

New Liquid Biopsy Test May Help Veterinarians Find Cancer

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Moxie's owners noticed small lumps on her abdomen about six months after her annual wellness visit so they brought her in for a check-up. A happy 7-year-old Golden Retriever, Moxie wasn't acting sick at all but those lumps turned out to be cancer. Was her cancer present when the veterinarian did her annual exam six months earlier? If there were no symptoms or signs of cancer, how could the veterinarian and owners have known cancer was there? A new blood test could help veterinarians find cancer in dogs even before there are noticeable symptoms.

Current Cancer Screening for Pets

The standard of care for pet cancer screening includes a history, physical exam, and baseline laboratory tests during annual wellness visits. But these screening tests often don't identify cancer even if the cancer is there, as in Moxie's case.

Finding cancer early generally leads to better outcomes but in veterinary medicine, there aren't many useful tools to find cancer early. In a recent study, researchers evaluated the usefulness of a blood test for detecting cancer in dogs.¹

The Liquid Biopsy Test

Medical doctors routinely use screening tests to identify cancer in people as early as possible but there are no guidelines for cancer screening in pets even though pet owners would want to use them if they existed.

Cancer cells release DNA fragments with specific characteristics into the bloodstream. The liquid biopsy, produced by PetDx, finds these cancer-associated markers with one blood draw.

"We're generally seeing that pet owners are just much more open to specialty care and to advanced diagnostics," says veterinary oncologist Andi Flory, chief medical officer and co-founder of the California-based diagnostics company PetDx. "And they're treating their pets very much like family and have come to expect the same level of healthcare for their pets they do for themselves."²

What Did the Study Find?

The study included dogs diagnosed with cancer whose blood was drawn for the liquid biopsy test. The researchers wanted to know if the liquid biopsy test helps veterinarians detect cancer earlier than standard methods.

The researchers found that liquid biopsy improves early-stage and late-stage cancer detection in dogs. "The addition of liquid biopsy to a dog's annual or semi-annual wellness visit may enhance both preclinical and early-stage cancer detection in dogs and may expand the breadth of cancer types that may be detectable during routine care or at a wellness visit," the authors said.

The liquid biopsy test found cancer in almost half of the dogs who had no clinical signs of cancer. In dogs with cancer symptoms, liquid biopsy found cancer in 32% of dogs with focal cancer, and in more than 80% of dogs whose cancer had spread to multiple areas. The test “can detect 30 different types of cancer,” according to PetDx.³

Tempered Optimism

Liquid biopsy isn’t meant to replace the current standard of care for cancer screening, which includes a physical exam, minimum database, and other diagnostic tests. PetDx recommends adding the test to annual exams for all dogs 7 years or older and for all breeds with a known predisposition to cancer, and as an additional cancer screening tool in dogs with clinical indications of cancer.³

The test has some limitations including that it can’t detect all types of cancer, it has to be drawn and interpreted by a veterinarian, and its results must be considered in the context of symptoms and other tests.³ The study had limitations, too, including that all dogs in the study had cancer, the results may have been affected by participating clinics, the time between cancer diagnosis and liquid biopsy may have improved the test’s detection rate, and the study was funded by PetDx, the company that makes the liquid biopsy test.¹

What to Do Next

More studies are needed but liquid biopsy cancer testing holds promise for helping veterinarians and owners improve pet health and wellness. “As an oncologist, I am excited about the ways in which the OncoK9 liquid biopsy test will benefit dogs, their families, and the veterinarians that manage their care,” said Andi Flory, DVM, DACVIM (Oncology) and PetDx Chief Medical Officer.³

Would this test have helped find Moxie’s cancer sooner? Would that have led to more quality time with her family? Ask your veterinarian about PetDx’s new liquid biopsy to learn more. Maybe it can help your pet one day.

1. Flory A, McLennan L, Peet B, et al. Cancer detection in clinical practice and using blood-based liquid biopsy: A retrospective audit of over 350 dogs. *J Vet Intern Med.* 2023;37(1):258-267. doi:10.1111/jvim.16616
2. The Pet Health Industry Takes on Canine Cancer. *The Scientist Magazine*®. Accessed August 2, 2023. <https://www.the-scientist.com/bio-business/the-pet-health-industry-takes-on-canine-cancer-70572>
3. The Liquid Biopsy Company for Pets™. PetDx®. Accessed August 9, 2023. <https://petdx.com/>