Effects of Manual Lymph Drainage on Systemic Scleroderma

Today I would like to share with you a report on a study of the effects of manual lymph drainage (Vodder technique) on systemic scleroderma, which was published in the January 10 issue of "Lymphologie Aktuell", the member journal of the German Society of Lymphology.

Introduction:

The impacts on the quality of life in individuals affected by progressive systemic scleroderma, an autoimmune disease affecting the connective tissue, are caused by hardening of the skin and joint and muscle pain.

Progressive systemic scleroderma with swelling in hand and fingers

Depending on the stage of the disease the hands are affected to varying degrees; in the early stages edema is often present, mainly affecting the hand and fingers. Swelling in the fingers often causes reduced mobility and functional impairment, resulting in impairment of activities of daily living.

Literature indicates that in addition to the microvascular damage to the blood vessels in systemic scleroderma, the lymphatic vessels can be affected as well (lymphatic microangiopathy, rarefaction of initial lymph vessels in the skin).

Method:

Manual lymph drainage (MLD – Vodder technique) was performed in 20 (therapy group) of 35 patients affected by systemic scleroderma (SSD) with symptoms including swollen hands and fingers. MLD was administered once a week for 60 minutes on the entire upper extremity over a period of 5 weeks.
The remaining 15 patients represented the control group.

Data was collected before and after the 5 weeks of therapy, as well as 9 weeks following the conclusion of MLD therapy. Data collection included the hand volumes (using water displacement method), hand mobility, subjective assessment of hand edema and pain level, and changes in quality of life (patient questionnaire).

Comparison of hand volumes in the therapy and control group before MLD, directly following 5 weeks of MLD and 9 weeks after conclusion of MLD therapy:

Hand volume (in milliliters/ml) Therapy Group

Before MLD: 340.0 ± 59.51

After MLD: 310.7 ± 51.84

9 weeks post MLD: 316.6 ± 61.76

Hand volume (in milliliters/ml) Control Group

Before MLD: 343.7 ± 51.25

After MLD: 345.3 ± 46.56

9 weeks post MLD: 350.2 ± 46.90

Results:

Patients belonging to the therapy group showed significant reduction in swelling and pain, as well as improved hand mobility; results remained unchanged 9 weeks following the conclusion of MLD therapy.

No regression of the hand edema or improvement of symptoms was observed in the control group.

The pharmaceutical regimen for SSD remained unchanged in both groups.

Conclusion:

The authors conclude that manual lymph drainage results in decrease of edema, pain reduction and increase in quality of life in patients affected by systemic scleroderma.

The authors also listed the relatively short duration of the study and the small number of patients as limiting factors.

Further Reading:
http://www.ncbi.nlm.nih.gov/pubmed/21523925
http://ghr.nlm.nih.gov/condition/systemic-scleroderma
http://lymphaticresearch.org/main.php?menu=about&content=lymphsys