

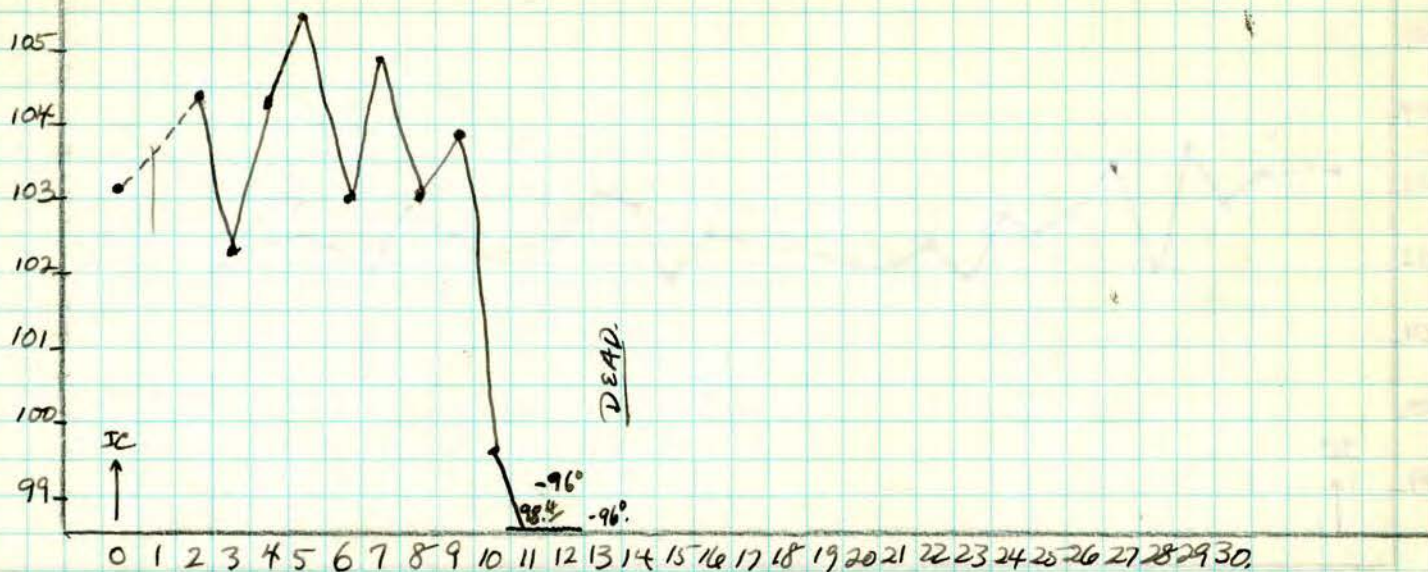
HOMER
CIVILIAN

AUG 21 1948

Challenge Re-Inoculation with Homologous Virus (Polio)

convalescent monkey.

Ph. 224



AUG 21 1948 - Challenged by inoc. into Right frontal lobe of 1.0 cc of [redacted] polio virus (20% in saline), Generation #; The simultaneous control monkey is Ph. 732. g.v. Date of original inoculation was 3/17/48.

CLINICAL CONDITION AT TIME OF CHALLENGE: - partial paralysis of left upper extremity; monkey gets around outdoors very well.

(5 day) 8-26-48 - T=105°; but no change in clinical status; scratched face + scalp.

8-28-48 T=104° - still no clinical change.

8-30-48. This monkey has no extension of paralysis but has been badly beaten and scratched around head and left upper extremity. He is very apathetic and seems generally weak when examined - but when placed alone and near food he shows no further paralysis except the partial paralysis of left upper present at time of challenge. - Penicillin 100,000 units IP.

8-31-48. T=99°. Very apathetic and generally weak with edema of scalp and about both eyes - due to fighting. - When stimulated he can move both paws and rt. upper well - but is very quickly exhausted. The injuries around the left (upper) forearm are crusted. Penicillin 100,000 units IP.

9-1-48 - Condition unchanged; T=98°; Penicillin 100,000 IP.

9-2-48. Fluctuation beneath scalp; incision and drainage of pus; irrigated; penicillin 100,000 units IP; left forearm becoming gangrenous. - In the afternoon monkey more lively; took some food and milk.

9-3-48. A.M. No change, except more definite line of demarcation of gangrene just below left elbow. - P.M. Died at 4:30 pm.

Autopsy: - no gross TB; dry and moist gangrene left upper.

TISSUE FOR SECTION: numerous cord levels; medulla; midbrain; Thalamus-hypothal. (24)
4 levels medulla; lumbar; 5 Thoracic; 9 cervical.

HISTOLOGY: The spinal cord levels show neuronal outfall and root degeneration consistent with "old" poliomyelitis. - Medulla, midbrain and Thalamus reveal perivascular infiltration, with considerable interstitial glial infiltration ("old poliomyelitis").

In addition to these changes of "old poliomyelitis", there are focal collections (in the lumbar, cervical and 2 levels of medulla) of glial cells and lymphocytes suggestive of a more recent process. Also there is no acute neuronophagia - i.e. no neuronal ghosts in process of disintegration and phagocytosis.

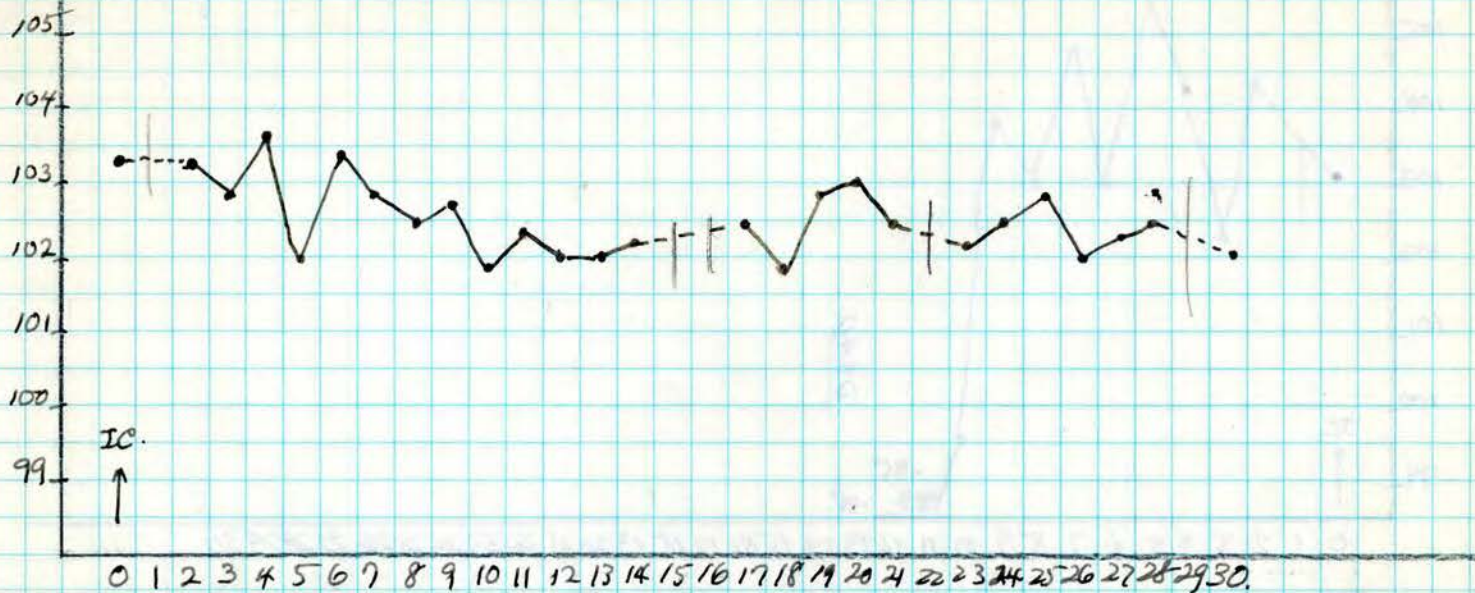
DIAGNOSIS: POLIO "old" -

AUG 21 1948

Challenge Re-inoculation with Homologous Virus (Polio)

- convalescent monkeys.

Rh. 254



AUG 21 1948 - Challenged by ino. into Right frontal lobe of 1.0 cc of polio virus (20% in saline), Generation II; The simultaneous control is Rh. 732 (g.v.). Date of original inoculation was 4/7/48. -

CLINICAL CONDITION AT TIME OF CHALLENGE: - complete paralysis of both lowers; monkey gets around very well with uppers. There is only moderate atrophy of lowers; no appreciable atrophy of uppers.

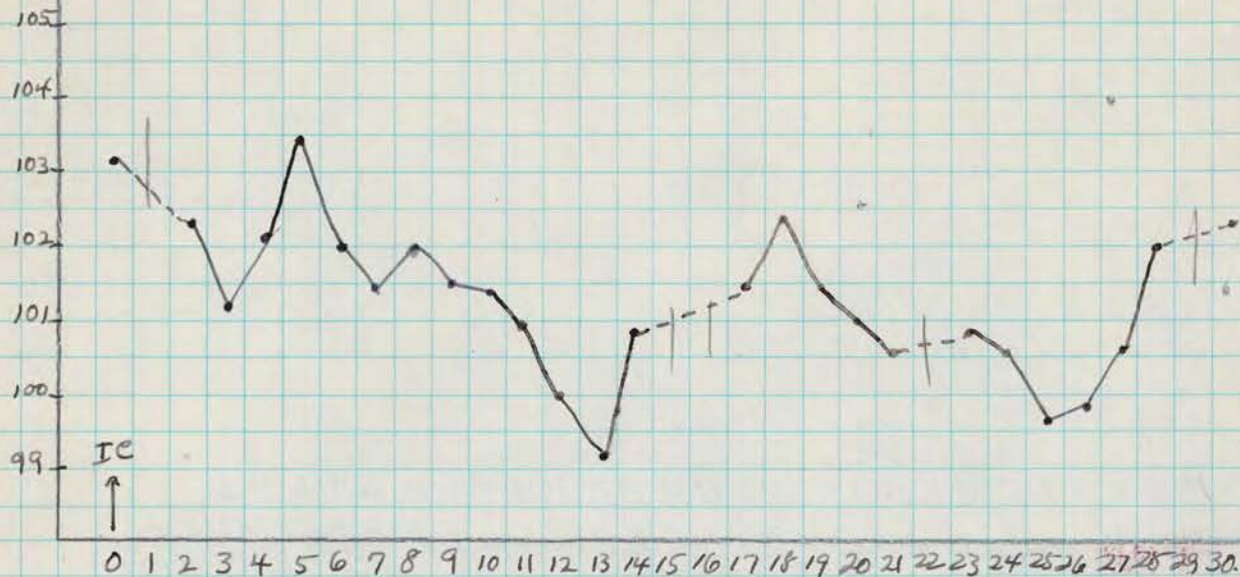
10-2-48 Heterologous Challenge with [redacted] virus. (see record).

AUG 21 1948

Challenge Re. Inoculation with Homologous Virus (Poli)

- Convalescent monkeys.

Rh. 266.



AUG 21 1948 - Challenged by inoc. into Right frontal lobe of 1.0 cc of [redacted] polio virus (20% in saline), Genexadmit. The simultaneous control monkey is Rh. 732 (q.v.). Date of original inoculation was 4/17/48.

CLINICAL CONDITION AT TIME OF CHALLENGE: complete paralysis of right upper and rt. lower. Left lower shows partial paralysis, and left upper is normal. - Rather marked atrophy and flexion deformity of rt. fore-arm; both lowers show moderate atrophy. -

9-20-48 - Gradual improvement in power; particularly rt. upper and right lower are showing some return of power.

10-2-48 - Heterologous challenge with [redacted] virus. (see record)

AUG 21 1948

Control Monkey used Simultaneously with Challenge
Re-vaccination of 3 [redacted] Convalescents. (Polio)

Rh. 732 — control for Rh. 224, 254, 266.



AUG 21 1948

Inoculated (Right) frontal lobe with 1.0 cc of [redacted] polio virus (20%) Generation II. This monkey is control for the challenge of Rh. 480, 482, 498.

8-24-48. T=100.3. Thin; edema around right eye; no diarrhea.

8-25-48. T=101.8; monkey is very apathetic; is emaciated and has mild diarrhea as well as edema of rt. orbital region.

He lies as if prostrate but moves his lower extremities in all ranges, though weakly. — Back very weak; There is no demonstrable power in the upper extremities. — I cannot be certain if these findings are polio in causation, or due to general weakness.

8-26-48. T=101°F yet monkey is prostrate; today he cannot move his lower extremities at all in contrast to yesterday. — The jaws function feebly; The tongue is immobile and there is drooling from the mouth and from both nostrils. This animal is in extremis despite fact that temp. is not hypothermic. The breathing is shallow and irregular; ? bulbar polio. — Breathing progressively worse; died at 1:30 p.m.

Autopsy: many emphysematous blebs in both lungs.

TISSUE FOR SECTION: several lumbar + cervical cord levels; also several levels of medulla; midbrain; Thalamus-hypothalamus. (Z-A).

HISTOLOGY: All levels show extensive acute neuronophagia with mild perivascular infiltration.

DIAGNOSIS: ~~Acute~~ POLIO (Acute)

OCT 7 1948 Challenge B - Inoculation with Homologous Polio Virus -

Rh. 693 - [redacted] - convalescent



OCT 7 1948 - Challenged by IC inoc. (rt. side) of 20% [redacted] virus (using Gen III - frozen 3/24/48 - amp. #1); simultaneous control is Rh. 781X J.V. Date of original inoc. was 7/2/48. -

CONDITION WHEN CHALLENGED: Compl. par. both lowers with severe atrophy - ^{cannot} sit up; left upper has feeble shoulder and wrist movements only; right upper has forearm movements in all ranges; moderately severe atrophy of both uppers, with flexure contractures of both wrists.

11-1-48 (25th day) - Animal has facial edema; has been getting thin; has mild diarrhea. - lies down most of the time; has gotten severe contractures of both shoulders and left wrist. -

11-3-48: T: 102°; facial edema worse as is diarrhea. - 11-5-48: No distinguishable change in motor status. - general condition is no better.

11-8-48. DEAD: - Autopsy: emaciated; no pulmonary Tbc.

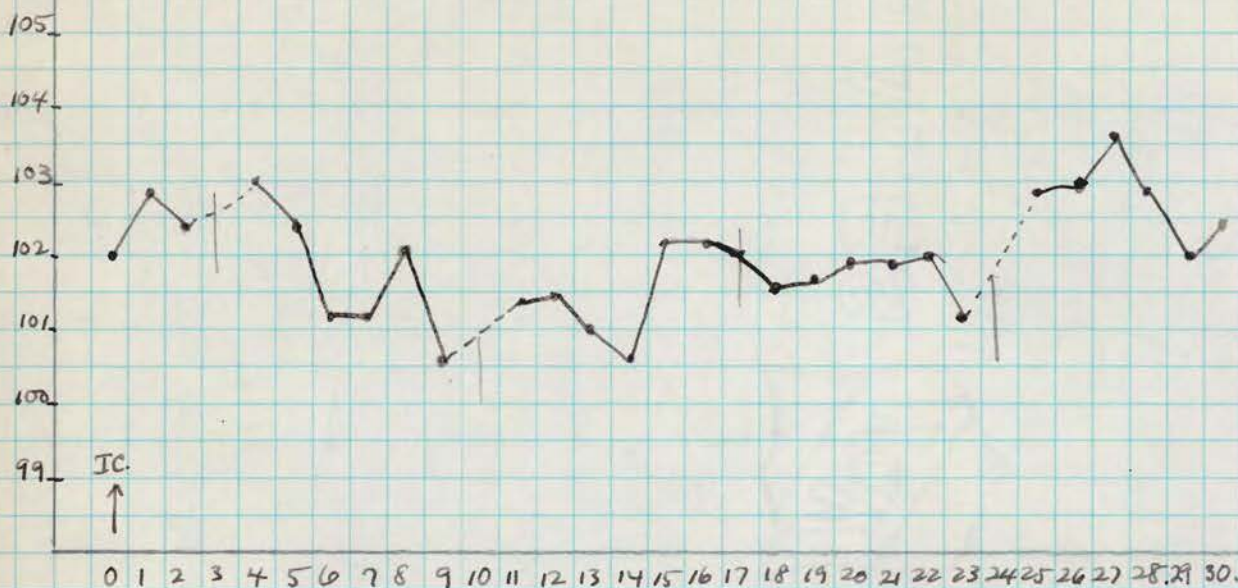
TISSUES FOR SECTION: Thalamus; midbrain; 2 medulla; 7 cervical; thoracic 5 lumbar. (2-A)

HISTOLOGY: No acute neuronal change; ant. horn substance of many sections shows dissolution; cord levels show root degeneration, PV cuffing; glial infiltration; medulla shows lightly scattered glial intrastitial infiltration chiefly in the reticular formation; midbrain shows only one cuffed vessel; Thalamus shows scattered glial infiltration - no PV cuffing.

DIAGNOSIS: POLIO "old"

OCT 7 1948 Challenge Re-Inoculation with Homologous Polio Virus

Ph. 699- [redacted] convalescent.



OCT 7 1948 - Challenged by misc IC (rt. side) of 1.0^{55} of 20% HOPKINS virus (Gen. III from 3/24/48 - Amp. #1); simultaneous control is Ph. 781 X (g.v.); date of original inoculation, 7/7/48. -

CONDITION WHEN CHALLENGED: - Compl. par. left lower; part. par. Rt. lower, with moderate atrophy of both; weakness of right upper with mild atrophy; climb well. - Is easily excited and has piloerector response. -

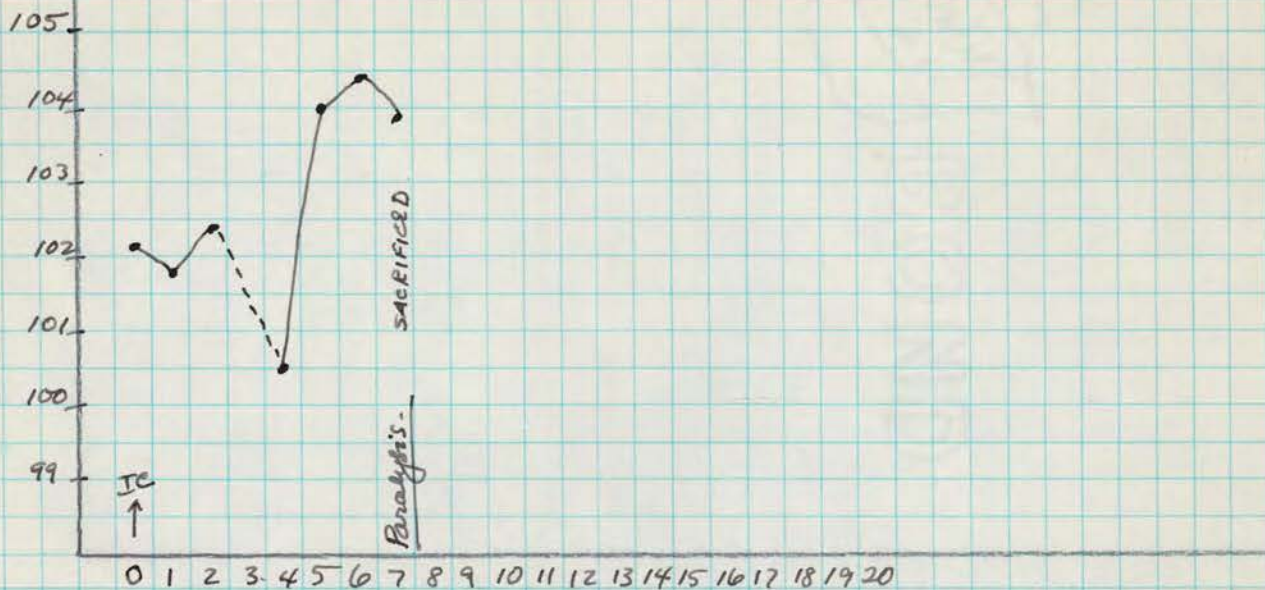
11-8-48 Challenged with heterologous strain - 100 PD₅₀ [redacted] strain of polio virus - using Ph. 884 X as control. (see record).

OCT 7 1948

Control Monkey M

- Homologous challenge of Rh. 693 and Rh. 699

Rh. 781X (used previously in Bouman test g.u.)



OCT 7 1948 - I.C. with 1.0 cc of 20% [redacted] virus (Smith), simultaneously with Rh. 693 and Rh. 699.

10-13-48 - Weakness both uppers; clumsy; disinclined to climb.

10-14-48 - T=103.8. - Compl. par. both lowers and left upper; partial par. rt. upper; aphonia. Weak neck and tail.

Sacrificed (chloroform - exsanguination) - Autopsy - no gross lesions.

TISSUES FOR SECTION: segments of lumbar and cervical cord. (24).

11-19-48 tissues discarded