

New Developments about Leptospirosis

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Leptospirosis is an infectious disease seen in dogs and may occur in humans. The spirochete organism, similar to a bacterium, penetrates intact or damaged skin or mucus membranes in the mouth. These organisms can survive in warm climates in stagnant water or marshy areas for long periods of time. Dogs are usually exposed by drinking or swimming in water contaminated with the leptospire.

Leptospirosis can cause sudden disease or chronic illness. Acute or sudden disease symptoms may be fever, weakness, muscle aches, dehydration, vomiting, icterus (jaundice), diarrhea, and difficulty breathing. The disease may attack the kidneys and the liver. The chronic symptoms may be mild and go undetected. Usually a fever of unknown origin is noted and may result in renal failure. Rarely are cats affected. Wild rodents and raccoons tend to be carriers of the disease. They transmit the spirochete organisms into the water through their urine.

The dogs with the acute signs of kidney and liver disease may go into shock and require intravenous fluid therapy. The antibiotic of choice for treating Leptospirosis is penicillin in the initial phase. Once the animals have recovered, the antibiotic is changed to a tetracycline to remove all organisms from the kidneys. This last step prevents the dogs from becoming carriers and passing the organisms in their urine.

Leptospirosis was a very common disease when we were a more rural society. Vaccines have helped keep it under control. Leptospirosis vaccine is the "L" in the DHLPP combination that veterinarians give. There are many serovars (strains) of this organism. Previous vaccines had only 3 of the serovars, but, now, there are 6 available in some vaccines. There is no cross immunity shared between the serovars, so, each one must be present to give effective immunity to that strain. The additional serovars have been added as they were being identified in other states as being a problem. These are moving into our state from the south through infections in the raccoon population. There have been reports of cases in dogs in North Carolina to the south and east of our area. It was reported to be due to flooding of pig lagoons about 2 years ago. Actually, it is due to the gradual progression of the raccoon infection.

Our hospital is not currently vaccinating for Leptospirosis. As of yet, there are no cases reported locally. It is possible that leptospirosis infections are being under diagnosed. So we are closely monitoring for any reports of the disease. We do not want to vaccinate unnecessarily as there are often allergic reactions to the vaccine that involves facial swelling and hives. Eventually, it will be necessary to vaccinate for Leptospirosis when it moves into our raccoon population.

Other preventative measures would be to limit access to wildlife and stagnant, marshy water. Any questions about the disease or vaccines should be directed to your veterinarian.

