Brief History of Rabies In Texas

Texas has been burdened with endemic rabies for many decades. The first references to rabies in Texas appeared in the mid-1800s in anecdotal accounts from cowboys mentioning being attacked by rabid spotted skunks while sleeping on the ground. Skunk rabies has remained endemic in Texas since that time and epizootics are believed to occur in a cyclical pattern every 15-20 years. The last skunk rabies epizootic in Texas occurred in North Central Texas from 1975 to 1985.

Gray fox rabies appeared in Sabine County in northeast Texas, near the Louisiana border, in 1946 and marched across Texas in a southwesterly direction. Fortunately, the disease did not persist in the affected areas as it moved across the state. By 1963, it had settled in the Edwards Plateau area where gray fox rabies remains endemic.

Texas experienced a flare of rabies in the 1980s. As the skunk rabies epizootic faded in the mid-1980s, the grey fox rabies enzootic in west-central Texas became epizootic and began to expand. Also, in 1988, the first case of domestic dog / coyote rabies occurred in Starr County, which is located on the US-Mexico border. Both the gray fox and domestic dog/coyote rabies epizootics continued to spread rapidly in the late 1980s and early 1990s. Due to the success of the Oral Rabies Vaccination Program that began in 1995 (for coyotes) and 1996 (for gray foxes), both epizootics have been controlled within the state.

Bats have been a part of the Texas rabies reservoir at least since the 1940s. The incidence of rabies in bats has remained fairly consistent over the years and bat rabies accounts for the majority of today’s human rabies cases exposed within the United States.

Each year in Texas, about 15 dogs and 15 cats test positive for rabies. These are mostly due to spill-over from the skunk and bat variants. However, along the eastern seaboard of the United States, cats have become the most frequent rabid domestic animal (3 times more cats than dogs) because of spill-over from the raccoon rabies epizootic. So far, we do not have the raccoon variant of rabies in Texas.
Pet Ownership And The Immunocompromised

The benefits of the human-animal bond have been recognized for years. While pet ownership has both emotional and health benefits, it may also pose health risks associated with zoonotic diseases. This is especially important when immunocompromised persons are involved. Some animal-related pathogens of concern to these individuals include *Toxoplasma gondii*, *Cryptosporidium* spp., *Salmonella* spp., *Campylobacter* spp., *Giardia lamblia*, *Rhodococcus equi*, *Bartonella* spp., *Mycobacterium marinum*, *Bordetella bronchiseptica*, *Chlamydia psitacci*, *Bartonella henselae* and zoophilic dermatophytes.

Physicians and veterinarians must consider the potential for zoonotic disease transmission in immunocompromised individuals. Initially, concerns involving the zoonotic diseases in the immunocompromised focused primarily on patients with AIDS. Through the years, those concerns have expanded to include transplant recipients and cancer survivors who are undergoing chemotherapy. West Nile Virus’ arrival and effect on children less than 5 years of age, pregnant women, and the elderly indicated some degree of immune system incompetency in these populations. The increased numbers of patients on immunosuppressive drugs has expanded the population of concern to include asthmatics and people taking a short term course of corticosteroids for various conditions including allergies and arthritis. The epidemic numbers of diabetics and patients with Cushings disease have expanded the pool even further. We now have a dramatically better understanding of the vast diversity of immunocompromised individuals and must consider the risk that zoonotic diseases pose to the populations.

According to a survey of veterinarians and physicians conducted by Sara Grant and Christopher W. Olsen, University of Wisconsin, Madison, Wisconsin, USA and published in the January-February 1999 issue of Emerging Infectious Diseases, most veterinarians are not aware of their clients’ immunocompromised conditions. The survey also indicated that veterinarians either encountered zoonotic diseases in their...
practices or discussed them with their clients more frequently than physicians.

With the exception of infectious disease physicians, the survey indicated that most physicians did not feel comfortable in advising patients on the role of animals in the transmission of zoonotic agents and associated risks, and felt that veterinarians should play an equal or greater role in doing so. They particularly felt that as well as controlling zoonotic disease pathogens in animals, veterinarians should provide information for patients and physicians. The reality that human medicine often does not concentrate on the role of animals in the transmission of zoonotic agents and that veterinary medicine does not delve into the clinical aspects of human disease, emphasizes the concept that proper zoonotic disease control requires the involvement of both physicians and veterinarians.

While there are risks associated with pet ownership by the immunocompromised, giving up ones pets is not necessarily the solution. There are many ways that immunocompromised people can protect themselves from infections spread by animals and according to Dr. Deborah Marriott, of the St. Vincent’s Hospital in Sydney Australia, the health benefits of owning pets outweigh the risks of zoonotic disease transmission for most immunocompromised people.

As veterinarians, it is our responsibility to protect not only the health of our patients and our clients, but also that of the public as a whole. Since very few people understand the risk of zoonotic diseases in immunocompromised people, veterinarians should make a more asserted effort to communicate these concerns and help our immunocompromised clients feel more comfortable in discussing their increased risk for zoonotic diseases. Through approaches such as small signs in exam rooms, zoonotic disease brochures in reception areas, information in practice newsletters, and affiliation with support groups in the community, veterinarians can encourage immunocompromised persons to avail themselves of the preventive measures that can be provided for zoonotic diseases.

(Zoonotic disease fact sheets are available at http://www.hcphes.org/vph/Publications/index.html.)

Continuing Education

Mark Your Calendars! Our 4th Annual Zoonotic Disease Conference is *tentatively* planned for Sunday, September 18, 2011. Veterinarians, registered veterinary technicians, certified veterinary assistants and animal control officers are invited to attend. TSBVME, TVMA and DSHS will be petitioned for continuing education hours. Topics will cover issues involving zoonotic diseases with the “One Health” initiative in mind. Keep watching the newsletter or contact the zoonosis staff for more information.
Volunteer Opportunities

Brad and Angelina were abandoned at the shelter in a cardboard box. Both were suffering from sarcoptic mange and had been covered in burnt motor oil. They were fostered until cured of the mange, then adopted as a pair. Both are happy and inseparable in their new home. (See before and after photos) Would you like to be involved in happy stories like this? You can! We need skilled and knowledgeable volunteers to foster our orphans. We have foster opportunities with kittens and puppies that are too young, underweight, or have other minor health problems. Our foster program gives these animals a chance for survival. Foster commitments range from a few days to several weeks, depending on the situation.

If you don’t have time to foster, take heart. We are constantly looking for skilled adoption counselors to assist in placing our animals in loving homes. Adoption counselors will receive adoption procedural training at our shelter.

If you would like to become a foster parent or volunteer, please complete an online application at www.hcphes.org/vph, www.countypets.com or contact Fiona Cunningham at 281-418-1809 or fcunningham@hcphes.org.