
Classification: Unclassified

Subject is "Encephalitis Occurring in Equines" During August there developed eighteen cases of encephalitides type infection among equines located on Shikoku in Kochi and adjacent prefectures. This was diagnosed by Japanese veterinarians as "Bolina's Disease", and had an approximate mortality of 50 per cent.

Majority of the affected animals exhibiting central nervous system symptoms were of the younger age group (1-5) and were confined entirely to rural areas. None had history of previous vaccination procedures. Coincidental with the appearance of these cases in Kochi was the confirmation of three cases of Japanese B encephalitis in humans.

Cases of encephalitis in equines due to Eastern, Western or Venezuelan strains of virus are not known to the Japanese.

Sera was obtained from all convalescent animals for complement fixation tests, neutralization studies, and virus isolation procedures. Antigens were prepared from the brain tissue for complement fixation tests.

With the advance of the summer season additional cases of encephalitis type infection were reported among equines in other areas. In each instance there was central nervous system involvement. Convalescents were dull, stuporous and lethargic.

Epidemiological figures are incomplete but those prefectures reporting are: Kochi prefecture, 18 cases, 44 per cent mortality; Kagawa prefecture, 42 cases, 55 per cent mortality; Ehime prefecture, 27 cases, 10 per cent mortality; Okayama prefecture, 6 cases, 30 per cent mortality; Ichikawa prefecture, 18 cases, 16 per cent mortality; Akita prefecture, 13 cases, 54 per cent mortality; Tottori prefecture, 44 cases, 41 per cent mortality; Gifu prefecture, 134 cases, 23 per cent mortality; Shiga prefecture, 2 cases, 50 per cent mortality; Ni Gata prefecture, 20 cases, Mortality Unknown; Chiba prefecture, 66 cases, 10 per cent mortality. It would seem the outbreaks started on the southern island of Shikoku and moved northward. This information is not complete and may be subject to change when complete results are received.

Neutralization tests for Japanese B virus reveals that in Kagawa prefecture there were eight sick horses from which specimens were received, all with positive neutralization indexes; there were six normal horses from within the same adjacent areas which
Comparison of complement-fixation tests between the cases of encephalitis type and the normals: Total of 70 sick animals show one animal with titre of 1 to 2; 9 sick with titre of 1 to 4 through 1 to 8; 75.7 per cent, or 9 sick animals, had a titre of 1 to 16 through 1 to 32; 10 per cent or 7 animals, had a titre of 1 to 64 or above. Of the 56 normal animals tested, 8 animals had titre of 1 to 2; 19 animals had a titre of 1 to 4, through 1 to 8; 50 per cent, or 28 animals, had a titre of 1 to 16 through 1 to 32; 1.8 per cent, or 1 animal, had a titre of 1 to 64 or above.

Suitable material for virus isolation has been difficult to obtain, and we have been hampered by inadequate supply of mice. Material is now in third passage with apparent isolation of as yet unidentified neurotropic virus killing in five days on second passage. Our isolation studies are open to question because of local procurement of mice. Histologic examination of equine brains shows definite evidence of a virus infection.

Our final reports will be delayed. The general picture of isolated outbreaks of neurotropic virus disease in horses together with scattered proved cases in humans has certain points in common with the history of outbreaks of Western equine encephalitis in Western United States occurring during 1930 to 1935. This tentative report is submitted at this time for consideration in making plans for next season's vaccination program for occupation personnel.

FEC Item 3. For Supply Section:

Recent typhoon here has markedly reduced supply of animals available locally. Radiographic request for supply of 400 adult guinea pigs per month for an indefinite period has been made. If available will also need 1,000 adult white mice suitable for breeding stock. Desire your recommendation as to strain.

FEC Item 9 Re Wd 2

Information being collected on 20,000 vaccinated children but completion date cannot be estimated at present. Doubtful if magnitude of outbreak sufficient to permit evaluation of efficacy of vaccine.

FEC Item 11 Re Wd 9

Cases of Japanese B did occur in Sava area as horse cases. These human cases have been confirmed by neutralization, complement fixation and virus isolation (two cases with virus isolation).
Teleconference

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Does the final part of our Item 2 answer your Item 10?

FEC Item 12 Re Wd 3

No unusual outbreak of Jap B among Okinawans. Radiographic reports show less than 200 cases on which probable laboratory confirmation (C. fixation test) has been obtained on nine since departure of Dr. Hammon. It is not felt the outbreak is of sufficient proportion to reach a definite conclusion as to efficacy of vaccine.

FEC Item 17 Re Wd 4

Only two cases of confirmed Jap B in FEC. Stanley Brown, Okinawa, positive C. F. test, microscopic findings positive for encephalitides, virus isolation negative. Edgar Reynolds, BOMF positive C. F. TC test. Two suspected cases Okinawa, Sarah Cleary, dependent, negative C. F. test negative, microscopic findings show evidence of encephalitides. Leni Smart, dependent child, negative C. F. and neutralization test, microscopic negative, diagnosis made on clinical evidence.

FEC Item 19 Re Wd 7

Estimates for Japanese B vaccine as stated in our ads are best possible at this time. If any significant changes occur, will report same by radio.

FEC Item 20

Concur in use of Jap vaccine in FEC only not at ports of embarkation.

FEC Item 22 Re Wd 5

Samples of Japanese B encephalities vaccine, chick embryo type dried from lots as requested will be sent subject to availability in depot stock residual vaccine in depot will be held until otherwise notified.