

February 8, 2008  
An AZGRC family's experience

### FCE in Adult Golden Retriever

Almost four weeks ago, after a rollicking trip to the bark park, our 6 ½ year old Golden, Max, came home and suddenly, with no warning or prior symptoms, went limp in his hind legs. We had been home for about five minutes when I first noticed him walking around in a squatted position – it looked like he was squatting to defecate – then his hind legs gave out completely and he fell to the ground.

While he didn't cry out or yelp, he showed obvious signs of pain; his body was extremely tense, he had stiffened his front legs and was panting. He looked seriously stressed and uncomfortable. I tried to get him to walk, but he just kept falling backwards onto his hind-end and his right hind leg was flaccid.

My wife and I had no idea what was happening and we were very frightened. The hardest part of this whole experience was in the first few minutes, watching Max suffer through this sudden, unexpected trauma. An hour before, Max was his normal spirited self, running and jumping, having a wonderful time at the park – now, we were faced with a paralytic dog, unable to walk, or even sit himself up. Our hearts broke seeing our best friend suffering so horribly!

We eventually learned that Max had suffered a stroke to the lower spinal cord, also known as a Fibrocartilagenous Embolism (FCE). For unknown reasons, a piece of material lodges into the blood vessels which lead to the spinal column. The blood supply is suddenly cut off to that area of the spine and the dog goes into immediate, although short term, pain and loses motor function in one or both hind legs. It almost always happens in the lower spinal region in dogs. Not all FCE dogs experience pain, but many owners report their dogs yelping or howling at the onset of the stroke. Most FCE dogs fully recover (in one study, well over 70% of FCE dogs made full recovery), and the amount of paralysis that occurs immediately is usually as bad as it gets.

We rushed Max to the emergency veterinary hospital for evaluation. The veterinarian on duty performed several neuro-muscular tests on Max and determined he had lost most of his motor function and strength in his right hind leg. His left leg was functioning almost normally. Asymmetric symptoms in the hind legs are a common sign of an FCE dog. He also had weak surface pain perception in his right hind leg, but retained deep pain perception – we later learned that a loss of deep pain perception often means less likelihood of recovery.

Based on these preliminary tests, the veterinarian laid out three possible causes. One, Max had a slipped or bulging disc which was impinging his spinal cord, cutting off blood to his leg. However, disc issues *typically* do not have such quick onset and often affect both hind legs. Two, Max had suffered an FCE. Or, three, and much less likely based

on his symptoms, Max had contracted valley fever. Just to be sure, the clinic took a blood sample and sent for a valley fever test to rule out that possibility.

So, the next step was to determine if Max had a slipped disc. If the test shows no ruptured disc than FCE is almost the diagnosis by default; taking into consideration the asymmetric nature of the injury along with the sudden onset of symptoms.

There are several tests that can be used to determine if Max had a ruptured disc, including MRI's, CT's and what we went with, which is a Myelogram. During a Myelogram, the veterinarian injects the spinal cord with a dye which travels the length of the spinal cord and back. X-rays are then taken of the spinal cord which picks up the image of the dye. If anywhere along the spinal cord the path of the dye is interrupted it means there is a disc impinging the cord, causing the loss of blood flow and mobility.

We are very fortunate that a leading, board-certified veterinary surgeon, Dr. Brian Sidaway of Southwest Veterinary Surgical Service, was on call the day after the stroke, Saturday, and conducted Max's Myelogram. Dr. Sidaway and his staff were very knowledgeable, helpful and optimistic about Max's chances of recovery. Dr. Sidaway drove from Glendale to Gilbert to perform the procedure.

Max's Myelogram was negative, meaning there was not a disc impinging on the spinal cord and that he most likely suffered an FCE. I say "most likely" because there is no definitive test for an FCE, outside of biopsying the spinal cord (which could be potentially life threatening!); but along with a negative Myelogram all the clinical signs pointed to an FCE.

As I mentioned, most dogs fully recover from FCE strokes. The body begins to repair itself by absorbing the blockage material or growing new blood vessels around the affected area to begin pumping blood back to the spinal cord. Most dogs begin to show signs of recovery in the first few days and recover really well in three - four weeks. There is, of course, the possibility he will not recover.

Right after it happened, Beth and I decided, recovery or not, he is our Max, and his lively spirit and personality have not been affected. Even if we have to get him a supportive dog wheelchair, we will do what it takes to care for him for the rest of his long, happy life!

Thankfully, it seems, Max is on the road to recovery. After just a few days he was making efforts to lift himself up off the floor. Three weeks since the stroke, he can now walk unassisted and has almost full range of motion in his right hind leg. He tires easily, has trouble backing up or sitting down, and his foot still sometimes knuckles under as he walks. However, in the last couple of days he has been back to playing tug with our other Golden, Mokie. We are hopeful he will continue to strengthen and recoup the full use of his right hind leg.

I believe part of his recovery is due to physical therapy. I found a great canine physical therapist, Canine Physical Rehabilitation of the Southwest, [www.caninerehab.com](http://www.caninerehab.com). The physical therapist, Jeff, works out of his home where he has a heated pool for swimming therapy and a water treadmill (a large square tank of water with a treadmill in it for the dogs to rehab their legs without having to bear their full weight). He is very nice, knowledgeable, helpful and easy to talk to. He has worked with hundreds of dogs and has seen dozen of FCE dogs. Twice I have taken Max to swim with Jeff and he really works Max out. And, Jeff has given us a series of home exercises, including neuro-stimulation techniques, to help Max regain his strength and motor function.

In addition to Jeff, we are very thankful to the veterinary emergency clinic staff that treated Max quickly and with much care and who helped us find the surgical specialist on Saturday morning. We are thankful to Dr. Sidaway and his staff who came in from on call and opened the clinic just to take care of Max. And, of course, we have received ongoing support and care from our veterinarians at Pecan Grove Veterinary Clinic. It has been a stressful and scary situation, for Max especially; but, we have been lucky and blessed to provide Max quality treatment and look forward to his full recovery!