

REMARKABLE RECOVERIES

ABSTRACT

Prolotherapy is the definitive treatment choice when it comes to connective tissue injuries (ligaments, muscles, tendons, joints) from any cause, such as a sports injury, as is illustrated in the following case report. Usual conservative care options (rest, medications, ice, heat, epidural steroid injections, physical therapy, strengthening and stretching exercises, and massage) were tried without success and lumbar spine surgery (laminectomy, discectomy) was performed after multiple imaging studies without notable benefit.

After a thorough history, physical examination, and record review were completed, it was determined that this Division I college basketball player had unrecognized and untreated connective tissue injuries. Because the Prolotherapy treatment method is the only medical intervention that is known to stimulate natural healing, produce collagen, strengthen damaged and weakened ligaments and tendons, stabilize joints, and subsequently eliminate pain and increase function, the patient/athlete and I decided on pursuing this course of treatment. Despite the length of time since the injury (over two years), the lack of improvement with both conservative and surgical care, and the extreme demands of an elite college athlete, there was a great deal of optimism about the outcome, provided a consistent, complete, and aggressive plan using Prolotherapy was followed.

The final results exceeded expectations. The patient/athlete followed the recommended course of treatment and after six Prolotherapy treatments using either a 12.5% dextrose solution or a 0.5% sodium morrhuate solution, he has returned to full-time, unrestricted participation with his college basketball team and reports none of the pain which he previously experienced. This case highlights the need for greater access and early utilization of this effective treatment approach for athletes, workers, and others with injuries and chronic pain. Further study and education would also facilitate the acceptance of Prolotherapy as a cost-effective solution.

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KEYWORDS: back pain, bulging discs, college basketball, connective tissue injury, degenerative disc disease, musculoligamentous sprain, Prolotherapy, sacroiliac instability, sciatica, spinal stenosis, sports injury.

Prolotherapy Gets College Basketball Player Back on the Court

The Physician's Perspective

Mark T. Wheaton, MD

HISTORY

When a highly trained, elite athlete returns to his sport after having back surgery and being told he will never play basketball again, it is a true testament to the Prolotherapy treatment method and the body's ability to heal itself.

John Manley was exactly this type of patient. Having received a full scholarship for Division I Basketball at Cal Poly University in California, John had high hopes for an exciting career, only to be dashed halfway through his freshman season by a career-threatening back and hip injury. He was undercut as he was attempting a slam dunk and landed flat on his lower back, resulting in excruciating pain.

Prior to his initial visit, John had an extensive orthopedic workup both in California and Minnesota. MRIs from November and December of 2004 revealed a bulging disc at L4-L5 with some degeneration and mild stenosis of the subarticular recess. Further review of the MRIs indicated juvenile discogenic disease and degenerative disc changes at L4-L5 and L5-S1, along with retrolisthesis of L4 with respect to L5 and slight exaggeration of the retrolisthesis in extension. He saw his trainers daily, diligently performed the exercises recommended by his physical therapist, and eventually underwent a successful laminectomy and decompression surgery. However, he continued to suffer from unresolved pain and was told by his surgeon that he would have to quit basketball and never play again.



EXAMINATION

My initial exam revealed connective tissue and soft tissue injuries that had previously not been diagnosed, judging from his medical record. The surgeon had no further post-operative recommendations, as the surgery was intact and successfully completed. However, I felt there were clearly other factors contributing to John's pain that were being missed, namely the ligaments and other connective tissues. His range of motion was moderately decreased and painful in flexion, though normal in other planes. Paravertebral tenderness was present bilaterally. Trigger points were noted in the bilateral quadratus lumborum and ilium, gluteus medius and minimus, tensor fascia lata, adductor muscles and hamstrings. Strength, sensation, and deep tendon reflexes of the bilateral lower extremities were normal. A three-inch surgical scar and step-off was present from the spinous process just above the scar below. Hamstring muscles were extremely tight and restricted.

In my medical opinion, when the mechanism of injury puts such tremendous sheer force on the lumbar spine, sacroiliac joints, and hip structures, tearing and stretching of muscle, tendon, and ligament tissues can occur.

DIAGNOSIS

- Musculoligamentous sprain/strain of the lumbosacral spine
- Sciatica, referred pain to the left leg
- Chronic sacroiliac instability
- Degenerative disc disease L4-L5-S1
- Spinal stenosis

DISCUSSION

When I discussed my findings with John and his parents I told them that Prolotherapy would likely hold the answers to his pain, and though not guaranteed, he could then return to playing basketball at his previously competitive level. While we also discussed other possible treatment options including additional diagnostic testing, diagnostic blocks, or other treatment routes, my experience told me that Prolotherapy would be the one and only treatment method that would give him the best shot at returning to basketball.

PLAN

The plan I laid out was to treat John's lumbar spine and sacroiliac joints with a dextrose-based Prolotherapy solution of 12.5% with diluted 1% lidocaine. If necessary, depending on his results after a few treatments, I would also treat the left hip and pelvic structures. John was so excited about the possibility of an effective approach for his chronic pain condition that he decided on his first visit to begin treatment without any further deliberation. I performed his first two Prolotherapy sessions two weeks apart and then followed-up with monthly treatments.

The Prolotherapy injections were performed at the lumbar facets, the interspinous ligaments, the iliolumbar ligaments, and the sacroiliac joint ligaments. In addition, I performed Neural Therapy on his post-surgical scar. Because he had left-sided sciatic leading up to this time, I performed an EMG test to help allay his worries about ongoing nerve injury from his injuries. The EMG revealed borderline abnormalities at best, and a mild chronic left L5 nerve root change. A follow-up MRI with dye to enhance the surgical site, ordered by his surgeon, only revealed post-operative fibrosis and scar but no new changes or new herniations at the disc level.

For his third Prolotherapy treatment, I not only expanded the treatment area to his left hip and pelvis, I also changed the proliferating agent to sodium morrhuate (a derivative of cod liver oil) to cause a more powerful inflammatory response with the potential for greater proliferative affects. I felt the hip and pelvic ligaments, as well as tendon attachments, were important structures in his case as a significant amount of his pain centered in that region. He was tender over the sacrospinous and sacral tendinous ligaments, posterior gluteal attachments, the greater trochanter, and ligament and tendinous attachment sites at the ischial tuberosity.

John continued to travel back and forth between California, where he was in school, and Minnesota to receive his Prolotherapy treatments. Over a span of two months he had received six Prolotherapy treatments into the lumbar and sacroiliac regions and four treatments into the left hip and pelvic regions. He reported 50% improvement in his symptoms, which included a decrease in pain and soreness. I advised him to continue with his physical therapist to keep his muscles conditioned, and to stay away from impact activities as a whole and rather focus on non-impact workouts such as the elliptical machine, the StairMaster®, and specific weight exercises.

While he was making great progress with the Prolotherapy treatments, he was a long way from returning to competitive basketball. Aside from one more Prolotherapy treatment into his hip joint and capsular ligaments, for the next six months, we focused more on conditioning. The plan was that when he returned for treatments I would give him trigger point and Neural Therapy injections to help reduce spasms in some stubborn gluteal muscles. He also received manual muscle therapy during this time to assist in this process as well.

His final Prolotherapy and Neural Therapy treatment came at the end of July 2006, only eight months after he had begun treatment.

Follow-up phone calls with John from school, and discussions with his parents, indicated that he was making great strides and was able to return to the basketball court. The last time that I saw him in person was less than a month ago on a visit home for the summer and he reported to me that he was completely pain-free, was playing and practicing with the team without restrictions. He was able to run, jump, shoot, and yes, slam dunk a



John Manley, college basketball player, returns to playing with the help of Prolotherapy after being sidelined with a back injury.

basketball. He is once again excited, as he anticipates the 2008/2009 basketball season for Cal Poly, and looks forward to the contributions he hopes to make towards their team winning a championship.

The Patient's Perspective

By John Manley

After receiving a full scholarship to play Division I Basketball at Cal Poly University, I was excited to begin what I thought would be a great four years of college basketball. The excitement increased after I played significant minutes and hit some big late game shots in an upset win over 25th ranked Cal in my first collegiate game ever. After playing well the first half of my freshman year, I was excited to play in our rival game against Santa Barbara. With a sold-out crowd in attendance I came into the game. Toward the end of the first half, I stole the ball and went in for what I thought was an uncontested dunk. Instead I jumped up in the air and felt my shoulders being pulled down from behind. I fell back in mid-air and landed flat on my lower back without bracing myself. I was on the floor in excruciating pain while the arena was silent. My greatly anticipated four years of college basketball were now in jeopardy.

I continued to play through the pain the rest of the season while my team trainers and doctors tried to figure out what was wrong. As the pain continued, I grew more frustrated, and by the following fall I was no longer able to play basketball. The pain had increased so much, not



It was now time to search for answers and new doctors. During this search, a family friend highly recommended Dr. Mark Wheaton. Our family friend described the great success she had with him and a treatment method called Prolotherapy, so we decided to schedule a consultation. We met with Dr. Wheaton, and after the initial visit, my parents and I were more optimistic than we had ever been. I knew it would not be easy since I would have to travel from San Luis Obispo, California to Minnetonka, Minnesota for each Prolotherapy treatment. Yet I was so hopeful, I was willing to do what it took to

only could I not make it through practice, I had a hard time sleeping, sitting in class, and escaping the daily pain. I needed to figure out, once and for all, the true source of the problem. I saw many trainers, therapists, and doctors in the San Luis Obispo area and did not receive any convincing answers as to what was causing the pain.

My family then decided to fly me back home to Minneapolis to see local doctors and I was referred to a spine specialist in the Twin Cities area. After an MRI revealed two herniated discs and some concern with nerve and spinal cord irritation, I underwent a successful spinal surgery (laminectomy and decompression). After the surgery I finally had hope that I was on the road to recovery and a pain-free life. I started post-surgical physical therapy and returned to classes at Cal Poly. I was excited and worked hard every day, doing exactly what the physical therapists suggested. However, after months of rehab I was not getting better. During a follow-up visit with my spine surgeon, he told my parents and I that, among other things, as a result of the pain not subsiding, he felt I would never play college basketball again. The frustration started to mount as weeks turned into months with no improvement. Almost six months had passed with no significant improvement and no change in my pain level.

get treatment. I felt improvement soon after my first few treatments from Dr. Wheaton, so I continued making trips from California to Minnesota during the spring of 2006 and into the summer. Dr. Wheaton slowly increased my activity level. By the middle of the summer he had increased it to the point where I was able to run, lift weights, and shoot basketballs pain-free. My hopes of returning to play college basketball were slowly becoming a reality. I continued with the Prolotherapy treatments and other muscle treatments recommended by Dr. Wheaton and kept increasing my workouts. By the end of the summer, I played in a summer Pro-Am game, which was my first organized basketball game in nearly two years. At that time, I knew my comeback was almost complete, thanks to the guidance, support, and work of Dr. Wheaton. The natural and effective Prolotherapy treatment method made the difference for me.

In the end, I received a medical red-shirt year and was granted a sixth year by the NCAA so I didn't lose the two years I had to sit out with my injury. I have now played two seasons since returning and graduated after my fourth year. I am currently entering my senior year of basketball and my second, and final, year of graduate school. I am pain-free and get to play four years of Division I College Basketball just as I had always dreamed. The last five years have not been quite how I planned, but have turned out better than I ever expected! ■