



CANINE RABIES IMPORTATION INTO LOS ANGELES COUNTY

Acute Communicable Disease Control (ACDC), Los Angeles County Department of Health Services (LAC DHS) was notified by Veterinary Public Health (VPH) LAC DHS, on November 1, 2004 of a positive rabies canine case. The specimen was tested at LAC DHS Public Health Laboratory (PHL).

A couple adopted a 4-6 month old dachshund puppy on the roadside in Baja, Mexico in August 2004. The puppy was seen at a LAC veterinary clinic "A" on 09/07/04, for clinical signs compatible with a diagnosis of tracheobronchitis. The puppy returned for a follow up appointment on 09/15/04 with improvement. During the office visit the puppy was vaccinated for canine distemper. A second vaccine was given on 10/06/04. During the second visit the dog showed signs compatible with canine distemper.

In the interim, the puppy was also taken on 09/25/04 to second veterinary clinic "B" for bloody diarrhea. Antibiotics were prescribed. The puppy returned to the same clinic on 10/30/04 with shaking and spasms. An unfavorable prognosis was given and the owner elected to have the dog euthanized. The owner confirmed the puppy had never been vaccinated for rabies.

LA-DHS-PHL ran a 10 minute fixation assay on brain tissue on 11/01/04. 3 of 4 slides were positive for rabies. The fluorescent structures and their relative sizes looked correct for rabies, however the staining pattern was sparse. A duplicate set (confirmatory test) was fixed overnight and tested the next day. Results obtained on 11/2/04 were negative.

Since the 10 minute assay and overnight assay yielded conflicting results and did not show a classic staining pattern for rabies, the samples were referred to the State lab for additional testing. This case was reported to California Department of Health Services (CA-DHS) by telephone on 11/01/04. The Centers for Disease Control (CDC) at Los Angeles Airport (LAX) Quarantine Station was notified 11/02/04 and California Office of Border Health (COBH) were also notified so that an investigation could be done in Mexico.

The two veterinary clinics and the owners were notified of the preliminary results. Clinic "A" reported non-bite saliva exposures to one veterinarian and one technician. Clinic "B" reported non-bite saliva exposures to one veterinarian and three assistants. Neither clinic reported any of their staff had ever received pre-exposure prophylaxis.

The owner's family reported that seven family members were exposed to the dog's saliva; the dog had not bitten anyone to their knowledge. The situation was complicated by the fact the owners had purchased another puppy from a private street vendor out of a shopping cart in Los Angeles and that dog died in their backyard on 10/25/04. The dog was thrown in the trash. None of the dogs on the property had proof of rabies vaccination.

Recommendations were made to administer post exposure prophylaxis (PEP) to exposed family members and those employed at the two veterinary clinics.

The puppy had also attended puppy training classes at a pet store on 10/09/04 and 10/16/04. VPH notified the class attendees and discussed the need for rabies vaccine and possible quarantine. VPH quarantined the puppies that were in attendance with the suspect dog at the puppy classes. Each dog was evaluated on a case by case basis.

Since the dog initially presented with clinical signs on 10/27/04 the earliest date possible for Mexican canine strain virus transmission was suggested to be 10/20/04. To add an extra safety cushion for exposures CA-DHS recommended adding one extra week (10/13/04) for contacts. Dogs have been known to incubate rabies virus for over two months so it could have been possible this dog was infected in Mexico.



On November 10, 2004 CA-DHS Viral & Rickettsial Disease Laboratory (VRDL) reported inconclusive results on the DFA (direct fluorescent antibody) assay as they saw the same unusual pattern as the LA-DHS PHL did (focal staining in one area only with a pattern and distribution that is not typical for rabies).

VRDL did not think this was rabies and chose to report it as inconclusive. PCR was also performed and was reported negative on 11/10/04. PCR does not hold the same weight as the FA Test (which is the gold standard test) but it usually is quite sensitive and agrees well with the FA methodology. If PCR was positive, we can be confident that it is positive, if the PCR is negative, we cannot definitively rule-out rabies.

Recommendations were made to continue vaccination in those persons that had already started receiving PEP. Samples were sent to the Centers for Disease Control (CDC) for additional testing.

Since testing was inconclusive (and probably negative) and exposure was 11 days prior to onset, the risk that the other dogs were actually exposed to rabies was low and probably did not require further quarantine.

On 11/22/04 the CDC samples were reported negative. Recommendations were made to discontinue rabies PEP for those who had not yet completed the series of vaccinations. The VPH puppy training class quarantine was lifted when the final test results obtained.