

Life was good for Ren, a 14-year old terrier living in Guthrie, Okla., until one evening this past summer.



STILLWATER, Okla.—Life was good for Ren, a 14-year old terrier living in Guthrie, Okla., until one evening this past summer. Ren was bitten on the face by a timber rattlesnake in his backyard and nearly died.

The Snake Bite

When his owners, Don and Shirley Coffin, reached Ren, he was lying on his side and non-responsive. He was rushed to Guthrie Pet Hospital, where Ren was quickly stabilized with intravenous fluids, antihistamines and corticosteroids. Thanks to a quick referral from the Guthrie Animal Hospital, Ren was transported for treatment to the Oklahoma State University Center for Veterinary Health Sciences' (CVHS) Boren Veterinary Medical Teaching Hospital in Stillwater.

Ren's Critical Condition

Ren was admitted into the ICU in critical condition. His body temperature was dropping, he was in pain and unaware of his surroundings. The venom from the snake bite began to affect many of Ren's organs. The toxin caused severe damage to his muscles and he was passing myoglobin in his urine, which is a breakdown product of muscles. His heart muscle was affected and his heart rhythm was abnormal. Severe damage occurred to his intestinal tract, and he had vomiting and diarrhea that contained blood.

Intestinal problems caused Ren to lose a large amount of protein and his body protein levels dropped. Because of the vomiting, he also developed pneumonia. Timber rattlesnake venom contains a toxin that can affect the nervous system and Ren showed signs of brain damage. Over the next couple of days, he developed swelling of his face and under his tongue from the snake bite. On Day 3, he became jaundiced and his blood work showed that he had damage to his liver. Later, the venom caused his body to begin to destroy its own red blood cells and Ren became anemic.

Treatment

Ren was treated with antivenin to help counteract the snake venom. Pain medications were started. Because his body temperature was low, he was placed on a circulating water blanket and covered with warm blankets. In addition to intravenous fluids and antibiotics, Ren received a synthetic fluid product to help substitute for his lost protein. Oxygen was administered by placing him in an oxygen cage. Ren also received medications to help stop the vomiting and an immunosuppressive medication to try to stop his body from destroying its red blood cells.

Veterinarians checked Ren's blood pressure regularly and continuously monitored his ECG to watch his heart rhythm. To detect a possible kidney shut down, Ren received a urinary catheter to allow urine output measurement. Another catheter was placed in his jugular vein for quick access to collect blood samples, give fluids and medications, and monitor his CVP, which is an indicator of over-hydration. Each day Ren's blood work was monitored to evaluate liver and kidney function and anemia.

Recovery

Ren's improvement was slow. He required a lot of hands-on care while at the CVHS Teaching Hospital. He was kept on soft bedding and turned from side to side. His face was warm packed to help bring down the swelling. Because of the diarrhea, he was cleaned and bathed frequently. He could not eat, so intravenous nutrition was given through his jugular catheter until his intestinal tract healed. Physical therapy was started to help maintain his flexibility, since he could not stand or walk.

Gradually, Ren began to show improvement and on Day 4, he lifted his head for the first time. Slowly the swelling of his face improved, he became more comfortable and he was able to

breathe normally without oxygen. On Day 6, Ren started to drink and eat, but he needed to be given food and water from a syringe. As Ren regained his strength, he was placed in a cart that acted like a wheelchair, allowing him to walk around while his weight was supported. Day by day, Ren regained strength and was soon able to move himself around the room in the cart. After two weeks in the hospital, Ren was finally able to go home.

After the Hospital

The Coffin's continue to work diligently with Ren, giving him medications and helping him regain the strength and coordination to walk on his own. Ren has made an amazing recovery. He is now able to walk without the cart, he eats and drinks well on his own and the values on his blood work continue to improve.

“Ren was a brave patient and all of us at the Center for Veterinary Health Sciences feel privileged to have met him and been a part of his remarkable recovery,” Dr. Johanna Heseltine, DACVIM, Assistant Professor, comments. “OSU is proud to be one of the veterinary hospitals in Oklahoma with the facilities and personnel to offer the level of care that Ren required.”

