Getting Smart About Cancer: How to Achieve an Accurate Diagnosis

A
n avid participant and judge of hunting tests, Noel Cacchio knows a great deal about training Cocker Spaniels to find, flush and retrieve game. She does not know a lot about lumps on dogs, especially if the dog appears healthy.

When Cacchio felt a lump on the throat of her Senior Hunter Cocker Spaniel, Dunbarvan Harmony’s Spirit, WDX, JH, SH, CD (“Spirit”), she wasted no time getting the dog into the veterinarian. The 5-year-old bitch wasn’t acting sick, so Cacchio thought the lump was a reaction from a bee sting. Still, she wanted to know for certain that Spirit was OK.

“I knew from the way everybody was acting that it wasn’t good,” says Cacchio, who breeds field Cocker Spaniels in Rhinebeck, N.Y., under the Dunbarvan prefix.

The veterinarian suspected Spirit’s lump was lymphoma, the third most common canine cancer. A biopsy confirmed that Spirit had lymphoma.

Though Spirit’s diagnosis and referral to veterinary oncology specialists at Cornell University College of Veterinary Medicine came quickly, sometimes the road to an accurate and timely diagnosis isn’t so smooth. Most dogs show no signs of cancer until the disease is far advanced.

“Unfortunately, there is no one-size-fits-all way to diagnose cancer,” says Jaime Modiano, V.M.D., Ph.D., the Alvin S. and June Perelman Endowed Chairman in Animal Oncology at the Comprehensive Cancer Center of the University of Minnesota College of Veterinary Medicine.

Regardless, experts agree, a few strategies can be used to help maximize the chance for a successful diagnosis and favorable outcome. When it comes to treating cancer, vigilance is crucial.

Observation is Important

You don’t have to be a veterinarian to be instrumental in getting an accurate and timely cancer diagnosis. You do, however, have to be observant, assertive and diligent. The observation part is easy and costs nothing.

“It’s common sense when you are petting your dog to pay attention for lumps and bumps,” Modiano advises. “If you feel something, don’t delay in having it checked out.”

Lumps could be due to many different things. For example, they could be fatty lumps, benign growths arising from the sebaceous gland, swelling from an injury, or swollen lymph nodes indicating anything from a systemic infection to tick-borne disease to lymphoma. Regardless what causes a lump, veterinarians are in the best position to work with owners and diagnose the problem.

Since lymphoma is a common cancer in dogs, owners are encouraged to pay attention to the neck and jaw areas, behind the stifle (knee), and in front of the shoulder blades, advises Roe Froman, D.V.M., senior veterinary research scientist at the Van Andel Research Institute in Grand Rapids, Mich.

“Swollen lymph nodes don’t mean your dog definitely has lymphoma,” Froman says. “It could be something else, like an infection or tick-borne disease, but because of the potentially aggressive nature of lymphoma, if you do feel something swollen, you should have the veterinarian look at it.”

In some cases, tick-borne disease can be mistaken for lymphoma or vice versa. This was the case when the veterinarian examined CH Vanity Fair’s Mystic Sunrise, RN (“Dawn”), an English Springer Spaniel bred and owned by Larry and Betty Schwartz of Seal Rock, Ore. The veterinarian suspected the swollen lymph nodes were due to lymphoma, but the Schwartzes requested a “tick panel” since Dawn had recently competed in outdoor conformation shows in heavily infested tick areas.

In this case, the results showed that Dawn had been exposed to the parasitic organism Ehrlichia canis, which causes ehrlichiosis, the most common tick-borne disease seen in dogs. Dawn’s veterinarian prescribed the antibiotic doxycycline, which cleared up the infection.

Still, Dawn suffered some heart wall damage, which is a common development in dogs with certain tick-borne infections. After Dawn’s ehrlichiosis was resolved, a biopsy was performed to rule out that she did not also have lymphoma. Fortunately, it was negative.

“Most tick diseases are treatable, and it’s generally a much better

Tips for a Healthy Lifestyle

O
wners can take steps to promote a healthy lifestyle for their dogs. Here are important considerations for healthy living:

- Be sure to have annual physical examinations. These help establish a healthy baseline for your dog that enables your veterinarian to evaluate any changes, including lumps or swollen lymph nodes.
- Regularly monitor your dog for lumps and bumps and follow up with a veterinarian should you discover something unusual.
- Avoid unnecessary exposure to potentially harmful chemicals, such as certain lawn fertilizers and pesticides.
- Maintain dogs in a healthy, lean condition and be sure dogs receive moderate exercise.

Source: Dr. Jaime Modiano of the University of Minnesota College of Veterinary Medicine.

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Exocrine Pancreatic Insufficiency May Have Complex Inheritance Pattern

Researchers studying exocrine pancreatic insufficiency (EPI), a disease in which food is not properly digested and absorbed, believe that the condition may have a complex mode of inheritance. Prevalent in German Shepherd Dogs, Rough-Coated Collies and Chow Chows, EPI affects more than 100 breeds.

Leigh Anne Clark, Ph.D., assistant professor of genetics and biochemistry at Clemson University, is studying the genetic variations between 100 healthy German Shepherd Dogs and 100 EPI-affected German Shepherd Dogs. "EPI may result from mutations in multiple genes or from both genetic and environmental factors," she says. "If we can identify the gene or major gene trait for EPI, we will be able to develop a genetic test. Breeders could then determine which dogs are at risk for developing EPI."

EPI is a disorder in which the pancreas fails to produce an adequate amount of digestive enzymes. Without those enzymes, food is not properly digested and absorbed. No matter how much food is ingested, a dog with EPI can literally starve to death. Signs of EPI include weight loss, ravenous appetite, diarrhea, eating feces, vomiting, gas, changes in temperament, and loose, foul-smelling stool. The disease can strike at any age, but signs may not appear until as much as 90 percent of the pancreas is destroyed.

The most common cause of EPI in dogs is pancreatic acinar atrophy (PAA) in which the acinar cells in pancreatic tissue decrease in number and function. Acinar cells produce enzymes that help digest carbohydrates, fats and proteins. These enzymes help break down food into smaller parts so nutrients can be absorbed through the intestinal wall. Though little is known about the cause of PAA, researchers believe the condition is genetically inherited.

EPI can also develop due to chronic pancreatitis, or inflammation of the pancreas. The pancreas synthesizes all the major digestive enzymes, but repeated bouts of pancreatitis can destroy acinar cells that synthesize these enzymes. In rare cases, EPI results from pancreatic cancer or pancreatic hypoplasia, a congenital condition in which the exocrine pancreas does not fully develop.

Though EPI cannot be cured, it can be managed with a good prognosis. Pancreatic enzyme supplements can be given to replace the naturally occurring digestive enzymes depleted by EPI. Most EPI dogs also require diet modification, including reducing fiber or grain. Until a genetic test is developed, breeders are advised to not breed dogs with EPI or to repeat matings that produced affected dogs.

To learn more about EPI, you may visit www.epi4dogs.com, a Web site begun by the owner of a Spanish Water Dog affected by the condition. The site offers comprehensive information about the disease and includes before- and after-treatment photographs, the latest research findings and a list of affected breeds.