

Clinician's Overview & Case Study: Post Operative Neuroma & RSD

Amy Stahl, MS, PT, CKTI

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Part I. Overview and Background

I have been working as a master's level physical therapist for the past 2 ½ years. My story, however, dates back to my birth. I have been raised in a loving and competitive family that includes my father, my mother, two sisters, many horses, dogs, cats, and rabbits. In addition, however, I have grown up the surrogate daughter of five very close family friends as well. Thus in many ways, I have had six fathers, six mothers and numerous brothers and sisters. Our families have collected for games and fun every holiday, and for two weeks each summer, we live in harmony and competition on a sandy beach among beautiful canyons at Lake Powell, which is a spectacular lake, situate in Arizona and Utah. All of "my" six fathers, some of their wives, and all of the kids are athletes. Although now middle aged, the Dads continue to push us to compete in various athletic endeavors ranging from barefoot water-skiing, to cliff jumping, to volleyball, to rigorous hikes. As a result, we have endured some frightening but exhilarating experiences as we grew up. We are all wiser and tougher because of it.

I have spent the time to introduce you to my extended family, because they have become "tape believers!" When I tried to tell "my" six tough fathers about the wonders of Kinesio Taping® this summer, the reception was anything but encouraging. These tough men weren't about to be fooled by the hocus pocus of some "miracle" tape that one of the kids - i.e. "me" - said would really help them through the inevitable injuries that I knew would come their way before this year's trip was complete. It was inevitable, when "aging warriors" try to do what was difficult for them twenty-five years earlier, something is going to give. In a nutshell, I was at the lake for one week, and I taped everything from large hematomas, to stone bruises of the feet, sprained ankles and knees, wrenched backs and necks, and strained muscles and ligaments in forearms and hands. In every case, within 24 hours "my" tape and I drew the raves of the "victims," than the manual therapy I also was called upon to provide. My skeptical warriors were won over. Although they kept their anti-inflammatories handy, Kinesio® Tape and my taping applications, turned disdainful skeptics into believers. In fact, this beleaguered crew was begging for me to leave some tape and instructions with them when I left the campsite for a return to civilization and "saner" people.

My success at the lake was not a surprise. I knew what the tape could do, because of the remarkable successes I have had using it in my clinical practice. I have taped and helped victims of RSD (reflex sympathetic dystrophy), torn muscles, sprained necks, backs, elbows, knees, and shoulders. I estimate that I use Kinesio® Tape on 85% to 90% of my patient population and have very positive responses from my patients and their doctors. I even use it myself to manage a chronic low back pain.

My confidence in Kinesio® dates from the very first patient I taped. Her story follows.

Part II. Post Operative Neuroma and RSD - Case Study:

Subject: *Patient was an active 20-year-old female who worked as an athletic trainer and enjoyed playing ice hockey, hiking, and horseback riding, and exercised regularly.*

Diagnosis: Post-operative Neuroma extraction and RSD Reflex Sympathetic Dystrophy (RSD): RSD is an uncommon and poorly understood condition wherein the autonomic nervous system malfunctions. The initiating factor, may be trauma, surgery, or may result from a remote disease of the viscera. Doctors can't predict who is at risk or why some individuals will fall victim to it and others with similar injuries or exposure do not. It is extremely painful. It can be difficult to diagnose, and treatment is often

ineffective. The patient often experiences severe and bizarre pains, which they describe as “burning.” They have extreme “hypersensitivity” of the skin. The condition is often associated with excessive sweating, coolness, and edema. The skin becomes glossy and very sensitive to temperature changes. Many of its victims cannot even stand to have a sheet laid across their skin, or to stand under a shower. It is truly a miserable affliction.

Past Medical History: Patient had a soft tissue lesion excised in May 1996 from the dorsal aspect of her left foot, which subsequently became infected. Following the closure of the wound in September 1996 she continued to complain of persistent nerve-like pain of the dorsum of her left foot and first and second toes. In March 1998, she was diagnosed with a neuroma and an entrapment of the deep peroneal nerve and she opted for elective surgery to release the nerve and resect it above the ankle joint in hopes of decreasing her pain. Pain complaints include a deep ache throbbing pain, as well a sharp and stabbing pain. Patient had pain with temperature changes, weight bearing activities, range of motion, had difficulty sleeping, had an analgesic gait pattern, and was often unable to wear a closed toe shoe. As a result of her symptoms, she had to give up her job as an athletic trainer and work as a receptionist in order to be non-weight bearing for the majority of her day. Following her second surgery, she had numbness to the touch of the first and second toe, as well as severe burning pain with palpation, which later was diagnosed as RSD (reflex sympathetic dystrophy).

Treatments: Physical therapy for 6 months from August 1998 to January 1999 which included: joint mobilization of the foot, myofascial release for scar adhesions, trans-friction massage of her extensor tendons, gentle ROM, aquatic therapy, ultrasound 3.3mHz @ 20% 1.0w/cm, interferential electrical stimulation for pain (80-150 mHz), TENS unit trial, moist heat, silicon pads for scar adhesions, walking boot, therapeutic exercise, nerve blocks.

Assessment: Patient did not respond well to palpation or myofascial release. She could not tolerate any of the modalities except for ultrasound and moist heat. Her scars remained immobile and her nerve-like pain did not resolve. Patient was still in a walking boot on occasion and was not able to return to her ice-skating and other athletic activities because she could not tolerate a shoe. At the time of her physical therapy discharge in January 1999, her physician suspected that she had some arthritis in the foot and was at a loss as to what else he could do for her.

Kinesio Taping®: Following an incident in January 1999, when the patient had banged her foot on a box and caused a significant flare up, she was back on her walking boot and experiencing increased pain. I asked her permission to let me try this new taping method I had just learned about the previous weekend (three days prior). She agreed, so I applied Kinesio® with her foot plantar flexed and inverted to stretch the skin on the dorsum of her foot. The tape was “Y” around her great toe and then “I” across the dorsum of her foot medial to lateral at an angle over her scars to the lateral aspect of her lower leg (superficial peroneal nerve pattern: SEE Pic. A.1 Below). Within 24 hours, the patient called me to report that she was pain free and the hypersensitivity of the skin of her foot is at a minimum and that she wished to learn how to tape her own foot for self management. She was instructed how to tape her foot and she has been able to control her symptoms independently for the past nine months. She has returned to ice-skating, running and working out, rock climbing, taken swing dance lessons, and been able to put her feet in the ocean and tolerate the surf and sand.

Conclusion: Kinesio Taping® has been a true compliment to my work as a physical therapist and I support the use of it 100%. As a result of the tremendous results that I have been able to achieve, I have seen a decrease in healing time and increased patient satisfaction following treatments. Since becoming a Certified Kinesio Taping Instructor, I have had the opportunity to host several seminars for physicians, chiropractors, massage therapists, acupuncturists, nurses, athletic trainers, and other physical therapists. There has been a very positive response towards Kinesio Taping®. I am looking forward to continuing to educate people about Kinesio Taping® and learning more about it as a treatment adjunct.



Pic. A.1

The small pieces of tape in the middle of the application indicate the scar adhesions.