

“Salmon Poisoning”

DID YOU KNOW?

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As we all know, Salmon Poisoning Disease (SPD) is common throughout Vancouver Island, Canada, Washington, Oregon and Northern California. The infectious agent *Neorickettsia helminthoeca*, which is a rickettsial agent, is closely related to *Ehrlichia risticii* of Potomac horse fever. The rickettsia infects trematode larvae, *Nanophyetus salmincola*, in an intermediate snail host, which is ingested by salmon, trout and other fish. The dogs become infected by eating raw fish. Symptoms may include fever, anorexia, weakness, lymphadenopathy, severe gastrointestinal symptoms and thrombocytopenia and, untreated, are often fatal.

Elokomine Fluke Fever (EFF) is another strain of *N. helminthoeca* which has lower mortality than SPD but high morbidity. Incubation for EFF is 5 to 12 days and symptoms include development of fever lasting up to a week along with other symptoms of SPD. The flukes often carry both SPD and EFF.

Although it is commonly accepted that dogs once infected with SPD will not have recurrent disease, Drs. William Foreyt and John Gorham, Department of Veterinary Microbiology and Pathology at Washington State University, report that 35% of 331 practitioners in endemic areas report treatment for repeat infections of SPD. It is now thought that either EFF may be causing more severe infections than originally thought or that some dogs do not develop lasting immunity to SPD.¹

It is, therefore, important to advise clients that previous exposure and treatment for SPD does not guarantee immunity from repeat infection and clinical disease.

Other interesting information:

- Although this disease is not considered highly contagious, feces from infected dogs will contain the fluke eggs and there can be transmission between dogs housed together.
- SPD has also been diagnosed in coyotes and captive bears fed infected fish are also susceptible to SPD.
- Coyotes fed raw salmon which had been frozen at 4C for up to 60 days developed fluke infection however they did not develop clinical SPD

References:

1. Greene CE. Infectious Diseases of the Dog and Cat, 3rd ed. WB Saunders, St Louis, MO. Pg 198-203, 2006
2. Booth, AJ et al. Salmon Poisoning in Dogs on Southern Vancouver Island. Can Vet J., 25:2-6, 1984
3. Gai, JJ and Marks, SL. Salmon poisoning disease in two Malayan sun bears. JAVMA, 232, 586-8, 2008

If we can help you with your cases don't hesitate to call 24/7!!

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