

## A REPORT ON A CASE OF TICK PARALYSIS IN DADE COUNTY, FLORIDA

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In November, 1953, a case of tick paralysis in a six-year-old girl living in the southern part of Dade County, Florida, was reported by a local pediatrician. Although a very common disease of dogs in Florida, this is believed to be the first case of human tick paralysis in Dade County. The Florida State Board of Health has only one other record of human tick paralysis in Florida, but other cases may have occurred which were never reported. The single case on record with the State Board of Health occurred in the Jacksonville area in April, 1953. A small girl was also the victim in this case.

Briefly, a day-by-day account of the tick paralysis started with the frightened parents bringing the child to the home of the pediatrician on a Friday night. Both legs of the child were paralyzed. Naturally the parents and the pediatrician suspected polio. The symptoms did not indicate this disease as there was no rigidity of the spine as in polio—the child was able to bend from the sitting position and put her head between her knees. The child was taken to a hospital, where a lumbar puncture proved negative for the common, known paralytic ailments such as spinal meningitis. All of Friday night the physicians were puzzled as to the cause of the paralysis.

Saturday the paralysis continued ascending, causing the arms to be paralyzed. The girl could neither stand nor move her arms, and arms and legs were completely limp. The pediatricians soon realized the child was suffering from some type of ascending paralysis which begins at the extremities. Unless something was discovered soon, the respiratory centers would become affected and the child might die due to respiratory failure. Several experts from the various medical branches were called in to study the case.

It was on Saturday that a nurse, while tidying up her little patient, discovered a tick on the head of the girl. The tick was removed and the child began to improve rapidly. Sunday the little girl walked and on Monday was discharged from the hospital.

The writer was requested to identify the tick by the Dade County Health Department. The tick was identified as *Dermacentor variabilis* (Say), the American dog tick, and the identification was confirmed by Dr. George Bradley, Chief Entomological Consultant, Communicable Disease Center, Atlanta, Georgia.

Tick paralysis in humans, although rare in Florida, is commonly found in the western United States and Canada, adjacent to the Rocky Mountains. Numerous cases have occurred in Georgia and South Carolina. In North America the ticks involved are *Dermacentor variabilis* and *D. andersoni* and probably some of the species of *Ixodes*. The paralysis is caused by a toxin apparently secreted from the salivary glands of the pregnant engorged ticks. The removal of the tick brings about a rapid recovery.

The question as to how the tick became attached to the head of the child is still unanswered. The home of the child is located south of Miami in a high-pine, woody section. This woody area is located a few hundred feet to the rear of the house. The child has a dog and often put her arms around the neck of her pet and placed her head on the neck of the animal. Also, the mother stated the girl had gone to sleep on a couch, which is a frequent resting place for the dog. It is also possible that the tick could have been picked up by the girl as she played in the nearby woody area. No other ticks were located in the area or on the dog, which had been treated before the writer was able to examine it.

Local veterinarians reported tick paralysis to be common in dogs in Dade County. Some veterinarians reported treating over fifty such cases a year.