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NEWSLETTER

Bartonella: What is the Veterinarian's Legal Responsibility? ©

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In This Issue:

In the Spring 2004 issue of the NVL Newsletter we will discuss the veterinarian's moral and legal responsibility regarding the zoonotic potential of feline and canine *Bartonella*.

Current Aspects:

Bartonella are major pathogenic agents for feline and canine diseases and are responsible for at least 24 human diseases, some of which can be fatal. Although human *Bartonella* infections and *Bartonella* diseases are not reportable to the CDC, several state health departments now require that they be reported (Table 1). This shows the increasing medical concern and interest in *Bartonella*. It is ironic that those states that require reporting are in geographic areas of the country where reservoir animal *Bartonella* infections (cats & dogs) are lowest.

Table 1
State Health Departments That Require Reporting of *Bartonella* Infections or Diseases

Health Department	<i>Bartonella</i> Reporting Requirement
CDC	No
Minnesota	Yes
Oklahoma	Yes
Wyoming	Yes
Wisconsin	Yes
46 Other States	No

It is important for veterinarians to recognize their responsibility to their patients and to their clients regarding the zoonotic potential for feline and canine *Bartonella*. *Bartonella* testing should be routine for all cats and for dogs with *Bartonella*-type diseases.

Bartonella in Small Animals:

As of this writing, 5 species of *Bartonella* have been found in both cats and dogs (Table 2). Although cats have infected far more people than dogs, more canine *Bartonella* species have been recovered from humans (Table 3).

Table 2 Pet Animal *Bartonella*

<i>Bartonella</i>	Cats	Dogs
<i>B. henselae</i>	Yes	Yes
<i>B. clarridgeiae</i>	Yes	Yes
<i>B. elizabethae</i>	Yes	Yes
<i>B. koehlerae</i>	Yes	No
<i>B. weissii</i>	Yes	No
<i>B. washoensis</i>	No	Yes
<i>B. vinsonii</i>	No	Yes

Table 3

Bartonella Isolated from Humans

<i>Bartonella</i>	Animal Origin
<i>B. henselae</i>	Cat & Dog
<i>B. clarridgeiae</i>	Cat & Dog
<i>B. elizabethae</i>	Cat, Dog, Rat
<i>B. washoensis</i>	Dog & Squirrel
<i>B. vinsonii</i>	Dog & Vole
<i>B. grahamii</i>	Mouse
<i>B. quintana</i>	Human
<i>B. bacilliformis</i>	Human

Numerous wild and domestic animals are reservoirs for various *Bartonella* species and may also act as a source of infection for humans. Infection of humans from these animals probably occurs via transmission of *Bartonella* via arthropod vectors and not by contact as occurs from cats.

Veterinarian's Legal Responsibility

Many practitioners have asked our opinion regarding their legal responsibility and exposure regarding *Bartonella*. Although we cannot give legal advice, there are several factors to consider. The current knowledge regarding *Bartonella* is substantial. The prototype *Bartonella* disease, cat scratch disease, was first described in France in 1889. Most cat owners have learned of "cat scratch disease" or "cat scratch fever" from general publications such as newspapers and magazines. In this regard, Time magazine highlighted cat scratch disease as an important zoonosis in their February 23, 2004 issue.



In the 1970s there even was a popular Rock & Roll song by Ted Nugent titled CAT SCRATCH FEVER. The medical and veterinary literature has more than 1300 *Bartonella* articles. There have been numerous publications in veterinary journals (Table 4) regarding *Bartonella* infections in cats and dogs. Finally, the new source for much information, the INTERNET, has many good, and not so good, sites where *Bartonella* information can

be obtained. In addition, our *Bartonella* test has been available for more than 4 years.

Table 4

Number of *Bartonella* Articles in Veterinary Journals

Journal	Cat	Dog
Adv Vet Med	1	1
Am J Vet Res	3	1
J Am Anim Hosp Assoc	1	1
J Am Vet Med Assoc	2	5
J Fel Med & Surg	4	0
J Vet Med Sci	3	0
J Vet Diag Invest	2	1
Vet Clin NA	1	2
Vet Immun & Immunopath	3	2
Vet Microbiol	7	0
Vet Ophthal	0	1
Vet Parasitol	0	1
Vet Quarterly	2	0
Vet Record	5	2
Vet Research	2	0
Totals:	36	17

Considering the large amount of current *Bartonella* information, it seems unlikely that veterinarians can claim a lack of information as a defense.

The following case histories are given as cautionary examples.

Veterinary Specialist

A nationally known veterinary specialist had been treating a client's cat for a chronic inflammatory condition for several months. The cat was not responding well to different antibiotics. When the *Bartonella* test became available, the specialist thought that *Bartonella* might be the cause of the condition. After receiving a positive *Bartonella* test result from this laboratory, the veterinarian changed the antibiotic therapy to Azithromycin and there was a prompt clinical improvement. However, at that time, the client reported that he had been hospitalized for 10 days with "CAT SCRATCH FEVER" and, when he found that his cat was being treated for the same bacterium, he asked the veterinarian when he first learned of *Bartonella*. Fortunately the client was understanding and did not seek a legal remedy, maybe because his beloved cat had finally been cured of its chronic disease.

Kids, Kittens and Bartonella

As was discussed in our Winter 2003 Newsletter, kittens are more likely than adult cats to transmit



Bartonella to people, especially children. Children often allow kittens to lick their face and to sleep with them. Boys play more roughly than girls with kittens and are more likely to be scratched or bitten and thus are more likely to develop cat scratch

disease (CSD) more often than girls.

Two Boys and a Kitten:

A suburban family, living in the northeast, found a 3-month-old stray kitten in their backyard. The kitten was thin, alert, playful, and loaded with fleas. The family immediately took the kitten to their veterinarian who examined the kitten, began vaccination, tested for FeLV and FIV, and dispensed flea medication. Although the veterinarian had performed numerous *Bartonella* tests on cats with inflammatory diseases he did not recommend a test of this kitten. Two months later the 7 year old boy in the household was hospitalized with cat scratch disease with cervical lymphadenopathy, a high fever, and neurological signs. The boy recovered rapidly after receiving intravenous antibiotics.

Approximately 5 weeks later, the boy's friend, who lived 2 houses away became severely ill with neurological signs, confusion, agitation, and was unresponsive to verbal stimuli. He too was hospitalized and, after a MRI and an abdominal biopsy, was diagnosed with "cat scratch disease." This boy, who did not own a cat but played with his friend's kitten, did not have the typical prodromal CSD signs of fever and lymphadenopathy following a known cat scratch or bite. He too was treated with antibiotics and recovered rapidly.

The kitten was taken back to the veterinarian where the owner requested a *Bartonella* test. The kitten was FeBart[®] positive, a very strong positive +4 by western blot. Although this family did not blame the veterinarian nor seek legal recourse, the veterinarian might have been able to prevent these 2 cases of severe CSD had he tested the kitten at the first visit.

Blood Donors

Two young sisters, living in a northern state, adopted two 8-week-old healthy littermate kittens from a neighbor who owned the queen. The kittens were robust and free of fleas. The family brought the kittens to their veterinarian for a routine health exam and vaccination. The kittens were free of enteric parasites and were tested for FeLV, but were not tested for *Bartonella*. Approximately 6 months later, a neighbor's dog severely mauled one of the kittens, which necessitated a blood transfusion. The kitten received a transfusion from one of the long-time hospital blood donors, an adult cat that was

adopted by the hospital after a client found it as a stray. The donor had been tested for FeLV, FIV was fully vaccinated, and was in good health but had never been tested for *Bartonella*.

The kitten recovered rapidly but developed a severe upper respiratory disease and conjunctivitis about 3 weeks after release from the hospital.

Repeated treatment with various antibiotics did not resolve the URI or the conjunctivitis over a 6-month period. One day the mother of the 2 girls came into the office and reported that her



husband, who had been treating the kitten at home, and one of her daughters had both developed CSD. The husband developed blurred vision in one eye, a severe chronic fatigue syndrome and had an IgG *B. henselae* titer of 1:512. The daughter had cervical lymphadenopathy, fever and severe headaches. Her IgG titer was 1:1,024. They both were treated with Azithromycin and recovered completely. The owner requested *Bartonella* tests of both kittens. Only the kitten who received the blood transfusion was *Bartonella* positive. After reviewing the case, the hospital tested the blood donor cat and found it too was *Bartonella* positive. Although it cannot be proven, it is likely that the blood donation transmitted *Bartonella* to the injured kitten who subsequently transmitted the infection to two people in the household. No legal action was taken.

Cat Scratch Disease Can Be Costly

An 18-year-old Georgia college student was earning money over the summer by painting houses. He was painting the house of women who had collected 10 cats that lived in and around her house. The boy did not own a cat nor did he like cats. However, one day while painting around the foundation he was scratched by one of the semi-feral cats. The owner was conscientious and had most of the cats seen regularly by her veterinarian. Most cats had been tested free of FeLV and FIV but none had been tested for *Bartonella*. The veterinarian had performed almost 100 *Bartonella* tests on cats with inflammatory diseases but she had not recommended testing healthy cats. Two weeks after the scratch, a raised red papule appeared and persisted at the site of the scratch. The boy eventually developed severe CSD with several sequelae that required hospitalization and a resulting \$21,000 hospital bill. The boy was uninsured and had to postpone returning to college in order to earn money to pay for the hospitalization. No legal action was taken.

Cancer Patients and Cats

A 58-year-old woman, living in the south, had been treated for breast cancer which consisted of surgery and chemotherapy. She had 3 middle-

aged cats that were regularly seen by her veterinarian who had become aware of her health issues. The cats were in good health and up-to-date on their vaccinations. After learning of the owner's chemotherapy, the veterinarian recommended *Bartonella* tests for all of her cats but the owner declined. About a year after completion of therapy, the owner developed severe headaches, joint pains, and blurred vision in one eye. Following several weeks of diagnostic tests, she went into a coma and was transported to a major medical center. After further extensive tests, a serological test for *B. henselae* was strongly positive, 1:1,024 IgG titer. She was treated with intravenous antibiotics and made a prompt recovery. The veterinarian was relieved that her client had recovered but was worried that she had not asked this susceptible client to sign a release stating that she had declined *Bartonella* tests of her cats. No legal action was taken.

Veterinarian's Legal Responsibility Regarding Bartonella

After reading these case histories (not actual cases but composites of numerous instances) it is apparent that these veterinarians might have been at some risk of legal action. Although we cannot give legal advice, we feel that veterinarians should be aware that they might be legally responsible when they give no information or give misinformation regarding the public health risks of feline and canine *Bartonella*.

Our Recommendations:

1. Discuss *Bartonella* with all cat owners, especially new kitten owners, and recommend that all cats, especially kittens, be tested. If the owner declines, a signed written statement may be warranted.
2. Be especially diligent to discuss *Bartonella* with any person who is immunosuppressed, has been treated for cancer, has had an organ transplant, is HIV-infected or has AIDS, and families with children less than 10 years old.
3. Test all blood donor cats for *Bartonella* infection and treat all infected donors.
4. Caution owners of infected cats to avoid being scratched or bitten while treating their cats. It is often helpful to have one person restrain the cat while another administers the medication.
5. If any cat owner or hospital employee is scratched or bitten by an infected cat, immediately thoroughly clean the wound and apply alcohol and peroxide.
6. We do not recommend that healthy owners of *Bartonella* infected cats obtain a human *Bartonella* test.
7. However, any owner of an infected cat or veterinary hospital employee with chronic disease symptoms, related to *Bartonella* infection, (Newsletters Vol. 1, No 2 Spring 2002 and Vol. 2, No 2 Spring 2003) should immediately see their physician and be sure to STRESS that they are concerned about *Bartonella* infection or "CSD."
8. Although there are no reports of medical problems with pregnant women or their unborn fetuses, they should be careful around *Bartonella* infected cats.

IT IS TIME TO CONSIDER FELINE AND CANINE BARTONELLA AS SERIOUS VETERINARY AND HUMAN PATHOGENS