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THERAPY NEWS

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Inside this issue:

Editorial

Robert Harris, HND, RMT, CLT-LANA

The only constant in life appears to be change and we all keep changing in many MLD ways, be it in our techniques (I hear Hildegard!), new ways of treating patients, how we work with our patients and how we adapt to changes. This year we saw the first course offered through the Dr. Vodder School that addressed the issue of change in how we work with our patients. I am so grateful to Sara Nelson, PT for putting this course together and tackling this sorely needed topic. On the topic of change, we now have new DVDs available for the updated Basic and Therapy I sequences as well as a new DVD on lymphedema treatment showing all techniques and sequences for arm and leg lymphedema patients. We also have a new workbook available for Basic and Therapy I course theory.§

Slow and fast lymph flow-Overweight and slim-Is there a relationship?

By Prof. Neil Piller

Lymphoedema is a result of a lymphatic system's failure to remove accumulated fluids and their contents (including a range of metabolic wastes, cytokines and proteins as well as a range of cells and other by-products). Lymph flow is generally slower in a lymphoedematous limb than in a normal limb and the patency of the system is often poor. These events have been frequently indicated by lymphoscintigraphy which is a key indicator of the functional status of the lymphatic system. [1]

Professor Piller

Lymphoedema is unusual among disorders involving fluid accumulation in the tissues (compared with oedemas associated with cardio-vascular issues) in that in its intermediate and later stages, it is characterized by a tendency towards increased fatty tissue deposits within the subcutaneous tissues.

Another condition called lipoedema (which has some similarity to lymphoedema in terms of the increase in fatty tissues in the subcutaneous tissues) shows a tendency towards damaged or dysfunctional microvascular and lymphatic vessels – most-often exhibiting problems of increased permeabilities. In its later stages, lymph flow is sluggish, as is found in lymphoedema. [2]

Some of the early works (Clark and others in the 1940's and later Casley-Smith) and later studies by Hakan Brorson on the blood-tissue lymph system have suggested that lymph flow and adiposity might be related. Certainly animal studies have shown that lymph can promote the differentiation of pre-adipocytes into adipocytes, while, when there is chronic inflammation within the lymph nodes{which commonly occurs in lymphoedema and has been known since the days of Willoughby and Di Rosa}, there is an increased tendency to deposit fat around them. Also lymph nodes (wherever they are) are generally found surrounded by adipose tissue.

Thus the links between lymph and fatty deposits are strong.

Since those days a number of animal studies have shown that structural weaknesses of the lymphatic and vascular systems can lead to local area changes in adiposity. This adiposity seems related to a tendency to encourage pre-adipocytes to develop into adipocytes and for the adipocytes to store more fat. It seems also that these changes and this tendency are limited to areas where there are structural changes in the lymphatic system, and thus poor or slow lymph flow. Basically this is the result of what has been described as "mispatterned and ruptured lymphatic vessels". [3] And why does this problem occur? Basically it seems related to an inactivation of a single allele of a gene called Prox1.

This exciting finding was made in a group of mice and really was the first study to clearly show in vivo that excess adiposity (obesity) was linked to structural and thus functional changes to the lymphatic system.

Many other studies on other types of genetically aberrant mice have also supported this current finding (which I might add was confined to the abdominal area) in other areas of their bodies such as subcutaneous areas similar to those occurring in patients after lymphatic system damage by surgery and or radiotherapy. So the link seems to be an increasingly strong one.

So for those of us who are a little overweight does it mean that our lymphatic system is generally not working all that well, that lymph flow is slow or that it has some structural anomaly?

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Slow and fast lymph flow-Overweight and slim-Is there a relationship?

Cont'd from page 1

Conversely, does it mean that for those of us who are skinny that we have a very structurally sound and well functioning fast flowing lymphatic system? Only time will tell, but some of the evidence is suggesting that!

However, in the mean time, if you're a little overweight, exercise and pay attention to your diet and if you're skinny – get fat!!

However on a more serious note, those of us who are genuinely cachexic, maybe there is a lack of those adipogenic factors in the lymph that have lead to that condition.

But for the thick and thin of it all, it does seem that the lymphatic system may have a very crucial role to play! Keep in tune with it all, in the next few years I'm sure we are going to be astounded by what will be discovered and we might just find that your role as an MLD therapist in lymphatic system stimulation is even more important than you ever imagined!

Professor Neil Piller, Director, lymphoedema Assessment Clinic, Department of Surgery, School of Medicine, Flinders University and Medical Centre, South Australia

References

1 Keeley, V (2006). Lymphoscintigraphy. Journal of Lymphoedema 1(1),

2 Foeldi M et al (2003) Textbook of lymphology Chapter 9 Lipoedema Urban and Fisher

3 Harvey N L et al (2005) Lymphatic vascular defects promoted by Prox1 haploinsufficiency cause adult onset obesity. Nature Genetics 18th sept doi: 10.1038/ng1642 (advance online publication) www.nature.com/naturegenetics.§

"...if you're a little overweight, exercise and pay attention to your diet and if you're skinny – get fat!!"

Report on the 10th Jubilee Conference of the Dutch Society for Physiotherapy in Lymphedema (NVFL)

By Robert Harris

Prof. Mortimer

April 20 – 21, 2007 Eindhoven, Holland.

The NVFL is a special interest group of physiotherapists who have taken training in lymphedema management. There are over 700 members in Holland and they hold annual conferences and workshops. Approximately 275 members attended the 2007 conference and the guest speakers from around the world included (amongst others): Dr. G. Manorkoran (India); Prof. P. Mortimer (UK); Dr. E. Foeldi (Germany); Prof. R Hennekam (UK); Dr R. Damstra (Netherlands); Dr. K. Johansson (Sweden); Dr. J. Veraart (Netherlands); J. Whitaker (UK); T. Zee (Netherlands); R. Harris (Canada). The theme of the conference was "Growth and Development in Edema Therapy" and some of the highlights are reported below.

Justine Whitaker, RN described an innovative method she has devised to support and compress the scrotum in patients with lymphedema. She modified a class 1 arm compression sleeve (round knit) and attached support straps, making a pocket shape. The design has been taken by Medi who now market the product commercially in Europe in three sizes, using the name: "The Whitaker Pouch".

Dr. Manorkoran explained a surgical procedure used with stage 3 and 4 cases of filariasis – induced lymphedema that do not respond to conservative measures. The nodal – venous shunt involves attaching a patent lymph node with afferent collectors to a vein in order to bypass an area that has been disrupted by filarial worms. The surgery cannot be used for cancer-related or primary lymphedemas but was shown to be successful in treating extreme cases of filarial-induced lymphedema in India. Dr. Manorkoran reported that this disease causes more than 120 million cases of lymphedema in India alone which represent more than two thirds of all lymphedema cases worldwide. He also reported on a new simple blood immunological test (ICT card), which can detect antibodies to the worms three months after infection.

Dr. Veraart described research on the pressure exerted by bandages and compression garments. Using pressure sensors under short stretch bandages, he reported that pressure decreases by 30% within an hour and by 50% in 24 hours. Long stretch bandages appear to retain their pressure. Under compression garments, he looked at how pressure changed around the circumference of the limb at any given point. Flatter areas of the limb had less pressure exerted than round areas. He measured the pressure exerted by new garments and found that 20% of garments did not exert the pressure that they were supposed to and that 80% of stockings lost their compression force after 6 months of use.

Dr. Johansson reported on exercise research on lymphedema patients doing Nordic Walking and using controlled weight-bearing arm exercises. She found no worsening of the edema even though patients were not wearing a compression sleeve in the latter study.

Prof. Mortimer reported that in Milroy's disease (primary lymphedema caused by defect in the VEGFCR – 3 gene) there is a failure of the initial lymph vessels but not an aplasia of collector vessels, as was previously thought. There is also co-existing venous disease in these patients.

The conference was very well organized and a fun evening of food and dance kept everyone entertained on Friday evening. It is good to see a committed and enthusiastic group of therapists working together to raise the standard of lymphedema care in Holland.

Robert Harris, Director and Senior Instructor, Dr. Vodder School – International, Victoria, BC, Canada.§

Reports on the Course: "Managing Difficult Patients in Lymphedema Care" with Sara Nelson, PT

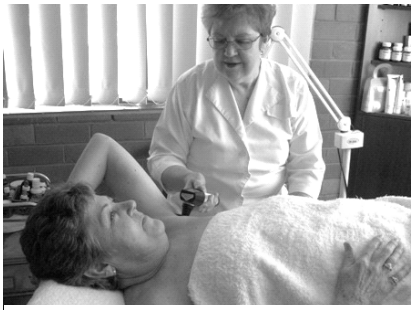
Held in Stowe, VT June 4, 2007 and Victoria, BC July 31, 2007

"Managing the Difficult Patient in Lymphedema Care" was truly worthwhile. Since we were asked to bring case histories of some of our difficult patients, I expected we would be reviewing each case and then sharing ideas with each other. Instead, the course included Differential Diagnosis, the use of Behavioral Management Tools, understanding how our own behavior may be affecting our treatment outcomes, an excellent syllabus with treatment protocols and bibliography, and more. Sara Nelson is a great presenter who keeps your attention the entire time. She will make you rethink what you have been doing with your patients." Jane Reinsch, MA, PT, CLT-LANA, Windsor, CT

"This course was so much more than advertised and expected! Sara's jam-packed one day course creatively explores the rationale for the use of behavioral management in a lymphedema practice while also reviewing differential diagnoses, elements of developing a treatment plan, strategies to help patients go from self-neglect to self-care, and critical elements of basic communication between therapist and patient. There were lots of ideas to think about and consider implementing in our practice as Vodder therapists. It was easy, too, to see the bigger, life implications of this behavioral management and interpersonal communications information! I came away from this course reminded of how important it is to continue to professionally challenge ourselves to provide the very best care we can to our challenging if not difficult patient population. I would definitely recommend this course!" Julie Nielsen, PT, Midland MI.§

Report on the use of the LTU 904 Laser.

By Jean Coletti, PT



LTU 904 laser in use

I was first introduced to the LTU-904 low level light laser at the June 1-3, 2007 Vodder Review in Stowe, VT. Intrigued, I requested a trial laser for the clinic. I've had very good results with the use of this device.

The first patient that experienced laser treatment was a 55 y.o. woman with lipedema who recently underwent liposuction. She really wanted to eliminate the "cuffs" of adipose tissue around her ankles. The surgeon was able to do that for her, but she sustained an infection in both ankles afterward. After the infection resolved, she came into the clinic wanting MLD to soften the pitting edema and fibrosis that was appearing at her ankles. Since one of the laser's effects is to halt fibrosis and promote wound healing, I treated her with MLD in conjunction with the LTU-904 laser around the ankles. In four treatments, the fibrosis had resolved, the puncture wound from the liposuction cannula had closed, and she finally had the slim ankles that she had always wanted.

I have also used the laser on a 32 y.o. man who had a diagnostic axillary dissection for suspected lymphoma. He had less than 90 degrees of elevation of the left shoulder. He also had quite a bit of axillary webbing pain. His goal was to be able to return to playing basketball. In the first treatment, I used the laser along both sides of the axillary incision and along the axillary web. I followed this with myofascial techniques along the axillary web and there were several audible adhesion releases. He was able to flex his left shoulder to 130 degrees after this treatment. He was given home ROM exercises. The second treatment proceeded in the same manner, with the patient able to obtain full flexion and abduction. After that treatment, he was able to play basketball, but still reported mild axillary webbing restriction. After the third treatment, he had full range with no complaints of axillary web pain or restriction.

The third patient, who is currently receiving the laser, is a 38 y.o. female after a second course of radiation in the same area after a breast cancer reoccurrence. I had seen her in the past soon after her second course of radiation. At that time, we were able to improve her cervical active ROM and decrease her scapular instability and pain. She had a ROM home program. Over time, she found that as the radiation healed and more fibrosis set into muscles that had already been fibrotic, she began to have limited left shoulder AROM with radiculopathy, scapular instability, and neck pain. She returned to therapy and her chief complaint was a fibrotic hardness at the pec minor muscle and pec major insertion. She had seen a massage therapist who was able to soften this area, but the hardness always came back in about a day. She was not sure that the laser would work for her, so I did a trial, spending the 15 minute treatment in this problem area only. The tissue was palpably softer after use of the laser. I also taped her left shoulder into retraction and external rotation. She called me a few days later to report that the muscles were still soft and that her radiculopathy had decreased by 25%. She wanted to continue use of the laser in her treatment.

I have spent time visiting cancer centers and physician offices to educate the staff about the LTU-904 and its benefits. My clinic's intention is to purchase the device. Since insurances may not cover the treatment, we have patients sign an insurance waiver and pay $40.00 out-of-pocket for a 15 minute laser treatment. I obtain a prescription from the physician for laser treatment and the patient submits the prescription and his receipts to his insurance company on his own. To use the laser for diagnoses other than the FDA approved post-mastectomy lymphedema (in the USA), I would recommend a formal review and approval by your facility's medical director and a patient waiver.

I would like to extend my thanks to the Vodder School for presenting the latest treatments in lymphedema and to RianCorp for their trial laser program.

Jean Coletti, PT, Ashville, NC.§

"Intrigued, I requested a trial laser for the clinic. I've had very good results with the use of this device."

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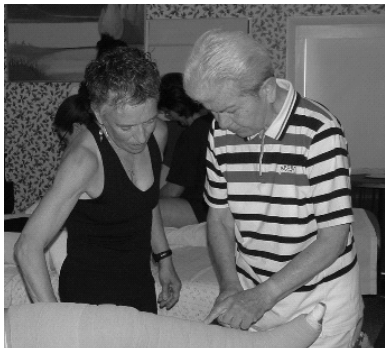
Review Reports 2007

Adelaide, Australia - April 2007

Prof. Piller discussing patient treatment plan

Eighteen therapists from Australia and New Zealand attended a successful Review in Adelaide at the Massage Study Centre. Professor Neil Piller from Flinder's University gave a very thorough updating on the latest in research, especially concerning the connection between lymphatics and obesity / fat deposition (see article on front page). Ann Angel from RianCorp gave a talk on laser use in Australia. Case presentations were made by *Bronwyn Paynter, OT* on a patient with breast edema with an ulcerating tumour site; *Fiona Atkinson, RMT* on a patient with venous ulceration; *Barbara Dickson, RN* on a patient with a toe amputation and non-healing wound. Class discussions were held on treating challenging cases and all contributed to finding creative solutions. Robert Harris led the practical sessions.

Stowe, VT - June 2007



Nice Bandaging!

The Stowe location proved very popular this year and two Reviews were held, back-to-back. Apart from the checking and refinement of technique and bandaging, presentations were also made by Ann Angel and Lynn Barnet (Vodder therapist) from RianCorp on the use of laser therapy, and by Danielle Fisher from Impedimed on the use of bioimpedance for evaluating lymphedema. Renee Romero from Bandages Plus also gave an update on bandaging supplies and the use of the Tribute compression systems. Case presentations were from *Jean Coletti, PT* on the treatment of a patient with stage III LE lymphedema accompanied by diabetes and venous insufficiency; *Alicia Whiten, PT* on an elderly patient with bilateral LE lymphedema; *Betsey O'Neil* on a patient with lower extremity lymphedema as the result of melanoma; *Jan Hollerbach, MA*, OTR/L on a patient with bilateral LE lymphedema and venous stasis wounds; *Nadine Maraj-Nyiri, RMT* on the treatment of a morbidly obese patient with possible lipolymphedema and ulceration.

Victoria, BC - July 2007

A change of venue was made this year, moving from

Hildegard presenting the work of
Prof. Hutzschenreuter

St. Margaret's School to a downtown location, the Bedford Regency Hotel. The Bedford is located in the heart of Victoria and many therapists had given us feedback in the past that they desired a more central location with options for the evenings after class. We had excellent attendance with 42 therapists and the standard of therapy was generally very high amongst therapists. Case presentations were made by *Jane Sereda LMT* on severe bruising; *Carrrie Makoskey, OTR* on a secondary arm lymphedema patient with severe arthritis; *Wanda Guenther RMT* on a patient with a secondary arm lymphedema who underwent a TUG flap (Gracillis muscle) breast reconstruction; *Julie Cochran, CMT* on a bilateral arm lymphedema patient who had undergone the wrong exercise program; *Kelly Orcutt, RMT* on a patient with arm and thorax lymphedema; *Freda Yako Mallot* on a long-standing arm lymphedema patient with paralysis; *Sara Nelson PT* on a patient post lumpectomy with thoracic outlet syndrome; *Tina Hammond, PTA* on a secondary leg lymphedema patient with a hypertrophic development of the 'lymph sea'; as well as a patient with bilateral primary leg lymphedema as well as secondary leg lymphedema (unilateral) and an open wound; *Julie Nielsen PT* on a patient with a combination lower extremity lymphedema and venous edema with open wounds; *Judy Culbertson, PT* on a 400 lbs patient with lower extremity lymphedema; *Terice Reimer Clarke, BSc PT* on a patient with osteoarthritis and venous disease with a venous ulcer; *Linda Moore, CMT* on a patient with primary leg lymphedema; *Sheryl Au, PT* on a patient with bilateral primary leg lymphedema.
On the last day of the course we were joined by Professor Weissleder who presented on the latest in lymphological research and especially on new imaging methods for detecting early stage cancer metastases. Prof. Hildegard WIttlinger talked about the work of Prof. Paul Hutzschenreuter within the context of MLD. Angela Vollmer presented on fitting garments for acute lymphedema.§

See page 7 for a listing of upcoming Reviews and remember to register early to guarantee your place.

The research of Prof. Dr. Paul Hutzschenreuter

By Prof. Hildegard Wittlinger

Professor Hutzschenreuter

This is a short summary of the main areas of research conducted by Prof. Dr. Paul Hutzschenreuter (1927-2006) of the University of Ulm, Germany into the effects of Dr. Vodder's Manual Lymph Drainage.

Manual Lymph Drainage and smooth muscle cells.

What does MLD do? It adds pressure forces which are potential energy, changing the receptor potential of the mechanoreceptors of the skin. This causes a decrease of the sympathetic activity which leads to a dilation of the lymph collectors. Consequently the pressure in the lymph collectors rises and this leads to an increase in contractions. A further increase in contractions is achieved by passive stretching of the smooth muscle cell. If, after adding potential energy, the contraction mechanism initiates chemical energy, this will facilitate a build up of kinetic energy which is a force increasing lymph flow. Potential energy and chemical energy are converted into kinetic energy.

Investigating the effect of MLD on edematous, paralyzed arms.

At one time, it was doubted that the edema of a paralyzed arm is a lymphostatic edema. How do patients with a flaccid arm paralysis react to MLD treatments with reference to the status of their autonomic nervous system and their microcirculation?

Taking the mean between the difference of two parameters–surface of the vessel and speed of blood flow before and after a series of treatments, no changes were found. MLD has no effect on the autonomic nervous system of a patient suffering from a paralysis of the arm while MLD always has an effect on patients suffering from peripheral circulatory disturbances of the arteries.

Measuring skin resistance.

When applying MLD, the skin resistance measured in ohms significantly increases. This is triggered by a reduction of sympathetic nervous system activity and followed by an increase of the transport capacity of the lymph. Stronger pressures activate the sympathetic nervous system, proven by a significant decrease of the skin resistance (ohm) followed by a narrowing of the vessels. A stronger pressure will move the protein-rich interstitial fluid passively into less damaged tissues where this fluid can be absorbed by functioning initial lymph vessels.

Microcirculation in arterio-occlusive disease and diabetes mellitus.

Both diseases have a macro-and micro angiopathy which leads to a macro circulatory insufficiency. Clinically we see the walking range of a patient decreasing due to muscle pain arising from a pathologic microcirculation. In a clinical study, 16 patients were treated with MLD during 4 weeks. The patients had to do a standardized walking training. The walking distance increased, the muscle hypertonicity decreased and the blood flow increased. With reference to microcirculation, the effect of MLD in both diseases can be explained because the increased tone of the smooth muscle cell of the arterioles. This means we have an increased filtration and with reference to the lymph vessel system, an increased lymph flow due to a higher lymphangiomotoricity. More lymph-obligatory load is resorbed into the initial lymph vessels from the interstitial spaces and the transit stretch between capillary and cell is reduced. We all know that this brings more oxygen and nutrients to the cells. It is better to treat arterio-sclerotic vessel changes early when they are still reversible

Proof of quality has been demonstrated for more than 30 years, i.e. measuring the volume of edemas. Proof of quality work (i.e. an excellent MLD and bandaging) is never done or asked for. By attending reviews, Dr. Vodder therapists belong to the exceptions!

Whiplash: neck brace not required.

Whiplash is divided in 5 grades. **Grade 0**-no problems at all, **grade I**: problems with pain, stiffness and sensitivity to touch in the neck area, no physical signs; **grade II**: problems in the neck area with muscle and skeletal signs; **grade III** problems in the neck area with neurological signs; **grade IV**: problems in the neck area with fracture or dislocation. Outpatient treatment can be applied only with grade I and II cases.

The first study was done with 30 patients. They wore a neck brace and had 10 MLD treatments. 20 out of 30 complained of ongoing headache and restriction in the range of motion of the cervical spine as well as a feeling of pressure at the base of the skull.

A second standardized study without neck brace and 10 MLD treatments was done. 24 patients were treated with MLD within the first 24 hours after the accident. The existing local post-traumatic edema in the dorsal neck area disappeared significantly after the 2rd MLD treatment. 10 of 24 patients were completely symptom free after these 10 MLD treatments and it was not necessary to give further MLD treatments to the remaining 14 patients.

Why is it not necessary to wear the neck brace? Why were the patients symptom-free after 10 MLD treatments? Grade I and II whiplash is a combination of distortion of the cervical vertebra with a contused trauma of the soft tissues of the dorsal neck area.

To answer the first question: if intracapsular fracture and ruptures of ligaments are excluded radiologically, immobilization of the small vertebral joints causes a contraction of their capsules and deposition of post-traumatic substances. Each movement of the neck stimulates the passive lymph transport. Immobilization of the neck musculature due to the neck brace decreases lymph transport. Immobilization of the neck with a brace leads to chronic pain in the head and neck area.

Each trauma of soft tissue leads to a damage of the muscle fibers. A chemical reaction starts which ends in prostaglandin E and which dilates the vessels. An exudative process occurs which can last several days. This process can develop already by the second day into a proliferative phase.

If we began right away on the day of the trauma, this explains why the local edema (with grade I and II) already decreases after the second MLD treatment and it will not become a chronic condition.

Research studies looking at how patients and/or therapists react to MLD treatments.

The functional state of the Autonomic Nervous System (ANS) can be measured looking at the resistance of the skin with biotonometry. With this method we proved a sympathicolytic reaction of the patient when being treated with MLD.

Are the values of the skin resistance different in the therapist or the patient before the treatments started? How does the ANS of the therapist react to MLD? Does the ANS of the therapist and the patient react the same way to MLD or not?

Four MLD therapists treated 20 patients with secondary arm lymph edema (state II-III) on five consecutive days for 45 minutes each session. The result was: in 50% of all treatments the therapist and patient had a sympathicolytic reaction: in 21% of all treatments the therapist and patient had a sympathetic reaction.: in 18% of all treatments the therapist had a sympathetic reaction and the patient, a sympathicolytic reaction.

The summary is that a sympathicolytic reaction was seen in the therapist in 61% of all treatments and in the patient in 68% of all treatments. As long as the therapists treated lymphedema patients with similar tissue consistency (which means the therapist could always apply the same pressure) one could see a 50% agreement with the sympathicolytic effect on the therapist and the patient. If intensive firmer pressure was applied, as in fibrosis movements then either the therapist and patient or the therapist or the patient had a sympathetic reaction (21%).

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This report on the work of Prof. Hutzschenreuter was presented at our Reviews by Prof. Hildegard Wittlinger in 2007

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Congratulations:

To our newly Certified Therapists!

Therapy II / III Class in Adelaide, SA - April 2007

Angelique Borton, RMT	Galston, Australia	Helen Eason, BSc PT	Richmond, Australia
Mary Shearer, BSc PT	Newcastle, Australia	Robin Philpott, RMT	Albany, Australia
Fiona Carr, RMT	Toolijooa, Australia	Eileen O'Brien, RMT	Queenspark, New Zealand
Susan Clegg, RMT	Bendigo, Australia		

Therapy II / III Class in Stowe, VT - June 2007

Amy Alt, MT	Montreal, QC	Melissa Laflin, MT	Fairfax, VT
Patricia Annis, LMT	Chicago, IL	Stephanie Lockingen, PT	Keller, TX
Charissa Baker, LMT	Easton, PA	Susan Montgomery, OTR/L	Morgantown, WV
Carla Balsink, CMT	Duluth, GA	Meaghan Mozingo, CMT	Norfolk, VA
Michelle Forrest, OTR/L	Boone, NC	Artie Rosati, CMT	Smithsburg, MD
Mary Ann Johnson, OTR	Albuquerque, NM	Lydia M Thomas, OTR/L	Tupelo, MS

Therapy II / III Class in Victoria, BC - July 2007

Sheila Bailey, LMP	Port Townsend, WA	Mariko Irie, RN	Kawasaki, Japan
Kathleen Barry-Murphy	Dublin, Ireland	Deborah Kendall, PT	Houston, TX
Janet Bodner, RMT	Ottawa, ON	Julie Annette Larson, RN, LMP	Sequim, WA
Kielly Christie, RMT	Halifax, NS	Cynthia Lohnes-Ferrolino, BSc, RMT	Chester, NS
Sandie East, LMT	Dana Point, CA	Mary Moriarty, RN	Dublin, Ireland
Ruth Frisby	Vernon, BC	Terri-Lynn Nelson, MT	Sault Ste Marie, ON
Kerry Horrigan, PT	Dublin, Ireland	Diane Okamura, CMT	Cypress, CA
Katie Hughes, OTR/L	Scottsdale, AZ	Geraldine Osborne, RMT	Launceston, Australia

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To our newly Certified Therapists!

Félicitations à nos nouveaux diplômés!

Laval, PQ - September 2007
(No Photo available)

Denise Aumont	Sudbury, ON	Claudia Maltais, MT	Outremont, QC
Nathalie Couderc, MT	Bromont, QC	Edith Pierre, RN	Pierrefonds, QC
Bertha Fuchsman-Small, MT	Ste Anne De Bellevlle, QC	Carolle Pineault	Longueuil, QC
Martine Hamlet, MT	Hatley, QC	Martine Rancourt, MT	St Augustin, QC
Alain Lariviere, MT	Montebello, QC	Caroline St. Pierre, PT	Quebec, QC
Irene Lebuis, MT	Montreal, QC		

Reviews for 2008

Please register early to confirm your place in a Review. Space is limited according to instructor availability.

Dallas, TX
January 25 - 27 and Jan 27 - 29, 2008. Join us at the Radisson in Central Dallas. Prof. Weissleder will be the main speaker.
Also offering Marnitz Therapy (Mtz), Managing Difficult Patients (MDP) and Elastic Bandaging for Lymphedema (EBL)

Fremantle, WA, Australia
March 29 - 31, 2008. Join us at the Fremantle Sailing club. Prof Piller and Keryln Carville, RN, PhD will be the main speakers.

Stowe, VT
May 30 - June 1, 2008. Join us at the Golden Eagle Resort. Prof. Weissleder will the main speaker.
Also offering Mtz, MDP and (EBL).

Walchsee, Austria
July 7 2008. For more information about this course please call 011 43 5374 5245 or email office@vodderschule.com.

Victoria, BC
October 31 - November 2, 2008. Join us at Bedford Regency Hotel.
Prof. Weissleder will be the main speaker. §

The research of Prof. Dr. P. Hutzschenreuter

Cont'd from page 5

What effect does a sympathetic reaction have on the therapist and a patient with secondary lymphedema? Therapist's and patient's lymph vessels become spastic and filtration rate of the microcirculation increases due to vasomotion, which in the past was interpreted as a higher permeability of the capillaries. Every increase in interstitial fluid must be removed by the lymph vessel system, which has to be activated.
This happens as we know by the sympathicolytic state and local passive stretching of the lymph angion from inside and outside.
The pressure which is applied using the Vodder technique depends to a great extent on the consistency of the edema. The harder the tissue, the firmer the pressure we apply and with a harder pressure we find less sympathicolytic effect even if we use rhythmic MLD techniques. Furthermore, if the therapist is able to block out external distractions such as talking with the patient, this allows him or her to be fully concentrated during the treatment. The therapist can then observe a calming or sympathicolytic effect of the MLD. If, however the therapist is uncomfortable, for example suffering from back pain, the sympathetic reaction can be understood.

Further studies should be made in order to find out causes which have to be sorted out in order to increase the sympathicolytic reaction of patients and therapists that would further increase the effectivity of the MLD treatment. Vodder assumed that his MLD is most effective as a physical therapy if a symphathicolytic (vagotonic) effect is triggered.

Effect of MLD on peristalsis in the intestines

17 patients with secondary arm edema were treated 45 minutes twice per day (morning and afternoon). Peristaltic movements of the small intestines become audible (borborygmus) which means that peristalsis is increasing due to an activated vagus nerve by MLD. The peristaltic intestinal motility is stimulated with MLD which is a primary effect. A secondary effect is that the vagotonic reaction is maintained until the second treatment. A third effect is that the second treatment increases the vagotonic reaction and it is added to the primary effect. Vodder assumed that his MLD is most effective as a physical therapy if a sympathicolytic or vagotonic effect is triggered.

Bibliography available upon request from the Dr. Vodder School. §

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DECONGESTIVE
THERAPY

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Administration

This issue of the newsletter is available on our website at the following address: www.vodderschool.com/special_feature/sept2007_newsletter.pdf. Many therapists request reprints of articles or references and in the future we would like to send you an email with the link to the latest newsletter and any new handouts and articles, flyers etc.

Please be sure that your information is up to date. This ensures that patients who are looking for your help with their MLD needs are getting to the right people.§

In Brief

New 4th edition of Lymphedema Diagnosis and Therapy textbook by Prof. Weissleder and Schuchhardt is now being printed. Please contact the Dr. Vodder School at info@vodderschool.com, if you would like to order a copy now. Cost is $65 US or CAD.

New Booklet for Basic and Therapy courses. This has been written by the medical directors of the Dr. Vodder Schule, Austria and is an excellent, up-to-date overview of the theory for these courses. The 29 page workbook is in colour with lots of colour diagrams and will replace the Volume I and II textbooks as the workbook for these courses. It is now used internationally at all Dr. Vodder School courses. It can be purchased from the Dr. Vodder School for $25 US or CAD.

New DVDs. We are very pleased to announce that the Dr. Vodder School in Austria has produced new DVDs in 5 languages showing the new Basic and Therapy I sequences as they are now taught in class. In addition there is a brand new DVD in 5 languages showing the edema techniques and sequences for treating lymphedema patients. DVDs are available in NTSC (North American) or PAL (Europe, Australia) formats and are $55 US or CAD each, available from the Dr. Vodder School.§

Articles

Validation of a New Technique for the Quantitation of Edema in the Experimental Setting Da Pan, Jennifer Han, Paul Wilburn, Stanley G. Rockson. Lymphatic Research and Biology. 2006, 4(3): 153-158. http://www.liebertonline.com/toc/lrb/4/3

BACKGROUND: An inherent limitation to the study of in vivo animal models of lymphedema is the potential inaccuracy or unreliability of existing methods for the quantification of edema volume as a surrogate functional measure of lymphatic transport capacity. Circumference based techniques have been proposed and validated as a suitable alternative to volume displacement measurements in human clinical studies; accordingly, we have elaborated a new application of this approach that can be applied to small animal studies.

METHODS: Acute postsurgical lymphedema was created experimentally in the murine tail. Both normal and lymphedematous murine tails were examined. Tail volume was quantitated both by water displacement and by a digital photographic technique. In selected mice, after sacrificed on postsurgical day 7, a 6 cm segment was resected from the midportion of the tail and cauterized to create a closed space. Known incremental volumes of saline (20–100 µL) were injected for subsequent digital photographic volumetry.

RESULTS: The coefficients of variation for volume assessment by water displacement and by digital imaging were 0.08 ± 0.09 and 0.01 ± 0.009, respectively. The two techniques were poorly correlated: while serial water displacement analysis yielded highly variable measurements within the same tail, concurrent digital imaging of the tail circumference was quite reproducible. Furthermore, after parenteral injection of known incremental volumes of saline, the correlation between the injectate volumes and the digitally measured increases in volume was high, both in the normal and the lymphedematous tail.

CONCLUSION: In the murine tail, when compared to water displacement volumetry, digital photography yields highly reproducible data. We can conclude that the lack of correlation between the two methods, with the relatively flat slope of the linear regression relationship, reflects inherent inaccuracies of the water displacement method.

A Simple and Innovative Device to Measure Arm Volume at Home for Patients with Lymphedema after Breast Cancer: Lette, Jean. Journal of Clinical Oncology. 2006, 24 (34): 5434-5440. http://jco.ascopubs.org/

PURPOSE: We designed an arm volumeter specifically for home use based on the water displacement method. The objective of this study was to determine its accuracy and precision, and compare it with a standard volumeter used in lymphedema clinics worldwide.

PATIENTS AND METHODS: Using a standard model hospital volumeter and our own device, we took three consecutive measurements of 11 specially cast cylinders, which had known volumes ranging from 10mL to 4 L, and measurements of both arms of 15 volunteers.

RESULTS: Measurements with both volumeters were highly accurate (R^2 = 0.9999) when compared with the known volumes of the cast cylinders, and were strongly correlated (R^2 = 0.9974) when each arm volume was compared between volumeters. Measurements with our volumeter were more precise both with the cylinders (average standard deviation [SD], 3.2 v 8 mL; P = .0553) and with the arms (average SD, 11.1 v 19 mL; P = .0034). Whereas the standard volumeter is expensive, fragile (acrylic), and prone to leaks, our volumeter is inexpensive, virtually indestructible, leak proof, and suitable for home use.

CONCLUSION: Arm volumes can be measured quickly and accurately at home using a simple, inexpensive, and robust device based on water displacement. Readily accessible arm volumetry at home may have widespread influence on the management of lymphedema after breast cancer.§

Upcoming Conferences / LANA

American Society of Lymphology (ASL) Conference:
November 26 – 28, 2007, Kansas City, MO
Contact: www.lympholgy.org

Australasian Lymphology Conference:
March 27 – 29, 2008, Perth WA, Australia
Contact: www.lymphology.asn.au

National Lymphedema Network Conference
August 27 – 31, 2008, San Diego, CA
Contact: www.lymphnet.org

International Society of Lymphology Congress, September 19-28, 2009, Cairns/Sydney/Uluru, Australia
Contact: lymphology@icmsaust.com.au

Lana Recertification: Please note that attending a Dr. Vodder Review meets the LANA recertification requirement

LANA Exams: April 07 - 26 and October 13 – November 01, 2008.
Contact: www.clt-lana.org§