

What the Average Dog Owner Needs to Know About SARDs and IMR

Shady's Tia Maria's Journey with IMR

Have you heard of Sudden Acquired Retinal Degeneration Syndrome (SARDs) or Immune Mediated Retinitis (IMR)? We were at a complete loss when the neurologist said, "I think she has SARDs". I promised Tia when this journey was over, I would try to write an article for the Brittany population in an effort to share what we have learned about SARDs and IMR and what the average dog owner should know. Understand we are not vets, nor do we pretend to be authorities on this subject. The following is what we have learned and an accounting of Tia's final journey with IMR.

Sudden Acquired Retinal Degeneration Syndrome (SARDs) and Immune-Mediated Retinitis (IMR) are both auto-immune diseases. An auto-immune disease is a disease in which the body forms anti-bodies to attack its own cells. In the case of SARDs/IMR, the body produces antibodies that attack its own retinal cells, ultimately causing the onset of sudden blindness. In SARDs, it is believed that retinal auto-antibodies are formed locally within the eye. Whereas with IMR, it is believed that the retinal auto-antibodies are formed elsewhere in the body, and through circulation, reach the eyes. Both SARDs and IMR can cause sudden blindness, studies have shown that it is also an indicator of potentially life-threatening systemic issues. SARDs and IMR should not be confused with PRA (Progressive Retinal Atrophy) or PRD (Progressive Retinal Degeneration) both of which are considered to be genetic, this is not the case with SARDs and IMR. Approximately 4000 SARDs/IMR cases are seen in the United States annually. They are generally, but not limited to, ages of 7 to 14, with females being more susceptible over males.

One major problem with SARDs/IMR is that quick action is crucial. If left untreated, SARDs/IMR may cause your dog to go blind literally within a few days to a few weeks. If you don't recognize the symptoms and act fast, any or all chance of possible recovery may be lost. If you notice any of the following symptoms, take your dog to a vet and vet ophthalmologist immediately; reluctance to jump on/off beds or sofas in dim light conditions, reluctance to walk down stairs in dim light conditions, reluctance to chase a ball, abnormally dilated pupils, polyphagia (excessive eating), polydipsia (excessive drinking), polyuria (excessive urinating), hypersalivation, and/or excessive tearing eyes. A veterinary ophthalmologist will conduct a maze test, and an Electroretinogram (ERG) test. The ERG test will indicate a flat line for SARDs patients, for IMR patients, the ERG test may or may not be flat lined. Very few veterinary ophthalmologists have the Red Light/Blue Light Pupil Light Reflex (PLR) test equipment called Melan-100 Light Source due to the expense of the equipment. Both SARDs and IMR patients will have a good Blue Light PLR response. If there is no response to blue light, the patient does not have

SARDs or IMR. There will be no response to the Red Light PLR in SARDs patients, the pupils will remain dilated and will not constrict. In IMR patients, there will be some pupil response to the Red Light PLR test.

Currently there are two forms of treatments for SARDs and IMR patients. Immediate treatment is a strong prescription combination of steroids and antibiotics (prednisone and doxycycline) to help suppress the auto-immune response and assist in stopping the rapid deterioration of vision to preserve what vision the dog currently has. There is also an experimental treatment using human immunoglobulins (IVIg) to help restore or maintain additional sight capability. The IVIg can be administered intravenously or a localized intraocular treatment can be administered directly into the eye with an injection. IVIg treatment for SARDs was first successfully performed at Iowa State University in April 2007 by Dr. Sinisa Grozdanic, DVM, PhD. Since then, there have been some additional successful treated cases. The IVIg treatment is so new that there is no data showing the long term effects on dogs receiving this treatment. Any IMR patients having a history of previous or current neoplasia (tumors) are not eligible for this treatment as it will rapidly accelerate the tumor growth.

To recount Tia's final journey, a year ago last April 2009, during the ABC Chukar Classic, we noticed Tia was basically running in small circles during her brace, never getting too far away from the handler's horse. Dumb as we were, we thought she was coming in season since she was always a little squirrely during her heat cycles. We thought, great, as we were planning to breed her. We finished the field trial circuit and returned home. We did pick up on Tia coming through the kennel doggy door very hesitantly as if she couldn't see. She didn't appear to have cataracts, but something was definitely wrong with her vision.

The first step was our local vet for a skull x-ray which showed nothing. Two days later, we were at the neurologist's office for her MRI test and heard the word SARDs for the first time ever. Two days after that we were at the veterinary ophthalmologist's office for the initial visit and maze test which Tia flunked miserably and confirmed that she could not see anything. She was scheduled for an Electroretinogram (ERG) test the next day. Her ERG test result indicated a flat line leading the doctor to conclude SARDs as the diagnosis. A heavy dosage of prednisone & doxycycline was prescribed to help suppress the auto-immune response and we were told to revisit the doctor in two weeks to see if there was any response to the drug treatment.

We went home in a state of shock with a blind dog and a great book we bought at the ophthalmologist's office

titled, “Living With Blind Dogs” by Caroline D. Levin, RN, published by Lantern Publications. The first thing we did was follow many of the suggestions in the book, blind-proofed the backyard so she couldn't get hurt, left the grass surrounding the fence borders longer so she would know when she was approaching it, taught her how to negotiate steps and began teaching her a whole new vocabulary. In the house, we used different scented air fresheners on her crate, the back door, above the elevated water dish, etc. so she would know where she was. We also used different textured rugs leading to her crate, back door, water dish, etc. I think during this time period all three of us were depressed, Tia was not only depressed but very confused ...who wouldn't be with your whole world suddenly dark.

I started looking on the internet for anything related to SARDs, I was lucky, I found a wonderful website produced by Suzanne & Jay, a couple in Southern California with a Dachshund named Oscar, who had been diagnosed with SARDs 2 months before Tia. They had just been through what we were going through and shared their findings. Oscar had recently been treated for SARDs by Dr. Sinisa Grozdanic, DVM, PhD at Iowa State University and was regaining limited vision. After talking with Jay about Oscar's treatment, I immediately contacted Dr. G. at ISU with Tia's symptoms & test results. We scheduled an appointment with Dr. G. at Iowa State for the Monday following her next ophthalmologist visit, depending on the outcome. Our ophthalmologist is a terrific professional, she urged us to go to ISU in hopes of saving some of Tia's sight. We were already packed and left for Iowa that afternoon. The last thing I did prior to leaving was to fax Tia's complete medical history to Dr. G.'s office.

While driving to Iowa from Washington state, we stayed at Motel 6's since the room layouts are all the same and would make it easier on Tia. Due to the different scents in each room, she had to “map” each new room, but the furniture was all in the same place. We arrived bright & early at ISU for our 8:00 am appointment with Dr. G. filled with optimism. We were committed to do everything within our power to restore Tia's vision. Dr. G.'s first concern was learning that Tia had had two tiny little “be be” sized tumors removed from a mammary gland in 2006. We contacted our local vet who in turn faxed all the pertinent paperwork & test results immediately. After thoroughly examining Tia, Dr. G. commented that physically, her eyes were in great shape and we had gotten her to him in time. Dr. G. proceeded with the Red Light/Blue Light PLR test and sure enough, the Red Light PLR indicated pupil response in both eyes. She had IMR, not SARDs. He explained the disastrous results of the proposed IVIg treatments in IMR patients with any possible residual tumor cells. The IVIg treatments effectively shut down the immune system and will cause any cancer cells to explode and grow at a phenomenal rate. Before he completely ruled Tia out as a treatment candidate, he performed an extensive ultrasound and located two more tiny, tiny tumors. They were so small, I never would have found them manually until they grew quite a bit. So it turned out to be a bittersweet trip, we couldn't save or correct her sight, but we did save her from cancer.

Sadly, we returned home and scheduled the surgery to remove the tumors and spay her at the same time. We also returned for a follow-up visit to our ophthalmologist. We informed her ISU had determined Tia had IMR, not SARDs based on the Red Light/Blue Light test. She purchased the Melan-100 Light Source equipment following Tia's IMR diagnosis at Iowa State University. Once the machine arrived, Tia came back in to be tested and used as the baseline, tests results were identical to the ISU test results.

The next few months passed slowly, Tia's vocabulary grew rapidly and she seemed, if not happy, at least content as she adjusted to her new life. Clem & I were in a state of devastated shock and found it hard to believe something so terrible could happen to this great athlete. During this time, we heard all kinds of standard phrases like, “blind dogs can live just as happy lives as sighted dogs” – tell that one to an athlete that can't see to run anymore, “SARDs/IMR isn't painful” – how do they know, “as long as she doesn't fall in the pool, she'll live a happy, healthy life” – great. Listening to these comments did nothing but make us feel worse. If you know of a SARDs/IMR dog, please don't say any of these comments to the poor owners that are trying to cope with the disease and care for their blind dog.

September '09 came and we decided since Tia was doing so well, we would take her on our regional field trial circuit, BIG mistake! She was thrown into unfamiliar surroundings, forgot most of her vocabulary during that time span and obviously wanted to go home where she felt “safe”. She did enjoy the pets from her many visitors that stopped by to see her. We kept her at home where she was comfortable after that trip.

Her basic health seemed fine for months, she was used to her harness instead of the collar, making it easier for us to help guide her around when necessary. She lost the desire to play with the onset of IMR, but she did enjoy quietly squeaking her “talking” toys while laying on her bed in the breakfast room. A year passed and in early June 2010, we began to notice subtle changes and similar symptoms she exhibited at the start of her IMR; increased thirst, no appetite, confusion, incontinence, lethargy and depression. She went downhill so quickly and was gone one year & 23 days following the diagnosis of IMR, her journey completed.

After reading other case histories of SARDs/IMR victims, SARDs and IMR seem to be the beginning of other immune diseases & systemic issues. At the end, many of Tia's symptoms indicated Cushing's Disease, however, all test results were negative. All of her last blood & urinalysis tests were within the normal range.

We hope this article has been helpful, if anyone has questions, comments or would like to know about the SARDs Awareness website or Dr. Grozdanic at ISU, please feel free to contact us. It's been extremely difficult and emotional to write and relive the past year with Tia, but I felt it was important to list some of the clinical aspects, and also some of the things the dogs and people experience with SARDs & IMR.

Please remember, watch your dogs for any odd or unusual behavior, timing is critical with SARDs/IMR.