



Crow River
Animal Hospital
& Dental Clinic

Friday Fun Facts – Number 15:2010

Melissa Shelton DVM – Heartworm Disease - Dogs

Disclaimer: All of the information provided here is intended for educational purposes. The information is not intended to diagnose, treat, or prescribe for any illness. Please seek the advice of a qualified health care professional in your area of concern if you or your pets have a health challenge.

The season is upon us again. Mosquitoes have been witnessed early this year, and the risk of heartworm disease is here. So, let's talk about heartworm.

What is heartworm? Heartworm is a parasitic worm that is transmitted by the bite of a mosquito. A mosquito must bite a positive dog, and then bite the next dog to transmit the disease. Unfortunately, how well your neighbors care for their dogs, is a large factor in your exposure risk for your dogs. We have seen entire neighborhoods become infected, as one household of positive dogs created a reservoir for the entire neighborhood to have infective mosquitoes.

Who can get heartworm? Although dogs are the main reservoir and host, heartworm does infect cats as well as other animals. Even human cases have been found! Cats are actually affected more severely than dogs, and testing procedures for cats are not cut and dry.

How does prevention work? The current "preventives" actually treat and kill baby heartworms that have been transmitted by infected mosquitoes, THE MONTH BEFORE. So when you give a heartworm pill on May 1st – you are killing any baby worms (microfilaria) that your pet was infected with during the month of April. The pills work "backwards". This is why it is important to treat for at least a month after mosquitoes have left for the winter.

When to use prevention? Ideally, everyone should use prevention year round. This year, we typically would see mosquitoes for the first time in April. However, many of our clients saw mosquitoes in March! So, for those people using seasonal prevention – who typically start May 1st – they would have missed an entire month of possible infection. Likewise, ending December 1st is important, as here in Minnesota, we have certainly had mosquitoes into November ☺

- Seasonal Protection: Should be given April 1st through December 1st (Minnesota based recommendation).

For traditional Heartworm Prevention – almost any of the monthly chewable products will do (like Heartgard, Interceptor, Iverhart...). I refused to use the 6

month injectable heartworm prevention before it was pulled from the market for killing dogs, and I would still refuse it now. Many of the monthly chewables also protect against intestinal parasites like roundworm and hookworm. I personally choose Interceptor or Sentinel products for my traditional heartworm prevention, as these products also carry effectiveness against Whipworm. Whipworm is very hard to find in fecal samples, and very hard to treat. Prevention is very worthwhile for this parasite, as it can cause chronic intermittent diarrhea and bowel signs. Many dogs diagnosed with Inflammatory Bowel Disease (IBD) may well have a parasite infection that has not been diagnosed. Even negative fecal tests do not rule out this parasite. That is why prevention can be very important.

I still recommend traditional heartworm prevention for most of my patients. Although I strongly believe that there are natural treatments that kill heartworm, and we live in an area prone to having positive dogs, the reality is that many clients would not have the dedication required to keep their dog safe with natural protocols.

I have personally diagnosed large reservoirs of positive dogs, within miles of my house. And, living on a river that floods every spring, we definitely have the mosquitoes to transmit the disease. Natural remedies for heartworm, often require a very dedicated owner, as these remedies are not just a “once a month” chewable treat. Daily treatments in the form of capsules are often required. However, if you are thinking “Hey, I am that dedicated owner!”, and you are willing to commit to the necessary protocols for protection – you are in luck!

What I do know of natural treatments is incredibly promising. I have met multiple people who first hand have cleared their dog’s heartworm infection with natural methods. I have also heard of many other second hand stories with similar results. As you hopefully realize, I will never recommend a protocol for my clients until I have enough proof and data to support the recommendation. Although this is not always easy to do, I feel this is my job as a Veterinarian, to recommend those things that I feel are the best for your pets – and this sometimes means recommending traditional medications, even when you don’t want them.

The hard part with natural remedies is there often is not a “dosage” or set protocol for their usage. This makes it difficult for the average owner (and veterinarian) to accurately use the regimen for everyone. Certainly, good health plays an important part in keeping infections from gaining a foothold in a pet. What you feed and how you care for your pet will greatly influence their risk of any infection. There is a great belief in the holistic veterinary world, that good diet and a good healthy immune system will prevent heartworm disease from ever taking hold.

I have personally talked with an owner who had a small rescued dog who was heartworm positive. She had even taken the dog to the University to have an echocardiogram performed. The heartworm infection was so severe, that they recommended endoscopic removal of the worms from the heart – they gave the

dog a very guarded prognosis, even with that procedure. No matter which treatment they chose – it was a very grim outlook for this little dog.

She decided to try a natural approach. What did she have to lose? The expenses of the other treatments were extreme, with little hope that she would even save her dog. She worked with one of my mentors and teachers – and developed a protocol using essential oils to kill the adult heartworms and try to save the dog's life.

This is the protocol that was used for this dog:

- Helichrysum Essential Oil – 3 drops, 3-4 times a day
- CardiaCare – Young Living heart supplement – 1 per day
- Mightyzyme – Young Living digestive enzyme – 1 chewable tablet every 4th day
- Parafree – Young Living anti-parasitic capsule – 1 gelcap, 3-4 times a day, then changing to 1-2 times per day
- Longevity and Oregano Essential Oils – 5 drops of Longevity Oil Blend with 1-2 drops of Oregano Essential Oil in an empty gel capsule – filled the rest of the way with Coconut Oil, V-6 Oil, or Olive Oil.

Not only did this little dog not die, but all of the heartworm died without major side effects. The dog is still alive today, and doing well. Heartworm testing has continued, and the tests have been negative ever since completion of treatment. I love this case, as it was very thoroughly documented medically.

This case gives me great hope for developing exact protocols for prevention in dogs. If adult worms can be killed, certainly the baby worms (microfilaria) will be much easier to kill.

If you are dedicated to trying to prevent heartworm infection in a natural way – here is what I recommend:

1. Feed your dog a very good diet and supplement with anti-oxidants and whole food supplements to make sure that your dog is as healthy as they can be. A competent immune system is the most important factor in keeping your pet healthy and happy.
2. Test your dog twice a year for heartworm and tick borne disease. This is a very responsible way to make sure that we are doing a great job with prevention. Too many people doing the “all natural” approach, also decline testing or don't even visit a veterinarian. Unfortunately, traditional veterinary medicine will never be convinced of the benefits of natural care if they do not see some proof of its effectiveness.
3. Have your dog examined by your veterinarian. Dogs age faster than humans. Examinations twice a year by a competent vet, is worth its weight in gold. Examinations of the entire body system (eyes, ears, teeth, lymph nodes, musculoskeletal system, rectal area, mammary glands, prostate...) are critical in detecting disease early.
4. Have blood and urine tests performed at least yearly. Evaluating kidney function, liver values, white blood cells, red blood cells, platelets,

screening for diabetes, testing for the loss of protein in the urine... these are all very important tests that can help you find a problem early enough to treat it.

5. Take care of any problems that are detected. Dental disease is rampant in pets, and this chronic infection and inflammation will take a toll on your pet. Likewise, if protein is detected in the urine, supporting and treating the kidneys early, can save your pet's life.

Once you have done all of the other basic requirements above – also make sure you are not exposing your pets to toxic household and environmental chemicals. I am shocked over and over again – at how an owner, who is so against a traditional heartworm pill, will be the same owner who sprays their lawn with ChemLawn multiple times a year! Daily exposure to fabric softeners, air fresheners, odor eliminating sprays, human perfumes, etc... are far more dangerous in my eyes than a once a month pill.

Now to the 'meat and potatoes' of natural prevention: There are many things touted to prevent heartworm. These are some of the things that seem most promising in my eyes – and their pro's and con's:

- Black Walnut – a popular treatment for gastrointestinal parasites as well as heartworm disease. There is no veterinary data for this treatment. Black Walnut Hull has also been recommended for heartworm prevention at a dosage of approximately 1 capsule of ground herb per day, but long-term safety is unknown. Therapy should be discontinued if diarrhea occurs.
- Homeopathic Remedies – heartworm nosodes are popular for the prevention and treatment of canine heartworm disease. The efficacy is unknown, and prophylactic use of nosodes is not generally endorsed in human homeopathic medicine. There have been reports of heartworm infection while using heartworm nosodes. Nosodes are considered the equivalent of "prescription" remedies, they cannot be obtained from Homeopathic Pharmacies or Health Food stores like other homeopathic remedies are, unless you are a homeopathic practitioner. Usually they are given in liquid form. Often they are administered once a day for a week, then once a week for a month, and then once every six months.
- Ginger – when alcoholic extracts of Ginger were given subcutaneously by 12 injections to dogs infected with heartworms, microfilaria counts were reduced by 98%, and there appeared to be an affect on killing adult worms (Datta, 1987). How this relates to oral use of Ginger or to the use of Ginger Essential Oil is unknown.
- Several aromatic herbs have been identified scientifically to contain antinematodal aromatic compounds (aka - worm killing essential oil components). Garlic, Wormwood (*Artemisia absinthum*), Thyme, Cinnamon, Peppermint, Ginger.

So, if I were told I could not give my dog another heartworm pill – what protocol would I use to keep my own pet safe?

- I would feed and care for my dogs as stated above. This is my personal dogs' current regimen: Solid Gold Hunden Flocken dry dog food, soaked until plump in warm water. Add Solid Gold Sea Meal supplement,

- Standard Process Whole Food Supplement (Catalyn or System Specific Canine Supplement), Standard Process Tuna Omegas, Phycos JS Joint Supplements, and Prozyme Digestive Enzymes. Each dog gets a blood panel, CBC, thyroid test, fecal test, heartworm and tick exposure test, and urinalysis every year (sometimes twice a year).
- Next – my dogs would receive a Raindrop Technique application of essential oils at least monthly. This is an amazing way to support the health and well being of any dog.
 - Daily to help repel insects – I would give my dogs one Longevity Capsule. Longevity is a blend of essential oils by Young Living. This apparently works for humans as well, and I can't wait to try it this summer! I would also use the natural insect repelling protocols as discussed in a previous Friday Fun Fact.
 - I would place a clean and charged tumbled Amethyst in my dogs' drinking water. More on crystal essences in a future newsletter – but even if you think this sounds crazy – what could it hurt? Just don't let your dog eat the rock! Amethyst essence (basically water charged with the crystal's energy) – has been reported to repel biting insects from both humans and pets when ingested.
 - Monthly – and rotating through the following protocols:
 1. I would give ParaFree capsules by Young Living. For my large dogs (over 50 pounds), I would likely give 1-2 capsules a day. Medium dogs (25-50 pounds) 1 capsule every day to every other day. Small dogs (under 25 pounds) one capsule every 2-4 days. I would likely do this for three weeks out of the month – although these amounts and time of usage would certainly be evaluated for each individual.
 2. The following month (stopping the ParaFree), I would give DiGize Essential oil – 2-3 drops per day mixed into food for my large dogs. Hopefully they would eat it. If not, I would put it into a capsule to give. This could be given daily, all month long.
 3. Variations on these protocols – DiGize could be given every day of the month. Then, once a month give ParaFree along with the DiGize.
 4. Variations on these protocols – ParaFree could be given one week out of every month.
 5. Variations on these protocols – DiGize could be applied topically, and ParaFree given orally for one week out of the month.
 6. Variations on these protocols – ParaFree could be given once a month at a higher dosage.
 7. Variations on these protocols – you could mix and match various other techniques for prevention.

As you can see, it is about as clear as mud – as to what to do for natural heartworm prevention. The most important thing to consider is that good health is your dog's best defense against heartworm disease. Then, consistency

and rotation and exposure to many types of natural preventives would be a wise choice.

I urge any of you considering a natural approach to heartworm prevention, to work with a veterinarian. Document what you use, how you use it, and that your heartworm tests are negative. Negative heartworm tests do not necessarily prove that your protocol is effective. It only proves that your dog has not been bitten by a positive mosquito. I have seen dogs on absolutely no prevention what-so-ever, stay negative for 11 years – until they unfortunately get heartworm. However, I have seen dogs on heartworm prevention, also get a heartworm infection. Until there are future documented studies, we may not know the exact answers.

“Nature gave us the gift of healing. Providing our bodies the nutrients and care required to heal, lies in our own actions.”

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