

3 1/2 ♀

b. 1-27-57.

lives Oxford O.  
RR #3

(1)

c.c. can't move legs

Pt. onset 6-22. cold in head, vomiting, abdom. pain, fever  
6-26. anorexia malaise  
6-27. paral. left leg, difficult urination " hotter  
6-28 " right leg. Adm contact. " "

P.E. T 102.1 acutely ill. flacc. paral. both lowers, uppers ok.  
K.g.'s + A.g.'s 0 abd. 0/0 hyperaesthesia over legs  
Neck + back stiff.  
L.P. C.S.F. clear Pandy 0 cells 100 60 hya 34 poly.

6-29 2 P.M. cotton plug inserted in rt. nostril. Bottle left for saliva  
T 100.2 moves rt. toes a little.

6-30 11 AM. cotton plug removed from rt. nostril, fresh one reinserted in left.  
T 99.3. can move rt. toes + ankle + raise foot slightly.  
Definite improvement.  
No saliva yet, chewing gum left.

7-1 11<sup>30</sup> A plug removed from left, fresh plug inserted in right nostril.  
T. 99.2 seems better, raises rt. foot + knee slightly. No motion on left.  
K.g.'s + A.g.'s still absent.  
No saliva yet to speak of.

7-2 11<sup>45</sup> A. plug removed from rt. No BM. past 2 days. Enema ordered.  
T 98<sup>6</sup> no further improvement. Small amt. saliva.  
P.M. saline enema given, good returns. Pt. had stool following the enema  
returns. Both specimens stored in ice box.

7-3. Nasal plugs pool representing 3 days nasal secretions.  
Extracted vigorously in 10cc. normal saline. Pounded +  
twisted in mortar. Shaken in flask. Centf'd 8<sup>th</sup> notch 10 mins  
15% ether added, shaken vigorously + stored in ice box.

7-4 centrifuged again + supernatant injected into R 55 (1cc. kept in  
ice box.) Culture after 2<sup>nd</sup> cent. sterile (7-5-40)

Stool + enema returns: the 2 specimens were pooled - the volume  
equaled 254 cc + weight = 272 gm.  
Material was ground thoroly in mortar, centf'd 8<sup>th</sup>  
notch for 10 minutes. Then

- 1.) To 1/2 the material ( cc.) 15% ether was added  
+ the mixture shaken vigorously for 10 mins in a flask.
  - 2.) To the remaining half nothing was added
- Both samples stored overnight in the icebox

7-4 The etherized material was centrifuged, the supernatant was  
pipetted off (leaving the top fatty layer as intact as poss.)  
+ centrifuged again. Supernatant 19cc injected into Rh 57 (IP)  
Culture 7-5 sterile.

Unetherized stool was instilled intranasally into Rh 56.

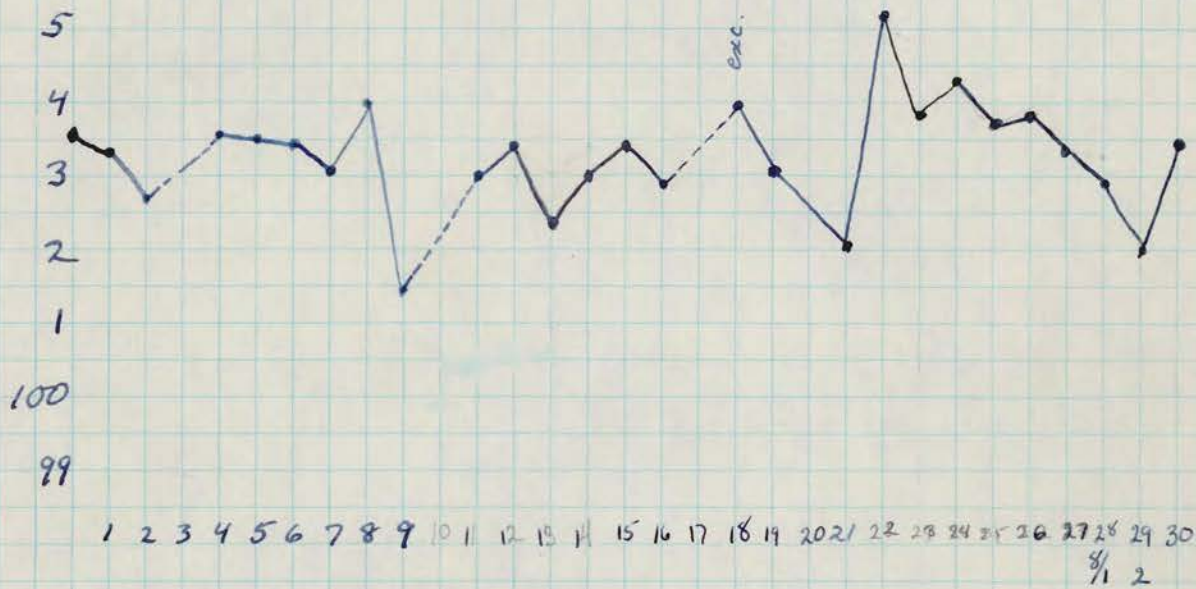
July 4, 1940.

Nasal plugs of [redacted], etherized  
2cc I.C.  
2cc I.P.

(2)

Rh 55.  
2cc I.C.  
106

0.6cc I.C.



7-8-40 : remainder, about 0.6cc, of etherized extract of nasal plugs given I.C.

8-20-40 sacrificed on 47<sup>th</sup> day. Nothing of particular note in gross. A few lung & intestinal parasites seen. Sections taken from lumbar, dorsal & cervical cord & medulla. Rest of the cord & medulla stored in glycerine.

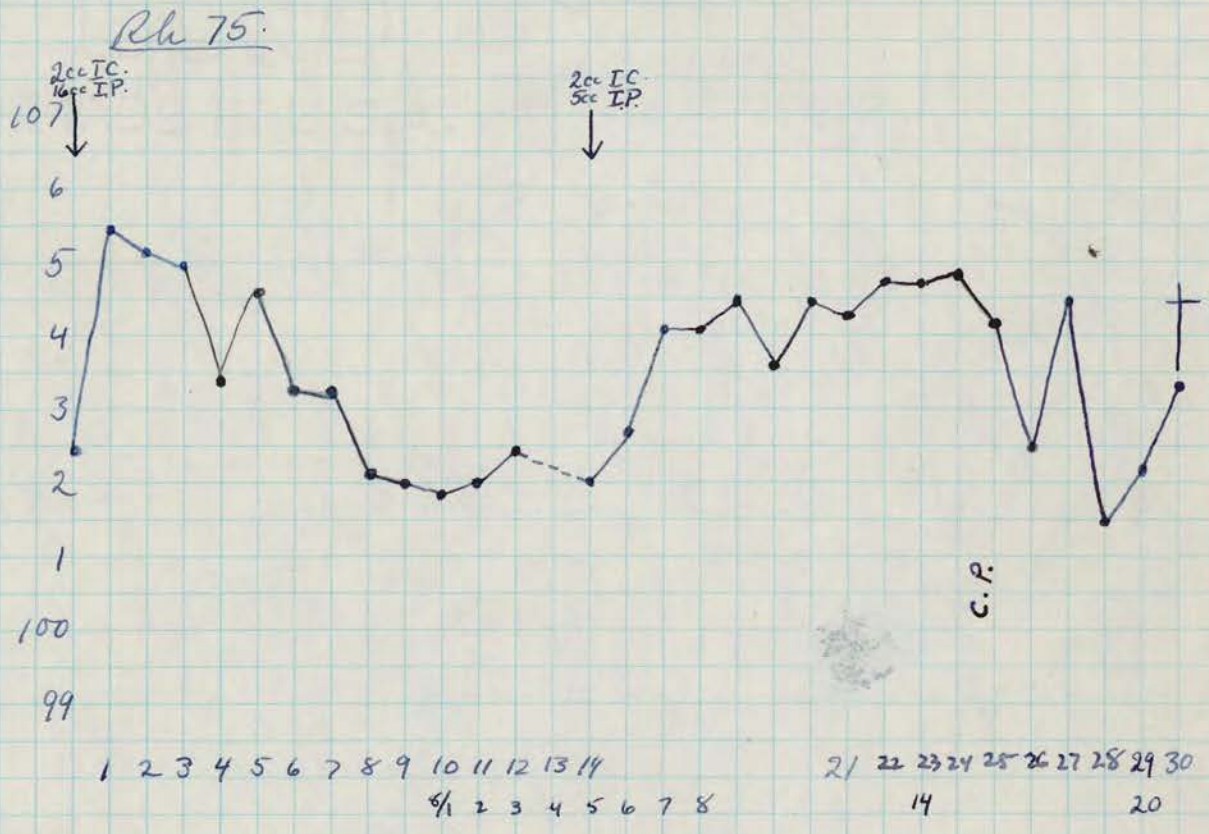
Histology - some focal cellular infiltration (particularly) close to vessels in meninges of sacral & lumbar cord & of medulla.

No evidence of polio lesions

- Stool etherized

July 22.

Rh 57's cord & medulla: 10% suspens. 2cc. I.C.  
" " " " 16cc. I.P.



8-5-40 2.5 gms of cord (cervical & lumb.) were ground in sand, suspended in 25cc. normal saline, centrifuged lightly. 2cc. & 5cc. of this were given I.C. & I.P. respectively, & the remainder placed in 2 ampules & frozen. (1 ampule found broken on 8-15, other ampule intact)

8-16 Cisternal puncture - clear fluid - 72 cells

8-21 Sacrificed Viscera: "chocolate" abscess under surface of liver intestines adherent in that region & esophagostomum seen. Smear of abscess: many polys, no organisms

CNS nothing in gross

sections spinal cord - lumbar, dorsal & cervical; medulla

glycerine remainder of cord & medulla

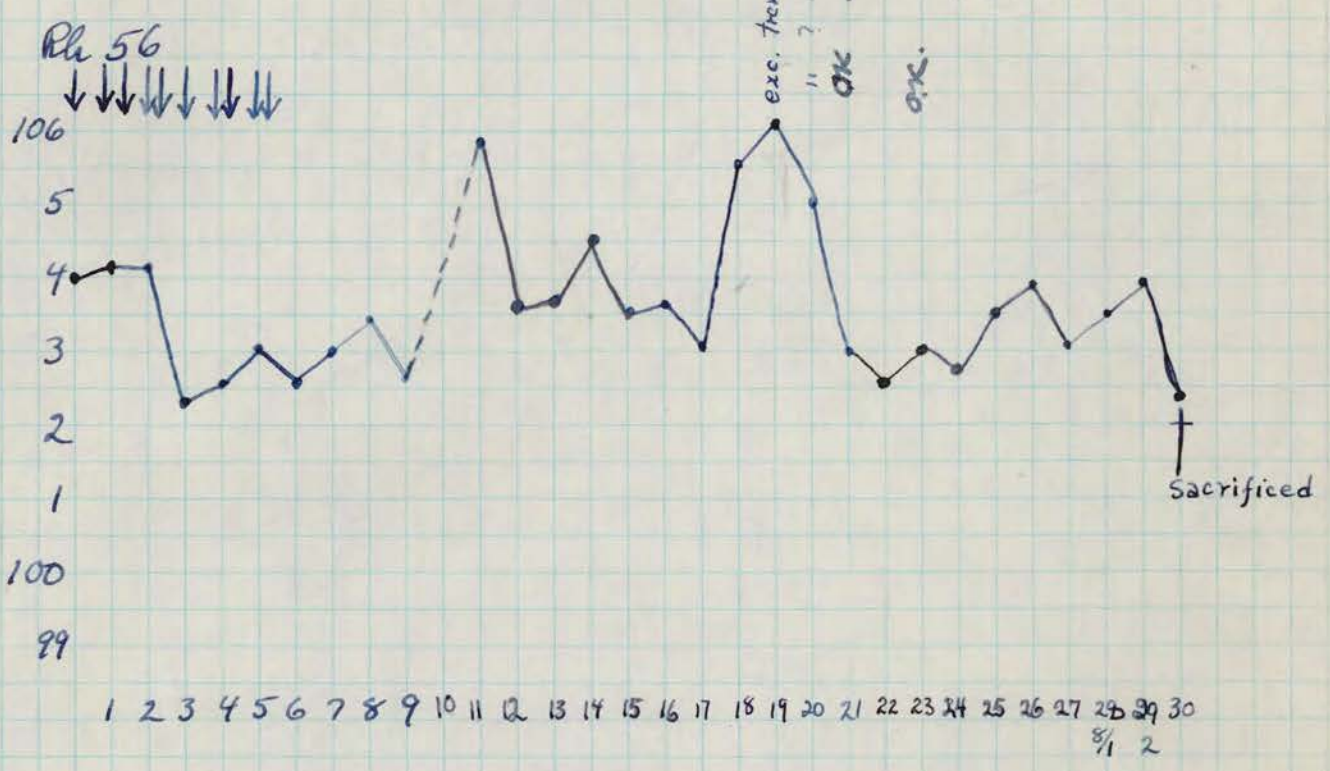
Histology - Sacral, thoracic, cervical cord <sup>+ autonomic ganglia</sup> - negative

lumbar - one vessel with heavy cuffing in white matter

Medulla - <sup>few</sup> foci of cellu. infiltration in meninges

July 4.

toxemia returns  
Untreated stool of Barbara Wallen  
1 cc. instilled into each nostril ↓



8-3-40 Sacrificed: Cisternal tap post mortem: cloudy purulent-appearing fluid. many cells, clumps, + debris some cells probably nerve cells.

Autopsy - No gross evidence of pathology in CNS (Tap probably due to aspiration of nervous tissue)

Sections - lumbar, thoracic, and cervical cord. Medulla, Thalamus, Anterior perf. substance Olfactory bulbs.

Viscera - normal; no Tbc. Peculiar white cyst of omentum

Olfactory bulbs - one negative; one positive (chiefly peripheral infiltration)

Anterior Perf. Subst. - unilateral lesion; focal neuronophagia + cuffing

Hypothalamus and Thalamus - Foci of neuronophagia (interst. infthr.) + cuffing

Mesencephalon - " " " " (see notes)

Medulla - Heavy cuffing + focal neuronophagia

Cervical Cord - " " + " " (one horn)

Lumbar Cord - Extensive lesions in anterior and lateral horns heavy cuffing; many cells in marginated chrons.

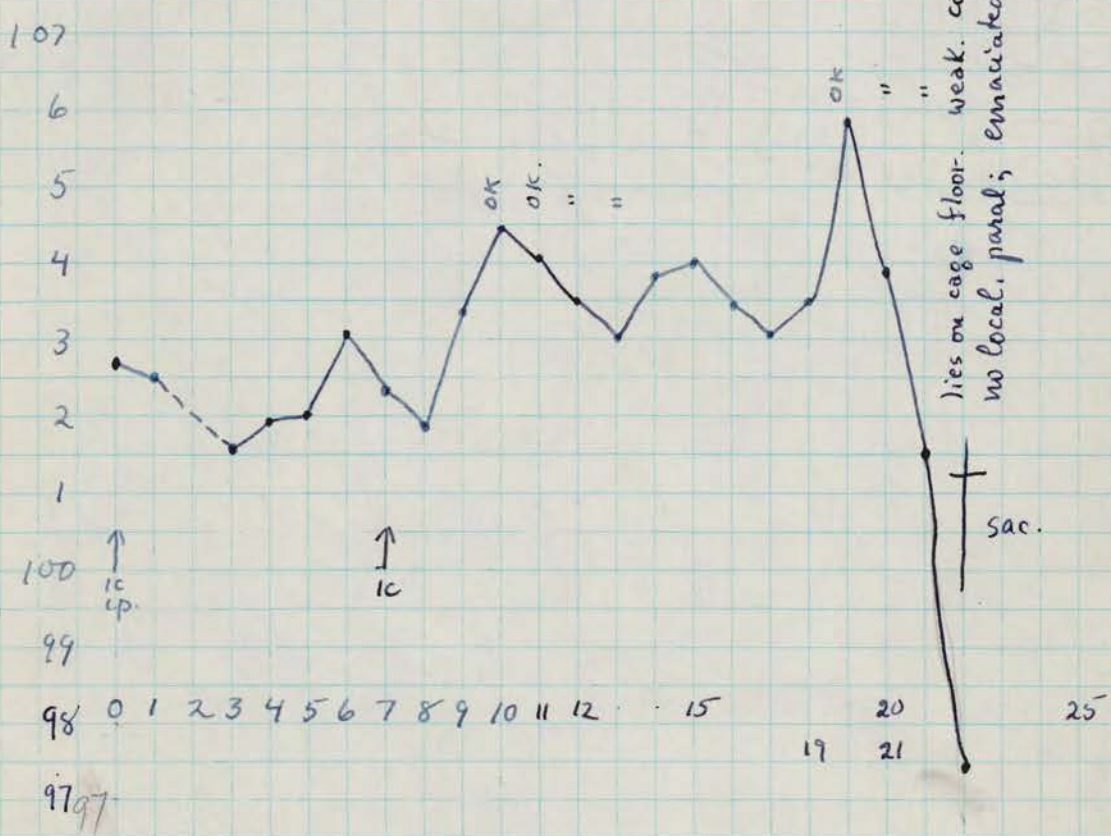
stool, untreated

11-1-40

PASSAGE - Rh 56 lumbar } CORD  
cervical }  
a piece of MEDULLA

2.76M - 27cc distilled water.  
sand centrif.  
2cc saved

Rh 276. 11-1 2cc icet. 22cc ip. 11-8 2cc icet.



11-23 autopsy. no hlc. enteritis - colon empty save for purulent  
cvs. neg. grossly. liquid - cultured on  
sections - cord 6, med. D.X.C. No dysentery bugs  
glyc. " "

Microscopic - negative

Marked all. infiltr. of one neutr. mening. vessel in medulla  
few cells in mening. vess. in one twelf of cord.

██████ - stool, untreated.  
↓

1-17-41

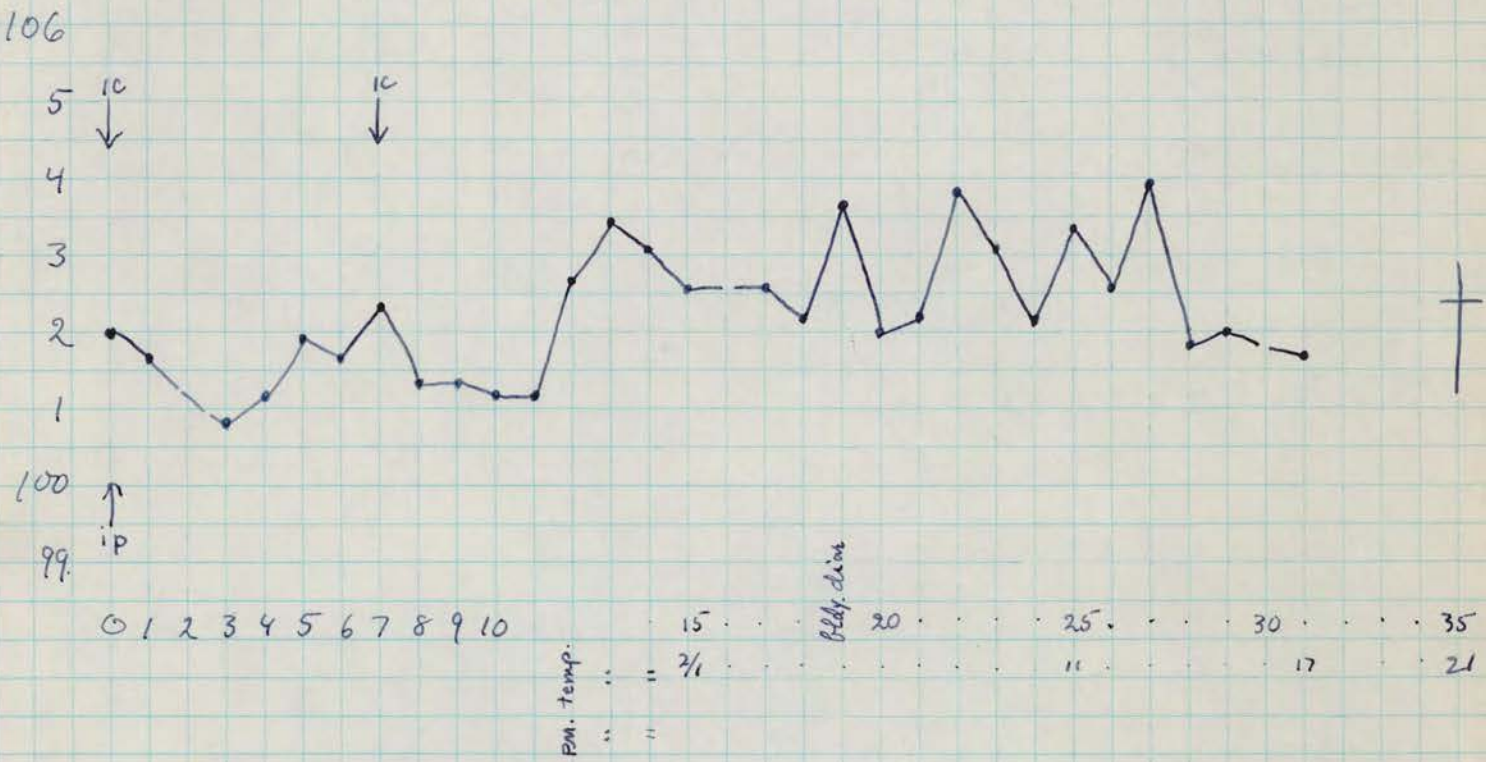
PASSAGE. - Rh 56 (non-paralytic polio.)

Cord & lower medulla  
1.9 gm - 19 cc  
distilled water, sand  
lgt. centrif.

(2 cc saved;  
injected 1-24.)

Rh 394

1-17 2cc i.cer. 14cc i.p.  
1-24 2cc i.cer.



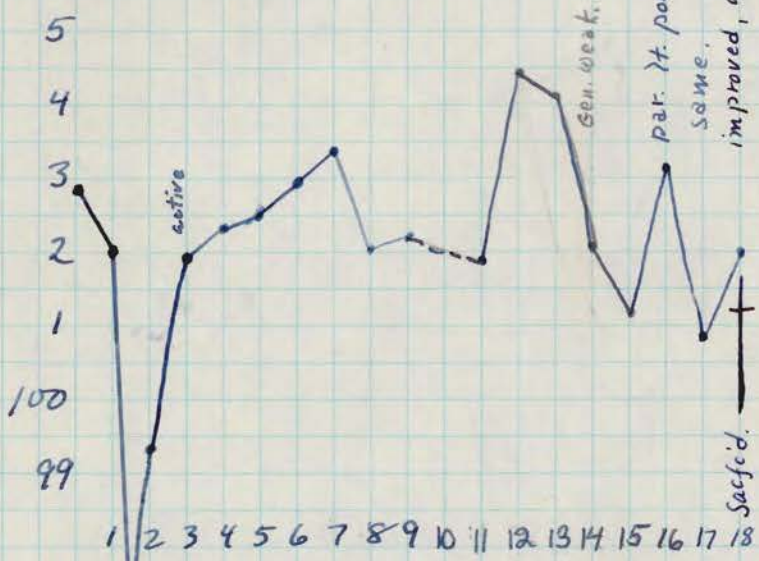
2-21 autopsy no ltr.  
pres in 80. cvs neg gross.  
Sections C6 M1  
glyc " "

July 4.

Etherized stool + Enema returns.  
twice centrifuged  
19 cc I.P. ↓

Rh 57

106 ↓ ↓

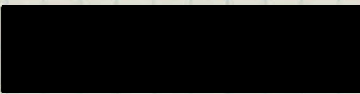


7-5 5 PM. is weak, lies on belly on cage floor. Will rouse somewhat. No paralysis.  
 7-6 Better, more active  
 7-11 almost normal

7-22. sacrificed. Cord & medulla removed for section & passage to Rh. 75.

### Histology

- Cervical ~~lumbar~~ cord — unilateral lesion — neuronophagia + cuffing (at least 1/2 the cells are preserved)
- Thorac. " — negative
- lumbar " — extensive necrosis and neuronophagia both sides cuffing; few <sup>nerve</sup> cells left unaffected
- Medulla — focal neuronophagia and cuffing
- Spinal ganglia — several foci of cellular infiltration and neuronophagia.



2 yrs. wh. ♂

Prodromal symptoms for 2 days. Onset of paralysis in right leg 2 days before admission  
Adm. 7-16. partial paral. rt. leg. diminished to about kg. on rt. Neck + back still.  
CSF. 32 cells.

7-16 T. weak quadriceps femoris rt. ? hamstrings  
Rt. K.g. is ± to + left K.g. +  
A.g. 0 Ag ±  
arise reflexes ? 0 arm. 0? (Bi+)  
neck + back are stiff, but pt. is not generally uncomfortable.

3:45 P.M. Cotton plug inserted rt. nostril.

7-17 still weak rt. leg - but improvement seen.  
Rt. K.g. more active.

10 AM. Plug ~~was~~ came out of rt. nostril & was lost.  
plug inserted in left nostril.

4:30 P. plug removed from left, ~~was~~ fresh one → right.  
7-18. 9 A. " " " " right " " left.  
5 P. " " " " left " " right.  
7-19. 9 A. " " " " right " " left.  
1:30 P. " " " " left

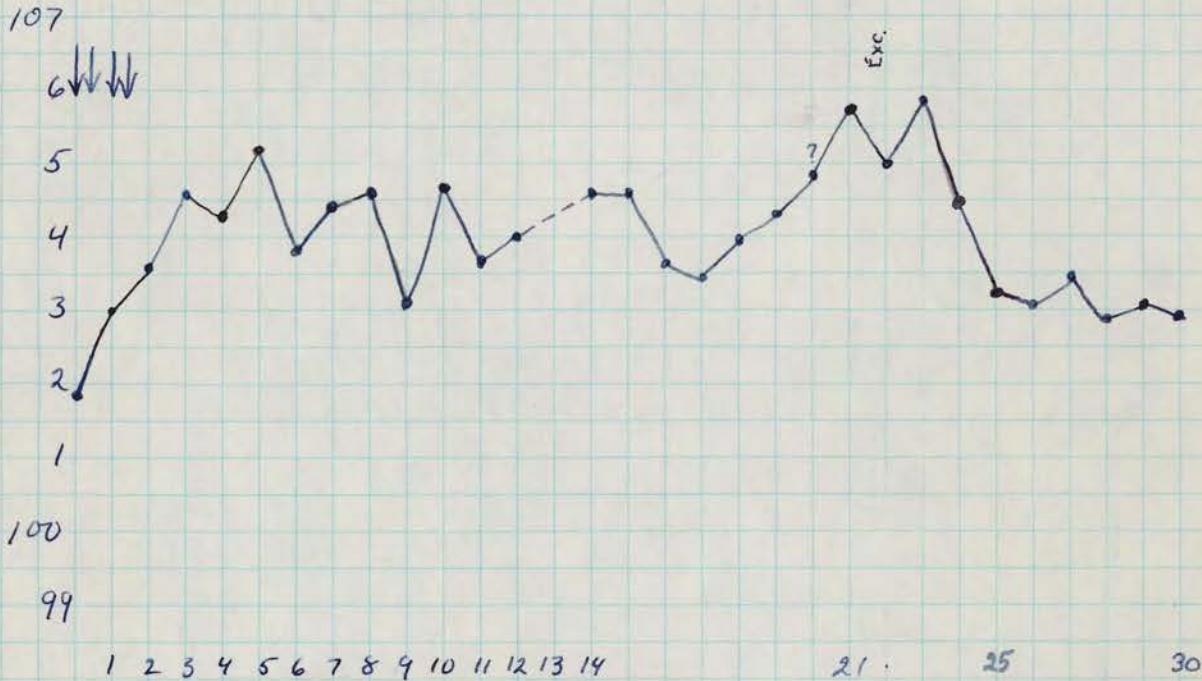
stool obtained in A.M.

July 22.



Nasal plug extract 1.7 cc I.C.  
5.0 cc I.P.  
↓ = 1.0 cc in each nostril.  
(4x)

Rh 67



↑  
sacrificed  
8-29-40  
#38th day

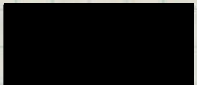
8-29 autopsy : viscera normal  
 CNS. no gross lesions

Sections olfactory bulbs, medulla, spinal cord lumbar (3)  
 dorsal (1)  
 cervical (2)

glycerine medulla & cord remainder

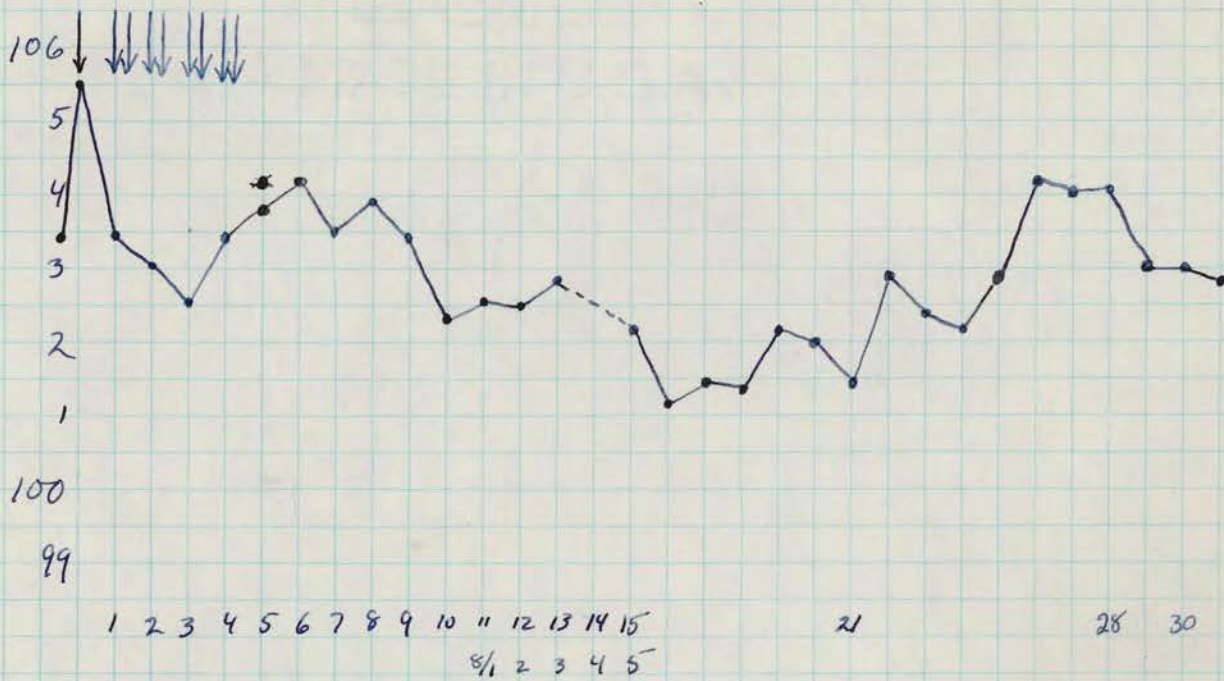
Microscopic - 6 levels of cord, 1 of medulla, 1 of bulb - negative

July 21



- Untreated stool. 1.c.c. (in each nostril) intranasal ↓

Rh. 58



8-28-40 sacrificed. 38th day.

8-28-40 38<sup>th</sup> day sacrificed.

autopsy viscera few lung parasites. otherwise neg.  
C.N.S. grossly negative.

Sections olfactory bulbs, medulla, cervical-dorsal + lumbar cord.

Glycerine medulla + cord.

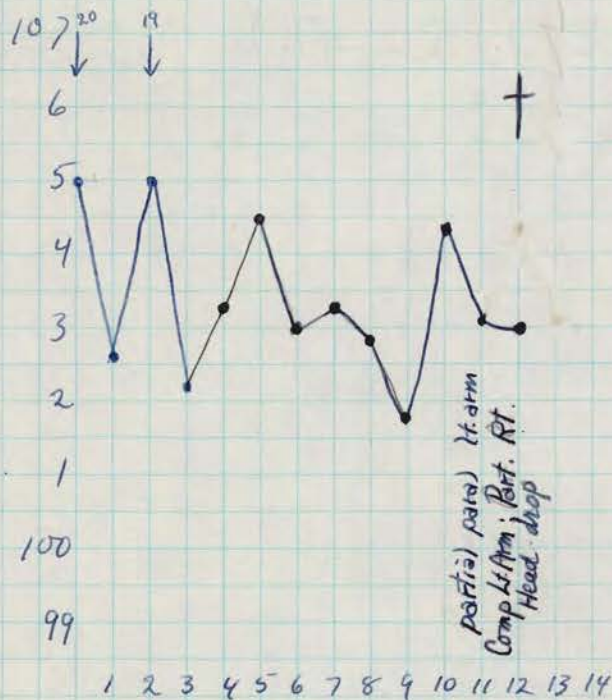
Microscopic

Both olfactory bulbs, 4 levels of cord, 1 of medulla - negative

July 22.

— Etherized stool suspens. 20cc I.P. = ↓

Rh 74.



Microscopic Pathology

lumbar Cord - necrosis and neuronophagia of at least half of ant. horn cells. Periv. infiltr. +++

Thoracic " - as above only fewer cells affected; Clarke's column on one side affected

Cervical " - all ant. horn cells compl. destroyed on one side and majority of those on other side periv. inf. ++

Medulla - Scattered interest. + periv. inf. ++

Olf. bulbs - neg.

CSF.  
 8-3-40 Cisternal tap. 1<sup>st</sup> tube cloudy yellow (sl.)  
 2<sup>nd</sup> tube. clearer. 268 cells. 50% polys 50% lym.  
 3<sup>rd</sup> tube cloudy.

Autopsy - CNS - nothing definite grossly

Sections - lumbar, thoracic, cervical cord  
Medulla, Olfactory bulbs.

50% Glycerine - Cord, medulla

10% Formalin - Rest of brain fixed

Viscera - Neg. except for walled-off abscess at site of inoculation and under liver. Smear: (gram) many polys cells, no organisms.

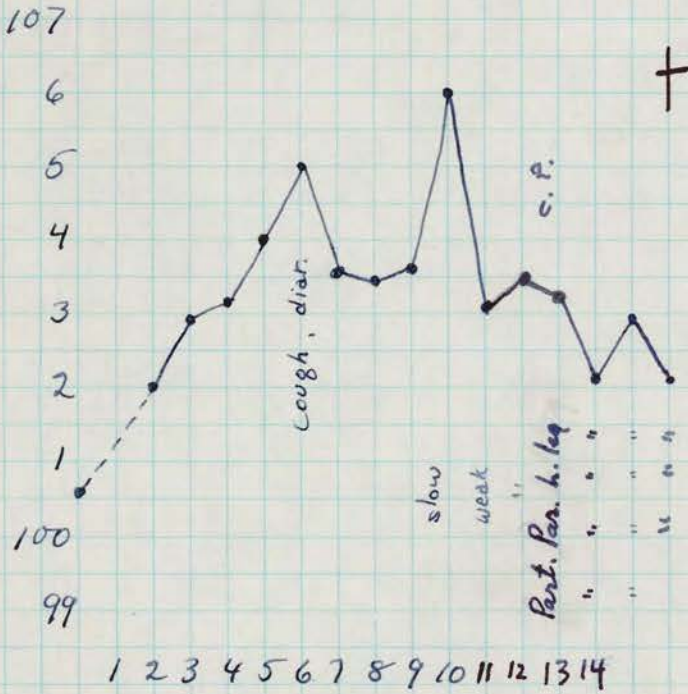
Passage - 10% centrif. susp. of lumbar, thorac. + cervic cord.  
2cc. icer and 10cc. i.p. to Rhesus #94 T. 100.6

Aug. 3, 1940

Stool - First passage  
Rh 74 - PASSAGE.

10% centrifuged suspension of  
lumbar thoracic + cervical, cord.  
2 cc. I.C.  
10 cc. I.P.

Rh. 94



Aug. 16 - Cisternal tap - clear fluid - 160 cells (monocytes)

8-19 - Sacrificed - Viscera normal

Cord + medulla - sections in 2.A.  
- rest in glycerine

Histology

Lumbar Cord - focal neuronophagia and cuffing

Thoracic " - cuffing

Cervical " - like lumbar

Medulla - " "

5 yrs. wh. ♂

c.c. weakness of legs & left arm., sore throat, fever, <sup>2 other polios from Serbia</sup> "occident" + anorexia.

P.V. onset

7-17 sore throat, sl. fever

7-18 vomited

7-19 first noticed weakness of legs.

7-21 left arm weak.  
Has had pain in legs

7-24 admitted to JWR. hosp.

7-24 P.E. not ac. ill "does not move legs" sl. stiff neck.

Highest Temp.

7-24	99
25	98.8
26	100.5
27	99
28	99.8
29	99.6
30	99.6
31	..

Reflexes

	R	L
Bi	+	0
Tri	+	0
abd	0	0
K.g.	0	0
A.g.	0	0

7-24 C.S.F. "crystal clear fluid press. 12 mm Hg. cell count Pandy 0, tot prot. 72; sug. 53. 12 cells.

7-27. Legs splinted, also left arm.  
3PM. cotton plug inserted left nostril. Bottle left for saliva

7-28 10A. " " removed fr. " " fresh plug inserted in right.  
6P " " " right " " left.

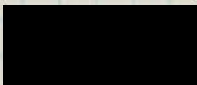
7-29. 10A. could not find plug, pt. says he pulled it out.  
Fresh one inserted in left.

6P. Plug removed from left, fresh one into right  
10A " " right " " left.  
6:30P " " " left.

stool 7-30

plug lost.

8-2-40

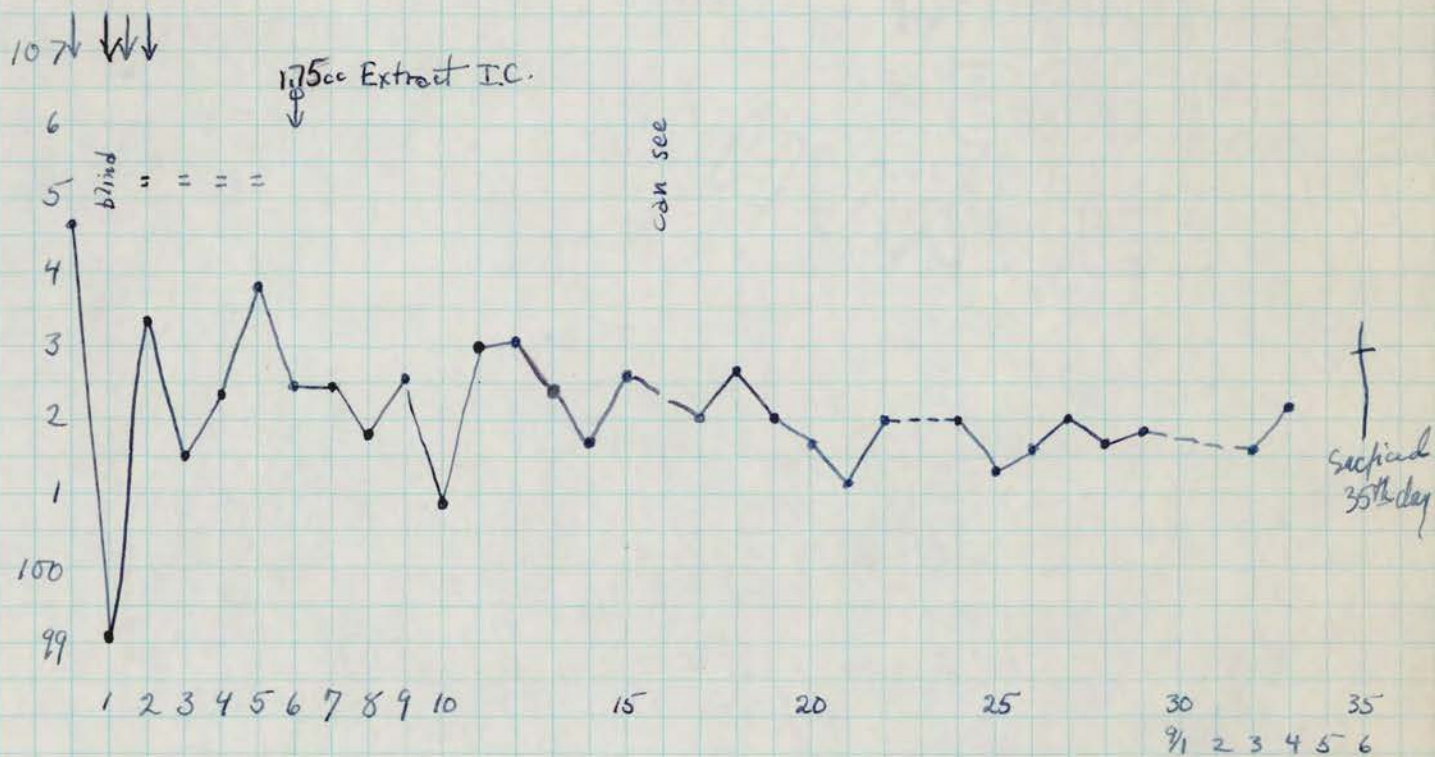


Nasal plugs

- 1.) undiluted juice
- 2.) extract
- 3.) " in each nostril

1.3cc I.C.  
 4.5cc I.P.  
 1.0cc = ↓  
 (4x)

Rh. 88.



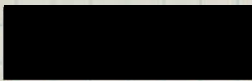
9-6-40 autopsy.

- Viscera - no tbc.
- C.A.S. - no gross lesions - optic chiasm, calcarine fissure, occip cortex, neg.
- Sections - olf. bulbs, medulla, cord - Cerv (3) dors (1) cerv (2)
- glycerine - rest of cord + medulla.

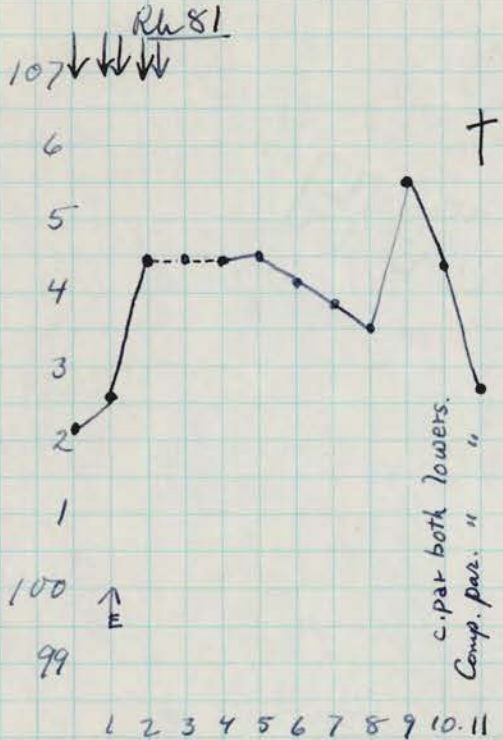
Microscopic - Both olfact. bulbs and 5 levels of cord - negative

Medulla and one cord (cervical) - infiltrated meningeal vessels

8-1-40



2 Gm. (moist) taken up in 25cc water (42)  
Stool 1.) Untreated, 1cc in each nostril ↓ (5x)  
2.) Etherized 19cc I.P. = 8-2-40 (2nd)



Necropsy — Viscera all normal

Omentum adherent to post. wall where muscle was partly necrotic

Cord passaged to Rh. 97

### Microscopic Pathology

- lumbar cord — most of ant. horn cells destroyed and undergoing neuronophagia; perivasc. round cell infiltration
- Thoracic " — several foci of neuronophagia
- Cervical " — " " " "
- Medulla (olive) — diffuse periv. infiltration;
- Olfactory bulbs — questionable focal pial infiltration in one

8-12-40

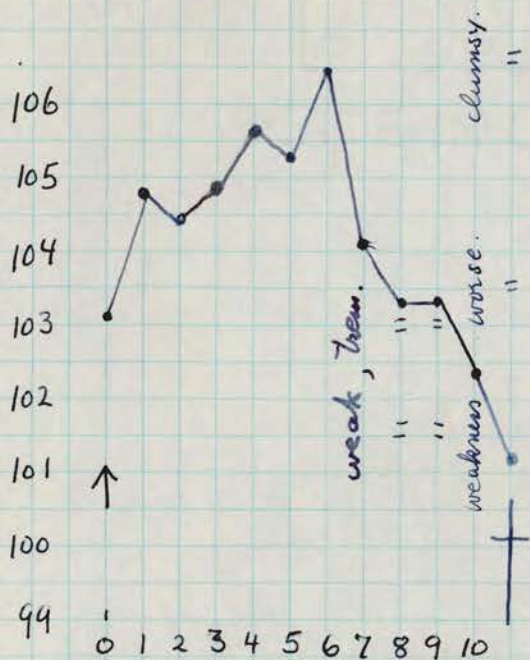
# Passage of Cord of Rh. 81 (FRESHOUR STOOL)

(43)

Rh 97

10% susp. of lumbl., thor., + cervical cord

2cc. icer. and 8cc. i.p.



8-20 Cisternal puncture: clear fluid, <sup>before dil. 1/2 Tuerch's</sup> 400 cells, 360 <sup>monos.</sup> polys

8-22. SACRIFICED autopsy - viscera: yellow brown abscess anterior margin of liver.  
Smear: polys + large mononuclear cells, + very small gram + cocci-appearing bodies that may have been stain.  
acid fast: no organisms.

Sections lumbar dorsal + cervical cord + medulla

Glycerine rest of cord + medulla.

Histology - Lumbar - Cuffing and focal neuronophagia on one side  
 Thoracic - One focus in lateral horn; no cuffing  
 Cervical - as like lumbar  
 Medulla - Cuffing and focal neuronophagia

3 yrs wh. ♀.

cc. weakness of legs.

P.I. onset 7-24 irritable, fever, headache  
7-25 " " " vomited  
7-26 fever down in AM. up to 104 later.  
7-27 early AM. legs aches " felt as tho toe were cut off"  
4 AM. weakness in legs first noted.

7-27 PM. adm. to J.W.R. hosp.

P.E. T 101.6. compl. flacc. paral. both legs.  
tendon jerks absent.  
arms OK. Bi & Tri present.

CSF. 7-27 156 cells 82% poly 18% lym. Pandy faint tr.

	Highest Temp.
7-27	99.6
28	103.8
29	102.0
30	101.8
31	101.0

7-28. 10A. Cotton plug inserted in left nostril  
6P. " " removed from " " fresh one into right.

7-29. 10A. " " not found, gr. said she threw it on floor.

Fresh plug inserted in left.

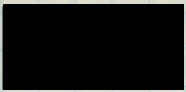
6P. Plug removed from left, fresh one into right.

10A. " " " right " " left.

30P. " " " left " " right.

plug lost  
fresh one in at 1 PM.  
stool 7-31 9:30P. " " " right.

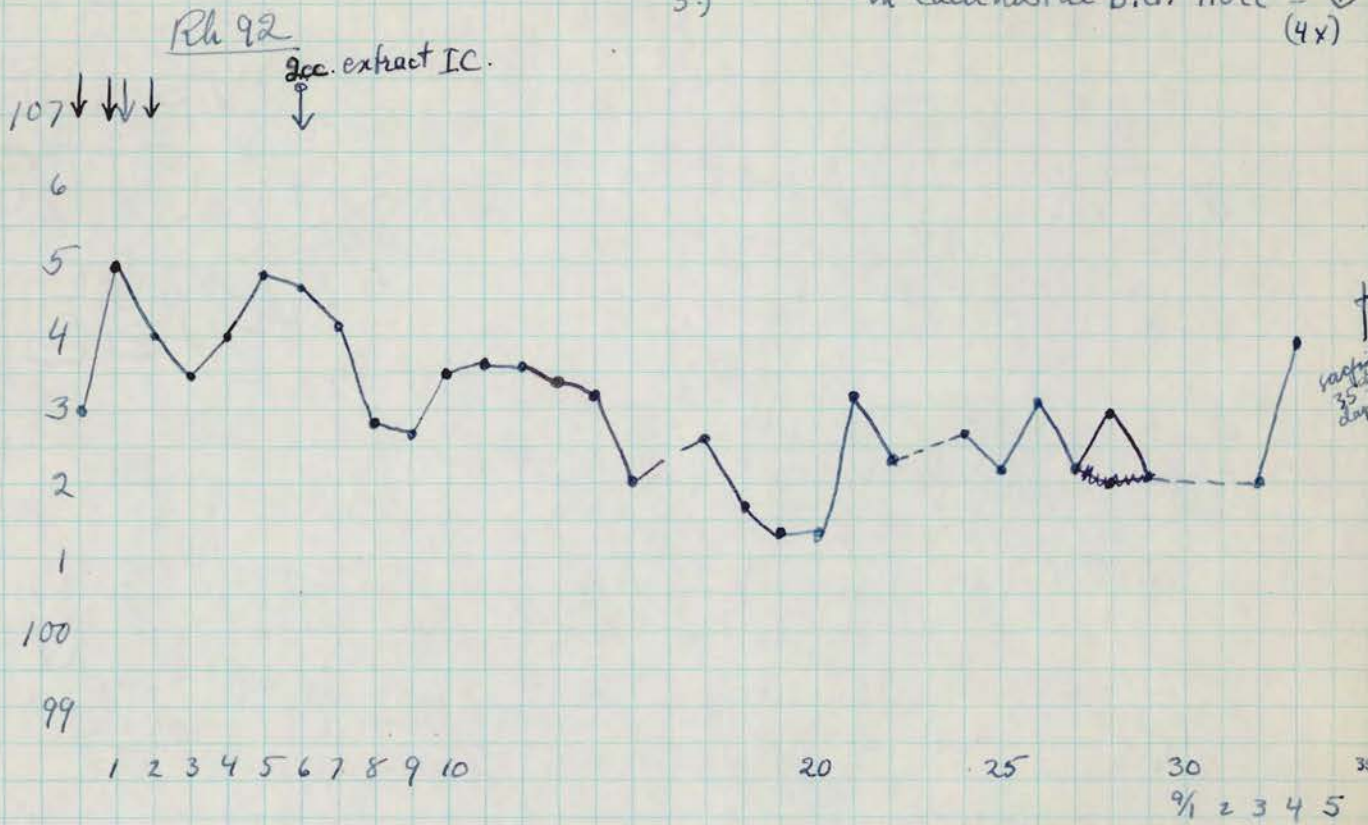
8-2-40



Nasal plugs

- 1.) undiluted juice
- 2.) extract
- 3.) " in each nostril b.d.

(45)  
 0.85 cc I.C.  
 5.25 cc I.P.  
 1.0 cc = ↓  
 (4x)



9-6-40

autopsy

Viscera

no tbc.

cn.s.

no gross lesions

sections

olfact. bulbs, medulla, cord  
 (lumb. 3 dors. 1 cerv. 2)

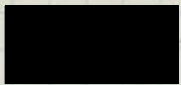
glycerine

rest of cord & medulla.

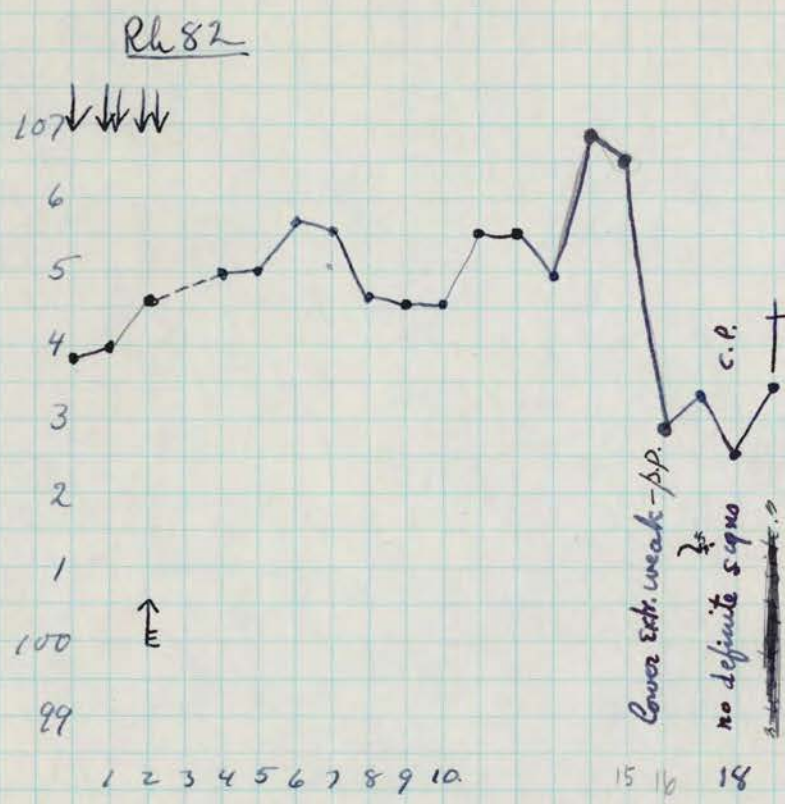
Microscopic - both olfactory bulbs and 4 levels of cord - negative

1 lumbar cord less so in medulla - infiltr. meningeal vessels

8-1-40



0.77 gm. (dry) taken up in 20cc water (46)  
Stool 1) Untreated 1cc. in each nostril ↓ (5x)  
2) Etherized 17cc I.P. on 8-3-40 (2<sup>nd</sup> day) ↓



8-19 - Cisternal puncture - clear fluid - 192 cells - monocytes

8-20 Sacrificed viscera: lungs parasites + several small cysts containing air - bullous emphysema?  
intestines a few esophagostomums.  
C.N.S. nothing grossly.

Sections oesoph. bulbs, medulla; cervical, dorsal + lumbar cord.

glycerine rest of cord + medulla.

### Histology

Lower lumbar or upper sacral - essentially negative

Lumbar - heavy cuffing; occasional focus of neuronophagia; most cells preserved.

Thoracic - 1 section neg; two others - single vessel c 1 row of round cells

Cervical - 1 focus of neuronophagia; "no" cuffing

Medulla - cuffing #; rare neuronophag. focus.

11-1-40

PASSAGE - Rh 82. upper lumbar }  
cervical. } CORD.

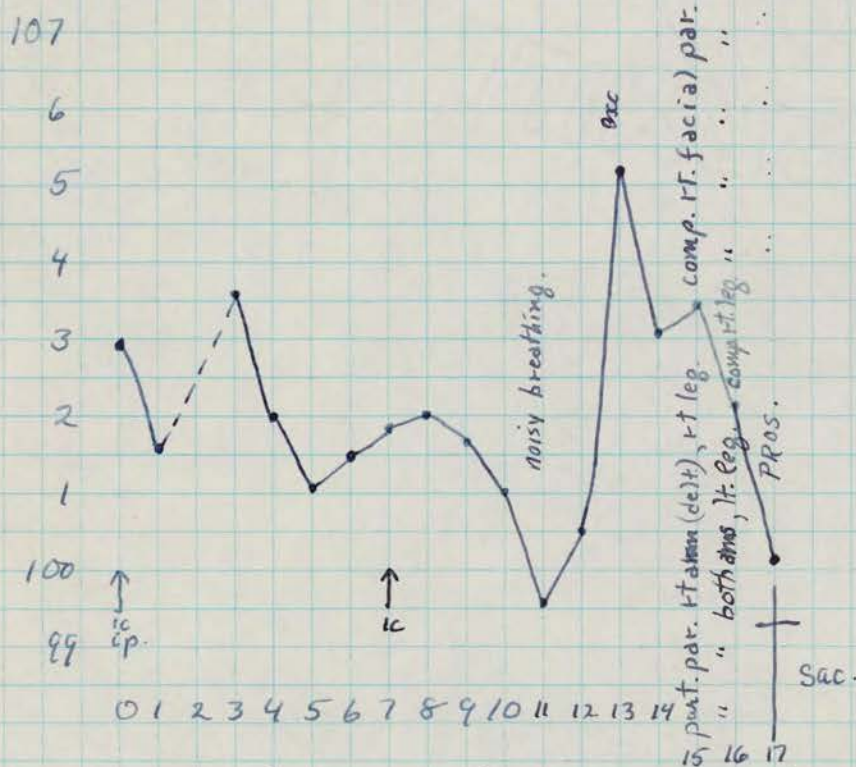
2.76M - 27cc

distilled  
water.  
sand  
centrif.

2cc saved.

Rh 277

11-1 2cc icet. 23cc ip. 11-8: 2cc icet.



11-1 has a cold, dried crusts in nares, rapid stertorous breathing ? bronchitis.  
11-9 bad cough.

11-18 autopsy. no tbc.  
CNS. neg grossly.  
pres. in 80% sections cord 3 med.  
glyc. " "

Microscopic - typical Polio

NAME

[REDACTED]

2 yrs. 11 mos.  
3 yrs. 11 mo. ♂

NUMBER

[REDACTED]

adm. contag 9-28.

onset 9-26 fever, vomiting, sore throat  
 9-27 weakness rt. foot, fever + vomiting.  
 9-28 tremors hands + legs, Perspiration  
 (no headache, backache, stiffness of neck or back)  
 constip. 2 days.

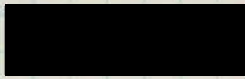
9-28 PE. T. 102.5 → 103.1

Temp. stiff neck, pain on flexion of back.  
 9-29 102.5 → 101. Both legs weak, unable to stand.  
 9-30 100.3 → 101.7. ? Left deltoid weak.  
 10-1 Both Ag's + Kg's absent  
 " Bi + Tri present.

CSF. clear Pandy + 58 lymph 15 polys.

	<u>Plugs</u>
9-29	1
9-30	2
10-1	2

10-4

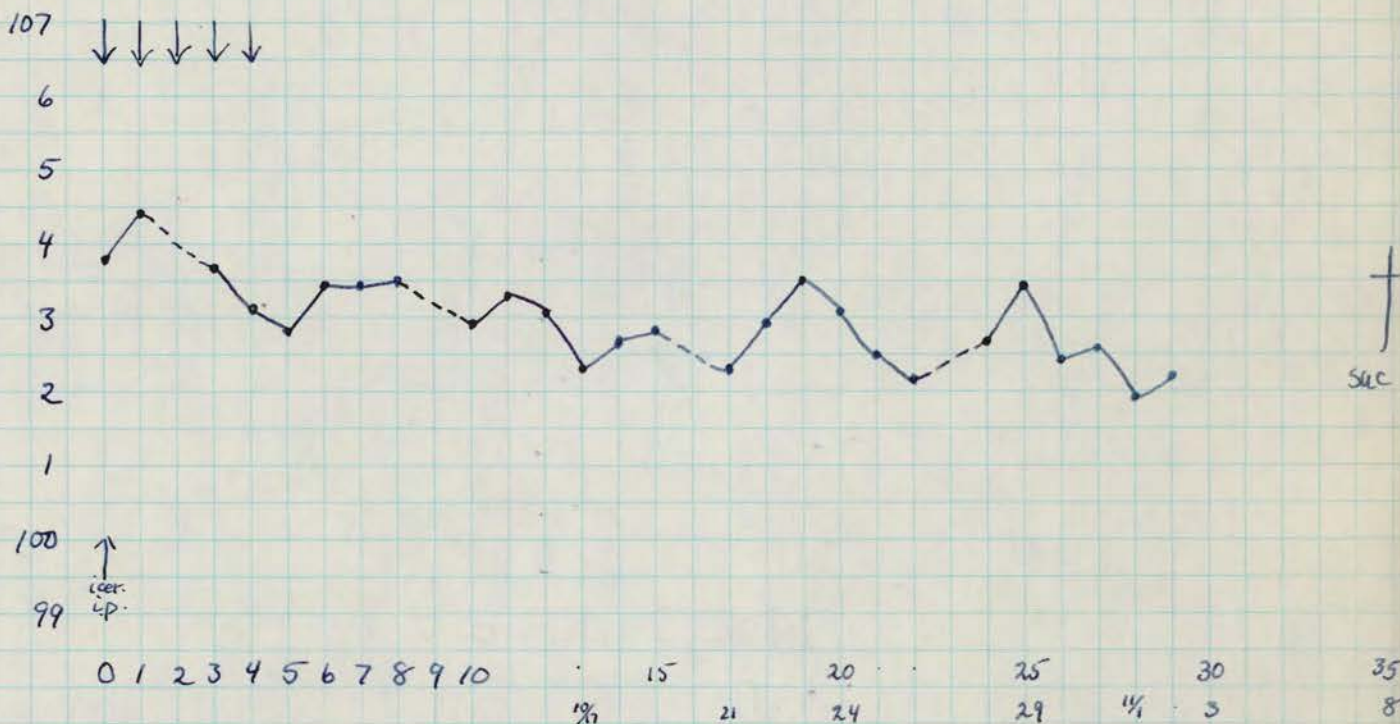


Nasal plugs.

- culture 46
- 1.) undie i.cer. : 1 wh. hem. col.
  - 2.) " + 1<sup>st</sup> ext. i.p. : no growth.
  - 3.) sed + 2<sup>nd</sup> ext i.nas. ↓.

Rh 206

2cc. i.cer. 5cc i.p. 1cc ea. nostril v. piped. (5x)

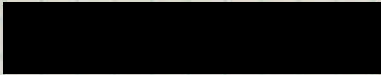


11-8 autopsy no tbc.  
 present in 80 CNS norm. grossly.  
 sections cord 6, medulla, thalamus, bulbs.  
 glycerine " " "

Microscopic - Cord, medulla, olfactory bulbs - negative

Hypoth. region - slight cell. infiltr. in ventral meningeal vessel + choroid

10-5-40

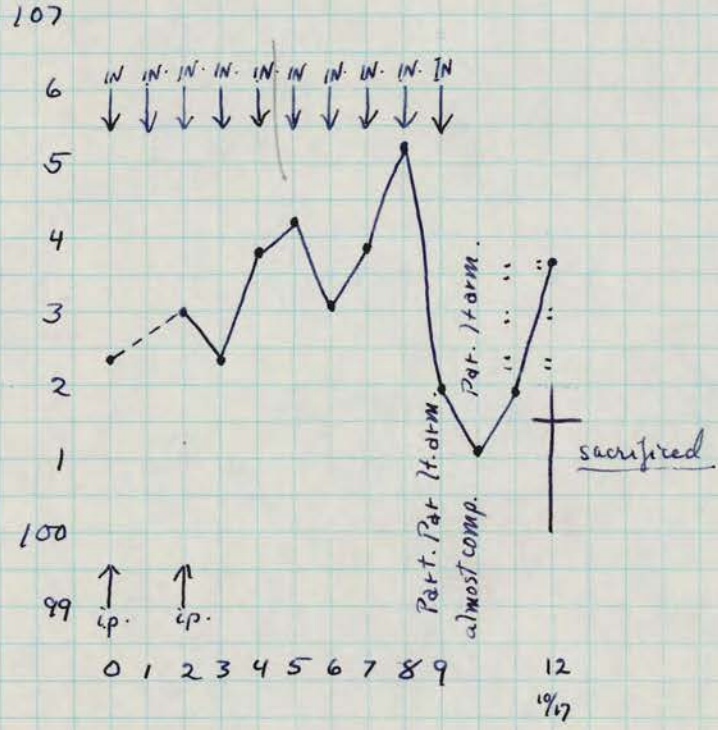


STOOL

19.6 GM 100cc Dist. Water.

Rh 212 10-5 20cc i.p. 10-7 21cc i.p.

10-7 culture 75 green cols. 10-5 culture: 7 st. green cols. numerous other cols. pipe cleaner ↓. (10x)



P.A. bulbs + ant. perf. space

10-7 culture: many green colonies in 24 hrs.

10-17 autopsy viscera OK no hb.

C.N.S. normal grossly. sections: cord 3, medulla 1, thalamus, choroid (2), ant. perf. space. all present in 80% olfactory bulbs - 2 in good shape (RW). glycerine rest of cord + medulla, choroid.

Microscopic - typical Polio especially marked in cervical on one side

Olfactory bulbs - poor sections, but ant. perf. substance - neg.

Additional sections show suspicious glial nodules in one olf. bulb + some cuffing

NAME

[REDACTED]

3 yrs. old ♂

NUMBER

[REDACTED]

c.c. weakness of legs.

onset 9-20 pain in back  
 9-21 headache, fever, restlessness  
 9-22 fever, listlessness.  
 9-23 weakness both legs.  
 9-24 pain in legs, tremors arms & legs  
 vomited; sweating.

Adm. Contag. in night. T 98.6

PE. irritable, restless.

on standing, rt. leg buckles.

marked weakness rt. quadriceps &  
possibly rt. plantar flexors.Hf. & Ag. absent on right, normal left.  
stiffneck, supple back.CSF. clear Pandy neg. 63 cells 45 mono  
18 polys.

4-25 T. 100.5 → 98.3

4-26 T 98 → 98.6

4-27 4<sup>th</sup> day paresis, 7<sup>th</sup> day symptoms.

Plugs

7-27 1

9-28 2

9-29 1

9-30 2

10-1

~~9-30 saline enema~~

saline enema

10-2-40



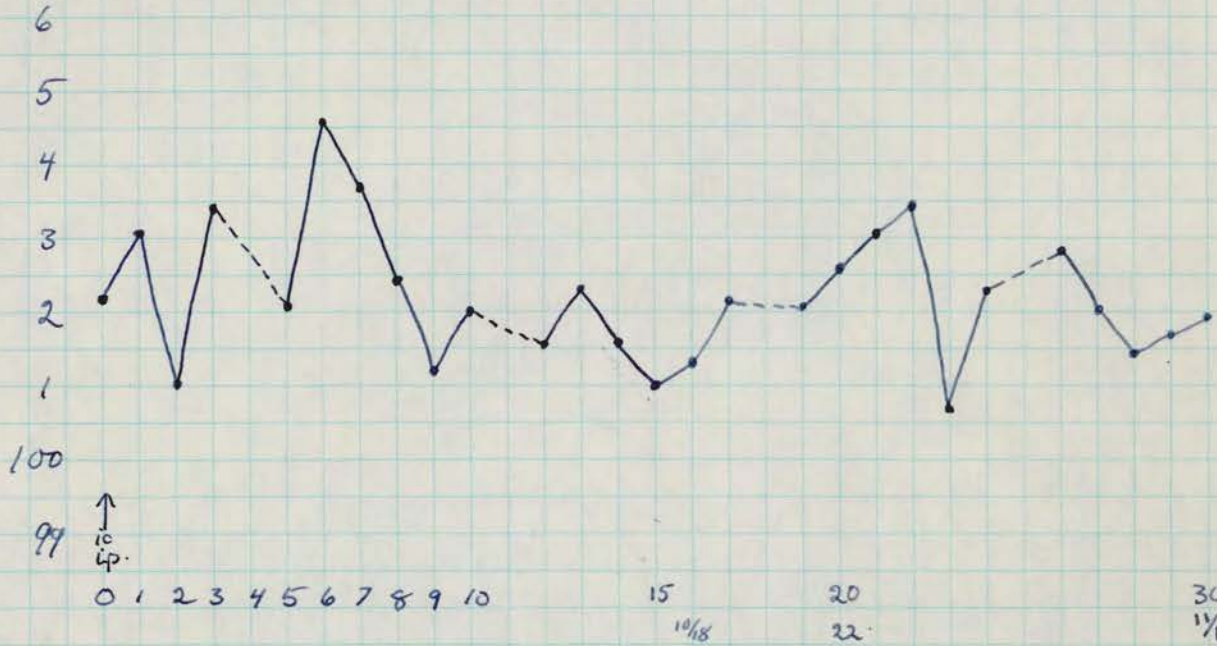
Nasal plugs

- 1.) undilute. 2cc i.cer.
- 2.) " + 1<sup>st</sup> ext ip.
- 3.) sediment + 2<sup>nd</sup> ext 1cc. each nostril

culture: no growth in 48 hrs.

Rh 205 2cc i.cer., 5cc. i.p. 1cc. each nostril (pipe cleaner) ↓ (4x)

107 ↓ ↓ ↓ ↓



11-6-40

autopsy

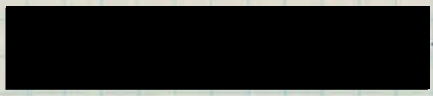
present in 80

no tbc.

CNS grossly normal  
sections cord & medulla, thalamus.  
glycerine "

Microscopic - entirely negative

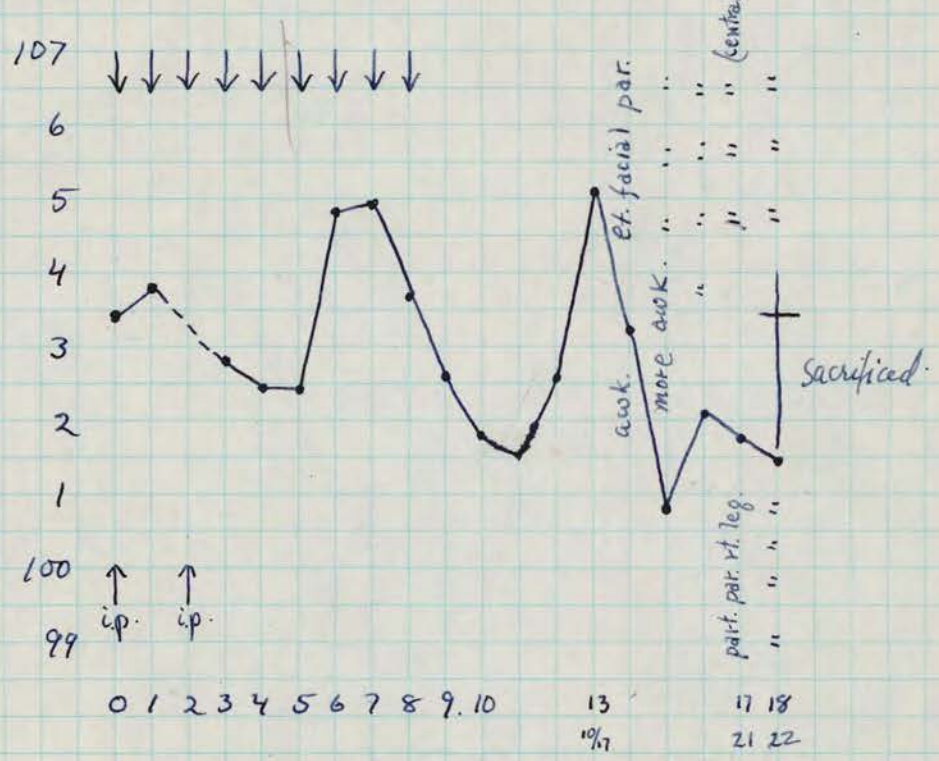
10-4.



- Enema returns 8 gm solid taken up in 150 c.c. enema.

culture 10-4 + 10-5 no growth

Rh 209 <sup>10-4</sup> 20cc i.p. <sup>10-6</sup> 1cc each nostril ↓ pipe cl. (9X)



- 10-17 the facial palsy is complete of mouth, partial of eye muscles.
- 10-18 same.
- 10-21 compl. mouth, no par. eye muscles. part. par. rt. leg.
- 10-22 no extension. autopsy no tbc.

all there in 80%

CNS. - gross. sections cord (3) medulla (2) thru 7th N. & another higher up.

Microscopic - Typical Polio - Olfactory Pathway Type

Both olfactory bulbs - cuffing & infiltr. lesions

Ant. perf. subst. - cuff. & focal infiltr.

Hypoth.

glycerine cerv. & thoracic cord rest of medulla.

Passage (immediate)

medulla thru 7 N. & lumb. cord.

Unilateral ext. involvement of cervical as well as lumbar cords; medulla - level? - ?

Abdominal Sympathetic - 2 focal infiltrative lesions

10-22-40

PASSAGE

ENEMA  
↓  
Rh. 209

medulla thru facial  
" lower.

cord, lumbar  
total wgt 2.3 gm. - 23 cc  
distilled water. No sand,  
no centrif. Filtered → gauze.

19 #1 bis

Rh 252.

2cc. icer.

17cc i.p.

107

6

5

4

3

2

1

100

99

↑  
icer  
i.p.

0 1 2 3 4 5 6 7 8 9 10  
1/11

15

4

7

20

11 12

25

16

30

19

21

35

26

11-26 autopsy

pres. in 80

no tbc.  
CNS norm. gross.  
sections cord 6, med.  
glyc. " "

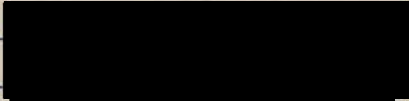
Microscopic - entirely negative

NAME



4 yrs wh ♂

NUMBER



adm. 9-28

house is condemned.  
Out-house  
water from sink empties → yard.

Onset 9-19 cold, vomiting, fever, pain in leg.  
9-21 headache, neck ache  
9-25 "definite weakness of legs + left arm.  
9-28 P.E. T 99. weakness both arms, left deltoid espec.  
comp. par. both quadriceps fem.  
weakness dorsiflexors + plantar flexors both feet  
" both peroneals  
adductors of thigh paralyzed.

reflexes - R. L.  
Tri 0 +  
Bi 0 +  
Kernig + +  
Hq. 0 0  
Aq. 0 ±

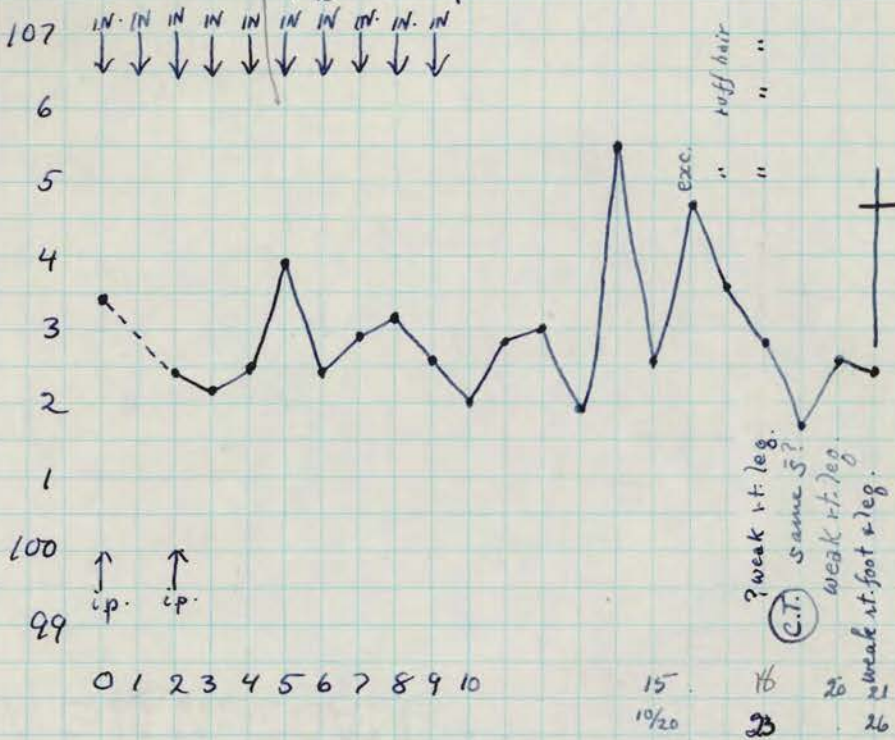
CSE: clear Pandy H. 15 hgm Spolys.

Temp.		Plugs.	
98.6 → 100	9-29	0	lost 1
98.6 → 99.2	9-30	1	lost 1
98.1 → 99.3	10-1	2	
99.3 → 99.6	10-2	2	
	10-3	1	

10-5-40

Enema - 100 cc prepared.  
 about 70 cc cent. 8 N for 20 min  
 (sed saved for i.nas.)  
 sv. etherized, shaken 10 min  
 overnight in cold. 2 cents.  
 10-5 Culture 1 gray non hem col. (48 hrs)  
 10-7 " no growth.

Rh 213 10-5 20 cc i.p. 1cc each nostril pipe cleaner ↓ (10x)  
 10-7 21 cc i.p.



Sabin to do  
 PM

10-24: cisternal tap: 208 cells 80% mononuclears.

10-26 autopsy. viscera normal  
 all present in 80% sections: bulbs, ant. perf. subst. thalamus + hypothal.  
 midbrain medulla. cord 3.  
 glycerine rest of cord + medulla.

Microscopic - Polio

- Lumbar cord - marked lesion on one side
- Cervical " - focal neuronophagia
- Medulla " - one focus of intense infiltration
- Hypothal. " - several foci " " "
- Midbrain, Ant. Perfor. Subst., Olfactory bulbs - negative

10-5-40

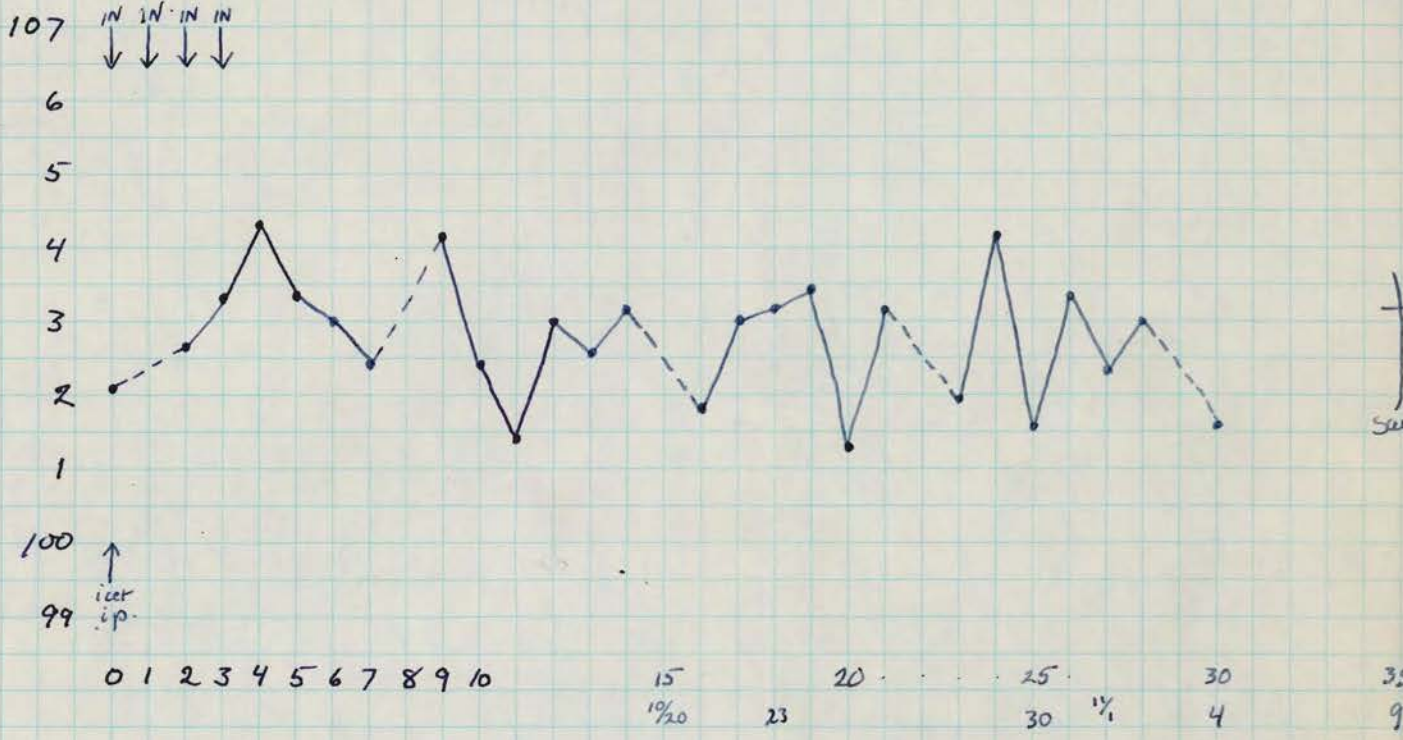
### Nasal Plugs

1. undil. i.cer.
2. " + 1<sup>st</sup> ext. i.p.
3. sed. + 2<sup>nd</sup> " i nas

culture 2 white non hem cols 48hrs

Rh 210

2cc. i.cer. ; 6cc i.p. ; 1cc each nostril & piped. (4x)



10-29 (24<sup>th</sup> day) J.Ox. notes a shrill peculiar cry.

11-9 autopsy: no tbc.  
 CNS grossly normal  
 present in 80% sections cord 6, medulla, thalamus, olf. bulbs.  
 glycerine

Microscopic - All negative

but note:

- a) few cells in outer layer of 1 bulb
- b) "chronic reaction" in one meningeal vessel of sp. cord.

NAME

[Redacted Name]

- 3yrs. old - Male

NUMBER

[Redacted Number]

Onset - 7/26 - Fever, <sup>(103.0°)</sup> anorexia  
7/27-28 Weakness of rt. leg.

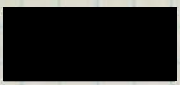
Admission - 7/29 - Complete paralysis rt. leg. - Temp. 101-102  
7/30 - Par. both legs, - ~~weakness~~ <sup>weakness</sup> arms - 11, 102-103.6  
7/31 - Same - 11, 102.0  
8/1 - left arm return of function - 99.6-100.8

Spinal fluid - 7/29 - 105L + 3 Polys / cu. mm.  
Pandy - sl +  
Sugar - 66  
Protein - 41  
Chlorides - 717

Plugs - 7/29 - 1  
7/30 - 2  
7/31 - 2 } Enema  
8/1 - 1 }  
6



8-2-40



Etherized ~~stool~~ <sup>enema returns.</sup> 15 cc I.P. ↓

Rh 93



9-6 autopsy.

viscera normal no tbc.

CNS. " grossly.

sections medulla, cord { lumb. 3  
dors. 1  
cer. 2

glycerine rest of cords medulla

Microscopic - 6 levels of cord - negative  
1 of medulla - slight inf. tr. mening. vessel  
choroid, in same section - negative

19 mos. wh. ♂.

C.C. weakness & limp of left leg. Apparent sore back.  
 P.I. 7-16 onset of fever (to 103°) tonsillitis, irritable.  
 7-17 fell on stairs. (!!)  
 7-18 Limp became noticeable.

	Highest Temp
7-23	102
24	102.
25	100.2
26	99.5
27	99.8.
28	100.3
29	100.3
30	100.4
31	99.3

7-23 adm. to JWR Hosp.  
 P.E. T. 98. Ess. neg. except for diminished reflex of left leg, & extreme irritability.  
 7-23 CSF. 5 WBC. Pandy 0 Tot. prot. 40 sug. 54.

Return of function since admission.

7-27 both legs casted. arms restrained but are OK.

7-27 3 PM. cotton plug inserted in left nostril.  
 7-28. 10 AM. " " removed from " " fresh one in right  
 6 PM. " " " " right " " " left.  
 7-29 10 A " " " " left " " " right  
 6 P. " " " " right " " " left  
 Stool. 7-30 10 A " " " " left " " " right

8-2-40



Nasal plugs. <sup>juice</sup>~~extract~~: undiluted 1.35 cc I.C.  
 " " extract 4.0 cc I.P.  
 ↓ = 1.0 cc each nostril (3x)

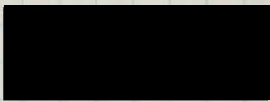


9-5 autopsy

<u>viscera</u>	ess. normal.	lung parasites
<u>C.V.S.</u>	normal grossly.	
<u>sections</u>	medulla; lumbar 1, dorsal 1	cervical 1
<u>glycerine</u>	rest cord + medulla.	cord
	disc 1-2/	

Microscopic - Both olf. bulbs } negative  
 medulla }  
 3 levels of cord }

8-1-40



0.165 G.M. (moist) taken up in 10cc water (39)  
Stool 1.) Untreated, 1 cc. in each nostril (3X)  
2.) Etherized. 8cc IP: 8-2-40 (2nd day) (3X)

Rh 80



9-4-40

Sacrificed

Autopsy

viscera

esophagostomum

CNS.

normal grossly.

sections

medulla

cord {  
lumb. 3  
dors. 1  
cerv. 2

glycerine

remainder cord + medulla  
disc 1-2/

Microscopic -

both olfactory bulbs  
medulla  
6 levels of cord

} negative

Zygod. ♂.

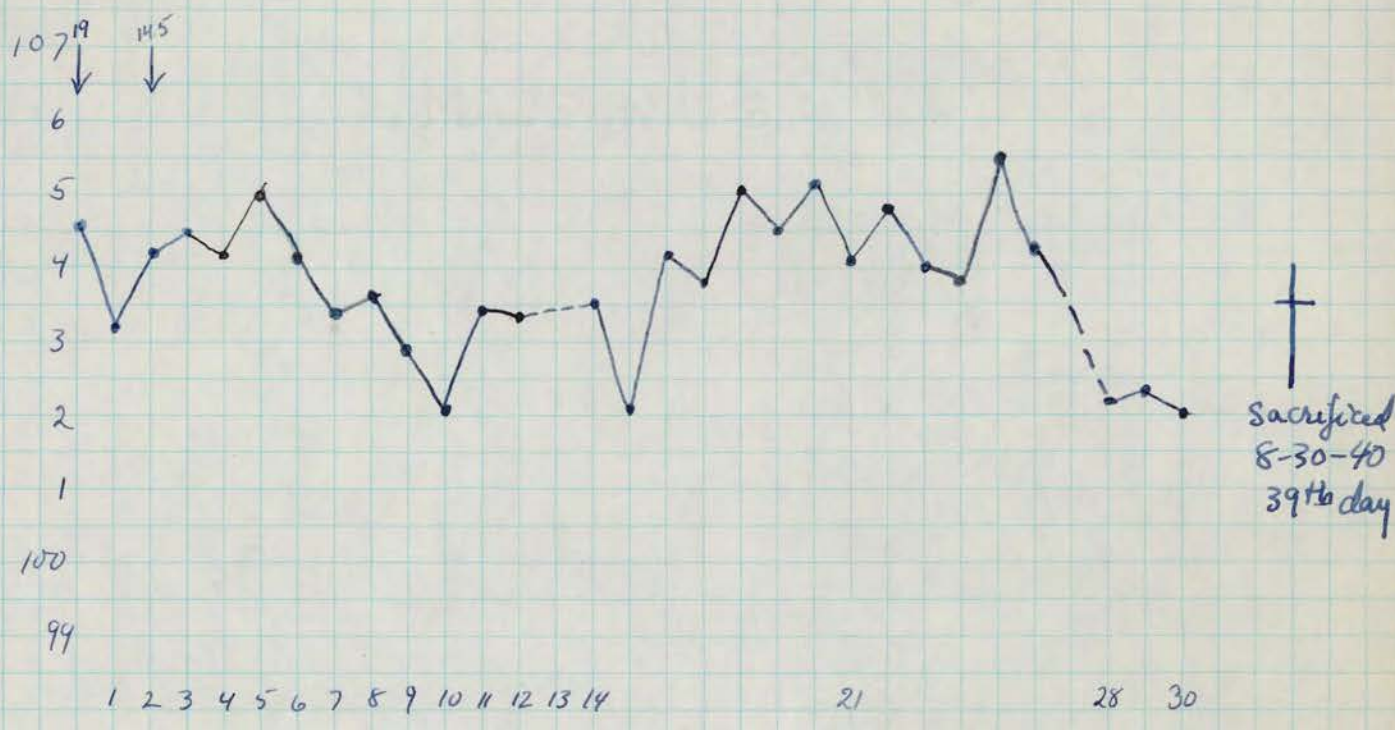
- 7-14 onset  $\bar{c}$  limp of left leg.
- 7-15 unable to put left leg down - diagnosis by Van Schoick Bros.
- 7-16 first seen by us. Apprehensive, exaggerated K<sub>g</sub>'s espec. left. Unable to walk. contraction of left gastrocnemius. feverish. (2 degrees)  
5 P.M. Plug inserted in rt. nostril.
- 7-17 better. Plug came out - found in bed. Added to collection.  
10 A. left nostril plugged.  
5 P. RT. " " "
- 7-18. 9 A. RT. nostril plugged.  
6 P. Lt. " "
- 7-19. 10 A. RT. " " Stool spec. obtained.  
3 P. plugged removed.

July 22.



- etherized stool suspens. 19 cc I.P. ↓

Rh. 73.



8-30-40

Autopsy

viscera normal

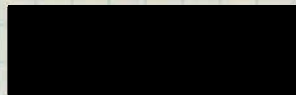
cns " grossly.

Sections medulla, cord { cervical (2)  
dorsal (1)  
lumbar (3)

glycerine rest of cord & medulla

Microscopic - 6 levels of cord and one of medulla - negative

July 21



untreated stool ↓ = 1cc in each nostril.

Rh 60.

106 ↓ ↓ ↓ ↓ ↓ ↓



↑  
sacrificed.  
8-29  
39th day

8-29 autopsy

viscera: normal

C.N.S. : grossly "

sections : olfactory bulbs, medulla cord {cervical (2)  
dorsal (1)  
lumbar (3)}

glycerine: remainder of cord & medulla.

Microscopic - 6 levels of cord, one of medulla, both olfactory bulbs - negative



2 yrs. wh ♀.

July 5 or 6 first sign of illness was limp. Couldn't raise foot over door sill.

July 8 seen by Dr. Frank Van Schoick - diagnosis made. In bed with splint immobilizing right leg since. Improvement & return of motion noted.

July 16. Gluteals & quadriceps on rt. still weak.

5 PM. Cotton plug inserted in right nostril.

July 17 10 A. " " removed from " " fresh one in left.

5 P. " " " " left, fresh one in right.

July 18 9 A. " " " " right, " " left.

5:30 P. " " " " left " " right.

July 19 9 A. " " " " right " " left.

2 P. stool spec. collected

July 22.



Nasal plug extract

1.5 cc I.C.  
5.0 cc I.P.  
↓ = 1.0 cc. in each nostril.  
(5x)

Rh 64.

106 ↓ ↓ ↓ ↓



†  
Sacrificed  
8-29-40  
38<sup>th</sup> day

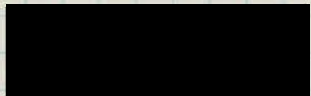
8-29 autopsy

Viscera normal  
C.N.S. grossly "  
sections: olfactory bulbs, medulla, cervical (2) thoracic (1)  
lumbar (3) cord.  
glycerine rest of cord & medulla.

Microscopic - Medulla - definite cuffing of one small vessel  
in subst. of medulla near 4<sup>th</sup> ventricle  
1 Cord - definite infiltration at one meningeal vessel  
in ventral fissure  
5 levels of cord and one olfactory bulb - negative

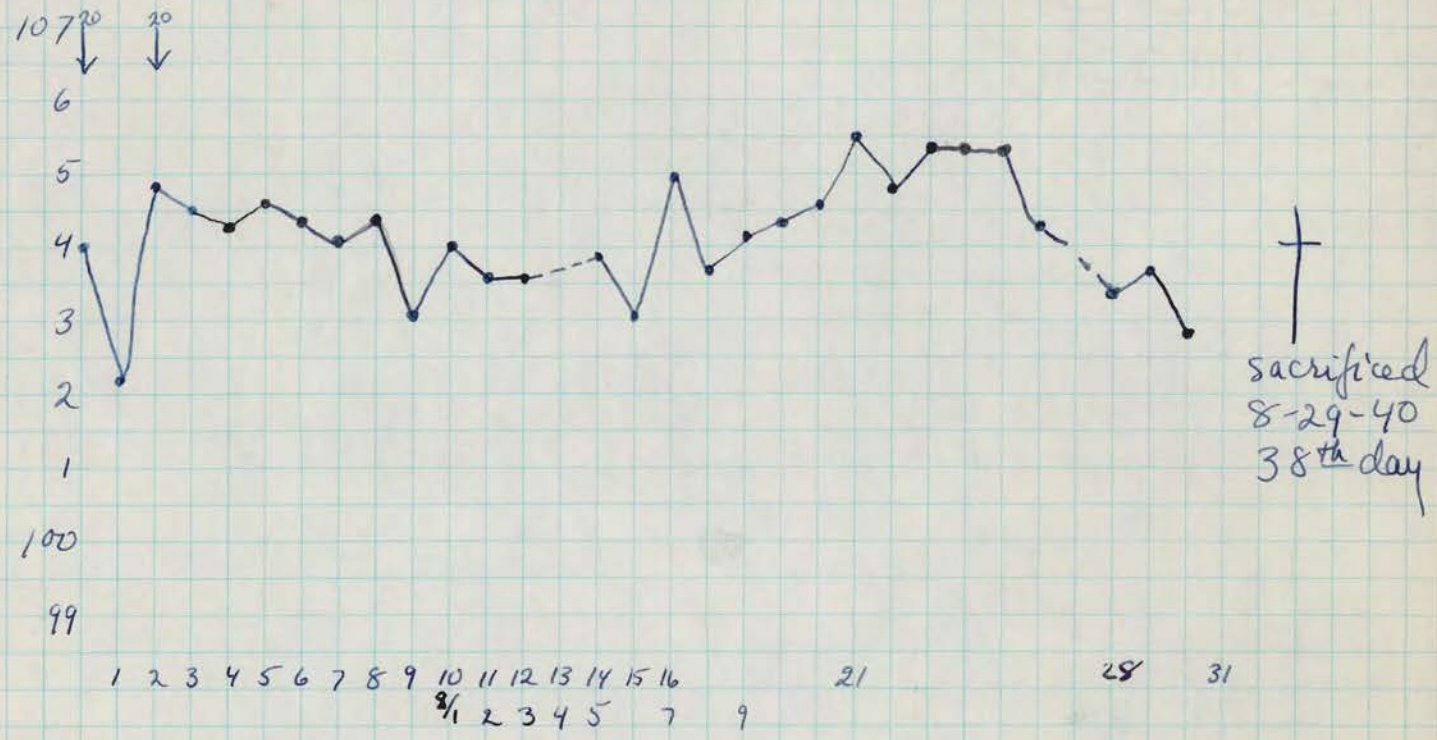


July 22.



- etherized stool suspens. 20 cc I.P. = ↓

Rh 71.



8-29 autopsy

viscera : lung parasites otherwise normal.

C.N.S. : nothing grossly remarkable.

Sections : medulla, cervical (2) dorsal (1) lumbar (3) cord.

glycerine remainder cord + medulla.

Microscopic - Medulla and 5 levels of cord - negative

1 cord - definite infiltration at one meningeal vessel

NAME

NUMBER

[Redacted Name]

5 yrs. col J

[Redacted Number]

cc. stiff neck.

onset 9-23 headache, fever

9-24 AM vomited Pain in right arm  
Tremor of arms, NO BM today.

Adm to contag P.E. T 102.9 apprehensive, irritable, sweating.

GGE esp ant. & post cervicals,  
post-pharynx wall injected.

Neck stiff. Back not stiff.

Reflexes all hyperactive, ankle clonus +  
neg Babinski, Kernig, no weakness.

CSF. Pandy 2+ 1080 cells (? type)

9-25 T 102.5 -> 100.1

coarse tremor upper extrem.

reflexes hyperactive esp. ant.  
sustained ankle clonus.  
no muscle weakness

Kernig + left ; ? right

neck rigidity 2+

Brodzinski 2+

9-26 T 99.5 -> 100.5 CSF Pandy 3+

645 cells 90% M.  
10% P.

9-27 4th day symptoms. no weakness.

Plugs.

9-27 - 1

9-28 - 2

9-29 1

9-30 2

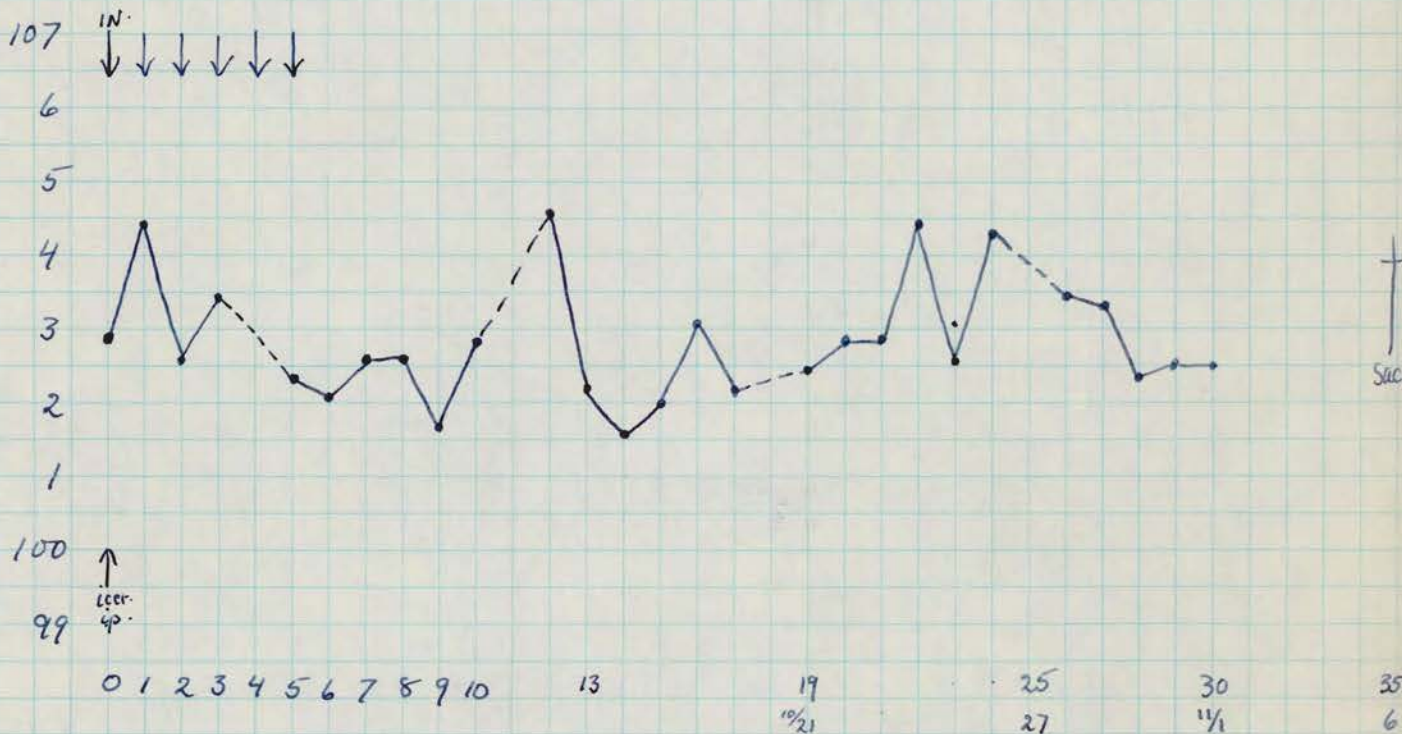
10-1 formed stool

10-2-40

Nasal plugs.

- 1.) undil 2cc i.c.e.t. culture. 40. no growth 48h
- 2.) " + 1<sup>st</sup> ext. 5cc. i.p. 3 cols. "
- 3.) Sedmt + 2<sup>nd</sup> ext 1cc i.v.a.s. ea. nost. (6x)

Rh 204



11-6 autopsy:  
present in 80

no flc.  
cns norm. grossly  
sections cord 6, medulla, thalamus.  
glycerine " " "

Microscopic - negative

few cells in one mening. vessel in cord and  
in choroid in hypothalamic region

10-7-40

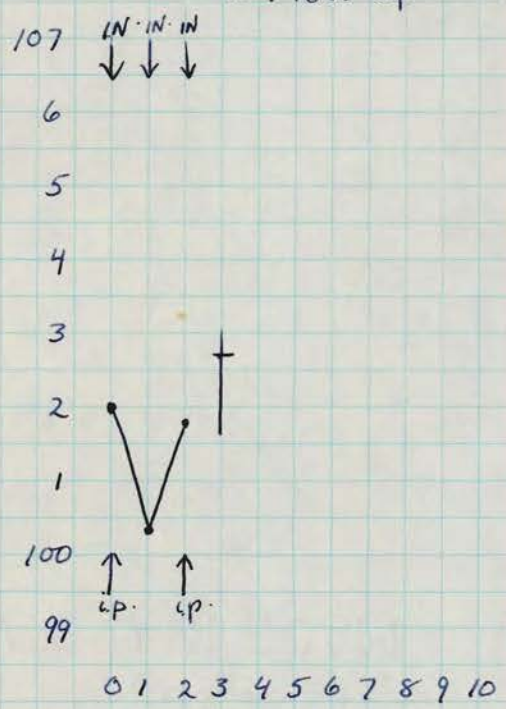
stool.

20 gm - 100 cc distilled water.  
 70 cc centrifuged 20 mins. 6N.  
 sed. added to 30 cc original suspens.  
 for I. nasal.  
 5N. etherized - 15% ether; shaken 10 mins  
 overnight in cold. 2 cents.  
 10-7 culture 2 gray cols. 72 hrs.  
 10-9 culture many many cols., spreaders.

Rh 214

10-7 21 cc i.p.  
 10-9 16 cc i.p.

1 cc each nostril pipe cleaner ↓.



10-10 found dead. autopsy. exudative peritonitis & perforation in colon pulmonary adhesions (neg acid fast)

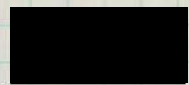
CNS normal grossly sections usual incl. bulbs, thal. & choroid etc glycerine rest of medulla, cord, & some choroid.

Microscopic

Thru thalamic region - 2 vessels in subst. of thal. - definite mononuclear cuffing

Olfact. bulbs - poorly preserved but neg.  
 Choroid - autolyzed but no inflamm. reaction  
 medulla, 6 levels of sp. cord - negative

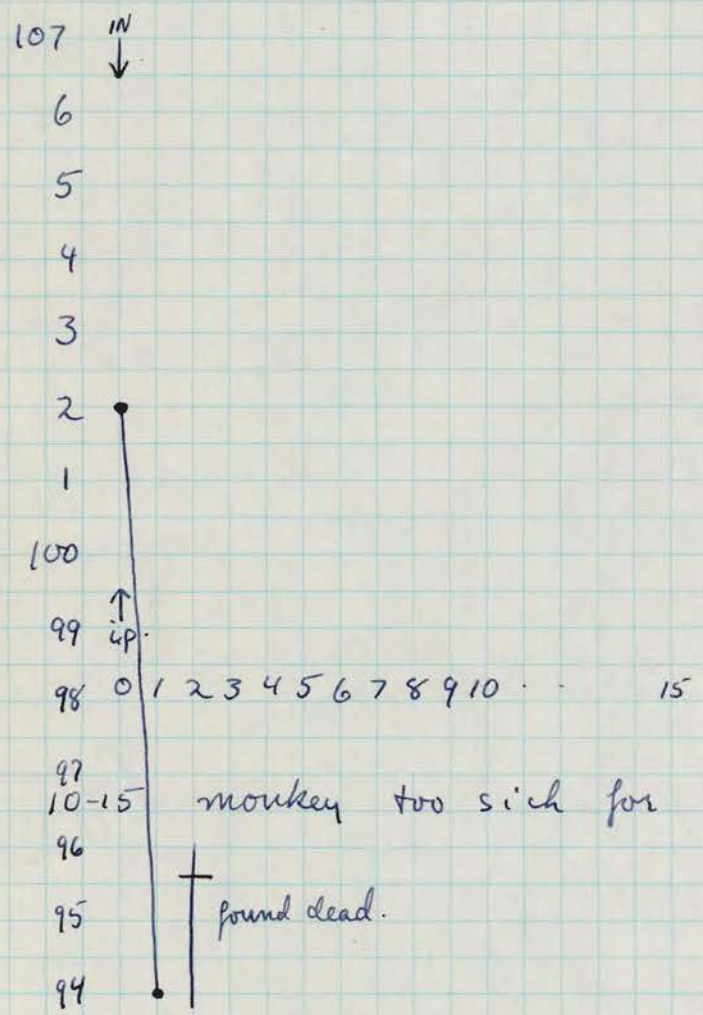
10-14-40



- stool. 6.2 gm solid 62 cc dist. water.

centrif & ether sn. 2 cents.  
culture many cols.  
re-therized, 2 cents.  
culture many cols, tho less than prev.  
3rd ether. shaken & injected after 2 hours.

Rh 236 10-14. 20 cc i.p. 1cc each nostril. pipe cleaner ↓.



10-16 autopsy.  
present in 80%

peritonitis no Hc.  
CNS. normal grossly.  
sections cord 3, med 1 choroid. thal.  
glycerin " " "

- all sections neg.

Microscopic - All sections negative

10-25

stool.

(A)

① 25cc of material used previously for intranasal, was added to 25cc of st. distilled water. Cent. 1/2 hr. 8N. Sn. etherized c 15% ether, <sup>shak.</sup> overnight in cold. 2 cents. 10-18 Culture many cols. spre-formans. (linear)

② material re-cent. 1/2 hr. 8N. 25cc sn. recovered, etherized as before. overnight in ice, 2 cents.

10-20. culture. 10 non hem cols.

③ 14cc material left. re-etherized c 15% ether shaken & left overnight in ice box. Cent. 1/2 hr at 8N, sn pip. off. cent 1 1/2 hr. at 8N.

10-24 culture no growth in 24 hrs. idem 72 hrs.

stool

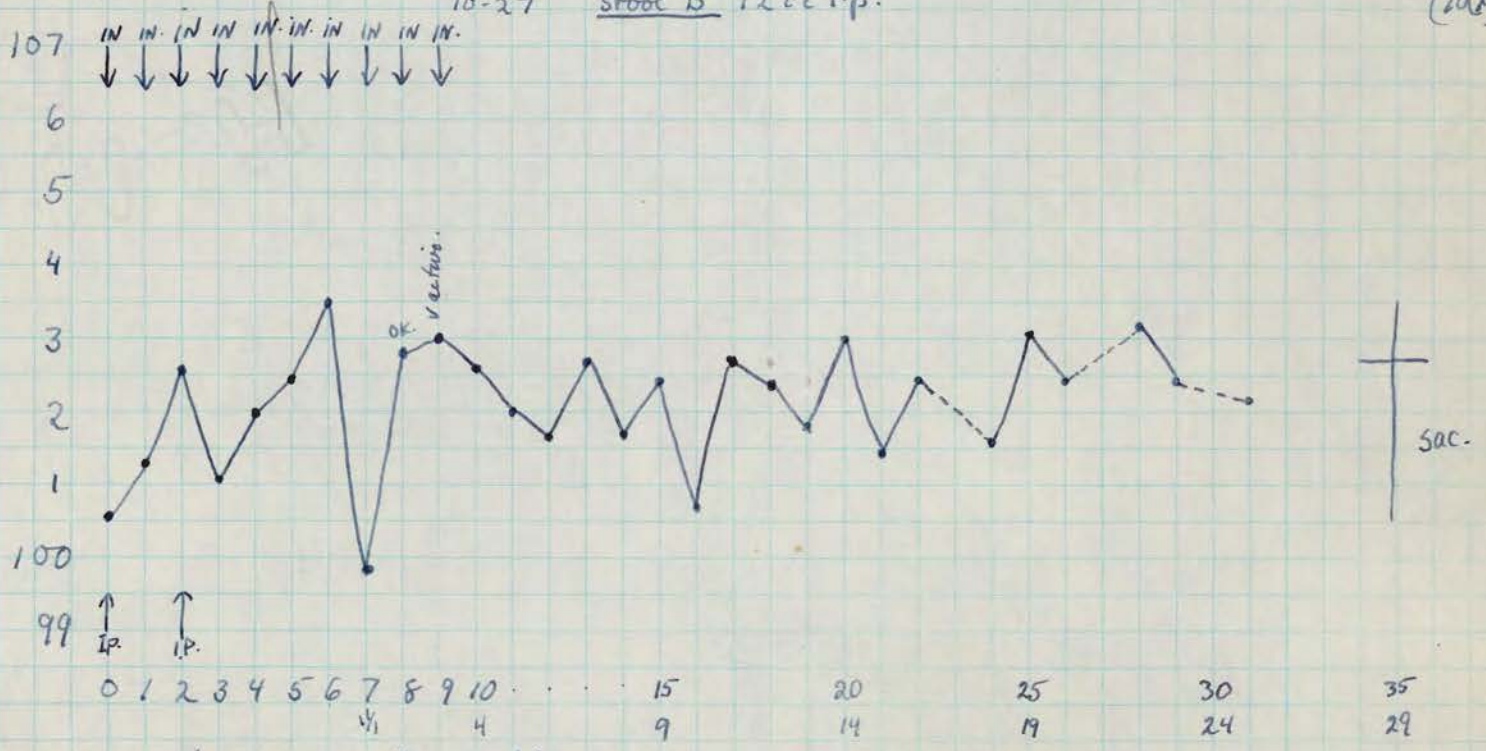
(B)

after centrifugation in procedure 2 of stool (A), one tube contained cloudier material than the others. This was kept apart & re-centrifuged & the sn added to the remainder of the etherized material left over from the original preparation used on Rh 236. The combination was etherized c 15% shaken, left overnight on ice. Centrif. twice. culture: 2 cols. at 48 hrs. 1. GRAM neg rods. 2. " Neg. cocci.

Rh 258

10-25: stool A. 10cc ip.  
10-27 stool B 12cc ip.

1cc in each nostril piped ↓ (10x)



11-29 autopsy. pres in 80

nothe. adhes. Rhh. CNS neg gross. sections usual + bulbs. glyc. "

Microscopic - Negative