

RianCorp ILLUMINATIONS

Customer Quarterly Newsletter • December 2010

THERAPIST FOCUS



Name:

Avril Lunken

How long have you been using the LTU-904:

I bought the laser September 2003.

Most inspiring or intriguing laser story:

2 patients come to mind, these relate to breast swelling post radiotherapy, where the tissues were incredibly indurated and painful, together with a reduced range of shoulder movement. All symptoms improved, some resolved after 5 treatments.

What do you use the laser for:

The client group, I see most are those who are in the process of, or have recently completed adjuvant therapies following breast cancer surgery.

One of the main complaints these patients mention is the increased swelling on the lateral thorax inferior to axilla – usually this area is quite puffy and the tissues are soft. MLD treatment offers some reduction, however congestion and discomfort are often still apparent.

The laser works very well in the affected quadrant which includes the scar sites. Laser is also an effective treatment for other symptoms such as extreme tenderness, cording, axillary tightness, shoulder stiffness, soft pitting oedema and micro-oedema (undetected swelling by palpation).

With the combination of MLD and laser the above symptoms reduce after one treatment and usually resolve by treatment 3 or 4.

HAPPY HOLIDAYS



It's that festive time of year again and as promised, we are giving away the following goodies to some lucky Illuminations readers:

To score yourself a \$50 Amazon voucher to use online for anything on www.amazon.com, email your most positive LTU-904 laser experience (whether you're a patient or therapist) to sales@riancorp.com and include "Amazon" in the subject line. The best story will win the voucher.

To win a beautiful electric fragrance/aromatherapy oil burner all you need to do is email us a funny story or joke from your clinic. It retails at \$29.95 and is perfect for use at home or your practice as it's safer than the standard oil burner which uses a naked flame. (Only available to Australian residents due to it having an AU power cord). The burner will go to the email that brings us the biggest laughs.

Three lucky readers will win themselves a Lars Hode "Lasers That Heal" booklet. This will go to the first 3 people to send an email to sales@riancorp.com with "Lasers That Heal" in the subject line.

(Competitions close the 17th of January 2011, and winners will be notified on the 20th. Please also include your name and address details within your email. Any story or joke submissions may be used in future issues of Illuminations).

REPORT ON THE NATIONAL LYMPHEDEMA NETWORK CONFERENCE 2010, FLORIDA by Ann Angel

RianCorp exhibited at the NLN conference in September in Florida. It is always great to catch up with friends and colleagues in the US. Thank you to everyone who visited our display stand, and talked to us about their experiences with laser. We were pleased to hear positive results from laser users and to have the opportunity to share the most recent laser for lymphedema trials from Egypt, Turkey and the USA.

Harvey Mayrovitz presented an interesting pilot study on laser for fibrosis. He reported using the Delphin moisture meter to look at changes to moisture readings immediately after laser treatment to a fibrotic area. Although he could not report any definitive findings, he did report some interesting outcomes, so, we look forward to more from Harvey in the future.

Effervescent Leslie Bell also mentioned laser use in her presentation. She gave a passionate presentation that was well received. She is an inspiration to all clinicians!

Many thanks to Andrea Brennan (clinician from Arizona) who offered a local clinician's perspective to laser use on our stand. I am sure that many of you enjoyed listening to Andrea's perspective. She tells me that she has a much greater appreciation for vendors, now that she understands how much talking we have to do! (To ensure that there is no confusion, Andrea is not affiliated with RianCorp, other than as a laser user and friend, and she does not receive any financial incentives from RianCorp).

THERAPIST FOCUS (CONT)

Psychologically, the speedy resolution of the above symptoms is a vitally important part of the healing process. Once the underlying fear dissipates with the resolution of these symptoms, patients can begin to relax and gradually implement the therapeutic self-management interventions therapists have recommended.

Those of you who attended the NLN may have attended the session on the pros and cons of laser for lymphedema with a presentation by Geoffrey Basford, PhD (pro) and Andrea Cheville, MD (con). The concept of the session was great. However, I do have a few comments to make about the session since there wasn't a clinician who uses laser as a treatment modality on the panel and it seems some of the recent trials were not included or at least addressed.

Omar et al, Journal of Surgical Research 2010, reported a randomised double blind study using laser for post mastectomy lymphedema on 50 patients (25 in each group). Patients were treated three times per week for 12 weeks with pulsed 904nm laser at a dose of 1.5Jcm². Patients were followed up at 16 weeks. Omar showed statistically significant improvements in volume reduction, shoulder mobility and grip strength in the laser group in comparison with the placebo group.

Kozanoglu et al reported in Clinical Rehabilitation 2009, a trial comparing low level laser and compression pumps on post mastectomy lymphedema patients. Patients were assigned to receive 2 hours of compression pump over 4 weeks, or 20 minutes of laser over 4 weeks. Patients were followed over 12 months. There were 47 patients. Improvements to limb volume were significant in both groups, but still significant at 12 months in the laser group. (The improvement was greater in the laser group). The authors concluded that the laser group had better long-term results than the pump group.

These controlled clinical trials both demonstrated efficacy of laser in treatment of patients with lymphedema and were not mentioned in the debate. They add to a continuing list of laser for lymphedema evidence including another 2 blinded studies by Lau et al (n=21) and Kaviani et al (n=11).

Geoff Basford is a recognised scientist in the laser world, however, I feel that I should point out that he is not a clinician using laser for treatment nor did he cite the most recent clinical trial data. In fact, up until the release of the NLN program, I was under the impression that Andrea Cheville was reporting on the "pro" side since she was the clinician.

There was considerable criticism about the Carati et al RCT using laser for lymphedema. As I pointed out during the comment period, it is quite reasonable and appropriate for clinicians and scientists to critically review published material, however, I was quite surprised at the level of criticism, given the well recognised view that clinical evidence for treatment of lymphedema is poor. The Technology Assessment Diagnosis and Treatment of Secondary Lymphedema, May 28 2010, for the AHRQ Tech Assessment Program (US Dept of Health and Human Services) reported on the evidence to support the diagnosis and treatment of lymphedema. The report was a systematic review of the literature to support the treatment and diagnosis of lymphedema. Interestingly, the Carati trial was the only RCT that received a "Jadad" score of 8 (information about the Jadad score is available in the report). So, in the context of lymphedema trials, an independent review reported the Carati trial as the highest rated RCT for lymphedema studies.

So, laser was criticised at the NLN conference for an inadequate study, when an independent review actually rated the same study with the highest rating for a lymphedema RCT.

There are public and peer comments published on the Report and I find it interesting that many comments suggested that clinical experience should be taken into consideration alongside RCT's.

However, clinical experience with the laser is negated with the cry for "improved long term clinical trials", yet clinical experience is cited as important and relevant for other lymphedema treatments.

NEWS

The new Therapist Database is now live on the RianCorp website. You can view this addition at:

<http://www.riancorp.com/Therapist-Database/>

TIP

To clean the LTU-904 laser probe tip, wipe with a soft cloth slightly dampened with dilute clear-coloured antibacterial solution such as methylated spirits or an alcohol wipe.



The pro and con session made some quite strong comments about the cost of health care and made the point that medical technology adds to the overall cost of health care. Interestingly, laser for lymphedema is potentially a significant cost saver by reducing the high labour costs in treating lymphedema and offering long term benefits to patients. So, if there is a need to reduce the costs of lymphedema treatment, the laser offers a huge potential to reduce treatment costs and should be a key focus for cost effective studies.

In summary, the initial trial of pro-con sessions at the NLN was in my opinion a very useful method to engage participants in examining topics of interests in lymphedema. However, in the future more care has to be used in selecting the discussants and they should be aware of the clinical issues as well as the current literature to make the session truly informative. I look forward to the next NLN where hopefully other technologies and treatment methodologies can be subjected to the same level of critical review as laser was at the 2010 meeting and hope that through these continued efforts we can see improvements in the treatment outcomes of patients with lymphedema.

THE NATIONAL LYMPHATIC DISEASE AND LYMPHEDEMA REGISTRY

Lymphatic diseases take a variety of forms, but, in general, they have the capacity to affect virtually every organ in the body. These lymphatic diseases include, but are not limited to, primary and secondary lymphedemas, lymphangiomas, cystic hygromas, lymphangiectasias, lymphangiomatosis, and syndromes of mixed lymphatic and vascular anomalies, along with a variety of other developmental disorders that influence lymphatic competence.

This registry is a confidential database that contains information about individuals who carry the diagnosis of a lymphatic disease or of lymphedema. This comprehensive registry will serve as a repository of information that will enhance the future ability of health care professionals to accurately identify, categorize, treat and prevent these diseases.

We invite you to participate in this highly significant development for the patient community. A national patient registry paves the way for future clinical trials of experimental drugs and therapies designed to treat lymphatic diseases. We encourage all patients to participate in this important initiative.

To register please go to:
[HTTP://REGISTRY.LYMPHATICRESEARCH.ORG](http://REGISTRY.LYMPHATICRESEARCH.ORG)

PATIENT INFORMATION IS THE KEY TO FINDING A SOLUTION AND IT IS A CRITICAL RESOURCE TO ADVANCE SCIENCE AND ULTIMATELY, MEDICAL CARE

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NEW RESEARCH

Treatment of Post-Mastectomy Lymphedema with Laser Therapy: Double Blind Placebo Control Randomized Study.

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Faculty of Physical Therapy, Cairo, Egypt. Member of International Panel of Advisory Board for Indian Journal of Physiotherapy and Occupational Therapy.

Abstract

BACKGROUND: In post-mastectomy patients, lymphedema has the potential to become a permanent progressive condition and become extremely resistant to treatment. Thus, it can result in function impairment and decrease quality of life. The aim of this study was to evaluate the effect of low level laser therapy (LLLT) on limb volume, shoulder mobility, and hand grip strength.

MATERIAL AND METHODS: Fifty women with breast cancer-related lymphedema were enrolled in a double-blind, placebo controlled trial. Patients were randomly assigned to active laser (n = 25) and placebo (n = 25) groups and received irradiation with Ga-As laser device that had wavelength of 904 nm, power of 5 mW, and spot size of 0.2 cm² over the axillary and arm areas, three times a week for 12 wk. The total energy applied at each point was 300 mJoules over seven points, giving a dosage of 1.5 joules/cm² in the active group. The placebo group received placebo therapy in which the laser had been disabled without affecting its apparent function. Limb circumference, shoulder mobility, and grip strength were measured before treatment and at 4, 8, and 12 wk.

RESULTS: The two groups had similar parameters at baseline. The reduction of limb volume tended to decline in both groups. The trend being more significantly pronounced in active LLLT group than placebo at 8 and 12 wk, respectively (P < 0.05). Goniometric data for shoulder mobility and hand grip strength were statistically significant for LLLT group than for placebo.

CONCLUSION: Laser treatment was found to be effective in reducing the limb volume, increase shoulder mobility, and hand grip strength in approximately 93% of patients with postmastectomy lymphedema.

Retrieved from:

<http://www.ncbi.nlm.nih.gov/pubmed/20538293>