Nutritional Treatment for Two Cases of Degenerative Joint Disease

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Background

Degenerative joint disease (DJD), also commonly referred to as osteoarthritis, is a chronic, progressive disorder predominantly affecting the joints of the limbs and is characterized by articular cartilage destruction. Though DJD occurs in both cats and dogs, problems in the dog are frequently more clinically apparent. As DJD progresses, there is a reduction in the range of joint motion and increasing joint pain. Although DJD is most frequently observed in older pets, younger pets may develop DJD secondary to trauma or inherited orthopedic conditions. Osteoarthritis has been estimated to affect as much as 20% of the canine population over one year of age.

Current medical therapy for DJD has been directed towards decreasing further degradation of the articular cartilage, reducing the inflammatory mediators, and pain reduction. Conventional treatment of DJD includes several modes of therapy including, non-steroidal anti-inflammatory drugs (NSAIDS), glucocorticoids, chondroprotective agents, and surgery. Recent emphasis has been placed on nutraceutical chondroprotective agents containing glucosamine and chondroitin.

Case #1

BuBu: 13-year-old, castrated, male, domestic shorthair cat.

BuBu has a history of bilateral stifle problems. A successful surgery to repair a ruptured cruciate ligament was performed in November 1994. In 1998, BuBu began to have swelling in the left stifle accompanied by lameness. There was a moderate amount of drawer motion present that was felt to be the result of the prior cruciate ligament injury. The owner moved to Boston, shortly after my evaluation of BuBu, where surgery was performed to repair the damaged cruciate ligament.

In 1999, BuBu had a urethral obstruction and the veterinarian in Boston gave a diagnosis of kidney disease. However, it is not clear from the record how this diagnosis was made. The owner returned to my practice area in September 1999. When I saw BuBu again, he had increased thirst with vomiting and diarrhea. I performed a routine blood evaluation; results were within normal limits. Metronidazole suspension was dispensed for the gastroenteritis. BuBu was also put on ½ capsule a day of Cosequin (Nutramax Laboratories Inc., Edgewood, MD; glucosamine HCl, 250 mg; chondroitin sodium sulfate, 200 mg; manganese, 2 mg; and vitamin C, 20 mg), a supplement for osteoarthritis.

I saw BuBu again on 7/8/00 for an annual exam. Both stifles were positive for drawer motion. In October 2001, BuBu was presented for bilateral forelimb lameness. The owner reported that the limping was especially noticeable when BuBu got up from lying down or after he had been jumping.

Cosequin was not providing sufficient benefit, so Ostarplex® (Standard Process Inc., Palmyra, WI), one BID was added. Approximately two and a half weeks later, the owner reported that BuBu was much improved. He was barely limping since starting
Ostarplex®. I suggested a trial stoppage of Cosequin to determine if BuBu was benefiting from its administration. The owner reported on 11/10/01 that BuBu wasn’t doing quite as well without Cosequin. Based on that observation it was clear that both products together provided improved benefits.

**Final Thoughts**

As of 3/22/02, BuBu is still on Ostarplex® and Cosequin. In this case the combination of these products provides the best benefit for joint support. I believe Ostarplex® may be acting metabolically, while Cosequin is providing some additional necessary raw materials. I felt they were working as adjuncts with each other in BuBu. My goal is to avoid pain medication if possible. At this time, these two products are accomplishing this.

**Case #2**

Mike: 10-year-old, neutered, male Irish wolf hound cross (now deceased)

Mike was approximately 10 years old when I first examined him in October 1996. He had been diagnosed with Lyme disease and treated during the course of the previous three years. At the time of examination, the owner reported that Mike had been lame on his forelimbs and would hold them up after walking. This continued for a month and then subsided. I observed that he was currently lame in the right rear limb. Mike was placed on a course of buffered aspirin. He had minor improvement, but the owner had difficulty complying with the aspirin administration.

In May 1997, Mike’s owner reported he was favoring his right forelimb during short walks. On exam, he had hard swelling associated with the left carpus. Additionally, there was limited flexion of both carpi. This loss of range of motion is often a sign of degenerative changes. We have often seen long-term, permanent changes in the joints of dogs with Lyme disease. I was suspicious of a possible Lyme disease connection in spite of the fact that Mike’s Lyme titer was low and he had been previously treated. It is interesting to note that new testing methods for Lyme disease are identifying dogs that are Lyme positive even though they don’t have clinical signs. It is unpredictable if they will become clinical. Some pets may be successfully treated and still have changes that accrue years after the infection. Understanding of Lyme disease in dogs is still evolving.

During the May 1997 visit, I felt Mike had degeneration in both carpi. He was placed on buffered aspirin and omega-3 fatty acid capsules, which are believed to reduce inflammation (Serhan et al., 2000; Olivry et al., 2001).

The buffered aspirin provided minimal relief. The non-steroidal anti-inflammatory carprofen was utilized in July. According to Mike’s owner, the carprofen was ineffective. In December 1997, the owner started Mike on Synovicle™, which contains glucosamine and creatine and is reputed to benefit joints.

By 1/5/98, Mike had begun to develop serious problems. His right front paw was swollen and he had considerable trouble walking on all four limbs. My suspicion was that this was a result of the Lyme disease. Approximately 15-25% of treated dogs will be chronically affected and have incomplete resolution of signs or recurrent clinical disease. On 4/6/98, before we started using Standard Process products with Mike, we treated him with injections of Adequan (Luitpold Pharmaceuticals Inc., Shirley, NY), which is a polysulfated glycosaminoglycan. Adequan was commonly used for arthritis in the early to mid-1990s, before the oral nutraceuticals became available. Mike’s owner was taught how to administer the injections, once every five days. Initially, the owner complied well, but after approximately two months she discontinued the injections because she believed they were ineffective.

By 6/2/98, Mike was stiff on all four limbs. By this time, I had become familiar with Standard Process and decided to try Ostarplex®, administering four capsules to Mike per day. I advised the owner it might take a month to see any results.

Ten days later, on 6/12/98, I increased Mike’s dosage to six Ostarplex® per day, and his owner noticed a definite improvement. By the end of July, Mike was doing very well on Ostarplex alone, with no other drugs or supplements, and continued to do so for the next three months. The owner, on her own, eventually added a glucosamine supplement she had purchased over-the-counter, but Mike was doing quite well long before that.

On 7/7/99, Mike fell off a bed and could barely walk. He was started on Eto Gecis™ (Fort Dodge Laboratories, Fort Dodge, IA) 300 mg per day. At that time, the owner started Mike on some nutritional supplements (not disclosed to me). Mike was still taking Ostarplex®, but by this time I could not tell what was working to maintain Mike’s health and I had no control.
over what his owner was giving him. I doubt any of it was detrimental, but it is difficult to determine.

On 3/21/00, Mike’s owner requested that acupuncture be added to the treatment protocol. This was administered by my associate, Dr. Kim Rotner. Mike had shown moderate improvement over the next four months then declined rapidly and was euthanized.

I believe Mike’s final deterioration was based on several causes, including progression of DJD and organ failure. What is striking is that for about eight months he was doing extremely well on Ostarplex® alone when aspirin and drugs had failed. Since that time, I have put a number of dogs with joint problems on Ostarplex® and have observed definite improvement in at least 50% of these patients.

Final Thoughts

Ostarplex® is derived from bone marrow and bone along with its associated articular and periarticular components. Concentrates of this type provide important factors that aid the ability of cells to respond to injury and inflammation. In addition, basic nutrition is provided for the tissues associated with the joints and bones. This helps build and strengthen the basic components of the joints. While not all aspects of how Ostarplex® benefits the patient are understood, it is clear that its use correlates with positive changes in quality of life outcomes reported by pet owners. I can say with some certainty that Ostarplex® helps in maintaining healthy joints.

One limitation of Ostarplex® is that one needs a lot of it to see an effect. Four to six capsules a day is standard, and that can be quite expensive. But, if you are using another drug that really isn’t working, then it is beneficial to try Ostarplex®. When considering the possible mechanisms of action of Ostarplex® combined with the etiology of canine osteoarthritis, it is probable that a reduction in Ostarplex® dose and expense can be achieved by combining key nutritional products together. For example, Ligaplex® II can be added for its nutritive and supportive effects on the ligaments and tendons, Ostrophin PMG® can be used for its bone Protomorphogen™ extracts, and Linum B6 can be used for its omega-3 fatty acids. Indirect approaches include hepatic support with Livaplex®.

In addition, it helps to get patients eating quality foods that are less processed and have more nutritional value. These would be such foods as Wysong, Solid Gold, California Natural, Innova, and Flint River, to name some. We try to have owners incorporate chicken necks and wings into the diet and we definitely always discuss nutritional supplements with the owners.

Steve’s Real Food is a frozen diet we like that is made with real meat and it’s balanced. Wysong also has a balanced frozen food called Tundra. We recommend these; some owners use them and some don’t because of the cost.

References
