

Shetland Sheepdogs

Our guest columnist for this issue is Nancy Porta (of Jana Shelties), who has been breeding for 18 years. Nancy is proud to have bred and shown dogs who have achieved conformation championships as well as advanced titles in obedience and agility.

Sheltie Eye Health: CERF Is Not Enough

As a responsible breeder, health testing has always been important to me. I send hip X-rays to OFA (the Orthopedic Foundation for Animals), register my dogs' clear eye exams with CERF (the Canine Eye Registration Foundation), and mail off DNA cheek-swabs to VetGen for the von Willebrand's disease (vWD) DNA test. I always thought I was doing everything I could, but a recent experience changed my mind.

Last year, I had a litter of puppies out of a lovely young bitch who was OFA excellent, vWD clear, and CERF normal. I chose a stud dog who was, like her, CERF normal. When I brought the puppies in for their routine



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eye exam, I got the shock of my life. The veterinary ophthalmologist told me that one of the puppies would not pass CERF due to choroidal hypoplasia, also known as Collie eye anomaly (CEA).

How could this happen, with two CERF-normal parents?

As the doctor explained, an individual dog's CERF clearance simply tells you that the dog's own eyes are healthy; it tells you nothing about the genes she might carry. Since CEA is a recessive disorder, a dog can be CERF normal but still have one copy of the defective gene. To be affected, a dog must have two copies of the gene—one inherited from each parent. If two unaffected parents produce an affected puppy, both parents must be carriers.

And that's the first point of this column: *Routine eye exams are a good way of ensuring the eye health of an individual dog, but unless the dog shows symptoms of an inherited eye disease, it tells you nothing about the genes she may carry.*

Fortunately, a DNA test for CEA is now available from OptiGen, and that's where I turned next.

I wasn't surprised when the dam of the litter came back as a "carrier," as did another of her puppies whose eye exam had been normal. Surprisingly, however, the puppy with the abnormal eye exam came back normal—not affected, and not a carrier. Which brings me to my second point: *Doctors can make mistakes, but DNA doesn't lie.*

After a DNA test showed this puppy to be clear, you might think I would breathe a sigh of relief and go back to what I was doing before. But her misdiagnosis just reinforced my conviction that preserving our breed's eye health depends on knowing what's in the genes. This doctor "diagnosed" a problem that didn't exist, but he could have just as easily missed a problem that was actually there. And although the puppy was clear, DNA testing showed my CERF-normal bitch to be a CEA carrier—knowledge I will be able to use when making future breeding decisions for her.

I encourage all Sheltie breeders to

visit the OptiGen website (optigen.com) to learn more about DNA testing for CEA. Use the test to learn the genotype of each dog you plan to breed. And the next time you inquire about using a stud dog, ask about his CEA genotype, too. —N.P.

Thank you, Nancy!

—Kim Schive, Carlisle, Mass.;
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