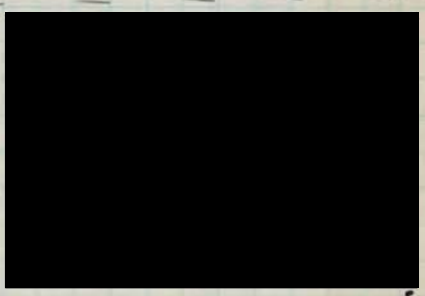


Patients under Investigation - Observation Ward - 3 West Sept. 1947.

- Children's Hospital - Cincinnati -

Patient #	Placost	ADM.	ONSET.	BLOOD SERUM.		Other
				Acute I	Conv II	
1. [redacted]	+	9/2	8/30	9/3 ✓	9/27 ✓	(There is also a serum of 9/15) 9/15 ✓
2. [redacted]	-	9/3	8/30	9/4 ✓	9/27 ✓	omit
3. [redacted]	-	9/3	9/1	} 9/4 - dropped from the investigation.		
4. [redacted]	-	9/3	8/25			
3. [redacted]	-	9/4	9/2	9/4 ✓	9/30 (10/1) ✓	9/16 ✓
4. [redacted]	-	9/4	9/1	9/4 ✓	9/29 ✓	9/15 ✓
5. [redacted]	-	9/5	9/2	9/5 ✓	9/30 (Storage) ✓	9/16 ✓
6. [redacted]	-	9/5	9/4	9/5 ✓	10/2 ✓	9/18 ✓
✓ 7. [redacted]	-	9/5	9/4	9/5 ✓	10/2 (1-19-48) ✓	9/18 ✓
8. [redacted]	-	9/6	9/5	9/7 ✓	10/3 (10/18) ✓	omit
9. [redacted]	-	9/9	9/8	9/9 ✓	10/6 ✓	7/22 ✓



Included in this group. -
 Exper. Records re [redacted] - including isolation, titration, neutralization tests are in the notebook of POLIO PATIENTS - 1947. g.v

SEP 26 1947

September 22, 1947

Dr. H. M. Weaver
The National Foundation for Infantile Paralysis, Inc.
120 Broadway
New York 5, N. Y.

Dear Doctor Weaver:

We have completed tests with eight pairs acute convalescent sera from patients with the current illness, for antibodies to influenza virus. Tests were made against Type A, the PR8 and the 1947 strain of Rhodes; the B strain Lee. In no instance was a specific rise in antibody encountered, although the original titres against influenza B seemed to be somewhat higher than anticipated. On the basis of these results indication is that the disease is not influenza.

Sincerely,

T

Thomas Francis, Jr., M.D.

TF:nc

Copies to: Dr. Sabin
Dr. MacLeod
Col. Stone

- white boy; age 4 1/2 yrs.

Pt. of Dr. James Fisher who
is substituting for
Dr. Jos. Shory.
W05979

ONSET: 8/21/47 - Felt well during this day but complained of
headache. evening of 8/21/47. ... 8/22/47 - headache
continued, and sore throat was complained of.

N.B. Had attack of so called "tonic clonus" one week prior to
this; unattended by M.D. --- Has had 3 such
attacks in past 2 months. -

also - 2 weeks prior to onset; - he had hamstring
spasm overnight and could not straighten his leg.

8/22/47 - vomited immediately after taking sulfadiazine
tablets. -
Admitted to Ward H.

Findings: - Temp. 101°; Throat & tonsils mod. injected.
Very questionable or no nuchal rigidity.

Nevertheless, cerebrospinal fluid was examined: -

104 cells/cu. mm. - Polys. 28% - Pandy = sl. +.
lymphs. 76%.

Blood, pharyngeal swabs taken; ^Istool ordered.

8/23/47. Temp. 100°. - Sets up well; no nuchal rigidity; no
signs of weakness or of CNS reaction. - Throat ^{II}OK.

Stool; pharyngeal swabs taken; Stool and enema
returns collected.

8/24/ Stool II

8/25 - Temp. normal; no nuchal or spinal rigidity.
Throat Swabs III
Stool III

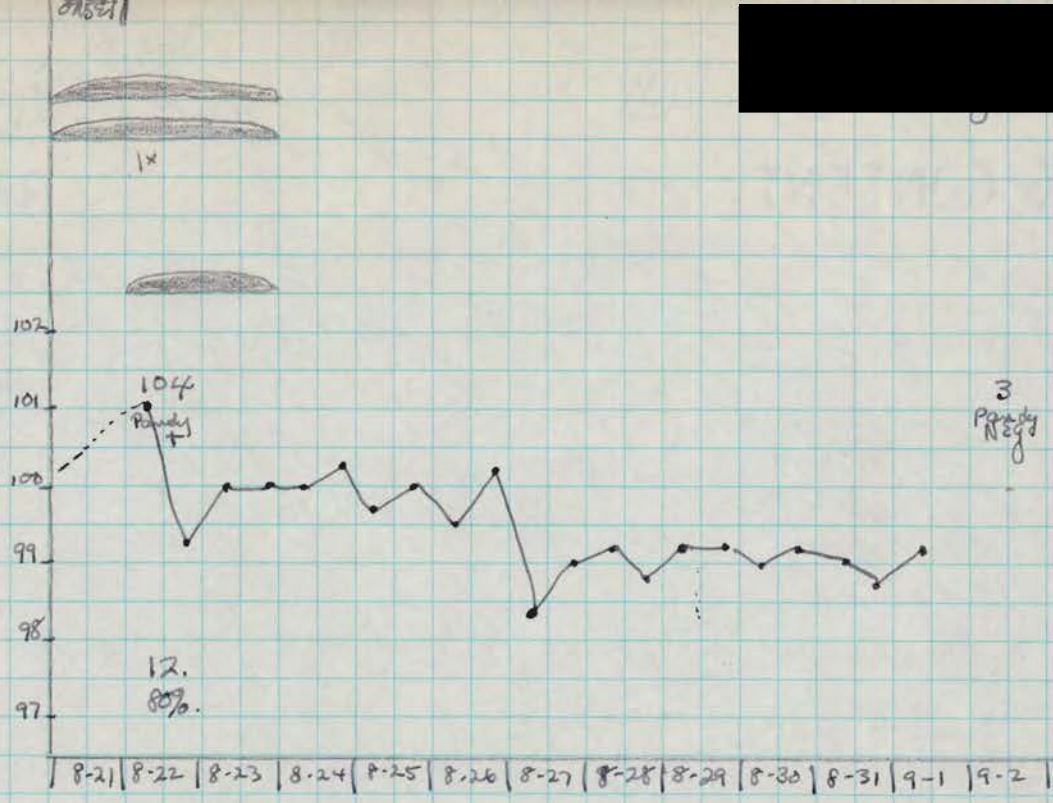
Discharged
to-day
to come
back to
home

Symptoms -
 Headache
 Sore Throat
 Vomiting

Signs -
 Tonsillitis.

LAB.
 CSF cells -
 mg protein

WBC - Thousands
 % polys.



DEC 1 1947

A. Stools:

Amount of Solids Present	= 70 gms.
Fluid present	= 350 cc.
Dist. Water Added	= 300 cc.

Blended at low speed for one minute.

For Centrifugation	= 300 cc.
For Storage	= 200 cc.
Discarded	= ± 200 cc.

First Supernatant	= 200 cc.
Ether Added	= 40 cc.

Sediment (untreated) = 40 cc. (For Intranasal use)

12/2/47. - Final Amount of Treated Stool Suspension = 175 cc.

Cult: (before final centrifugation)	= ✓ x spreader growth.
Cult: (after final centrifugation)	= ✓ x spreader growth.

DEC 1 1947

B. Pharyngeal Swab Material -

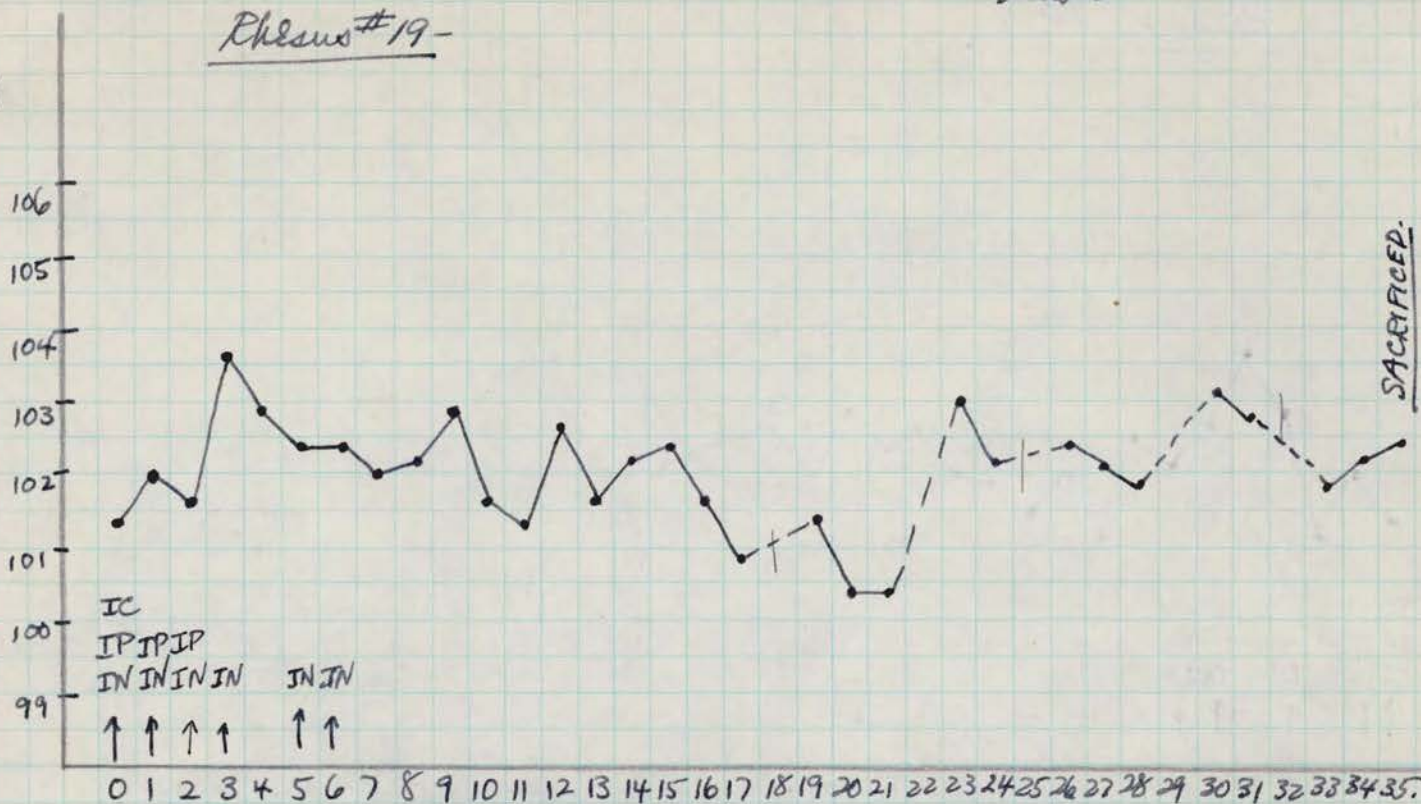
Fluid Expressed	=	2.2 cc.
Distilled Water	=	1.8 cc.
		<hr/>
		4.0 cc.
Ether Added	=	1.5 cc.

12/2/47. After removal top layer	=	3.9 cc.
After final centrifugation	=	3.8 cc.

Culture: ✓✓

Treated pharyngeal swabs - IC. Cult
v/v
 Treated stools - IP. v/v
 Untreated stools - IN.

Rhesus #19-



12/3/47. Inoculated 1.5 cc IC; 20 cc IP and 1 cc IN per nostril.

2/5/48. - Splenectomy - ABS.

1-7-48 - Sacrificed (chloroform-exsanguination) - for histopathology.

AUTOPSY: no gross TBC; nothing unusual at splenectomy site.

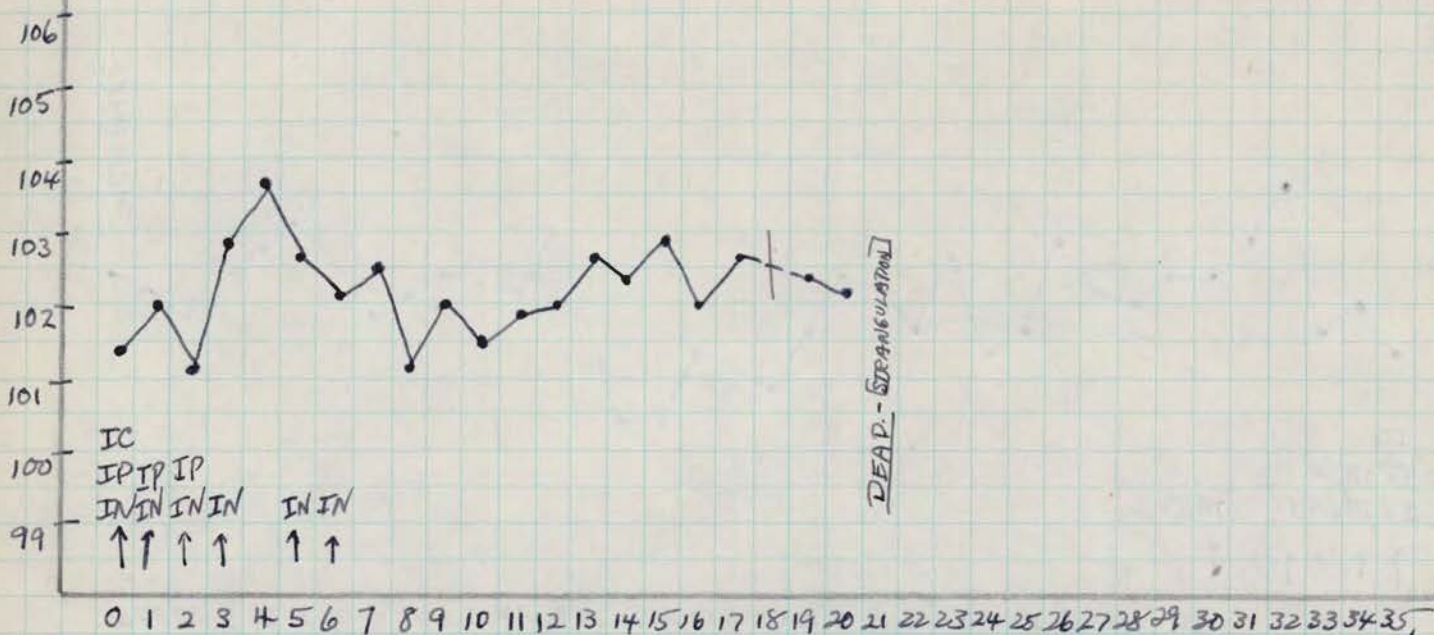
TISSUE TAKEN: cord levels; medulla; thalamus; hypothalamus and olfactory bulbs. (Z-A.)

Histology - No Polio

DEC 3 1947

Treated pharyngeal swabs - IC.
Treated stools - IP
Untreated stools - IN.

Rhesus # 20 -



12/3/47. Resuscitated 1.5°C IC, 20°C IP and 1°C per nostril.

12/24/47. - Found dead; chain survival had become locked on cage screen, monkey had turned until asphyxiated.

Autopsy: no gross lbc; scattered dark petechiae over the pleural surfaces; none in epididymus.

HISTOPATHOLOGY: cord and medulla levels; Thalamus, and olfactory bulbs (2A) 12/30 Bulbs not found (alcohol) when tissues trimmed.

Histology - No Polio

POH 0 - 1947 -

MONKEY HISTOLOGY:

<u>MK. #</u>	<u>Lumbar</u>	<u>Thoracic</u>	<u>Cervical</u>	<u>Medulla</u>	<u>Milbrani</u>	<u>Thalams. Hypothal.</u>	<u>Op. Bulb. (serial sect.)</u>	<u>Other DIAGNOSIS</u>
Ph. 19	0	0	0	0	-	0	0	NEG.
Ph. 20	0	0	0	0	-	0	-	NEG.

White; 0; 11 yrs.

Ref. from Admitting Room - Direct
Adm. 9/4/47.

OP Swabs	Stools.	CSF.
9/4 ✓	- small stools discarded. O (ABS)	cells.
9/5 ✓	✓ Brown exudate	
9/6 ✓	✓ Soft stools	
9/7 ✓	✓ Brown exudate with solid matter.	
	✓ formed.	

Onset: -

Onset - 9/1/47. -

History: 9/1/47. - very poor appetite, and vague pain in and around both knees. - No fever noted
9/2 - in the evening the nose was stuffy and blocked-up, and mild headache during night. - No fever noted.
9/3 - Headache continued + was more noticeable; 4 aspirin tablets were given. Felt hot all day particularly in P.M.
9/4 - looked sick; felt hot; said throat was sore and that there was mild stomach-ache; the headache continued to be quite severe; and the fever continued. -

Admission

Exam: T. 102. looks flushed + toxic, complaining of frontal headache + soreness left side of throat. -
Left submandibular node is tender + large ($\pm 1 \times 2.5$ cm), no overlying redness. - Pharynx is mod. congested bilaterally. Ant. nares reddened, but no discharge noted. -
Soft systolic apical murmur.
There is a complaint of pain bet. scapulae on forced forward neck flexion, full flexion on "kiss knees" test but not when knees are extended and chin brought down to the knees; down to $\pm 45^\circ$, then no further.

9/5/47. - T. 101°F. - Pronounced rhinitis - on endoscopy the ^{nasal} mucosa is not only bright red but has numerous petechiae; there is profuse clear mucous discharge. -
Left submandibular node is less tender; pharynx is unchanged. - - Meningeal signs as above - i.e. only when limbs are extended does he fail to flex completely.
9/6/47 Rhinitis continues. - Still cannot flex completely when knees are held extended.

9/8 - Rhinitis unchanged. - Still cannot flex back beyond 45° . -

9/9/ Rhinitis unchanged. coughing some but non-productive. chest neg. to clinical exam, will order X-Ray. - Can be bent a little beyond 90° - and then complains of pain through lower chest.

9/10 - Completely unchanged. afebrile.

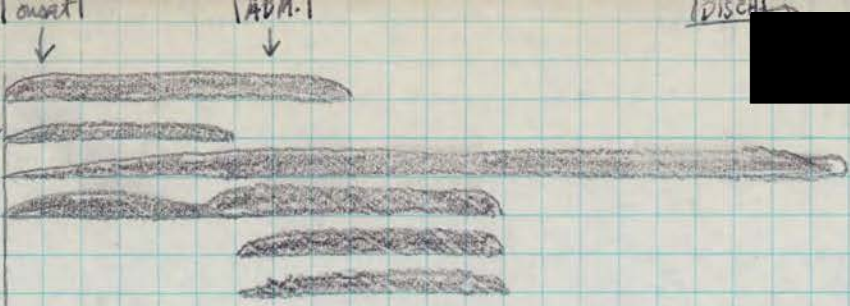
9/11. Had a repeat L.P. yesterday - normal findings. - However, today on performing Nissen sign he resists at 90° . no neck rigidity or other "meningeal sign". - His rhinitis is a little better. - To go home + return to clinic.

9/15/47 Outpatient:
CSF → cell count
3 lymphocytes
(A+S)

Quant. protein
7 + 10 mgms.

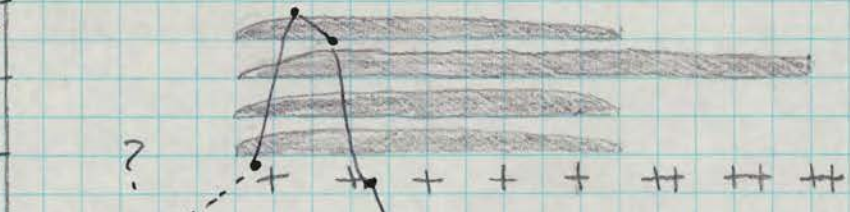
Symptoms:-

- Anorexia
- Pain around knees
- Nasal Obstruction
- Headache
- Sore Throat
- Stomach-Ache

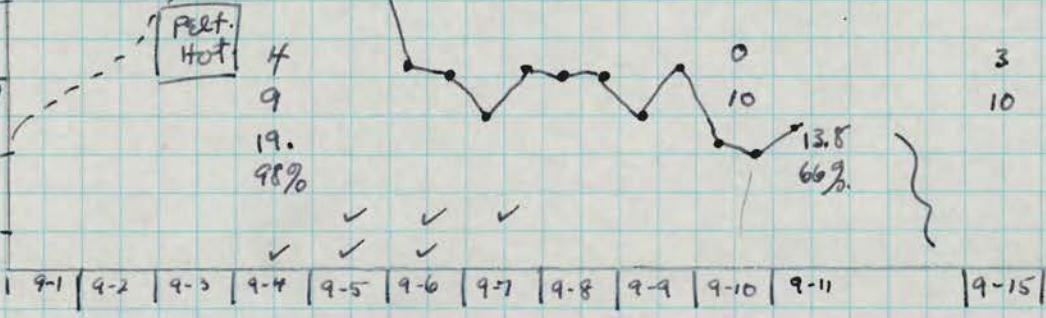


Signs:

- Pharyngitis. 104.
- Rhinitis.
- Post-Nasal Drip 103
- Cervical Adenopathy 102
- Nissen Sign.



- Lab
- CSF cells
 - mgms protein
 - WBC. Thousands.
 - % polys.
 - Virus-stools
 - Throat smals.



9-4-47. Throat Culture: - Northern. Strept; northern. Staph. aure; northern. St. albus; Hemophil. (Bordetella)
 green strept; M. catarrhalis; N.P. Sica;
 9-5-47 Nose Culture: Occ. tan. Strept; green strept; hem. Staph. aureus; H. hemolyticus;
 M. catarrhalis; northern. St. albus; northern. Strept.

9-4-47; 9-5-47. Blood Cultures: - neg.
 9-4-47. Stool Cult: - neg.
 9-5-47. Urinalysis → OK.

JAN 20 1948

3 WEST

A. Stool.

Estimated Solids	70 gms.	} 15%
" Liquid	230 cc.	
Saline Added	190 cc.	

Blended one minute at low speed.
 Portion Refrozen = \pm 230 cc. "B" 12-16-48 Discarded
 Remainder centrifuged 15 minutes in 100 cc. tubes.

Portion for Intranasal use = \pm 35 cc.

~~Remainder~~ Etherization of 180 cc. supernatant with 36.0 cc ether,
 shaken 10'; refrigerated.

1-21-48. - Shaken 10'; centrifuged 30' on horizontal = 150 c.c.
 Culture: \times \pm 200 colonies - 3 types; Smear = large β m. + rods, and
 slender β m. neg. rods.

1-22-48. Re-etherized 150 cc with 30 cc ether.

1-23-48. Am + After Centrifugation = \pm 100 cc.

Culture: \times \pm 100 colonies; 2 types. Smear \rightarrow coarse
 large β m + rods; + slender β m - rods.

1-24-48. Re-etherized 100 cc. with 20 cc ether.

1-25-48. - Am + = \pm 90 cc.

Culture: \times 3 colonies - small β m. neg. rods.
 (Material to be inc. with penicillin.)

JAN 20 1948

B. Pharyngeal Swab Material -

$$\begin{array}{rcl} \text{Fluid Expresses} + \overset{1.0 \text{ cc}}{\cancel{0.6 \text{ cc}}} \text{ Buffer \# 1} & = & \overset{2.6}{\cancel{2.9}} \text{ cc} \\ \text{Buffer \# 2} & = & \underline{1.0 \text{ cc}} \\ & & \underline{3.6 \text{ cc}} \end{array}$$

1 cc ether added, shaken 10' refrigerated overnight.

1-21-48. Centrifuged on horizontal 20 minutes.

(3.5 cc)

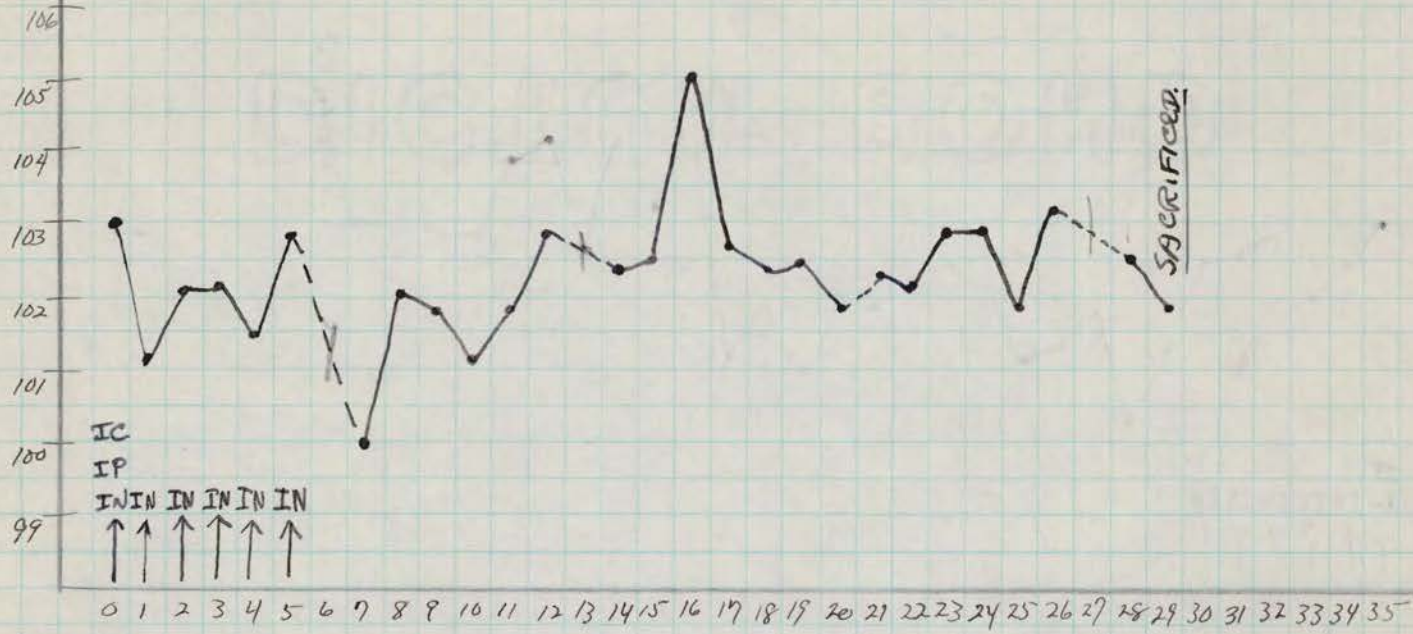
Cultures: - ✓✓

JAN 26 1948

3 wset

Treated pharyngeal swabs IC
Treated stools IP *
untreated stools IN
Cult. ✓
colonies: ✓
Sm. In. - red

Phoxus #1683 - Splenectomized
(#1683)



1-26-48 - Inoc. 1.5 cc IC; 20 cc IP, together with 100,000 units of penicillin and 1 cc each control.

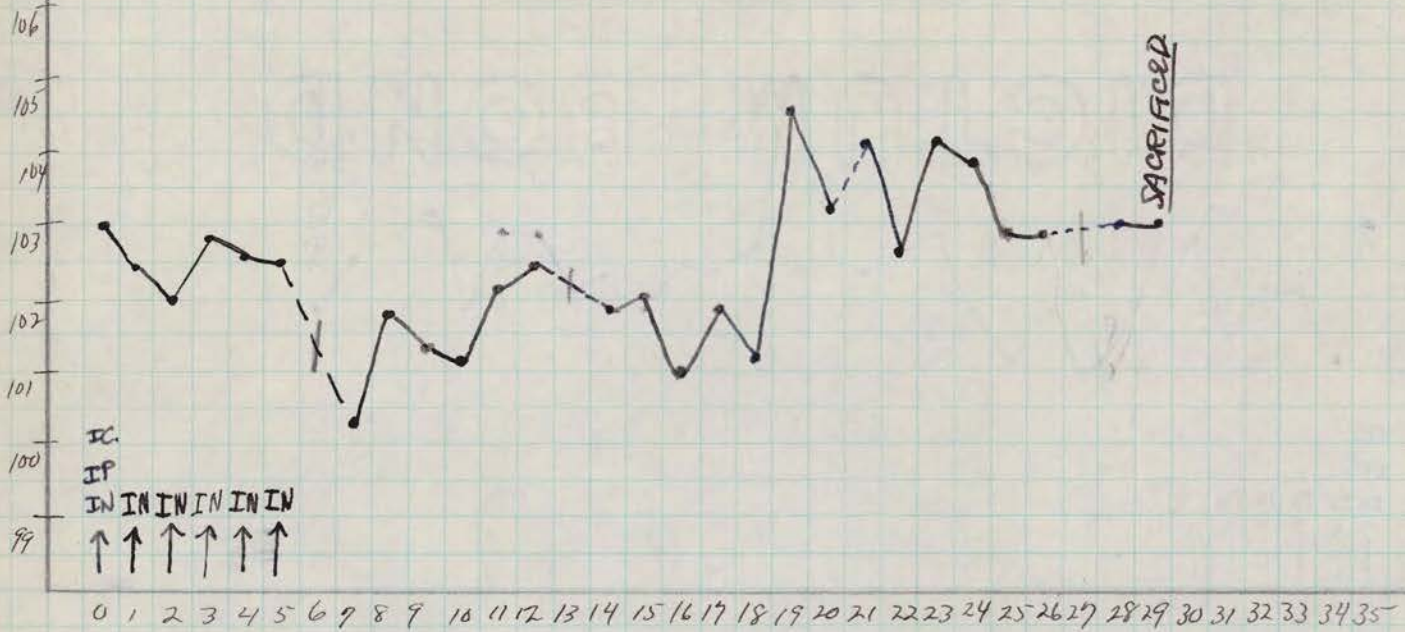
2-11-48 - prams OK.

2-24-48 - Sacrificed (chloroform-exsanguination) for histopathology. - No gross TB
TISSUES FOR SECTION: olfactory bulbs; thalamus; hypophalamus; midbrain; pons; medulla; spinal cord. (Z-A.)

Histology - No Polio

JAN 26 1948

Rhesus # 107 - normal.



1-26-48. Inoc. 1.5 cc IC; 20 cc IP together with 100,000 units of penicillin, and 1 cc each natril.

2-24-48. Sacrificed (chloroform-exsanguination) for histopathology.
Autopsy: no gross flac.

TISSUES FOR PATHOLOGY: olfactory bulbs; Thalamus; hypothalamus; midbrain; pons; medulla; Spinal cord. (2-A).

Histology - No Polio

Summer Sea Throat

PONO - 1947 - MONKEY HISTOLOGY

MK. #.	Lumbar	Thoracic	Cervical	Medulla	Midbrain	Thalamus	Hypothal.	Optic Nerves	Other	DIAGNOSIS
Rh. 107 (1947)	0	0	0	0	0	0	0	0; 0	Midbrain - one sm. infl. focus.	NO.
Rh. 1683 (1947)	0	0	0	0	0	0	0	0; 0		NO.

Review 8-18-48 - Rh. 107 (midbrain) - "~~Microscopically~~ ^{differs} a single focus of perivascular infiltration."

Chart # 58589.

Adm. 9/4/47.

Ref. by D. G. Englander.

white; ♀; 4 yrs.

	OP Swab	Stool	CSF Findings.	% Polys	% Lymphs.
9/4	✓	✓ formed.	0 (ABS)		
9/5	✓	✓ formed.			
9/6	✓	✓ mucus & lots of solids.			

Onset: 9/2/47. -

History: 9/2/47 - Onset of sore throat & malaise. Temp. 102°. Occ. cough, mild headache, & some soreness of chest and upper abdomen.
9/3/47 - same complaints continued - Temp bet. 100° - 101°.

9/4/47 - Day of admission - Temp. = 99° - and mother believes child to be very much improved. - ~~But~~

Mother denies any adult illness in family. no children.

Adm. Exam: 9/4 - No meningeal signs. - Child has: 1) geographic tongue; 2) "aphthous" plaque rt upper lip; 3) congestion of both tonsils with a few spots of pale white follicular exudate (non-confluent) on right tonsil. -

Note: Additional History: - mother denies any story in past of child having a generalized stomatitis; - but does state that child frequently develops "fever blisters" in as well as on the lip; mother knows of the child's geographic tongue.

Notes: 9/4 P.M. - T. 102° - but no clinical change demonstrable over the exam. of this morning. -

9/5. - T. 99°. - No meningeal or CNS signs; aphthous ulcer a little smaller. - Still has a few military spots of exudate on rt tonsil. - Both tonsils are quite congested and prominent. Nissen - negative. -

9/6 - Two kissing aphthous ulcers on lower lip. - No intra-oral extension of ulcers. - ~~Dr~~ believes these to be phenomenon of secondary leptotic infection. - No spinal or neck rigidity.

9/8. ulcers of mucosa healing rapidly. - Temp. has been rising to 100° past 2 afternoons. - No spinal or neck rigidity. -

- 9/9/47. - - 1) Full forward flexion of back is possible.
2) Yellowish crusts of mouth lesions remain; there is no inflammatory reaction around them. -

9/16 - C8F

Cells: CD₈ (Schm)
3 mononuclears.

2. Protein
15 mgms. 90

JAN 13 1948

3 West

A. Stool Material -

Solids Present -	57 gms.	} 15%
Liquid Present -	80 cc.	
Saline Added -	350 cc.	

Blended at low speed for one minute.

Portion Refrozen = ± 200 cc. ~~12-16-48~~ Discarded
Remainder allowed to settle in 100 cc tubes in refrigerator for one hour

Portion set aside for intranasal use = ± 35 cc.

Etherization of 120 cc. of suspension with 240 cc ether; shaken 10'; refrigerated overnight.

1-14-48. Centrifuged for 30'. Supernatant = 100 cc.

Culture: ± 30 small colonies - Smear: long slender gm. - rods and heavy large gm. + rods.

1-15-48 - Re-Etherized with 20 cc ether. -

1-16-48 - Centrifuged 30 minutes. Supernatant = 85 cc.

Culture: $\times 2$ colonies; Smear: slender gm. neg. rods.

1-17-48. Inoculated to monkeys with penicillin.

JAN 13 1948

B. Pharyngeal Swab Material -

$$\begin{array}{r} \text{Liquid Expresses} + 0.6 \text{ cc Buffer \# 1} = 2.8 \text{ cc.} \\ \text{Buffer \# 2} = 0.6 \text{ cc} \\ \hline 3.4 \text{ cc.} \end{array}$$

1.0 cc Ether added; shaken 10'; refrigerated overnight.

1-14-48. Centrifuged on horizontal for 15 minutes.
Culture: ✓✓

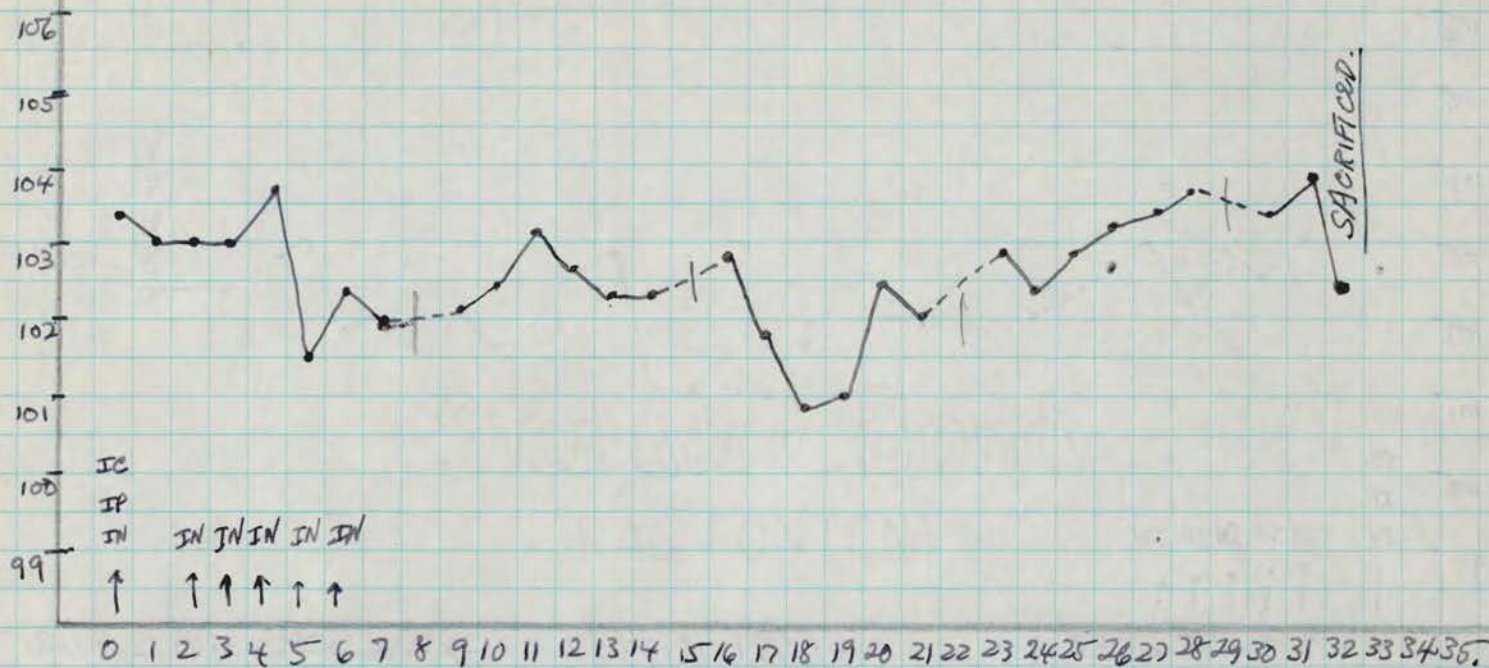
JAN 17 1948

Zurist

Cultures:

Treated pharyngeal swabs IC
Treated stools IP
Untreated stools IN.

Rhesus #100.



1-17-48 (noon) inoc. 1.5 cc IP, 1 cc each nostril, and 20 cc IP together with 1,000 mgms. streptomycin and 100,000 units of penicillin.

4:30 p.m. - Looks ill but feels warm; given 300,000 units of P.O.B. penicillin into rt. thigh.

1-18-48 - T=103°. Sluggish; abdomen tender but not distended; given 300,000 units of penicillin in POB at 2:00 pm - rt. thigh.

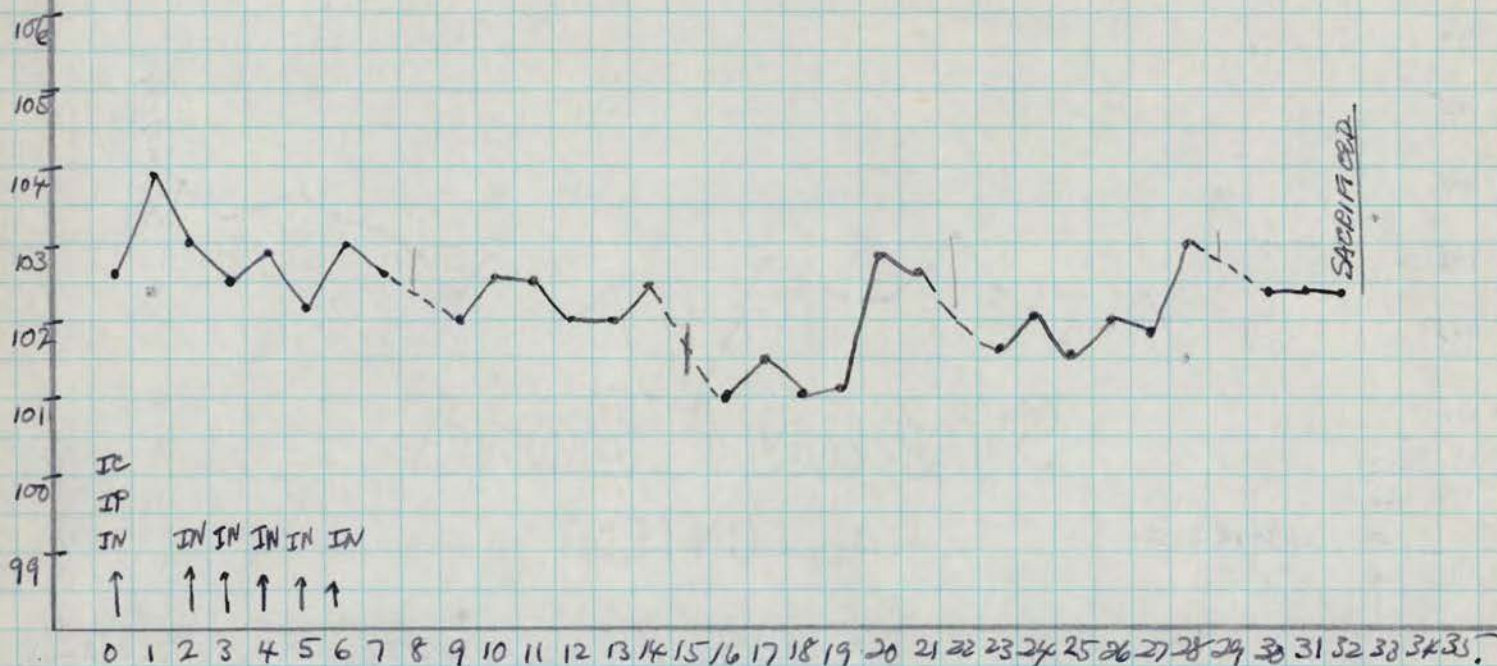
2-18-48 - Sacrificed (chloroform-exsanguination) for histopathology. - Autopsy: thoracic and abdominal viscera grossly normal.

TISSUE FOR HISTOPATHOLOGY: olfactory bulbs; Thalamus; hypothalamus; midbrain; medulla and spinal cord (2-4). - (one olfactory bulb torn.)

Histology - No Polio

JAN 17 1948

Rhesus #101



1-17-48 - 2000. 1.5 cc IC; 20 cc IP together with 100,000 μ of penicillin IP; and 1.0 cc each neutral.

4:30 p.m. - Seems O.K. (Rh. #100 overleaf ill) - given 300,000 units of penicillin in P.O.B. into rt. Thigh.

1-18-48 - T=103.9. Animal sluggish; abdominal palpation not suggestive of frank peritonitis. (See Rh. 100 - overleaf - therefore this Rh. #101 was also given 300,000 units of penicillin in POB at 2:00 pm - rt. Thigh.)

2-18-48 - Sacrificed (chloroform-exsanguination) for histopathology. Autopsy: no gross T.E.; Ster. Thoracic + abdominal viscera OK. TISSUE FOR VIRUS: olfactory bulbs; Thalamus; hypothalamus; midbrain; medulla and spinal cord. (2-A.)

Histology - No Polio

Summer Sea Trout

POLIO - 1947. - MONKEY HISTOLOGY:

<u>M.K.#</u>	<u>Lumber</u>	<u>Trachea</u>	<u>Cervical</u>	<u>Modulla</u>	<u>Midbrain</u>	<u>Thalamus</u>	<u>Hypothals</u>	<u>Cyf. Bulls.</u>	<u>Other</u>	<u>DIAGNOSIS</u>
Rh. 100	0	0	0	0	0	0	0	* 0; 0.		<u>NO.</u>
Rh. 101	0	0	0	0	0	0	0	* 0; 0.		

* Serial Sections:

M.K.#

Rh. 100

Rh. 101

Region

Cyf. Bulls.

Cyf. Bulls.

No. of slides

(12)

(12)

Findings

NEG.

NEG.

DIAGNOSIS

NO POLIO

NO POLIO

Obsv. Ward.

C.C.H. - 3 West.

Chart # 58675

Ref. by Admission Room - direct

Adm. 9/9/47.

White; ♂; 3 yrs. (born [redacted])

OP Stools:

C&F.

cells. 4 cells (Dr. Hoffman).
3(AJS)

9/9
9/10
9/11
9/12

✓
✓
✓

✓ Guernsey ^{solid} stool.
✓ formed stool.
✓ Guernsey ^{solid} formed material.

Onset: 9/8/47.

History:

(from father; telephoned to mother for confirmation.)

- Was flushed and "feverish" on awakening yesterday 9/8/47 - and did not eat breakfast. No specific complaints could be elicited however, and later on he went outdoors to play, altho he still felt feverish. Ate lunch poorly, and seemed very tired. - At night on 9/8/47 - when mother bathed him he said the back of his neck hurt; he drank lots of chocolate milk; did not vomit; slept well all night. -
9/9/47 - awoke and felt very hot. - Ate oatmeal + chocolate milk - but mother knew he was still feverish and he "looked sick". - He did not want to play, and when bathed said back of neck hurt + that ankles were sore.

Adm. -
Exam -

looks flushed (T=103°) and skin dry, -
1) Throat very mildly injected.
2) Small amt of dirty grey crust in nose.
3) No nuchal, spinal or hamstring spasm; but on performing Nissen's sign - cannot flex beyond about 70° on forward flexion.
4) I can elicit hamstring tenderness (no spasm though) in the belly of the muscles even when distracting the attention of the child.

N.B. When asked, Dr. DeVaux states he would not normally have felt there was indication for a spinal tap. - - My personal opinion would I think have been to tap; but this pt. is certainly in the "twilight clinical zone" of "meningitic" findings.

9/10/47 - T. down to 99° . - No nuchal or spinal rigidity.
A.M. Nissen - resists flexion beyond 70° . - NO
muscle tenderness.

9/11/47. - Temp. rose to 101° yesterday afternoon; came
down to 99° this a.m. - but up to 100° in the
afternoon. -
On Exam. - entirely negative - Except that
"Nissen" flexion is resisted beyond 70° angle; even
this may be voluntary as this boy is not too cooperative
today.

9/12/47. - Looks quite well; cries on being approached;
on performing "Nissen" sign - can be flexed com-
pletely over.

9/13/47. - Yesterday A.M. child was afebrile, happy free of complaints
& free of physical complaints findings and he could even be
flexed completely in "Nissen" sign.

Then at 4⁰⁰ pm. 9/12/47 T. to 101° and at
8⁰⁰ pm. to 102° ; fussy & irritable - but no specific
complaints. -

(A.M.) Today he is afebrile, cooperative except that
site of L.P. done at 11⁰⁰ A.M. 9/12/47, is tender. - He will
not permit flexion of back beyond 90° today, & points to
L.P. site as hurting.

9/15/47. - T. went up to 100° yesterday and is normal today. -
There is a small amt of postnasal exudate; no cough
and no running nose. - - Can be flexed to $\pm 70^{\circ}$ on
testing "Nissen" sign - is rather uncooperative. - I can
find no other abnormality.

9/17/47. - Small amount Postnasal discharge.
Can be flexed completely today on performing
"Nissen" sign & is cooperative. -

Followup CSF: 9/22. -

Cells.
540 Total incl. RBC.
50 WBC.
(tubes clear)

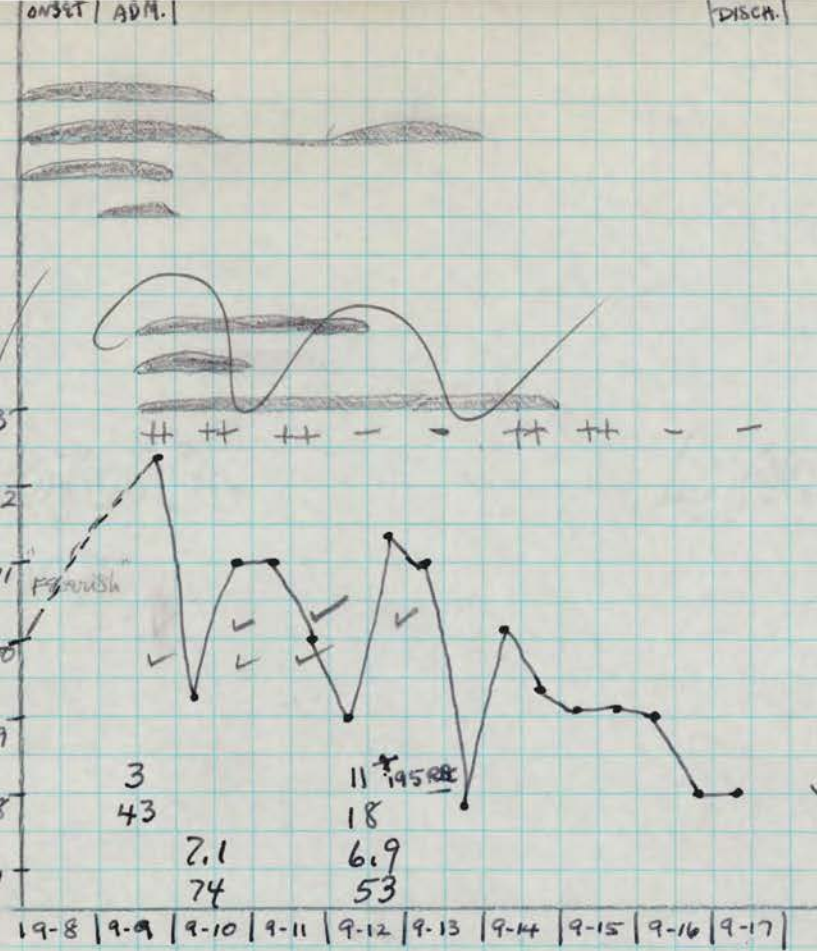
Quantitative Protein
50 mgms. / l.

Symptoms:
 Anorexia
 Lethargy
 Sore Neck
 Sore Ankles.

Signs:
 Pharyngitis
 Pleuritic Pain
 Postnasal Drip
 Nissen sign:

Virus:
 Stools
 Throat Swabs

LAB
 WBC cells
 mgms Protein
 WBC (thousand)
 Polys %



50 x 550 RBC.
 50 mgd.

9/9/47. Throat Cult: *N. catarrhalis*; green Strep; nonhem. Strep.
 9/9/47 - urinalysis: Acetone ++
 Blood culture - neg.

9-13 X-ray of chest negative

JAN 20 1948

3 West

A. Stools.

Solids present =	90 gms.	} ± 15%
Liquids present =	180 cc.	
Saline Added =	495 cc.	

Blended one minute at low speed.

Portion Refrozen = ± 230 cc. (Box "C")

Remainder centrifuged 15' in 100 cc. tubes.

Portion for intranasal use = ± 40 cc.

Sterilization of 200 cc ^{of supernatant} with 40 cc ether, shaken 10' and refrigerated.

1-21-48. Shaken 10'; centrifuged 30' on horizontal. = 150 cc.

Culture: ✗ 30 small colonies and 1 spreader type colony
Smear = gm + ovoid thick rods or ? diplococci; also slender gm. rods.

1-22-48 Re-sterilized 150 cc with 30 cc ether.

1-23-48 - Am't after Centrifugation = ± 100 cc.

Culture: ✓ covered i spreader.

(inoculated to monkeys 1-24-48)

JAN 20 1948

B. Pharyngeal Swab Material

Fluid expressed + 0.6 cc Buffer #1 = 2.9 cc
Buffer #2 = 0.6 cc
3.5 cc

1 cc ether added, shaken 10'; refrigerated overnight.

1-21-48. Centrifuged on horizontal 20 minutes. 3.3 cc.
Culture: ✓✓

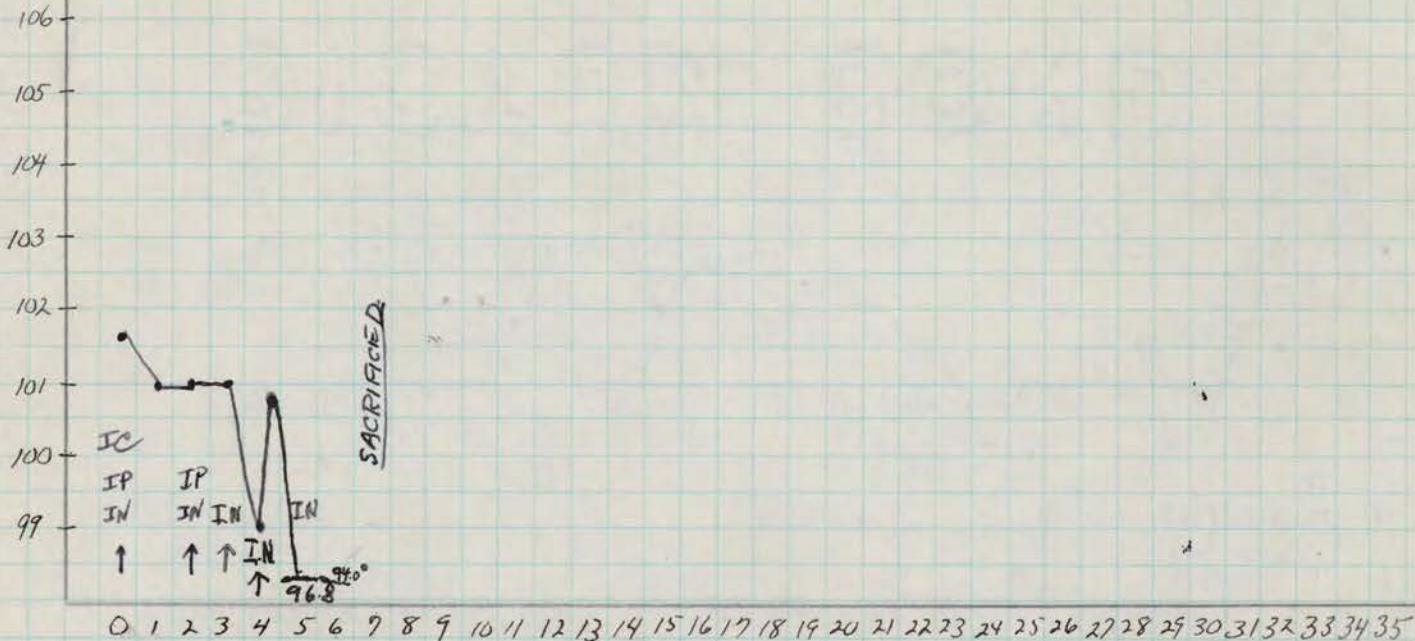
JAN 24 1948

3wst

Treated pharyngeal swabs IC
Treated stools IP.
Untreated stools IN.

Culture
✓✓✓ covered
✓* spreader

Rhesus 1547 - splenectomized



- 1-24-48. Inoc. 1.5 cc IC; 20 cc IP. 1cc each nostril.
- 1-28-48 - A.M. Disinclined to climb; T=99°; P.M. T=100° condition unchanged (ABS) (Positive)
- 1-29-48 - clinical condition same
- 1-30-48 - 9:30 AM - given 200 mgms streptomycin + 100,000 u penicillin. (ABS)

1-31-48 - In extremis; soft hemorrhagic area at site of inoculation. Culture BAP - OO

"Old" organized peritonitis - smear! Culture - O

Otherwise not remarkable grossly - No tubercles

Olfactory bulbs, spinal cord, medulla, basal ganglia in 2-A.

Cord-medulla frozen in kusteroid (d-2)

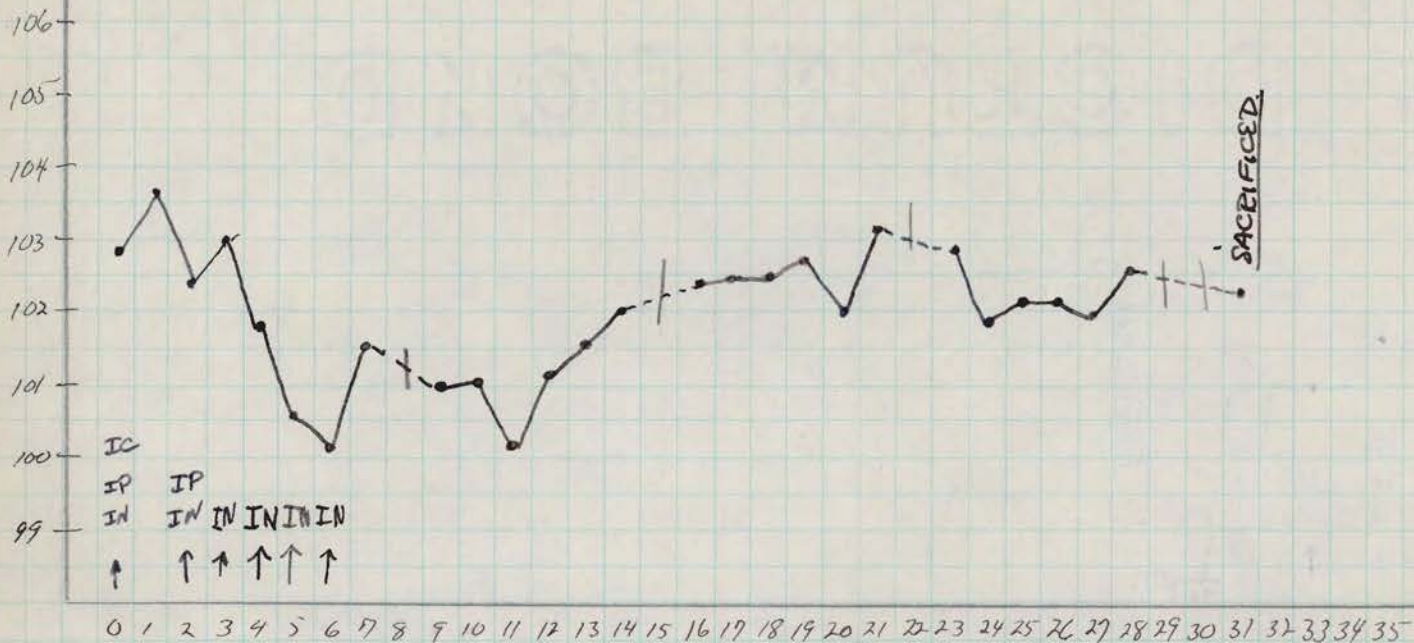
3-15-48: Cord-medulla thawed, separated, and made into 2 separate 20% suspensions.
Cord suspension: Wt. of cord = 3.5 gms., Saline added = 14cc.
± 12cc frozen in 1-20cc and 1-10cc amp. and stored. (B-2-4) Culture: ✓✓

Medulla susp.: Wt. of medulla = 1.9 gms Saline added = 8cc.
± 7cc. put in 1-20cc amp. 2cc. used for passage (1cc to each) into 2 monkeys, Rh #12 & Rh #213
Remainder (± 4cc) put into 1-10cc amp and frozen & stored. (B-2-7) Culture: ✓✓

3-23-48: Medulla susp. thawed and 2 cc. used for reinoculation in Rh #122 and 213 (1cc to each IC). Remainder refrozen and stored. (B-2-?)

JAN 24 1948

Ph. 106 - normal



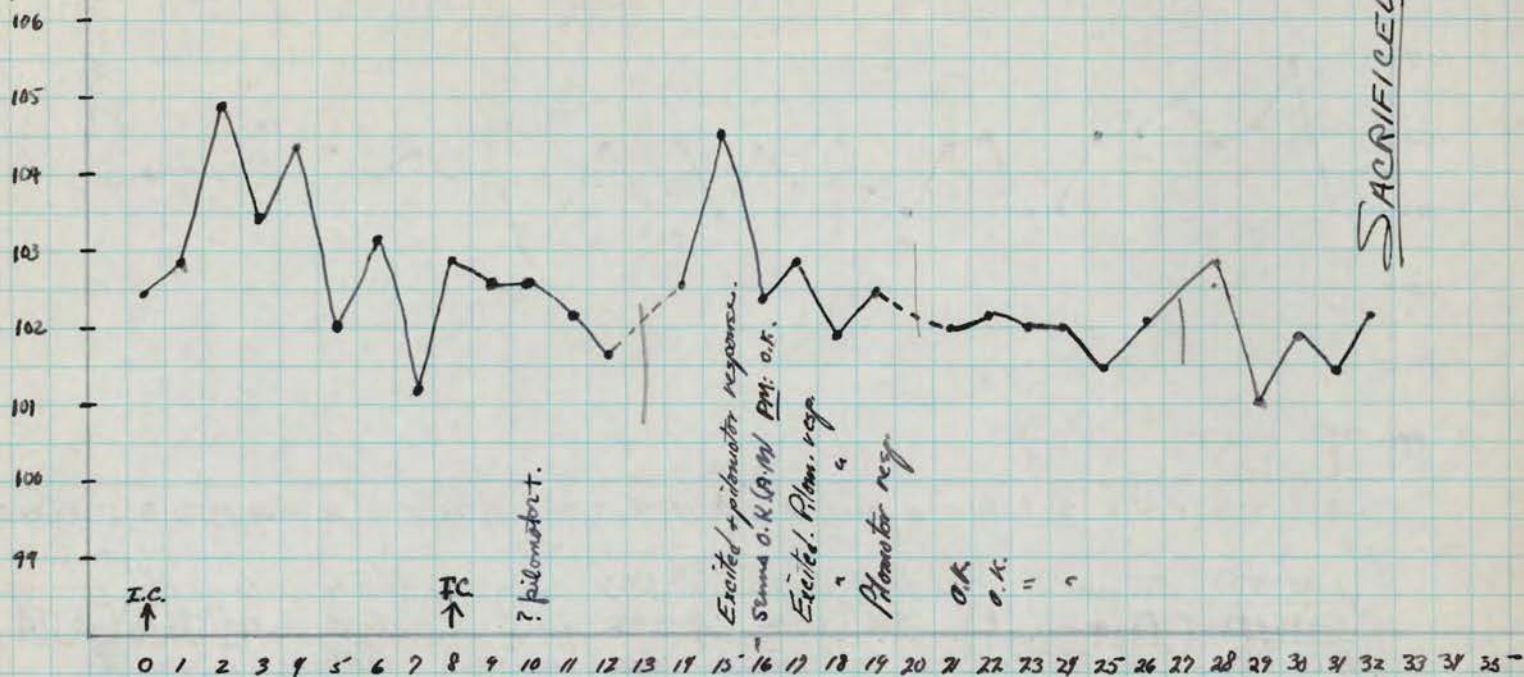
1-24-48. Inoc. 1.5 cc IC; 20 cc IP, and 1 cc each nostril.
 2-24-48. Sacrificed (chloroform-exsanguination) for histopathology.
 Autopsy: no gross Tbc.

TISSUES FOR PATHOLOGY: olfactory bulbs; Thalamus; hypothalamus;
 midbrain, pons medulla; spinal cord (Z-A.)

STRAIN - Gen ii

MAR 15 1948

Rhesus #212 - normal



3-15-48: Inoc. (1.0cc.) I.C. with a 20% susp. in saline - Flux virus (Gen ii)
 (Susp. of Gen ii medulla, not cord, used for inoc.)

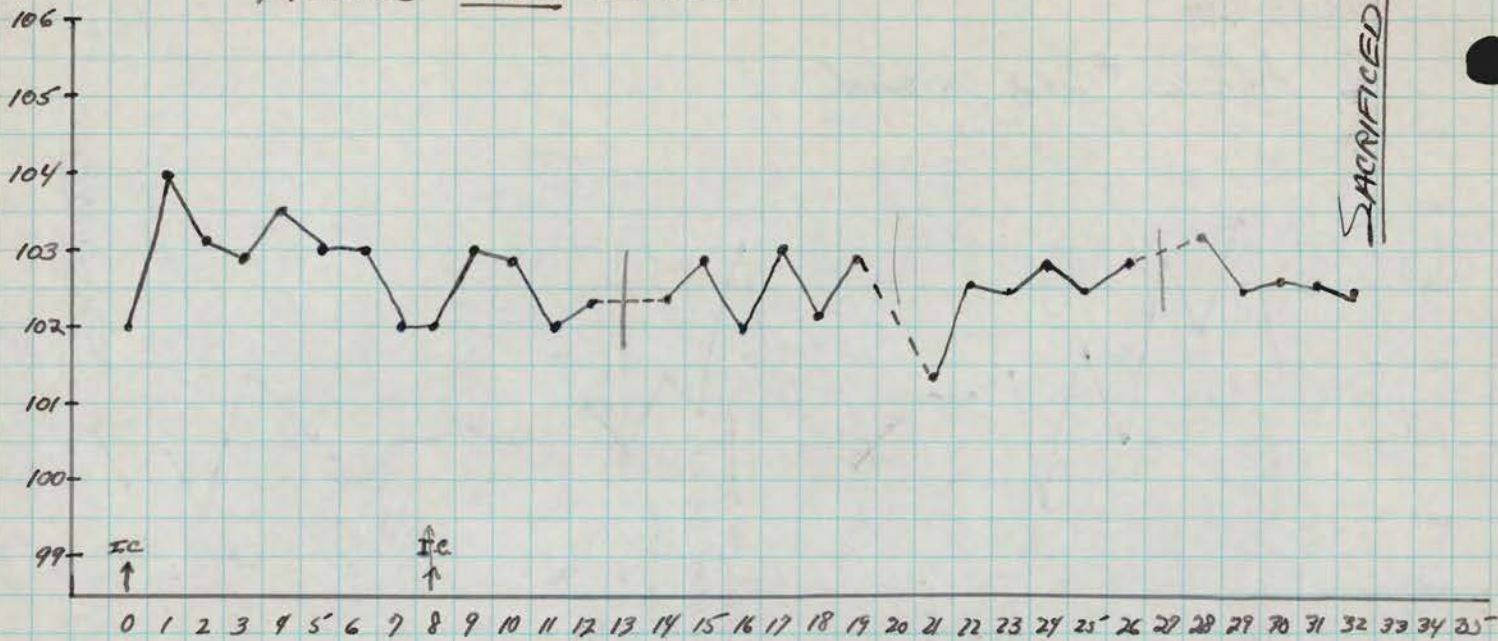
3-23-48 Re-inoc (1.0cc.) I.C. with 20% susp in saline. Flux virus sent

4-15-48: SACRIFICED: (chloroform-exsanguination) Autopsy: No gross the.
 TISSUE FOR SECTION: - Hypothalamus, thalamus, hindbrain, pons, medulla, cord levels. (Z-A)

STRAIN - Generation ij

MAR 15 1948

Rhesus #213-normal



3-15-48: Inoc. I.C. with 1.0cc of 20% susp. in sterile saline. [redacted] virus-gent
 3-23-48: Re-inoc. I.C. with 1.0cc of 20% susp. in sterile saline. [redacted] virus-gent
 4-16-48: SACRIFICED: (chloroform-exsanguination) Autopsy: No gross les.
 TISSUE FOR SECTION - Hypothalamus, thalamus, midbrain,
 pons, medulla, cord levels (7-A)

Summer 1947 Throat

POLIO - 1947 - MONKEY HISTOLOGY.

MK.	Cerebral	Medulla	Midbrain	Thalamus	Hypothal.	Opt. Bulb.	Other	Diagn. Notes
Rh. 1577 (ABS)	○	○	○	NT; PT	○	NT; PT?		Bulla POLIO acute
Rh. 106 (ABS)	○	○	○	○	○	NT; PT		NO? No effect?
Rh. 212	○	○	○	○	○	○	PT	PT = 0 POLIO 28 MS
Rh. 213	○	○	○	○	○	○	○	POLIO "old"

PRIMARY ISOLATION:

"GENERATION II"

8-11-47 Review of Slides (ABS)

Off. Bulb I: - as in sees additional acid vesicles there are other glial foci in the nerve cell zones of this bulb. gelatinous layer one focus of glial neurophagia in mitral cell layer; further down there is PV infilt. in molecular layer; There is another focus of glial neurophagia in the mitral cell layer; also glial infilt. in the glomerular and external granular layer. - Also some meningeal infiltration. - DAG NOSIS.

Off. Bulb II: - one dense glial focus in zone of nerve cells around the glomerular layer. POLIO - offactory nerve.

The other sections available (Rh. 106): - Hypothalamus; Thalamus; midbrain (2 levels); medulla (4 levels); spinal cord (20 levels) well cut with roots present - All negative.

* Rh. 1577 -

Off. Bulb I: perival foci glial infilt. in mitral cell layer; with however in some areas polys can be discerned in the mitral cell layer; acute necrosis of mitral cells - polys occupying the area can be seen under high power. No meningeal infiltration; and only ~~two~~ foci of PV infilt. in gelatinous + glomerular zones.

Off. Bulb II: No meningeal infiltration. Evidence of acute necrosis of mitral cells with poly infiltration in the zone of mitral cells. ^{interstitial}

Hypothalamus: one level shows slight PV infiltration, but ~~no interstitial~~ only sparse infiltration with glial and poly cells. The ~~2nd level~~

Thalamus: - Medial nucleus shows interstitial infiltration with glial cells and acc. polys; focal PV infilt.

Midbrain: - Ventral and lateral to equator there is focal PV infilt. and interstitial (glial and poly) infiltration but no neurophagia.

Medulla: - nuclei of floor of 4th ventricle on one side. There is extensive neuronal necrosis with poly infiltration. The same area on opposite side shows acute neuronal necrosis but only slight poly infiltration (more recent side waters?). (over)

→ (good for Photo graphy)

Substantia nigra
glial nucleus in one orbit;
dentate nucleus focus.

Nodule of neurolymphogical reaction

(over)

Rh. 1547 (cont'd)

Medulla (cont'd) There are also foci of neuronal necrosis and PV infiltration in the reticular substance as well as focal interstitial infiltration. - There is almost complete destruction, fibrosis of the dorsal motor vagal nuclei.

DIAGNOSIS:

Spinal Cord: 4 levels (2 thoracic; 1 each cervical and lumbal) - all negative.

POLIO

Rh. 212:

Medulla: 1) prominent focus of glial infiltr. in reticular substance

(5 levels)

2) Another level: - Nothing in reticular substance; - however inferior olive of one side shows a focus of necrosis; interstitial infiltr. with mononuclear and glial cells - as well as PV infiltration. - 5) (caudal portion) - Entirely negative.

DIAGNOSIS:
non-paralytic

POLIO
(medulla)

Midbrain - Pons - (post. colliculi) - neg.

Midbrain - (ant. colliculi) - neg.

Thalamus (level of mammillary bodies) - neg.

Spinal Cord (31 sections) - including the roots in all instances - neg.

Rh. 213

(1 level) Hypothalamus (Combined?) - Thalamus: - an area of interstitial infiltr. in lateral portion of hypothalamus

(1 level) " ditto

lateral nucleus of thalamus with several dense foci suggesting neuronal phagia; also PV infiltration - AT this level there is a unilateral infiltrative lesion of globus pallidus on same side.

(1 level) Thalamus (level of substantia nigra) - slight cuffing (one side) extreme lat. portion of lateral nucleus.

(1 level) Midbrain: (sup. colliculi level) - 1 cuffed vessel lateral to Sylvian aqueduct; and one focus of glial infiltration in ant. nigra.

2 levels) Medulla: 1) tiny infiltrative glial focus.

2) In the reticular substance several glial foci suggesting neurophagia.

(22 levels) Spinal Cord: -

DIAGNOSIS:

POLIO
(non-paralytic)

Lumbal: 1) One glial focus suggesting neurophagia in midical portion of horn (5 levels) 2) Several glial infiltr. foci lat. ant. + post. horn - situated in a manner to suggest old neurophagia.

3) Scattered glial infiltration in lateral horn; roots on that side O.K.

4) 5) - Negative including roots. Cervical - and Thoracic - neg.