

11-13-40

Abdominal sympathetic plexus.

62

0.7 Gm - 3 cc
distilled water.
Sand-centrif.

Rh 314

11-13 : 2 cc ice.



12-18 autopsy.

presinfo

no fibr.

CNS neg gross.

sections C 6 m.

glyc.

Microscopic - cuffing of several vessels in substance of medulla -
some interstitial glial infiltration
cell. infiltr. of 2 meningeal vessels of cord

but - 6 levels of cord - no sign of outfall of
cells, no infiltration, roots - OK.

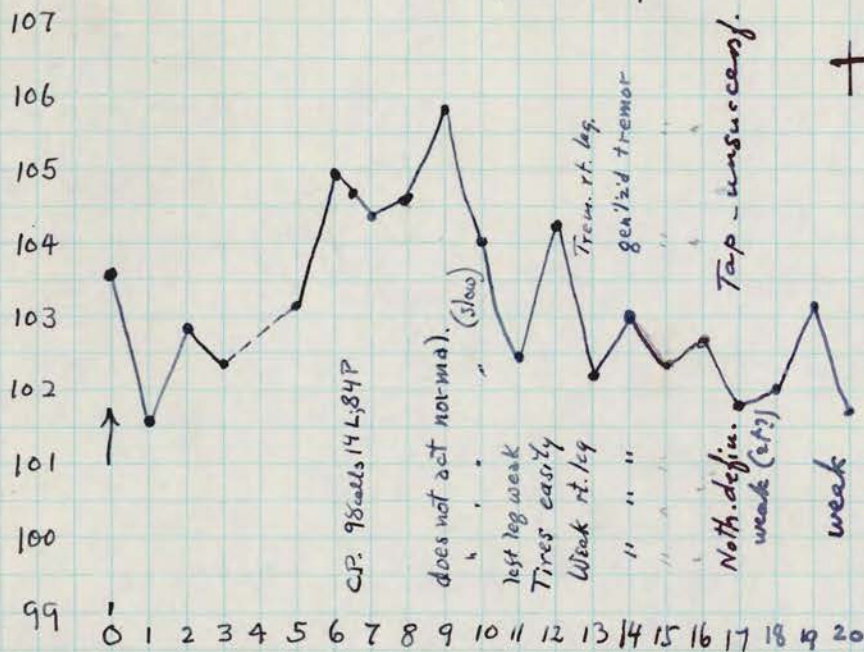
7/31/40

- Bulbar Polio

- Pons-medulla (3.5gm. in 25cc. saline - low speed centrifugation) - 9.0 cc. frozen rest injected

(68)

Rh. 76 - 2cc. i.cer.; 10cc. i.p



8/19 - sacrificed

Viscera normal

Spinal cord + medulla sections in 2 A. rest in glycerin

6 mice (at 3 wks. old) injected with same material

																																	9/1	2	3	4		
	Days	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	33	34	35	36	37
0.03cc. i.cer. 0.5cc. i.p	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Histology

Lumbar Cord — cells intact; heavy cuffing

Thoracic " — area of necrosis + neuronophagia in lateral horn; cuffing

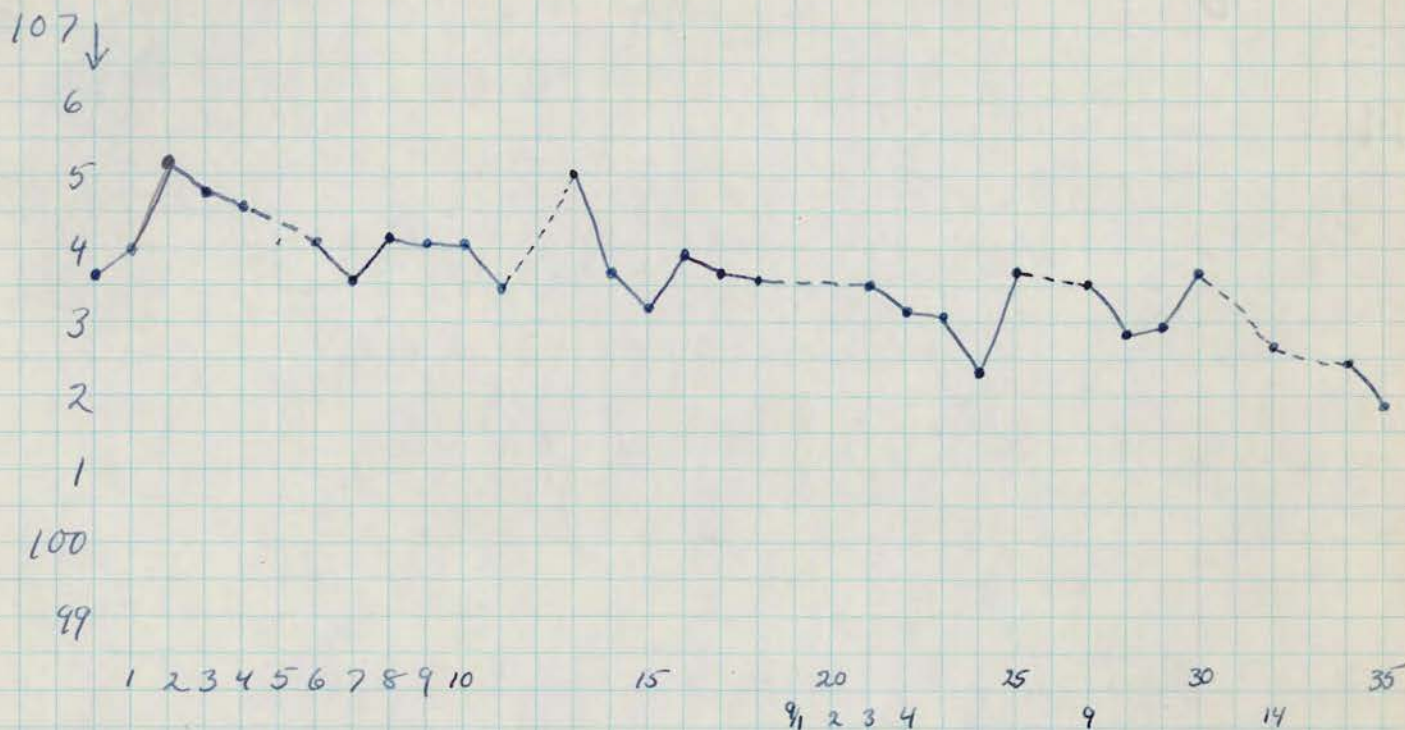
Cervical " — extensive necrosis, neuronophagia + cuffing (old lesion) involving most of one side; other side unaffected.

Medulla — focal neuronophagia and cuffing

8-13-40

Motor cortex 10% suspens. (5gm in 50cc saline)
2cc I.C.
36cc I.P.

Rh. 112



8-28-40 a mold discovered in material, so re-injection was not done.

9-19-40

autopsy

no tbc.

CNS. normal grossly.

Sections medulla, cord L3 D1 C2

glycerine rest of " "

Microscopic

Medulla - cuffing of many vessels; some of the veins in meninges show infiltration

Cord - 5 levels (cervical, lumbar, thoracic) show only mononuclear infiltration in meninges especially heavy near certain vessels.

1 section through thoracic cord - shows heavy cuffing in substance of cord and several foci of interstitial mononuclear and glial infiltration

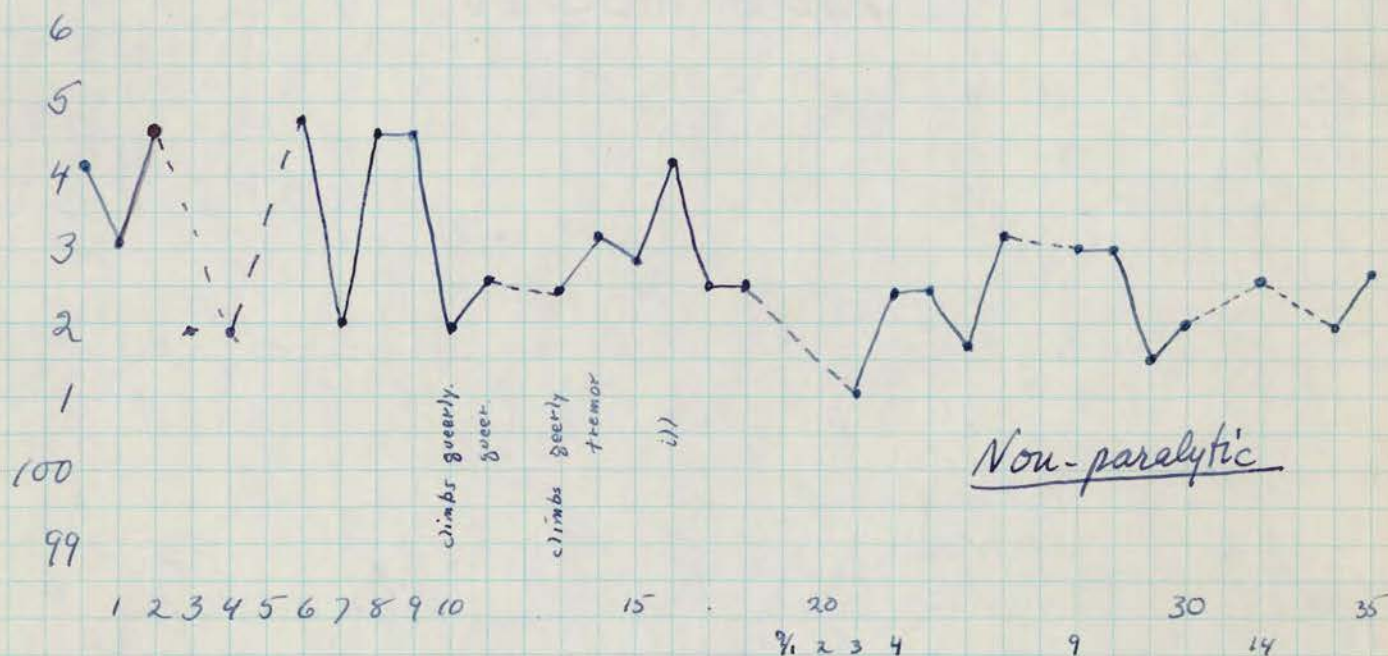
8-13-40

80

MESENCEPHALON 10% susp. (5gm. in 50cc saline)
 2cc I.C.
 26cc I.P.

Rh 110

107↓



9-19 autopsy

no thc.

CNS. norm. grossly.

sections medulla cord L3 D1 C2

glycerine rest of "

Microscopic -Lowest lumbar

— one tiny interstitial focus

Mid lumbar

— one section marked cuffing; other one - focus interst.

Upper "

— cuffing

Thoracic

— Neg.

Cervical A

— neg

" B

— Cuffing and outfall of neurons in ant. horn; some infiltration; anterior horn roots on that side show degeneration of fibers

Medulla

— neg. except for focal meningeal infiltration

9-9-40

104

pooled viscera (lung-liver-spleen-kidney)
9.5 GM. in 47.5 cc distilled water

N.P.

Rh 139 - 2 cc. i.cer. ; 40 cc. i.p. on 9/10

1.85 i.cer. on 9-25.



10-15 autopsy

no h.c.

cvs normal grossly.

all present in 80% → sections thal, choroid, (2) medulla, cord 6.
glycerine: rest of cord & medulla.

Microscopic - Thalamic region - 2 sections - multiple foci of interstitial infiltration & cuffing distributed thru tuber ciner., thalam., globus pallidus, etc.

Marked infiltr. of choroid, meningeal vessels & meninges

Choroid of lat. ventricles - essentially neg.

Medulla - many foci of focal infiltration & marked cuffing
Marked infiltr. of meningeal vessels and some of meninges

Spinal Cord - Sacral - heavy cuffing and evidence of outfall of neurons.
Degeneration of part of the ant. roots
St. meningeal infiltration

Mid lumbar - as above + ~~degen.~~ degen. of part of post. roots and
(over) heavier meningeal vascular reaction

Upper lumbar - ~~site~~ heavy cuffing, outfall of neurons, especially in Clarke's column, interstitial infiltr., and partial root degeneration

Mid thoracic - heavy cuffing, ~~inf~~ interstitial infiltr. and neuronophia

Lower cervical - heavy cuffing

Midcervical - " " and slight interstitial infiltr.
Meningeal vessel affected

Pathologically this is ~~unquestionable~~ entirely compatible with healing poliomyelitis

10-29-40

PASSAGE.

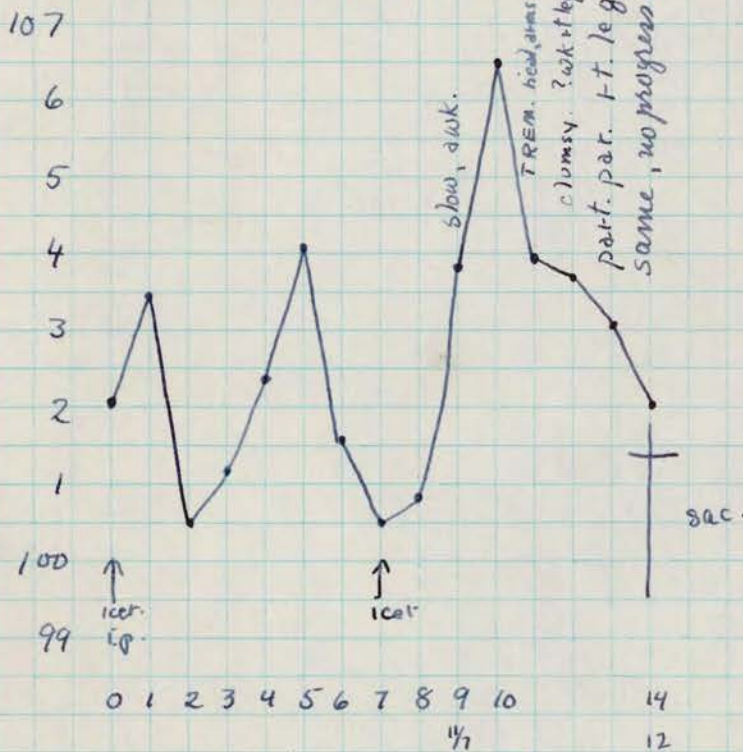
pooled viscera

Rh 139

Spinal cord + medulla 3.3 Gm in
 (all lumbar "
 part of thoracic "
 piece mid cerv. 1 piece ..)
 33 cc distilled water
 sand
 centrif.

Rh 265

10-29 2cc i.cer. 13cc i.p.
 11-5 1.75cc i.cer.



11-7: has a curious habit of drawing left side of mouth sometimes to one side which gives appearance of ~~lef~~ right facial paralysis. That this is not present is proved by bilateral grimaces most of the time.

11-12 autopsy no Hrc.
 CA/S grossly normal
 present in 80% sections cord 3, medulla, thal.
 glyc. " "

Microscopic - Typical Polio

Hypothalamus - neg.

Medulla - cuffing of many vessels

Cervical Cord - Necros. + neuronoph. of few cells on one side

Thoracic

Lumbar

- Necrosis + neuronophagia of most ant. horn cells, more marked on one side

10-29-40

Passage [REDACTED] viscera

13 ~~104~~ ~~105~~

Rh 139

Spinal cord + Medulla 3.3 gm in
33 cc distilled water
sand
centrif.

Rh 266

10-29 2cc i.cer.

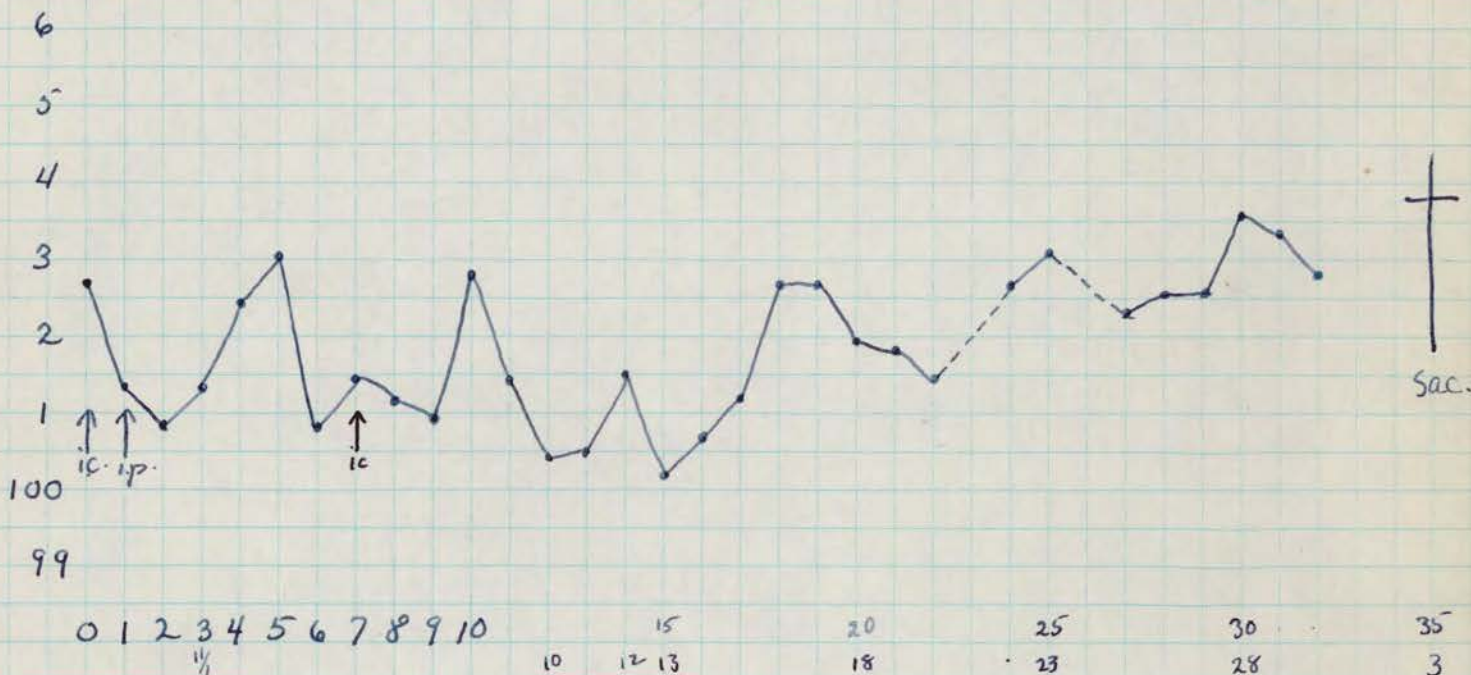
13cc i.p. (saved) monkey collapsed $\bar{c}$ 1cc.

10-30 13 cc i.p.

$\therefore$ i.p. deferred.

11-5 2cc i.cer.

107



10-29 collapse, respiratory + circulatory - revived $\bar{c}$ artif. resp. 2-3 mins.

12-3 autopsy. no flc. many thin adhes. rt. lung.
CNS norm. gross.
pres. in 80 sections: cord 6, med.
glyc. " "

Microscopic - entirely negative

Sac.

9-9-40

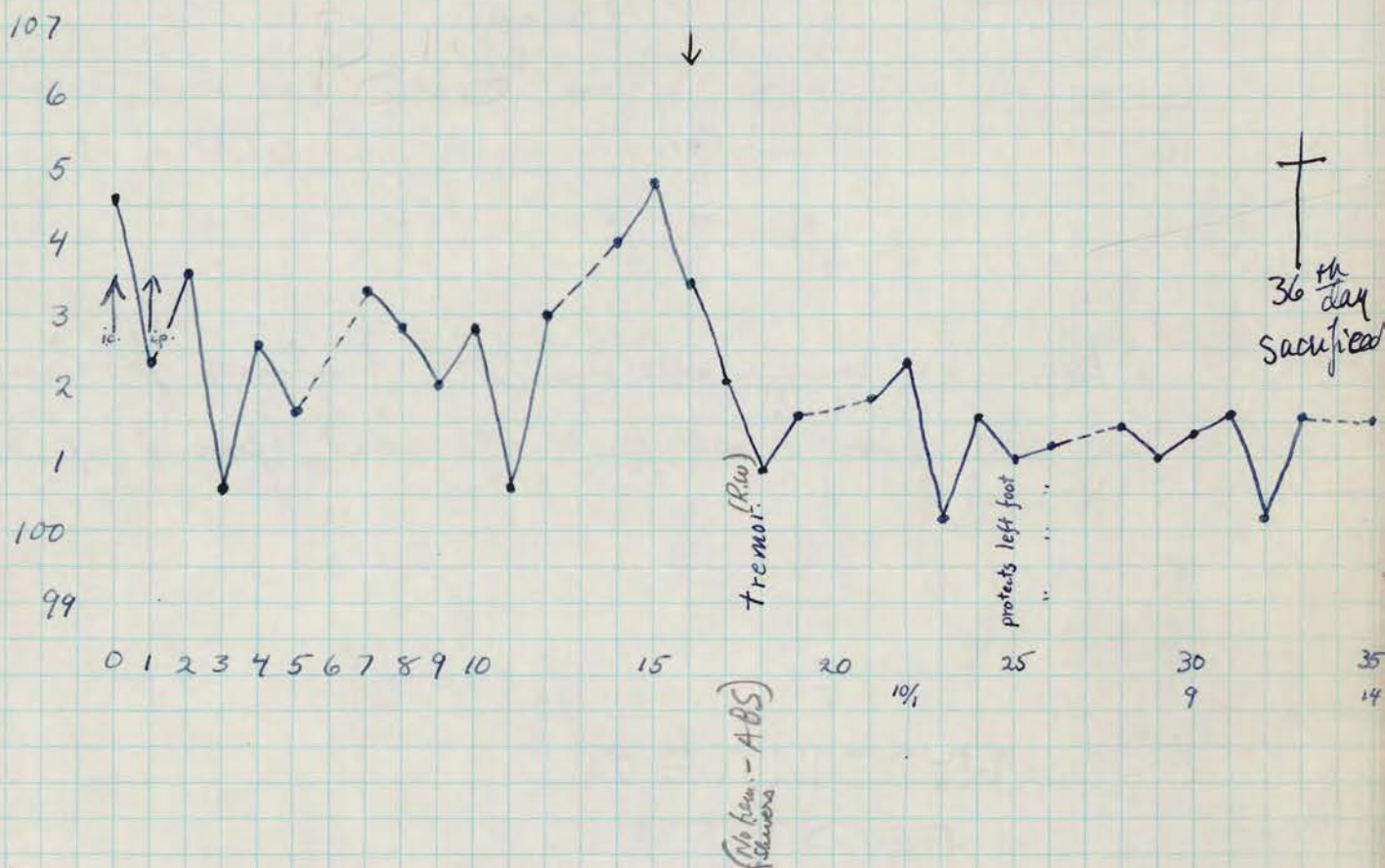
105

Axillary & Inguinal Lymph Nodes.
4.8 gm. in 24 cc distilled water

N. P.

Rh 140 - 2cc. i.c.; 17cc. i.p. 9/10

1.9cc i.c. on 9-25



10-4 runs - left foot occ. held up off ground
still shivers

10-15 autopsy
all present in 80%

no Hc.
CNS. normal grossly.
sections thal. choroid (2) medulla
glycerine rest of " " cord 6.

Microscopic - Thalamic region - *marked infiltration of choroid; basal mening vessel; foci of ^{interst.} infiltration in hypothalamus

Choroid in lat. ventric - marked infiltration

Medulla - slight infiltr. of 2 meningeal vessels

Spinal cord - Lumbar - lower - Destruct. & disappearance of many ant. horn cells replaced by glial infiltration; cuffing of interstitial vessels. Degeneration and infiltration of ant. roots. (over)

Lumbar - midlumbar - same as lower lumbar $\pm$ heavy cuffing; ~~ant~~ roots not in section

upper lumbar - focal neuronophagia - satellitosis; ~~ant~~ roots show some degeneration

Thoracic - slight infiltration of two meningeal vessels

Lower cervical - on glial focus; sl. infiltr. one meningeal vessel

Midcervical - sl. cuffing of one ^{interst.} vessel and some interst. glial infiltration with suggestion of disappearance of some ant. horn cells.

This is unquestionably healing poliomyelitis from a pathological point of view

10-29-40

PASSAGE

15 ~~105 B~~

Rh 140

Spinal Cord + medulla.

Rh 268

10/29 2cc icet.

12cc ip.

11/5 2.2cc icet.

107

6

5

4

3

2

1

100

99

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20

25

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35

1/4

4

8

13

18 19

23

28

3

diar.

↑

ic

ip.

↑

ic

1/2 cc

save

10-29-40

PASSAGE.

axillary & Inguinal lymph nodes

14 105 A

Rh 140

Spinal Cord & medulla.

(all Lumbar & all cervical & 1 piece ")

3.2 GM. - 32 cc
distilled water
sand
centrif.

Rh 267

10-29

2cc

icer.

12cc i.p.

11-5

2cc

icer.

107

6

5

4

3

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↑
icer.
i.p.

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icer

Suc

100

99

0 1 2 3 4 5 6 7 8 9 10

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1 1/2

13

18 19

23

28

3

12-3. autopsy.

pres. in 80

no tbc.

CNS neg. gross.

sections cord 6, med.

glyc.

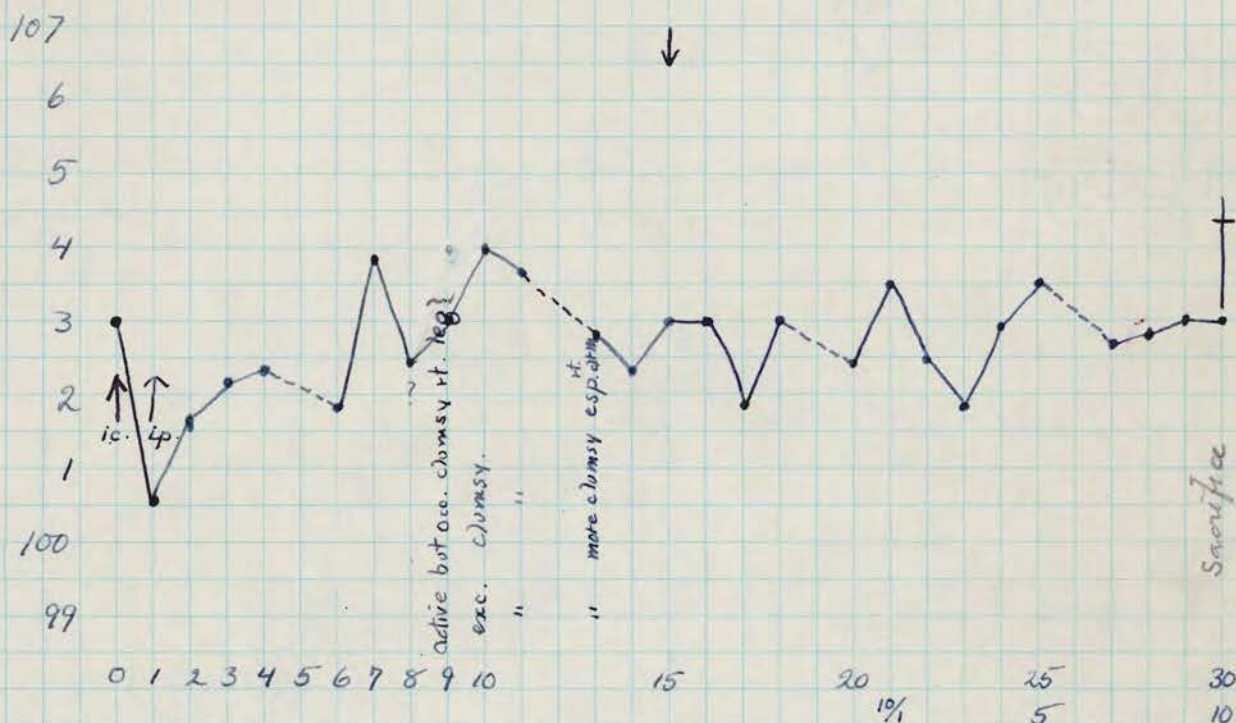
same
autopsied by mistake
Rf.

Microscopic - entirely negative

110

108

1.9 cc i.cet. 9-25



no flc.

CNS: norm. grossly.
sections: thalamus, choroid, medulla, cord (6)
glycerine: " " rest of " "

Microscopic - Thalamic region - choroid - mononuc. infiltr.
meninges - " " "

Interstitia cuffing + infiltration indicative
of former neuronophagia.

Hippocampal region - choroid neg.; mening. vessel -
mononol. w/ fibr.

Medulla - interstitial cuffing and two foci of sl. infiltr.

Cord-Lumbar - mid + lower - neg. except for one meningeal vessel

Thoracic - neg. Upper lumbar or lower cervical - ^{slight} cuffing + some interst.

infiltration in midzone ^{ridge}) loss of cells in Clarke's column on one side + few cells in ant. horn of same side with degen. changes in ant. root

Midcervical - loss of most ant. horn cells on one side, some interst. infiltr., + degeneration of ant. root

8-13-40

79

Spinal cord 10% suspension (2gm in 20cc salt)
2cc I.C.
10cc I.P.

Rh. 109

107

6

5

4

3

2

1

100 ↑

99

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
% 2 3

a little excited but nothing else.

excited

def. tremor

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Fall of pup; very questionable

same but ask. when

Nothing definite

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Fall of pup; very questionable

same but ask. when

Nothing definite

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Fall of pup; very questionable

same but ask. when

Nothing definite

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8-30 Cisternal tap (C.T.) clear fluid 146 cells almost all mononuclears

9-3 Sacrificed autopsy: viscera normal

CNS " grossly.

Sections medulla, cord { lumbar 1
dorsal 1
cervical 1

glycerine rest of cord + medulla.

Microscopic

Lumbar Cord — Heavy cuffing; several nodules indic. of earlier neurophagia
Rem. cells O.K.

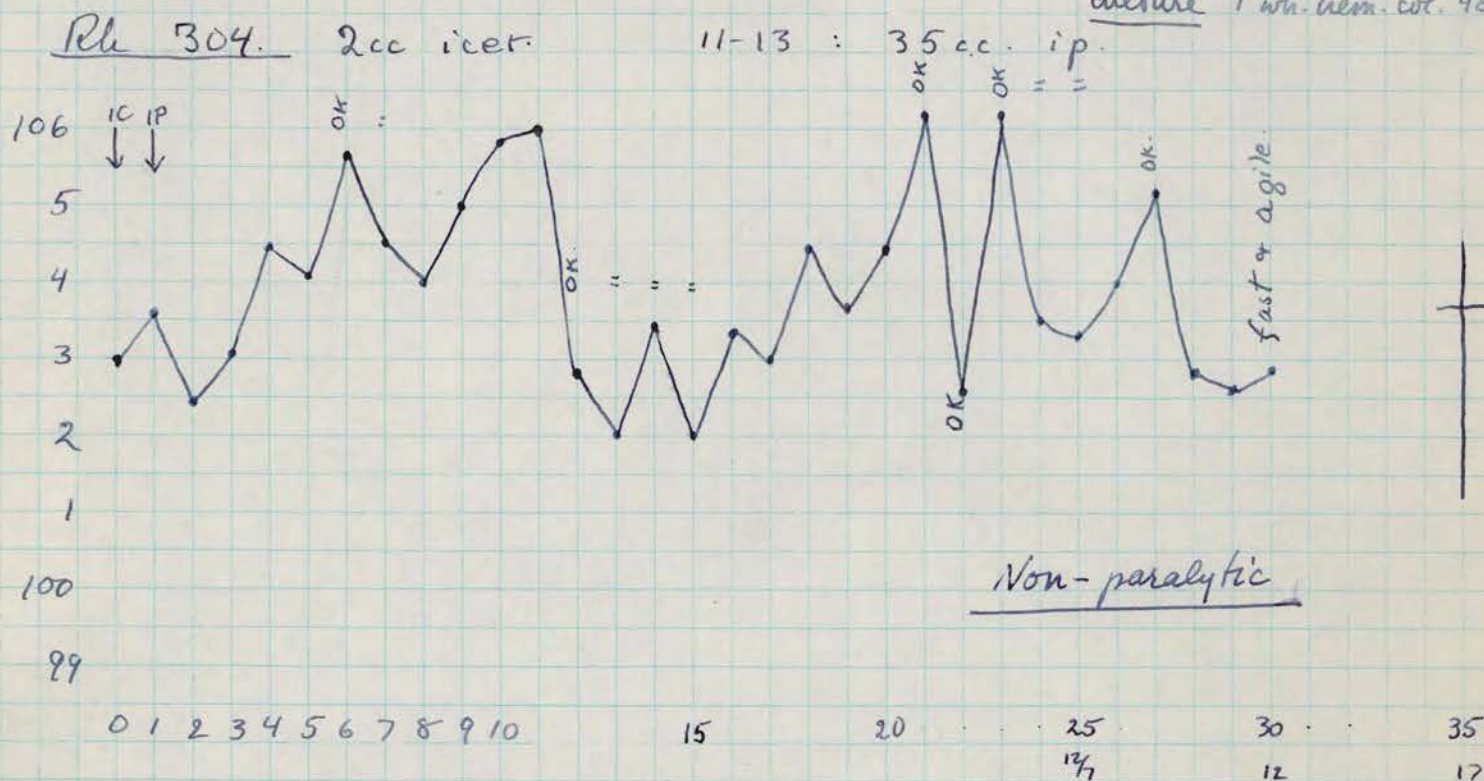
Thoracic " — O.K.; one questionable vessel

Cervical " — O.K. except for slight cell. infiltr. in ventral fissure

Medulla — slight cuffing of a few vessels and some
interstitial infiltration in retic. subst.
on one side

11-12-40

tonsils + pharyngeal mucosa. 6.4 GM - suspended
 Tonsils present.
 sand-centrif. first in 32 cc. resultant
 mixture too thick so
 another 16 cc added.
 making 15% susp.
 etherized in usual manner
 culture 1 wh. hem. col. 48 hrs



12-17 autopsy. no Hrc.
 CNS norm. gross.
 pres in 80. sections (rush) cord 6 medulla.
 glyc. " "

Microscopic exam. (ABS)

cervical cord. 1 - perivascular cellular infiltration in substance of cord
 & also interstitial cell. infilt. in vicinity of that vessel.
 2 levels. In addition there is some slight degenerative
 change in the root of that side & cellular infilt.
 of one of the meningeal vessels.

Lumbar 3 levels : 1 - negative
 1 has evidence of slight degen. & reactive changes
 in anterior root of one side, also cellular
 infilt. of meningeal vessels.
 1 other level has just cellular infilt. of mening. vessels.
 negative.

Thoracic

Medulla

slight cellular infilt. mening. vessels.

10-17-40

Spinal Cord. 4.9 GM - 49 cc dist.
water. no sand no cent
filtered thru gauze.

29 ~~5~~

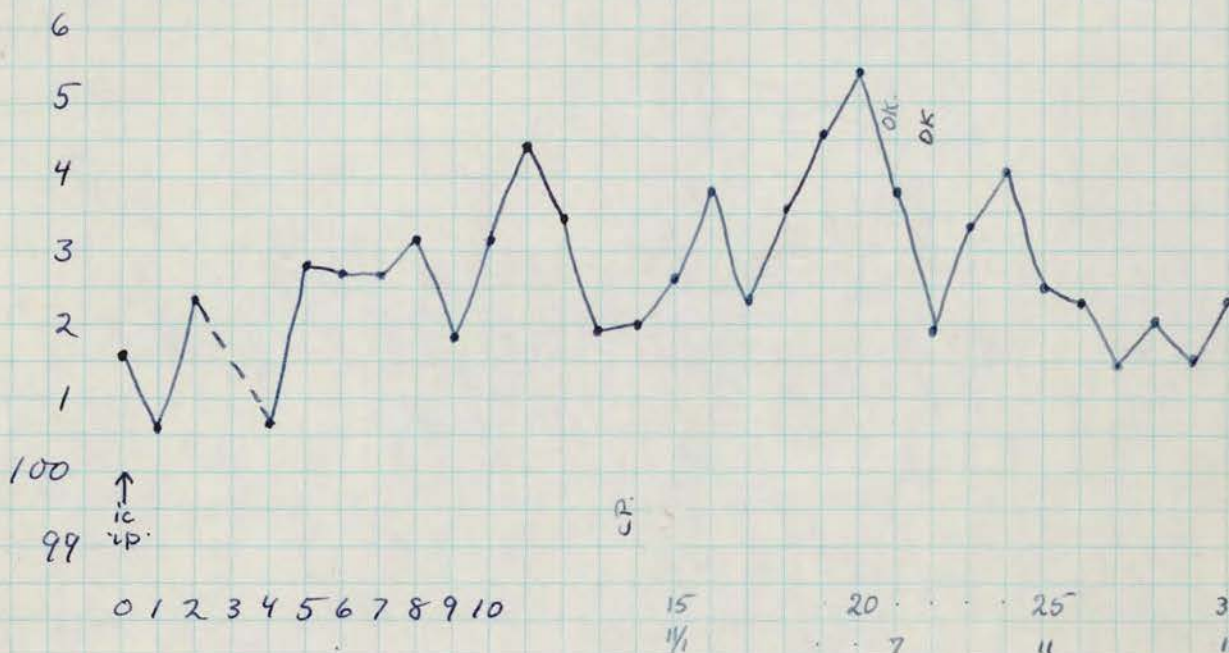
Mac. Rhesus 243

2 cc icv.

23 cc. ip.

Non-paralytic Polio

107



10-31 cisterna puncture - bloody fluid.

11-22 autopsy.

pres. in 80.

no tbc.

CNS. neg. grossly.

Sections cord 6, med.

glyc. " "

Microscopic - ~~Non~~ Polio

One level of lumbar cord shows an area of heavy cuffing + interstitial cellular infiltration indicative of previous neuronophagia

Another lumbar level shows one root c typical degeneration

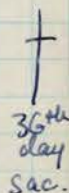
Cellular infiltration of several meningeal vessels in cord and medulla.

□ ☐ ☐

162

N. P.

107

[illegible]

no h/c. C.N.S. grossly normal
sections usual - cord 6.
all present in 80%.

glycerine usual

(over)

Microscopic - Thalamic Region - slight cell. infiltr. in choroid of 3rd ventricle

Choroid of lat. ventric - same

Medulla - focus of cuffing and glial infiltration in reticular substance

Spinal cord - cervical region 1 - one or two glial foci:
sl. cuffing one vessel
" " 2 - outfall of many cells on one side, glial foci, and distinct degenerative changes in ant. roots.

Thoracic - cuffing one vessel; outfall of some cells + root degener.

Lumbar - upper - like thoracic

mid - heavy cuffing, outfall of some cells, glial infiltr.

lower - outfall of a numb. of ant. horn cells on one side, glial foci, root degeneration

10-30-40

PASSAGE -

Rh 20

Spinal cord - medulla.

3 Gm - 30 cc.
dist. water
sand - centrif.

(all lumbar "
most cerv.
1 piece medulla.)

2 cc saved

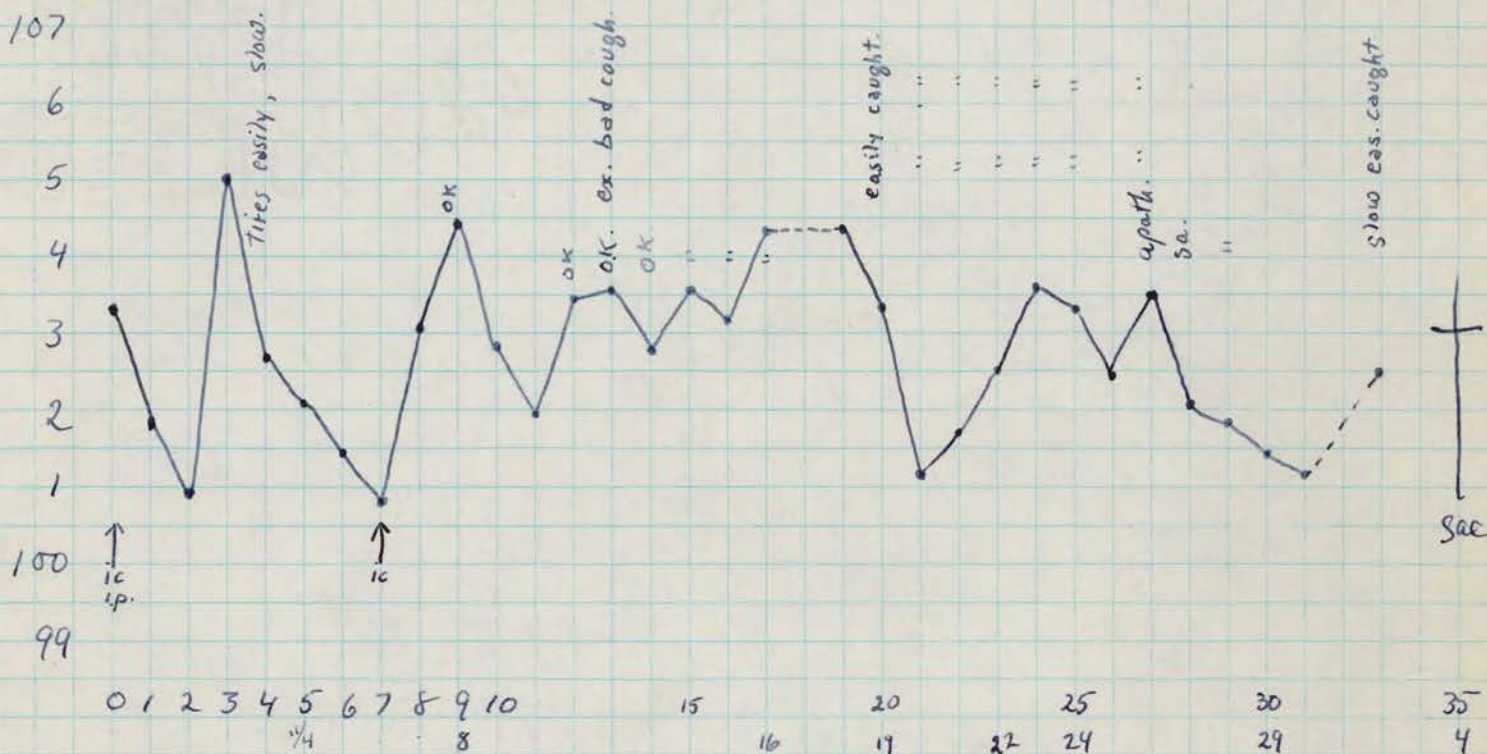
Rh 270

10-30 2 cc icer.

25 cc i.p.

NP +

11-6. 1.85 cc icer.



11-30. I'd like to put even money on this for non-paralytic polio.

12-4 autopsy: no tbc.
pres. in 80. CNS neg. gross.
sections cord 6, med.
glyc. " "

Non-paralytic polio (RD)

SAC.

Microscopic - Polio

Two levels of cord - neg.

" " " " - severe root changes but cells OK
" " " " - looks rather early - neuronophagia,
necrosis, interstitial infiltr.

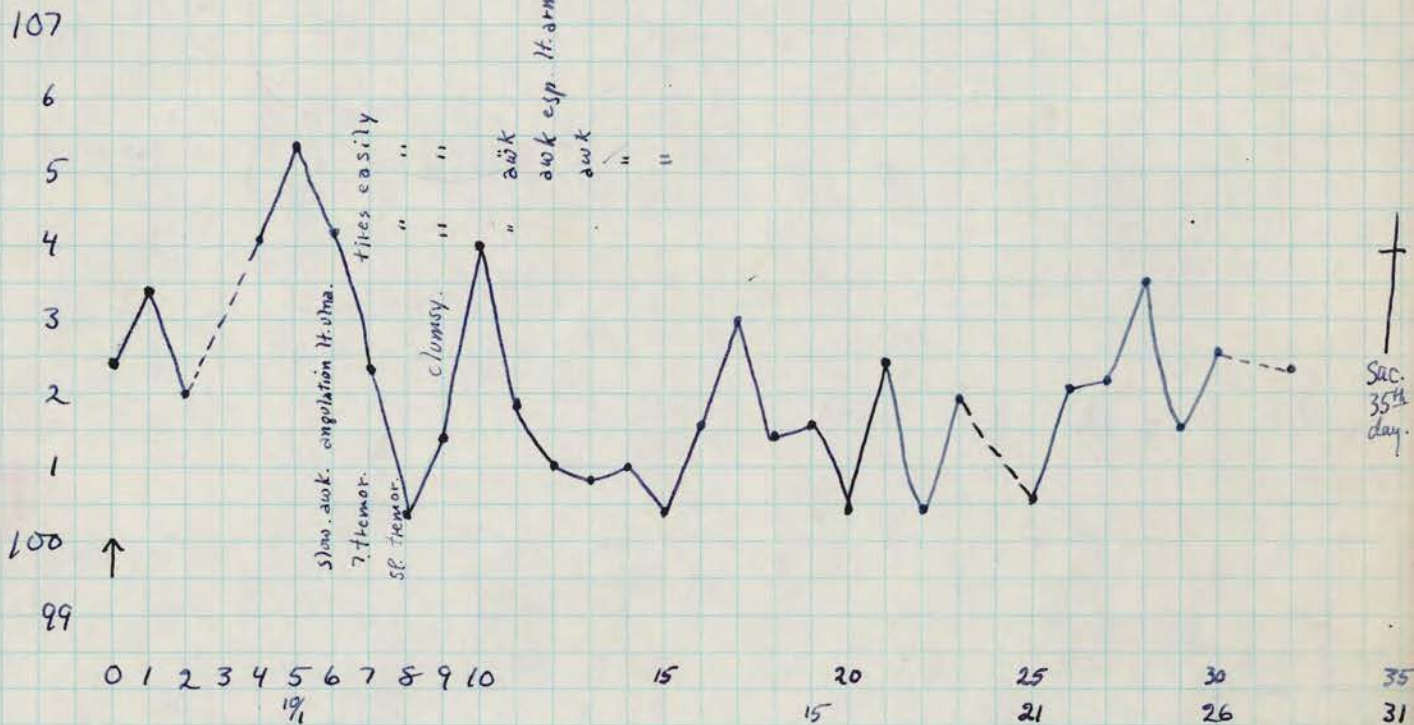
Medulla - cuffing of several vessels in substance
+ interstitial infiltr. in retic. substance

9-26-40

PASSAGE. - Pleum contents of arthurs. 112 bis
Rhesus 150 sp. cord, mostly cervical 2.4 GM. ground
without sand, suspended in 24 cc
normal saline

Rh 198

2cc i.c.v. ; 2 l.c.s. i.p.



10-31 autopsy.

no H.C.
CNS - norm. grossly.
sections usual. cord 6, medulla, thalamus.
glycerine:

Microscopic - Typical picture found in non-paralytic Polio

1 lumbar - OK

1 " - outfall of ant. horn cells on one side & interstitial cellular infiltration & typical reaction of degeneration in ant. root on same side

2 thoracic - OK

1 cervical - OK

1 cervical - outfall of ant. horn cells on one side & slight cuffing

Medulla - OK.

Hypothalamus - cuffing of one interstitial vessel

10-31-40

Passage Rh 197 Sp. cord & medulla

3.26M. - 32cc
distilled water.
sand centrif.

2cc saved.

Rh 274

10-31 2cc i.cer.

27cc i.p.

11-7 2cc i.cer.

NP+

107

6

5

4

3

2

1

100

99

↑
ic
i.p.↑
ic26^h
27^h

0 1 2 3 4 5 6 7 8 9 10

15

20

25

30

35

19/20

22

25

30

5

11-26. Today is the first time I remember watching this monkey. He has a definite leg. weakness brought out by dropping him when several times rt. leg buckled.

11-27 same, but less obvious today

11-28 "

12-5 autopsy. no h.c.
C.N.S. norm. gross.
pres in 80 sections cord 6, med.
glyc. " "

sacrif.

Microscopic - Polio - see Rh 273

Passage with enema

Blocks of Rh 274 & 273 mixed.

Both sections show evidence of polio

Slides marked A show definite degenerative lesions in roots,
infiltrative lesions & outfall on one side of lumbar cord.
Medulla is negative

Slides marked B.

cerv.: lower cerv. or upper thoracic - outfall of neurons in one lateral horn & degen of roots.

thoracic: neg.

lumbar cord: heavy ^{outfall} destructive & infiltr. lesions one side - roots degen.

medulla heavy perivascular cuffing in meninges & choroid.

- tonsils & pharyngeal mucosa.

1-17-41 PASSAGE Rh 304 (non-paralytic polio.)

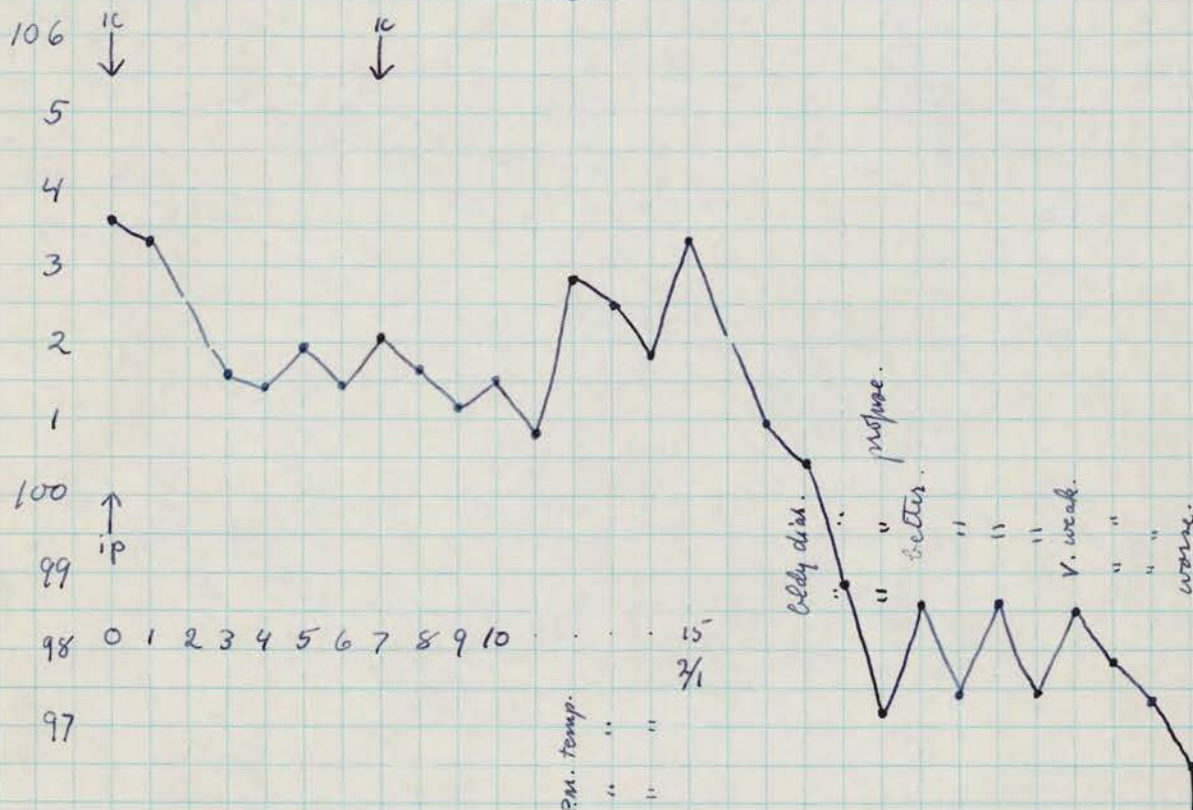
Spinal cord.
2.9 GM - 29 cc
dist. water.
sand, 194 cent.

Rh 395

1-17 2 cc. icer.
1-24 2 cc. icer.

10 cc ip.

(4 cc saved.
2 cc. injected, 1 cc. 1-24.)



2-1. head traumatized. probable concussion, recovered in 2-3 mins & was OK in 10 mins

2-4 weak, emaciated, lies down on floor of cage.

2-5 same.

2-6 worse, vomiting milk.

2-15 autopsy no flc. viscera es. normal. fluid intest. contents.
CNS neg gross.
sections C & med.
glyc. " "

below 94°. 2-15-41

+ sacrificed.
29th day.

Microscopic - Entirely negative

11-1-40

PASSAGE - Rh 112.

Motor cortex

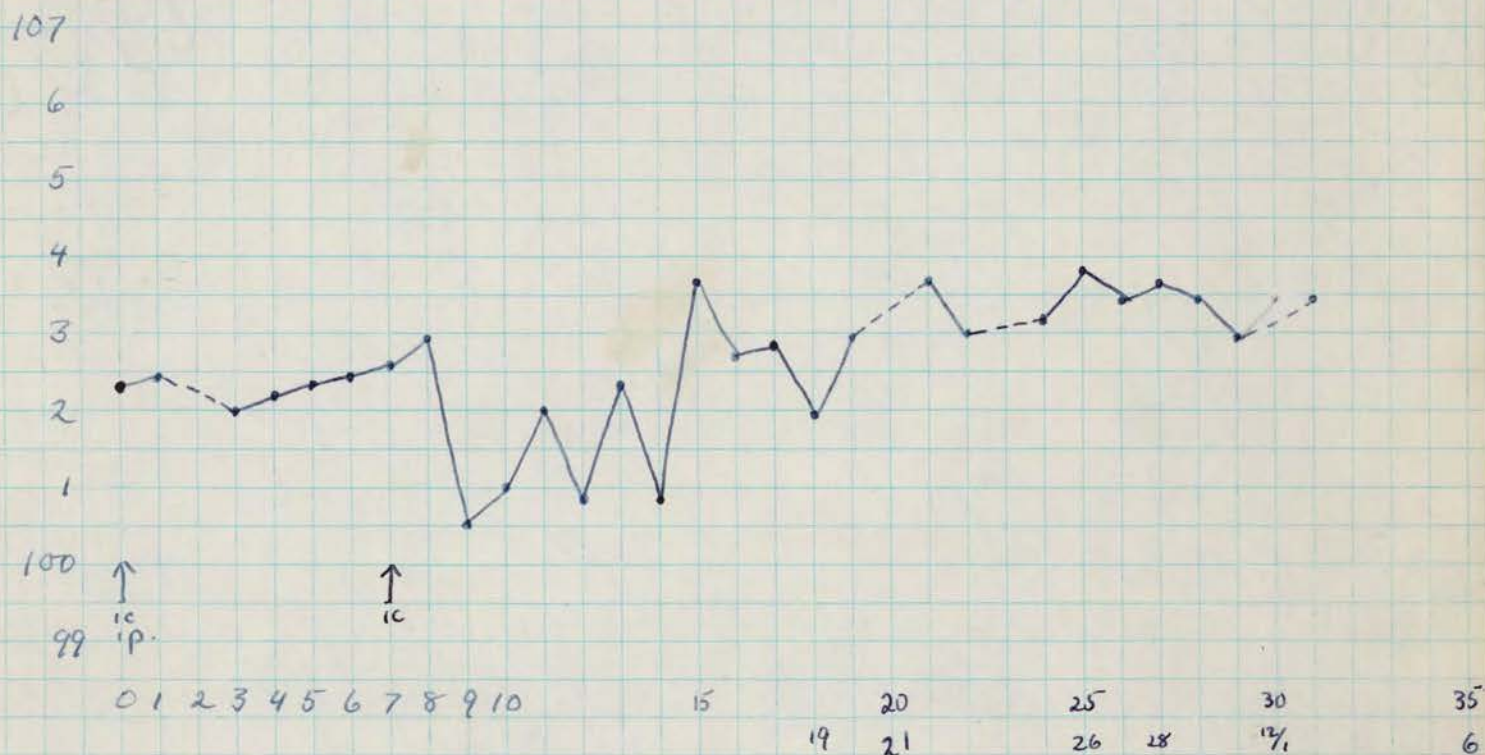
a little cervical
 " " lumbar
 all of thoracic

CORD. 2.5GM-25cc
 distilled
 water.
 sand
 centrif.

2cc savedRh 278

11-1 2cc i.cer. 22cc i.p.

11-8 2cc i.cer.



11-28 easily caught.

save

10-30-40

PASSAGE.

Rh 109. Sp. cord - medulla
(all lumbar
little cervical
" medulla)

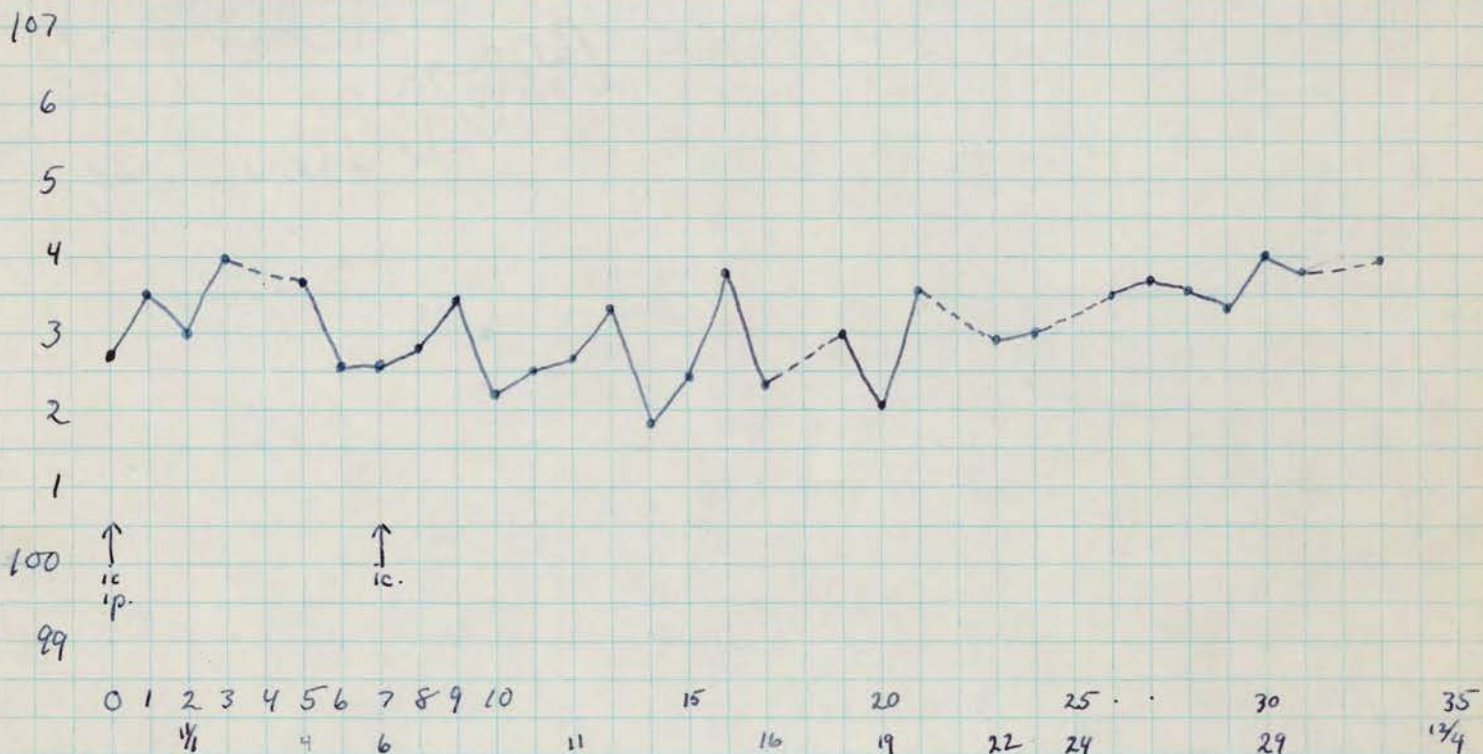
2.7 gm - 27 cc
dist. water
sed - centrif.

2 cc saved

Rh 271

10-30 2 cc icet.
11-6 1.9 cc icet.

24 cc i.p.



Save

10-30-40

PASSAGE - Rh 146

cord & medulla
(all cervical cord
1 piece upp. lumb.
" medulla)

2.9 Gm - 29cc.
distilled water
sand-centrif.
2cc saved.

Rh 269

10-30 2cc icer.
11-6. 2cc icer.

24 cc i.p.

107

6

5

4

3

2

1

100

99

↑
ic
ip.

↑
ic.

0 1 2 3 4 5 6 7 8 9 10

1/1

12

15

14

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19

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22

24

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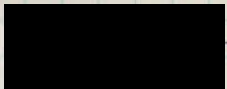
29

35

4

Save

9-11-40



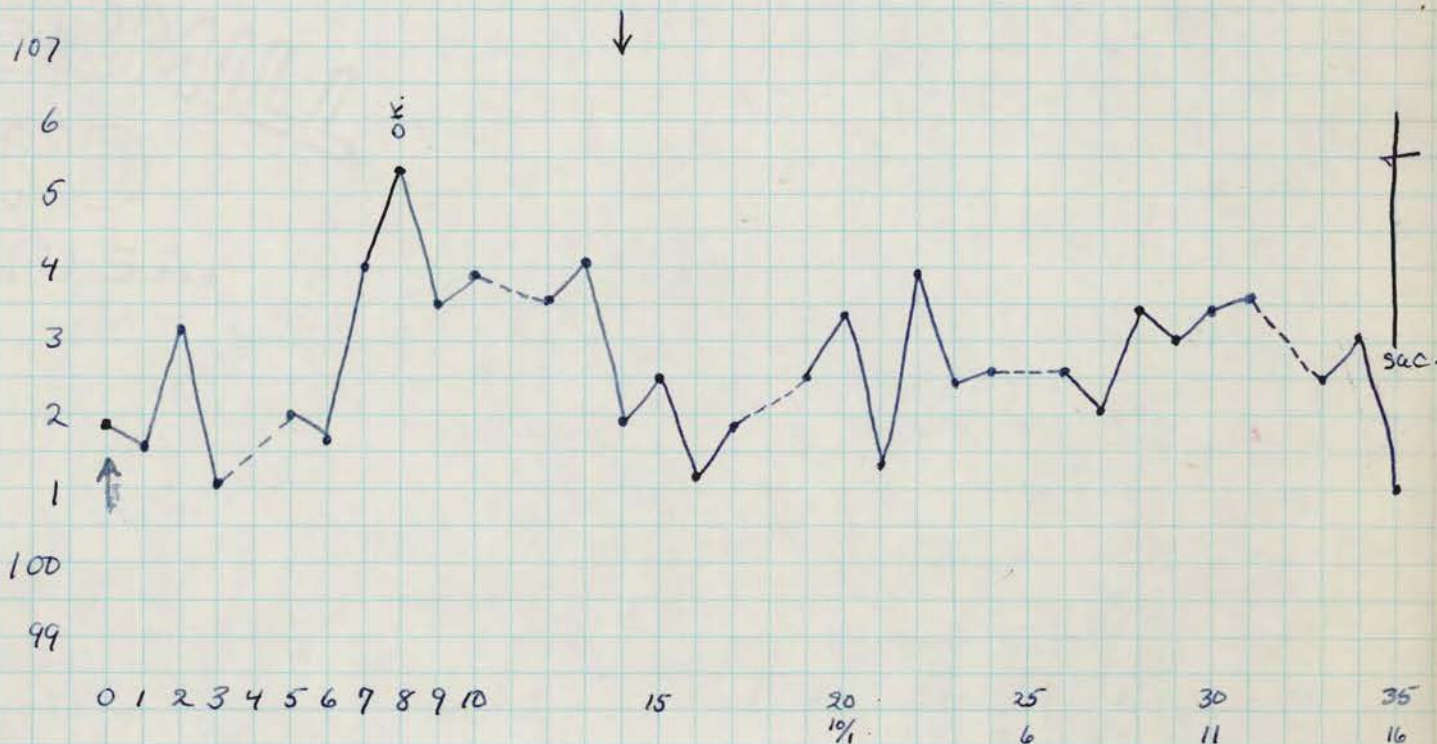
anterior perforated substance 3.9 gm. in
39 cc distilled water

113

i.cer. - 24.5.
i.p. - 35cc

9-25 i.cer - 1.95 cc

Rh 153



10-16 autopsy.

no tbc.
cns normal
sections thal., choroid(?) of fact bulb(?) medulla cord 6.
glycerine rest of " disc 12-2 ..

Microscopic - Negative

9-23-40

188-178

medulla (upper portion)
2.2 gm. ground & small amt. sand
suspended in 22cc saline, lightly
centrifuged.

Bh 194

9-23 2cc i.cet.

9-24 - 20cc i.p.



10-24 autopsy :
all present in 80%

no flr.
CNS. grossly normal
sections usual - cord 6, choroid 2, thalamus, medulla
glycerine " disc 12-2"

Microscopic - All negative