

LETTER TO THE EDITOR

EFFECTS OF COMPRESSION BANDAGING...

The article by Johansson et al on the "Effects of Compression Bandaging With or Without Manual Lymph Drainage Treatment in Patients With Postoperative Arm Lymphedema" (*Lymphology* 32:103,110, 1999) was very disturbing. The study design seems flawed. It would have made more sense to have one group of patients treated by MLD only and the other group treated with standard CDP or, as the authors call it, CLT.

There were also too few patients in the study to permit statistically significant conclusions. Some of the patients, I suspect, did not require treatment but only a medical compression sleeve that is worn when actively using the arm, when exercising or flying.

The authors state at the beginning of the paper that just by wearing an elastic sleeve, a decrease of 7-17% in arm lymphedema was noted, depending on how long the sleeve had been used. This is contrary to our experience which is that patients who are given medical compression sleeves only for minimal lymphedema get worse over time because the sleeve is elastic and has a low working pressure, i.e., it does not provide the counterforce needed to oppose that generated by muscle and joint activity. Medical compression sleeves used in the absence of any other lymphedema treatment methods serve merely to slow down the rate of the lymphedema progression. If the authors were able to achieve the 7-17% edema reduction merely by having the patient wear an elastic sleeve, one wonders why they would ever consider using compression bandaging or CDP.

I also found fault with the study because the five days used for MLD was much too short a period to accomplish anything

meaningful. CDP is generally given for four weeks. In places where national health insurance is not available or where insurance reimbursement is a problem, clinicians tend to cut corners and give less than optimal treatment. Five days is not a valid test period for MLD.

It seems to me that the authors were searching for an excuse not to use MLD because it is labor intensive and requires well trained therapists. They refer to MLD as "time consuming" and assert that even the bandaging can be left to the patient after some training. This, too, is not our experience. To bandage properly, the patient or caregiver must be carefully trained over a period of weeks to bandage correctly, effectively and safely.

The conclusion reached by the authors is that MLD, when added to compression bandaging, had additive volume-reducing effect, although this reduction was small. I suspect that if all of the patients had been given a proper course of CDP for the usual 3-4 weeks, the authors would have seen much better results and much more satisfied patients.

CLT or CDP should be given in clinics in which the MLD component is apparent and appreciated. If we do compression bandaging only in mild or minimal lymphedema cases, we will reduce swelling and discomfort a little but we will also be short-changing our patients and confusing them as to what is proper treatment and what is our commitment toward giving them optimal care.

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Reply:

We appreciate the interest shown in our article "Effects of Compression Bandaging..." published in *Lymphology* Sept 1999 and the reprint in the *NLN Newsletter* Jan 2000. We also appreciate the concerns regarding MLD treatment by Dr Lerner, and we attempt now to clarify the issues he raised.

Our clinical experience indicates that compression is the main volume reducing factor in CLT (1) or CDP (2). CLT is time consuming and generates costs for the general health insurance. Breast cancer patients with lymphedema should be confident that the most cost effective treatment is administered.

The aim of our study was to examine the effect of compression bandaging alone or in combination with MLD. We asked: Could MLD reduce the volume even further than bandaging? The aim was not to find the optimal treatment time of CLT or to show maximum reducing effect because that has already been described in previous studies (1,3,4). The hypothesis that the additive volume reducing effect of MLD could be shown after one week of treatment was previously documented in a pilot study (5).

Regarding the number of patients in the study: The volume differences showed a normal distribution and, accordingly, a t-test was employed. Because there were a small number of patients in each group (18 and 17, respectively), the results were checked with non-parametric tests. Both the parametric and non-parametric tests showed similar levels of significance, which was considered satisfactory by our statistical adviser. Careful reading of the study design documents that all patients were treated with low stretch compression bandaging and not sleeves.

Dr Lerner's experience that minimal lymphedema worsens over time with use of a compression sleeve alone is surprising. By fitting the sleeves more tightly and changing them for new ones fairly often (6), minimal lymphedema can usually be readily controlled.

Dr Lerner also wondered why we considered using compression bandaging or CDP when we can achieve edema reduction of 7-17% with use of only compression sleeves. Our goal, however, in clinical treatment is to achieve a maximum result (i.e., 50-60% edema reduction).

The conclusion of our study is that MLD significantly ($p < 0.001$) adds a volume reducing effect and, accordingly, we recommend that MLD is a useful supplement to compression therapy.

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