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Autopsy

The Importance of Autopsy (Necropsy)

By Elsa Sell, MD

Autopsy (necropsy) upon death of a beloved Bearded Collie is a thought few people can fathom. The event of death is overwhelming, whether prepared for due to old age or a known fatal illness, or sudden and unexpected. And, so it should be for those we have been so fond of. Yet, there are mysteries of illness that may be solved by having your veterinarian conduct an autopsy. Knowing the cause of death usually gives an owner remarkable relief in the understanding of what happened. Beyond that, there is considerable value to the breed in having accurate diagnosis for cause of death. Others benefit from this thoughtful act.

If your dog dies suddenly with no preceding symptoms of illness, a few vague symptoms, or is said to have had "kidney failure" (diagnosed with lab work) PLEASE consider having an autopsy done AND ask your veterinarian to find and remove the ADRENAL GLANDS, THYROID, and kidneys AND request expert pathological examination of these tissues. Why? Addison's often presents with laboratory work of kidney failure and vets may not suspect Addison's disease in time to do the diagnostic tests!!!!!!

Here are two case reports which illustrate the value of obtaining a postmortem examination on your dog, if a diagnosis was not established prior to death and if the cause was not due to old age.

Case #1. This 10 ½ year old spayed Bearded Collie had been reasonably healthy through much of her life. She had never been bred. She was successful in the show ring and obtained her CH and her UD, and "studied" tracking and herding. There was family history of autoimmune disease and kidney disease. At about 8 ½ years she was diagnosed as hypothyroid (with normal autoantibodies, so the cause was thought to not be autoimmune). She responded well to thyroid replacement from both the clinical and laboratory perspective.

About 6-9 months prior to death, she became very sensitive around the right side of her face especially during grooming or when another dog would bump into her inadvertently. She would cry out as if in pain. No cause was identifiable by the vet (although a skull x-ray was not obtained). Grooming was done very carefully. About 4-5 months later, she developed a stuffy nose and sounded as if she had a cold. Sometimes the nasal discharge was bloody. Exam by the vet revealed a lot of nasal congestion and a very red throat. She was treated with decongestants and an antibiotic for a week and she improved a lot. As the fall went along, the nasal stuffiness recurred and was attributed to a fall blooming shrub which was lush in the area around her house. The head sensitivity and apparent pain continued although it had been briefly better after the antibiotics.

In the several months before death, there were (retrospectively) very subtle signs that her vision was not as good as it had been. She missed a step here or there, came in one door in a different manner than before, etc. Then, 6 weeks before death she became totally blind. And, differently so from another blind



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dog previously in the household. This poor gal couldn't adapt to the blindness; she couldn't "learn" her way around her once familiar surroundings. A veterinary ophthalmologist found the eye exam normal and made the diagnosis of optic neuritis. Prednisone was prescribed as it results in improvement about 50% of the time in optic neuritis. Shortly after the steroid treatment was stopped (and after very gradual weaning), this dog suddenly deteriorated and within 24 hours was euthanized.

Autopsy Results:

At necropsy, the veterinarian found an invasive brain tumor, probably originating in the nasopharyngeal area of the skull and with involvement of the optic nerves. Histopathology showed an anaplastic carcinoma invading the bone; it was diagnosed as most likely a planonasal carcinoma. Other tissues showed no metastatic disease; adrenals, heart, spleen were normal; there were a few small kidney cysts.

Lesson Learned from Autopsy:

This dog's invasive planonasal carcinoma had been ongoingly invasive for the last 6-9 months of her life. It accounted for the pain over the right forehead area, the subtly progressive visual problem which terminated in complete blindness and mildly mentally disoriented behavior. Without the autopsy we would not have known. The dog's name was Heather, the Elder Feather, U-CD, CH Kinloch's Willow Signature, UD, HC, Versatility Beardie (owners Wm Farr and Elsa Sell).

Case #2. Reproductive Problem. Stillbirths and Canine Herpes.

Charlotte Lanning wrote to me recently about an unfortunate puppy loss experience that is worth sharing, in light of the recent breeder survey on declining puppy in litter registration numbers. If you're not acquainted with that information please see: <http://www.beaconforhealth.org/Newsletter%20Spring%202007%20E-mail1.pdf>

In Charlotte's words: I remembered this survey as I just had my first experience with canine herpes in a pregnant bitch. She carried 10 puppies, six were stillborn, two died the first day and the other two are doing great so far, they are now 11 days old. Necropsy showed canine herpes. All I noticed was that all our dogs were sneezing for about a week when she was 4-5 weeks pregnant. As I read about it, it seems to be more of a consideration in Europe where many breeders vaccinate for it. I was just thinking that maybe that can be the cause of many breeding problems. It seems breeders in Europe who start to vaccinate say they have fewer misses, larger litters etc.

Charlotte also gave the following details: There is absolutely nothing I could have done about it. I hadn't even been showing or taken my dogs anywhere before they got this virus. I have absolutely no idea where they picked it up. When the first dog started sneezing (10 yr old neutered male) he sneezed so hard that he hit his head on the floor. I thought he probably had something stuck in his nose so took him to the vet. Days later more dogs started sneezing and pretty soon they all did it. It was over in a few days and we had no other signs of a virus, they ate and were happy.



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About the puppies, one of them was born about 2 inches long, completely wrapped in a greyish, small placenta. I didn't even realize at first that it was a puppy. Two were almost full size (they were all small though, the biggest ones - which are the ones that made it - were 7 and 8 oz, most of them were about 5 ounces) but not completely developed, they had some of their organs on the outside, something I have heard of but never seen before. One of them had his eyes slightly open. The other three stillborns looked normal. But those three looked like they could have been alive before birth, they were pink, full grown etc. I had a vague feeling that something may not be right because the bitch expanded very quickly between the 6th and 7th week but then she didn't get that much bigger.

It was pretty obvious that one of the remaining puppies would not make it. He died the first day. The second puppy that died was one I thought would survive, he was small but did OK. He then suddenly didn't want to nurse and died very quickly. From what I understand, the two remaining puppies should be OK now. They are 11 days old and doing great, very strong and chubby. The vet who did the necropsy said that the bitch (and I'm assuming my other dogs who had the virus) will now be immune, but I have also read that immunity doesn't last for life so I'm not sure which is correct. I guess there is a vaccine in Europe that has been used for years.

Addendum (Elsa): Without the necropsy, Charlotte would not know what had caused the fetal and early puppy losses.

I did a google search on Eurican®Herpes 205 (the vaccine) on the Merial UK and USA sites to find nothing. We'll have a followup article about canine herpes in the spring newsletter. If anyone has a stillborn or a fading puppy death, please save the fetus (cold in plastic bag) and request a necropsy to rule out herpes infection, if you can manage financially to do so. Also, please examine the pup for physical abnormalities and record those for each puppy. Then contact me with your information.