

FOUR-LEGGED PROLOTHERAPY

My Experience With Prolotherapy In Animals

An Alternative Answer to Anterior Cruciate Ligament and Hip Dysplasia Degeneration

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ABSTRACT

Prolotherapy has an 80 to 90% success rate of animals returning to normal function, in cases of pain and limping due to ligament injury or joint degeneration. Some of the conditions treated successfully with Prolotherapy by this veterinarian include canine hip dysplasia and anterior cruciate ligament injuries. The author believes that much of the primary causes of animal joint degeneration and ligament injury is multi-factorial including nutritional and genetic factors. The author believes that animals should be fed a diet that is more natural, with less grains, and one that keeps them at a healthy normal weight.

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KEYWORDS: animals, anterior cruciate ligament, degeneration, diet, hip dysplasia, Prolotherapy.

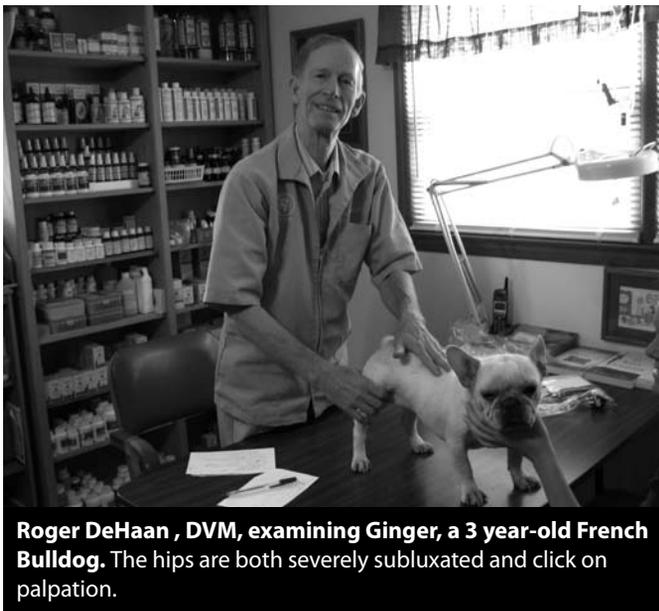
As a Holistic Veterinarian, I consider Prolotherapy to be one of the “Silver Bullet” treatments in modern medicine. In the last 18 years I have treated hundreds of pets, mainly dogs, some cats, and a few horses. It continues to amaze me that when the cause of pain and limping is ligament injury or degeneration, 80 to 90% of the patients return to normal with Prolotherapy. The younger they are, the better the results.

I remember a 6 month-old bulldog with hip dysplasia. This dog was from a long line of purebred winners in the show ring. Problem was, this pup had trouble walking up stairs, much less competing in the show ring. This was one of my first hip dysplasia cases. After six treatments, about two weeks apart, the next thing I heard was this dog was the youngest of his breed to complete his Grand Championship! Since that time I have treated household pets and competition breeds with various types of limping problems. Invariably, the competition breeds return to competition, and many improve their records. All this without surgery, drugs, and without long recuperation periods.

ANTERIOR CRUCIATE INJURY (ACL)

ACL injury and rupture is the number one cause of lameness in dogs. The estimated cost to owners for surgical repair and follow-up was \$1.32 **billion** in 2003.¹ That means we have an epidemic on our hands!

“Unfortunately even with surgical management, osteoarthritis develops in most patients, (so that) many patients require treatment for osteoarthritis and this treatment may be required for the duration of the patient’s life.”² Follow up usually means NSAIDs in combination with weight management. As holistic practitioners, can we do better than that? Can we even think of **prevention?** Is there a non-surgical answer?



Roger DeHaan, DVM, examining Ginger, a 3 year-old French Bulldog. The hips are both severely subluxated and click on palpation.

I have been using Prolotherapy (proliferative therapy, regenerative therapy) injections for ACL injury for at least 18 years. My success rate is in the vicinity of 90% using this non-surgical therapy. Prolotherapy is as close to a “silver bullet” as anything I have ever tried in 38 years of practice. As a therapy, this technique stimulates the animal’s own natural healing mechanism. The goal is to rebuild and repair injured connective tissue into a stronger and more supportive tissue than it was previously. The end results can be tissue and ligament strength that is 30 to 40% stronger than before the initial injury.

Following my presentation on “Prolotherapy Injections—A Silver Bullet in Connective Tissue and Ligament Reconstruction & Regeneration” at the 2003 AHVMA Conference, 22 veterinarians signed up to take a two day course in Chicago, co-taught by three professionals. The reports from that conference have been encouraging, pleasantly surprising to practitioners as well as their clients. Prolotherapy truly is a technique that veterinarians can easily learn because we already have training in anatomy, injection techniques, and physiology. The question is, can this go mainstream?

A few months after the seminar I was contacted by Dr. Narda Robinson, who oversees Complementary Veterinary Education at Colorado State University. I shared my information, experience, and a photo with her. The result was a great article in Veterinary Practice News titled “Prolotherapy for Pain Entering Mainstream” (August 2005). Apparently somebody must be catching the vision! Those who catch it first have the opportunity to be on the forefront of an emerging technique that can truly be a blessing.

WHAT IS THE CAUSE BEHIND THE CAUSE?

Every problem has a cause. Most problems are multi-factorial. I believe ACL rupture falls into this group. Obviously one cause is athletic trauma, or accident induced. However, I believe by far, the majority of these injuries result from chronically weakened ligament structures. Like disc disease in a Doxon, ACL injury can be described as an accident waiting to happen! But why? And why was this problem not as prevalent 40 or 50 years ago? What has changed from then till now?

I would like to introduce a global approach as to the cause and cure of ACL injury. I am proposing that there is a



Roger DeHaan, DVM, pointing at the canine spine demonstrating the needle placement and angle.

cascade of events behind chronic ligament degeneration and final rupture. As a starter, one might ask these questions.

1. Which nutrients are involved?
2. Which supporting glands or organs are involved?
3. Are there emotional stresses involved?
4. Which meridians are involved?

MULTI-FACTORIAL CAUSES OF ACL DEGENERATION AND INJURY

First Cause: To answer those questions fully will require a shift of paradigms. I believe we have overlooked some key factors. For instance, has there been a change in diet in the last 40 to 50 years that could be part of the explanation? Indeed there has! This change has included a shift from a high percentage of raw and natural food, to some raw and some cooked meat, raw cartilaginous bones and vegetables, finally to a diet based primarily on grains, soy and cheap by-products. The supplementary minerals and vitamins added to this “processed food” have primarily been derived from the soil, inorganic, and synthetic vitamin sources. Could this blend be part of the problem?

Multifactorial Causes of ACL Degeneration and Injury

- High grain, processed diet
- Sulfur depletion with biochemical imbalances from diet change
- Genetics
- Systemic inflammation from diet

Second Cause: The bones and ligaments are the primary reserves for vital minerals and buffers. Due to chemical, psychological and physical stresses, the liver and adrenals have been overworked. Both the liver and adrenals require large amounts of sulfur in the methylation process. Due to imbalances in the modern diet, reserve sulfur is drawn from the storehouse of collagen and bone. For survival of the species, and in order to maintain homeostasis, the liver and adrenal get the first choice of vital nutrients, at the expense of the bone and collagen. When the sulfur reserves are depleted, the diagnosis becomes osteoarthritis, hip dysplasia, cruciate ligament injury, etc. But unfortunately that is an **end problem**, and it does not recognize the **underlying root cause**. The root cause revolves around **a group of inter-related biochemical imbalances** having to do with sulfur, vitamin C, selenium, calcium, and other balancing nutrients, which are the cause behind the cause.

Third Cause: There is also a genetic predisposition. I believe that is only 20% of the problem. But indiscriminate breeding and ineffective culling are part of that problem. Add to that a “high-pro” puppy growth formula, often loaded with soy and other cheap proteins that stimulate the “bigger is better” syndrome, and we have created the basis for joint laxity. In essence, we have created a body that is larger than its true genetic potential allows. Thus, breakdown is inevitable. And this is only part of the story.

Fourth Cause: Inflammation predates ligament breakdown and that has various causes. I am convinced the modern canine diet predisposes to a chronic inflammatory condition. Dr. John Symes correctly teaches that the current commercial diets are a primary cause of inflammation. This diet is, for lack of a better word, pro-

inflammatory. Read his presentation on page 241 of the “Proceedings” from the 2005 Annual Conference. Do we then solve this problem by providing daily NSAIDs in order to shut down the inflammatory condition? It shouldn’t take a rocket scientist to figure out that answer. Absolutely not—because inflammation is required for true healing! However, both NSAIDs and steroids have an adverse effect on bone and soft tissue healing by inactivating vitamin D, limiting mineral absorption, and inhibiting collagen synthesis. Thus, inadvertently we have blindly created the wrong type of inflammation by feeding the “Big Four” pro-inflammatory foods (gluten, casein, soy and corn), then we try to shut it down with drugs. That is anti-scientific! We need to get a better handle on this problem. Part of the answer includes Omega 3 essential oils and a total change in dietary philosophy for the carnivore.

A QUESTION THAT BEGS TO BE ANSWERED

Now that we have been advised by our orthodox friends that ACL injury is the most common cause of lameness in dogs and has become a gigantic billion dollar problem, we as holistic veterinarians have a golden opportunity to stand in the gap and solve the problem! May I also suggest that if we only fix it, we are less than half way to the solution? The true healer looks for causes, corrects the causes, and by that, proves his theory is valid.

The orthodox community is looking for funding in order to understand the causes and solutions. In most cases, funding will go into research that emphasizes surgical and pharmaceutical solutions. May I forward the belief that the true solution has already been discovered? As we



Roger DeHaan, DVM, administering a Prolotherapy hip injection on Ginger, the French Bulldog.

rediscover the solution, it will require a clear focus in the right direction. I am proposing that the right direction is honoring and duplicating Creation Law as the ultimate foundation of the solution. That means:

1. Asking and discovering what the canine diet was in the wild. Using their instinct and innate ability to roam and seek to balance their own diet in nature.
2. Implementing and offering an approach that we can sensibly and convincingly duplicate, and teach our clients that solution in a way that is practical and manageable in today's society.
3. It also means we must control weight, with 40 to 60% of our pets being overweight, opt for optimum size, discontinue the high protein—fast growth puppy formulas, and finally focus on achieving a balanced exercise program. We want them lean, agile, and with good muscle and ligament tone.

This article is offered to provoke thought and reflection. A good article adds to its breath by quoting others. I contacted Dr. John Symes on the subject and here is what he wrote me. Because his comments were so relevant, I am including them here with his permission.

“Interesting. You know how I feel about the ‘cruciate epidemic.’ I certainly believe that it is resulting from the malnutrition stemming from the malabsorption syndrome being induced by the ‘big 4’... gluten, casein, soy, and corn. The ligaments are not being formed properly, in the same fashion as the rest of the skeleton, heart valves, intervertebral discs, and any other cartilaginous bone, or connection tissue. It is painfully obvious that the dogs with the worst allergies and immune-related disorders have the worst skeletal abnormalities.

*Once again, as you know, the formation of the food-related antibodies occur at the time the damage is being done by the ‘big 4’ and serve as the warning sign that this damage is occurring. This damage results in the malabsorption of calcium, vitamin C, B complex, iron, iodine, and trace minerals such as boron, zinc, copper, etc. Therefore we should not be surprised at all that the Shi Tzu and Cocker, two of the most food allergic dogs, hold the record for rupturing discs in their back at **one** year of age, should we? Similarly, I have repaired cruciates in one year old English bulldogs, perhaps **the** poster child for food allergies/intolerance if there were more of them. Thankfully there aren't. Of course, the plight of the large breeds, Labs, Rotties, German Shepherds, is also painfully obvious.*



Roger DeHaan, DVM, using a class II laser treatment as a follow-up to Prolotherapy injections. He uses laser treatments to facilitate healing, decrease pain and inflammation, as a routine part of Prolotherapy in his clinic.

The interesting thing to me is the timing of the average cruciate rupture. We were taught in school that they occur mostly in 5-7 year old overweight female dogs, right? This is also the same at risk group to what? Immune-mediated diseases. And once again, the breeds at risk are eaten up with ‘autoimmune’ diseases. A term I now no longer use due to the implication that the immune system is attacking the body for no good reason. This of course is totally false. The question is whether the ACL ruptures are due to poor initial formation and subsequent wear and tear, or whether it suffers an immune-mediated attack and fails.

So, are the cruciate problems at an average of 6-7 years a result of wear-and-tear (literally), an immune response to an entity present in those structures, or due to chronic inflammation and degradation by lectins, as in the case of other joint disorders? Ahhh! That would mean that glucosamine and other good lectins would help to protect these ligaments. Sounds like a plan to me!

But the key, once again, is to get these animals, and people, onto diets that are free of the inducers of villous atrophy of the duodenum, in order that their bodies have the adequate nutrients to develop properly. That should be elementary, right? The bonus is that they will also have a more competent immune system to deal with the potential

“living challenges” (I put that in quotes due to the controversy over whether viruses are “alive” or not) that we all face, the importance of which we have only begun to understand.

A PRACTICAL INSIGHT

I remember a German Shepherd pair that had a litter of pups, and the entire litter developed significant hip dysplasia within two years. The high grain diet was totally revamped, including supplements to both the breeding pair and their litter. Amazingly the next litter of pups did not develop hip dysplasia. Same dam, same sire, but a different diet! That was a wake-up call to me! This was over 25 years ago, and I don't have that one documented except in my mind!

We all know of several recent scientific feeding trials where litters of Labs and Golden Retrievers were divided into two groups. One based on “free-choice” feeding versus the other given 25% less food than the first group, plus twice daily scheduled feeding. The latter group had significantly less arthritis, better health, and the bonus was a two year longer life span. Those were impressive results.

The high grain diet was totally revamped, including supplements to both the breeding pair and their litter. Amazingly the next litter of pups did not develop hip dysplasia.

The implications of our subject are profound, affecting the way we look at nutrition, connective tissue diseases, and autoimmune diseases in general!

MY PROLO COCKTAIL

Each case must be individualized. However, here is a prolo injection cocktail that has worked for me. 25% of each of the following:

1. 50% dextrose
2. 2% lidocaine or procaine (without epinephrine)
3. Vitamin B 12 (1000 mcg/ml)
4. Homeopathic combinations such as Biosode Support by HVS Labs, or Tramell, Zeel, or Discus Comp by HEEL.

Of course, as a holistic vet, I often find that chiropractic, acupuncture, and laser therapy compliment Prolotherapy. I also hit hard on the subjects of diet changes and quality joint support supplements. But if I was on a desert island and had just one therapy available, I would I would say I am addicted to Prolotherapy! ■

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