

sight of the test organism. It was found that the bacteria were excreted in large numbers by the bile. They were also found to a less degree in the urine; however, no extended quantitative estimations were made in this regard.

We have not been able to demonstrate the way by which the bacteria pass from the blood or lymph through the intestinal mucosa; whether unaided or with the help of the leucocytes. The experiments are being continued in this direction.

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A report on the production of tabardillo, or Mexican typhus fever, in monkeys.

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It has been found that at least two species of monkeys, the *Macacus rhesus* and *Cebus capuchinus*, are susceptible to infection with tabardillo or Mexican typhus fever by direct inoculation with blood from human cases of this disease.¹ An attack of the disease in the monkey, produced by blood inoculation directly from man, induces a definite immunity to a subsequent inoculation with virulent blood.² Two monkeys, one a *rhesus* and the other a *capuchinus*, which were tested for their immunity 23 and 30 days respectively after the subsidence of their fever, were found to be immune to inoculation with large doses of virulent blood. Some of the same blood inoculated into two untreated monkeys produced, after an incubation period of eight days, a febrile curve similar to that of human cases of tabardillo. Blood taken from one of these animals on the sixth day of the fever and used for passage into another monkey, caused, after an incubation period of seven days, a similar febrile curve.

The blood of a *Macacus rhesus* infected from a human case

¹Anderson, John F., and Goldberger, Joseph, A note on the etiology of "tabardillo," the typhus fever of Mexico. Public Health Reports, Dec. 24, 1909, XXIV, 1941.

²Anderson, John F., and Goldberger, Joseph, On the infectivity of tabardillo, or Mexican typhus, for monkeys and studies on its mode of transmission. Public Health Reports, Feb. 18, 1910, XXV.

was found to be infective for other monkeys on the fifth and sixth days of illness.

Diluted blood serum from a human case of tabardillo was passed through a Berkefeld filter, but failed when inoculated into a *Macacus rhesus* to cause any reaction. It would seem, therefore, that either the infecting agent was too small to pass through a Berkefeld filter or passed through in insufficient quantities to produce the disease.

The epidemiological evidence, supported by one human experiment, indicates very strongly that Mexican typhus fever is not contagious in the usual sense of the word. An intermediary host is probably the means by which the disease is transmitted from person to person, and the probable insect concerned is the body louse, *Pediculus vestimenti*.

The non-identity of the Mexican typhus fever and the Rocky Mountain spotted fever, which prevail at approximately the same altitudes, was demonstrated by animal inoculation as well as by the observation of certain important clinical differences.¹

¹ Anderson, John F., and Goldberger, Joseph, On the relation of Rocky Mountain spotted fever to the typhus fever of Mexico. A preliminary note. Public Health Reports, Dec. 10, 1909, XXIV, 1861.