

One dog's journey to recovery

By Matt Brunke, DVM, CCRP, CVPP, CVA
For the Educational Center

Mia is a 7-year-old German shepherd dog that I met in October 2015. She was referred for left front leg lameness that had been going on for a few months. The owner had Mia since she was a pup, and there were no major medical issues in her history. She was taking some oral supplements but no medications upon examination.

Mia is large-framed and weighed in at 107 pounds upon initial examination, which was approximately 10 pounds overweight for her frame. During the exam, she exhibited a prominent left forelimb lameness with pain upon palpation of her biceps tendon. Upon further investigation, Mia also displayed bilateral hip joint pain and lower back pain, which had not been apparent before. Her CBC, blood chemistry, thyroid function and urine were tested for underlying diseases, which all came back normal. Mia's radiographs showed severe arthritis in both hip joints, spondylosis of the spine and mineralization of the biceps tendon in both shoulders.

Biceps tendonitis can occur for many reasons, but I suspected her case was the result of years of chronic overload on her front legs. Because of her painful hips, she would transfer her weight to her front legs and overwork them. This shows us how animals can be sneaky about their problems and hide them from their owners for years.

First treatment

While sedated during the initial exam, Mia's biceps tendons were injected with long acting cortisone to provide targeted relief and anti-inflammatory action in the painful leg. Mia's sedation was reversed and she was sent home to rest for two weeks. The owner was briefed with the details of the exam and was notified that Mia may eventually need surgery for her hips.

First treatment follow-up

During the follow-up exam, Mia's left front lameness was nearly resolved. It was no longer tender to the touch, and she walked evenly on her legs. With the pain reduced, focus could then shift to building strength and addressing the other medical issues. Mia was seeing a veterinary chiropractor to help with her posture, and further work was needed to address her arthritic hips.

Second treatment

At her two-week recheck, Mia was started an injection series of Adequan, which goes under the skin and penetrates the synovial joints to help improve joint fluid. By doing this, we could further aid in joint function and allow Mia to guide future treatment options through her response.

Weight management

Another key step in managing arthritis is managing obesity. Mia was 10 pounds overweight, so a weight-loss plan was needed for her to aid in her response to treatments. In two months she dropped 8 pounds and was moving much easier.

After the injections and adjusting her diet, our rehab team worked with Mia through underwater treadmill workouts, photobiomodulation (therapy laser treatments), core strengthening and muscle building. By December 2015, Mia was 98 pounds and moving very well. She went from walking 10 minutes per walk to 45 to 50 minutes per walk, five to seven times a week! We maintained Mia in a rehab program all winter long and she was doing well.

Third examination and treatment

In March 2016, Mia was admitted to the hospital favoring her right hind leg. The owner was concerned it was her

hip, but upon examination, the pain and swelling was located in the right stifle. The physical exam findings were consistent with a strain or partial tear of her cranial cruciate ligament.

After reviewing options with the owner, Mia was sedated, and the right stifle joint was injected with a combination of short-acting cortisone and hyaluronic acid (HA). This allowed for targeted anti-inflammatory action (like her shoulders at the initial examination), and the HA helps to improve the viscosity in the joint, protecting the cartilage and giving time for the ligament to heal. The same combination also was injected into both hip joints to relieve discomfort there, as well.

Mia resumed her rehab program a week later, and her right knee pain resolved. The swelling that was found before was gone and she was bearing weight fully on the leg.



Harvesting bone marrow.

Fourth examination and treatment

In May 2016, Mia's left hip became very painful. She was having trouble standing up, putting weight on it and lying down. A course of oral medications was administered with only mild improvement. That month, our surgeon did an FHO procedure on Mia's left hip to remove the bone on bone contact that was causing Mia so much pain.

Mia did great through surgery and anesthesia, and excelled in her rehab program. Within a month, she was fully weight bearing and improved her muscle mass in all her legs. She got back to her 45 to 50 minute walks within two months, and we stopped seeing her for rehab in October 2016. The plan was to keep her active and happy, and then see when/if she would need further rehab or surgery.

Fifth examination and treatment

Mia was admitted at the end of January 2017. She weighed 94 pounds but was having trouble walking and moving. She already was taking gabapentin and meloxicam, and her joint supplements. About two weeks earlier, she had started acting sore and was less inclined to walk. Three days prior to examination, she was painful when going outside and was favoring her right hind leg, holding it up and not wanting to stand on it.

The physical exam showed that her knee was normal, but the pain was originating from her hip. No neurological problems were noted, but the pain was back in both of her bicep tendons as well. After reviewing options with the owner, basic organ functions were tested and treatment options were presented.

New treatment options for the returning patient

As done previously, the combination of cortisone and HA could have been injected into the joints with the predictable response, or a different approach could be taken. This new approach would be to collect Mia's blood and bone marrow, and inject platelet-rich plasma and her own stem cells into the painful areas. This is called regenerative medicine.



Injecting platelet-rich plasma and stem cells.

This procedure was performed in mid-February for Mia, and she returned for the two-week recheck. Her right hind lameness resolved, and both shoulder tendons were normal to the touch. Mia is back on a regular rehab program with our team and is improving weekly. Her owner realizes that Mia may ultimately need surgery for her right hip, but for now, she can work on strengthening Mia again and having her remain in the best comfort and shape possible.

This will be a slow road to recovery with Mia, as I equate regenerative medicine to re-seeding one's lawn. It may not look like you did much the first few weeks, but once the seeds sprout and the grass grows, it can be wonderful. ●

Note: For additional information or notes on Mia's case, email info@companiontherapy.com.

Dr. Brunke attended Ross University School of Veterinary Medicine and did clinical rotations at Purdue University. He is certified in canine rehabilitation, pain management and acupuncture, with a special interest in palliative care and sports medicine.

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