

BLEEDING DISORDERS IN GREYHOUNDS

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Greyhounds are predisposed to bleeding disorders. Most adopters are unaware of this and, unfortunately, the same holds true for many veterinarians. In the past 12 months, three dogs owned by PG adopters manifested bleeding disorders. Two survived. One did not...a sweet little two year old girl named Kadin, who we adopted in May of 2015 and lost a mere month later. Despite the best efforts of three veterinary facilities and eight veterinarians, including Dr. Cuoto, the nation's preeminent expert in greyhound bleeding disorders, Kadin did not make it. In the aftermath of her untimely death, I tried to make some sense of her affliction. After communicating extensively with Dr. Cuoto and members of the greyhound community (breeders, trainers, veterinarians and adoption group representatives) and reading a number of veterinary publications, this is what I learned:

Greyhounds have different blood chemistry than other breeds. Their platelet counts are naturally low and their red cell counts are naturally high compared to other dog breeds. Platelets are what cause the blood to clot following an injury or surgery. Because of their naturally low platelet counts, greyhounds are predisposed to bleeding disorders. Some greyhounds, through genetic connections that are not fully understood, may have low aminocaproic acid levels in their bodies. Aminocaproic acid is what holds clots together after they have formed. When a dog with low platelet counts has low levels of aminocaproic acid, their clots dissolve before they should, within 12-24 hours after an injury or surgery. The result is that all of the dog's platelets are used up trying to reform clots at the injury/surgery site. The platelet-depleted blood ultimately thins to the point that it starts to leak out of the body tissues. The individuals I spoke with who experienced this condition with their dogs all indicated that there was either a traumatic injury (an impact injury from a collision or a laceration) or a surgical procedure that started the bleeding process. Even a simple spay or neuter procedure can trigger the bleeding and, in one case brought to my attention, the dog experienced a subcutaneous bleeding incident after a simple blood sample was taken. Any time a greyhound starts to bleed, whether via bruising from an impact, a bite from another dog, an accidental laceration or a surgical procedure, the risk of uncontrolled bleeding is present.

In each bleeding disorder case I learned of, the dog came through the original trauma or surgery just fine, only to start demonstrating uncontrolled bleeding within 3-5 days. Typically, the bleeding manifested under the skin, in an area apart from the injury or surgery site. Most of these dogs recovered following administration of supplemental aminocaproic acid. Unfortunately, some did not. Necropsies performed on the dogs who did not survive revealed the same condition that Kadin experienced... bleeding from just about all of the body tissues. Unlike Kadin, whose condition was apparently unique, in that she was bleeding internally into her abdominal and chest cavities, all of the dogs mentioned in my research had external signs of bleeding. Typically, the bleeding was subcutaneous, with severe bruising, discoloration and blood pooling beneath the skin. I have attached photos that were shared with me by others whose dogs suffered from bleeding disorders. As you can see from the photos, the severity of the bleeding varied, but all of these dogs may have died had they not received prompt treatment with Amicar (the brand name for pharmaceutical aminocaproic acid).

My research revealed that greyhound bleeding disorders are not all that uncommon. This conclusion is supported by the three incidents of bleeding disorders experienced just within the PG family in the past year. Unfortunately, predisposition to bleeding disorders appears to be increasing decade by decade, a statistic attributed to the limited number of breeding sires used by

greyhound breeders and the genetic transmittal of this condition. There are certain blood lines identified as having a higher than ordinary likelihood of producing offspring with bleeding disorders, including descendants of Brett Lee, Flying Oak, Flying Penske and Dodgem By Design. That said, bleeding disorders can manifest in any greyhound, of any bloodline.

As previously noted, many general veterinarians are unaware of the predisposition for bleeding disorders in greyhounds. Of those who have encountered this situation before, most were unfamiliar with the treatment protocol involving Amicar. This is a "people drug" typically used in treating individuals with hemophilia or similar bleeding disorders. Aminocaproic acid supplements what the dog's own blood is missing and helps to hold clots together. Its use in greyhounds is not historically well known or documented, other than in several studies conducted by the Ohio State University Veterinary College involving amputation and neuter procedures. There are numerous articles available online, published by the Ohio State vets. They are very technical, and written as veterinary research materials. However, I was also provided with an article discussing bleeding disorders in deerhounds, which discusses the Ohio State greyhound studies and publications in layman's terms. It is worth a read and certainly worth sharing with your veterinarian. You can find this article here:

<http://www.iwclubofamerica.org/post-operative-bleeding>

One of the Ohio State veterinary publications, which you may wish to print and provide to your vet, may be accessed via a link embedded in the Deerhound article that is accessible through the link, above. Additional information for your veterinarian's consideration may be found at the following links:

<http://www.vet.osu.edu/assets/pdf/hospital/bloodBank/wellness/research/WhyDoGreyhoundsBleed.pdf>

<http://www.greyhound-data.com/knowledge.php?b=3¬e=859728>

Greyhound owners need to be aware of the possibility of an uncontrolled bleeding situation anytime their dog sustains traumatic injury of any type or undergoes a surgical procedure. I can tell you that there is nothing worse than trying to investigate and find answers and necessary drugs at a critical moment when your dog's life hangs in the balance. Aminocaproic acid is not commonly stocked by pharmacies and can be very hard to find. When we needed it for Kadin, the Emergency Clinic called 7 pharmacies before they found one that had it in stock. It is very important to educate your veterinarian early, before there is a potential problem, so that your vet is aware of the potential for a bleeding condition and has the necessary medication on hand to treat your dog.

Ultimately, our experience with Kadin was not typical. However, I continue to wonder whether the outcome would have been different had we been aware of the potential for a bleeding disorder earlier. Please, take a look at the article on deerhounds, linked above. Discuss this with your vet. If you are a member of the Yahoo email group, you will know that Cheryl Sterner did just that and, as a result, her vet had Amicar on hand and was able to administer it to Kaley after an accidental laceration and stitches led to a subcutaneous bleeding situation. Fortunately, Kaley is recovering nicely. Hug your hounds!

