# A New Perspective Regarding Laser Therapy

Fred Kahn, MD, FRCS(C)

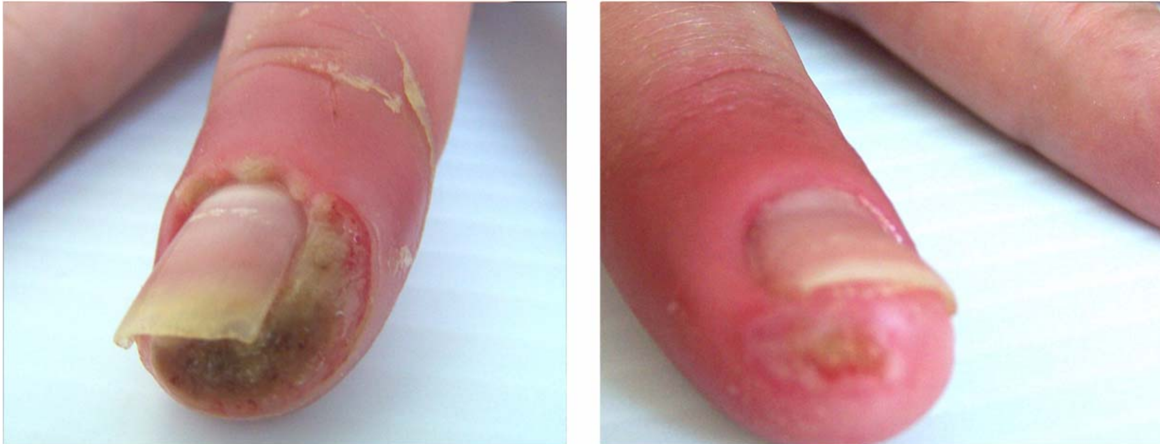
In April of this year, prior to the beginning of our International Conference in Toronto, I had the rare opportunity to meet for several hours with Tiina Karu, Mary Dyson, Shimon Rochkind, Chukuka Enwemeka and several other leading authorities involved in the field of laser technology. Whereas their interests encompass basic research, pathology, tissue response mechanisms and clinical application, their collective knowledge covers the entire field of Low Intensity Laser Therapy. At the conclusion of this unusual discussion, Dr. Karu coined the phrase that "we have learned to speak to the cells" and now "we must learn to understand the language of the cells". This is a most prophetic and profound comment and should guide the activities of those involved in the advancement of laser therapy.

At Meditech, we understand the reality that we do not manage pain but rather that we cure the pathology. Unlike pharmaceuticals and other conventional therapies, we do not modulate symptoms but in the process of curing the pathology, as logic would dictate, the symptoms disappear. The analogy would be that when you put out the fire, there is no more smoke. At the risk of sounding repetitious and in a world where pain management conferences occur on a national and international basis, countless times throughout the year, the above comment is of monumental portent.

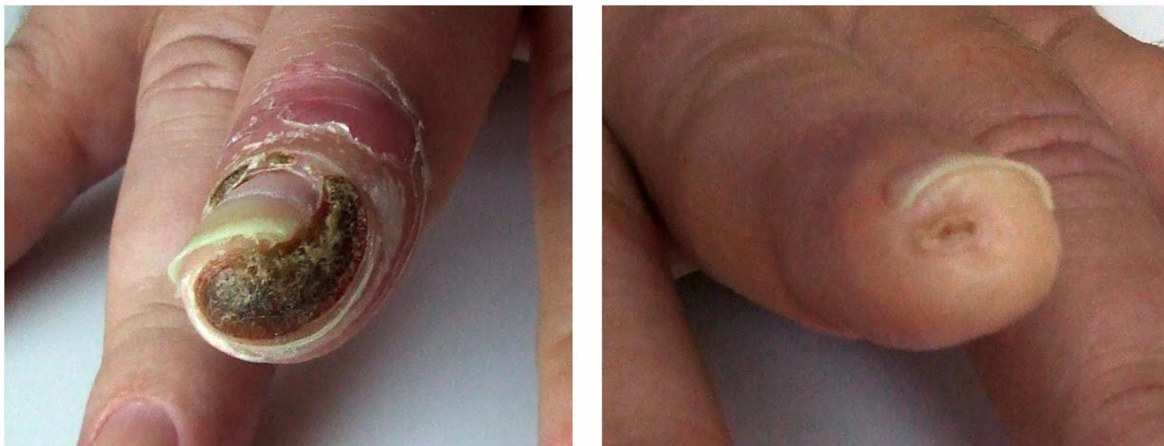
Pharmaceutical manufacturers relentlessly promote new pain medications. The medical journals are full of treatises and publications discussing the treatment of night pain, breakthrough pain, pain with activity, etc. We recognize only one type of pain; the pain that causes individual suffering. If you look in the dictionary under pain, you will find the following description, "physical suffering or distress, due to injury, illness, etc." No matter how drug companies attempt to extend their influence in the marketplace, to promote utilization of analgesics products, one cannot get away from the reality of pain, especially those who experience it on a continuing basis. Our position is that we do not acknowledge the term pain management and the need for analgesics, as more effective solutions are available. We have advanced from those outmoded conventional approaches.

The picture below shows the digits of a young man suffering from Buerger’s disease who had been told that all therapeutic efforts had been exhausted and that a partial amputation of two digits would be necessary by October 2006.

**Before**



**After 3 Treatments**



This was not an encouraging prognosis for someone in their 30’s. Moreover, this individual had consulted a total of six specialists over several months, none of whom had provided any permanent relief for his problem. As a last resort, one had recommended implantation of a neurological stimulator to relieve the pain, not a pleasant prospect with an outcome that at best was questionable. This case is introduced to reveal the healing that occurs, where it can be visualized. Similar healing occurs at deeper levels where visualization is not easily possible.

There has never been any doubt in my mind that laser light abhors the existence of abnormal cells and attempts to replace them with normal cells. This hypothesis explains the many

phenomena that we see when laser light is utilized in the healing process. Dermal ulcers by virtue of both neurogenic and local therapy are stimulated to heal. Similarly, the compression of the spinal cord and nerve roots by disc disease and degenerative osteoarthritis are rapidly relieved by the reduction of inflammation, scar tissue formation and osteophyte resorption, resulting in the disappearance of the symptomatology commonly referred to as radiculitis/sciatica. The process most assuredly is quite simple. It is clearly evident that healing at deeper levels is not different from healing at the superficial level where it can be readily visualized. Laser light heals whereas pharmaceuticals in contradistinction mask symptoms and actually prevent cellular regeneration and therefore healing. In our clinical experience, we repeatedly observe that ulcers cannot begin to heal unless antibiotic administration ceases. This axiom undoubtedly includes many other drugs and a number of studies have confirmed this observation.

Taking matters one step further - many personal trainers, kinesiologists, athletic therapists, etc, encourage and indeed insist that people with severe injuries continue to exercise. Under the delusion that if they do not do so, muscles will atrophy, joints will develop contractures and the range of motion will be severely and permanently compromised. Many high level athletes present at our office as their symptoms do not improve and indeed become more severe under the aegis of the above advice. Again, it should be obvious to an individual with at least an average level of intelligence that injured cells respond best to rest. Nature alone heals most pathology and if this concurs with exercise, it is nothing more than a positive coincidence.

Exercise in the early phase of pathology increases the damage and therefore the inflammation and resulting pain. This practice is inappropriate and should be condemned. Simple logic again confirms this assumption and practice consistently proves that this is so. Muscle atrophy and joint contractures will not develop within a few days or even weeks of rest, while passive therapy to promote healing is applied. Exercise, particularly those used to strengthen the back (extension exercises), are appropriate once the acute stage has been resolved at the cellular-molecular level. Evidence-based medicine clearly indicates that damaged tissue responds positively to rest combined with intelligently applied therapies.

Some years ago, I received a call from an executive at a major medical manufacturing and distribution company with regard to wounds. The individual, with whom I carried on these discussions, in addition to his superiors, did not understand wound healing but talked incessantly about the debridement of wounds. None appeared to have any interest in wound

healing per se. This company for the record, sells numerous products utilized in the wound debridement process, in addition to millions of dressing on an annualized basis. Here in our clinical laboratory, we have consistently found that removal of dressings, compressing wounds with warm saline and the utilization of Low Intensity Laser Therapy, results in rapid debridement concomitant with wound healing (i.e. epithelialization and closure of the wound).

Old concepts have been long established, are aggressively promoted, taught in educational institutions and therefore, almost universally applied. This process defies logic and common sense which should be the best guidelines in any medical practice. Similar to insurance companies, HMOs and other gatekeepers who mandate the directives of medical care, giant healthcare companies such as the afore mentioned company should be condemned for their adherence to the economic profit motive (bottom line) rather than promoting more effective alternative methods. Unfortunately, these decisions are all too often left to the junior executive level, individuals that may have a BSc, an MBA and other degrees but lack any experience in the clinical arena. These individuals simply cannot comprehend the process of debridement concomitant with healing that result from the application of Low Intensity Laser Therapy.

Debridement is best facilitated utilizing warm saline compresses. Saline is still the most available, cheapest and most effective bactericidal in the therapeutic field and can be applied at a cost of pennies per diem. This practice does not result in any complications, has no toxic side-effects and effectively promotes debridement and wound healing, simultaneously in conjunction with Low Intensity Laser Therapy.

All therapists should review these evidence-based principles of practice and reject convention in favor of progress.