	248								
	253								
	256								
	287								