

2. Title: Isolation of Leptospirae from Thailand, Modes of Transmission.

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Objective: The objective of this study is to evaluate by isolation techniques the role of wild or domestic animals and water in transmission of the leptospirae organism.

Description: Attempts are made to isolate leptospiral organisms either by intraperitoneal inoculations into weanling hamsters or by direct culture in rabbit serum enriched Fletcher's medium. Kidney plugs from aseptically exposed animal kidneys are taken with a pasteur pipette and discharged directly into tubes of Fletcher's medium. Water samples collected from streams, klongs, and paddy fields are inoculated intraperitoneally into weanling hamsters. The animals are observed for 21 days for death or signs of illness. Those animals dying between 4 and 21 days post inoculation were cultured for Leptospirae. At least one animal from cages in which no animal was ill was cultured after 21 days.

Progress: Twelve isolates from rodent kidney punctures were serotyped as L. javanica. One isolate from a stream was identified as L. autumnalis. Thirty-nine water samples were taken from various provinces but only one from the six samples taken at Nakorn Nayoke was positive. Twenty-five urine samples from cattle and buffalo in that same area were all negative.

These samples were all taken during the dry, hot season of the year when the disease would be expected to be at its lowest prevalence. Experiments were conducted in an attempt to improve the isolation technique by concentration of dilute suspensions of viable organisms with millipore filters. All attempts failed to give positive results.

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