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EDITORIAL
POSTMASTECTOMY LYMPHEDEMA

Many therapeutic modalities have been advocated for management of lymphedema and specifically of arm swelling following radical removal of a cancerous breast. The late Professor Kinmonth maintained that there was no effective operation for postmastectomy lymphedema and to date this attitude remains sound. Nonoperative approaches have included manual massage, rubber bandage wrapping, intermittent mechanical compression and in this issue of LYMPHOLOGY, a new, mobile, pneumatic apparatus for definitive management is described. Despite introduction of a variety of mechanical devices over the years, some of which vary considerably in cost, I have found in treating approximately 3,000 patients with post-mastectomy lymphedema during the past 32 years that a straightforward but meticulous approach using pneumatic compression at first and thereafter a form-fitting elastic stockinette and proper antigravitational exercise generally maintains an arm functional and reasonably dry. On rare occasion, unexpected accidental injury or unforeseen complication such as recurrent lymphangitis or en cuirasse tumor extension has necessitated reinstitution of pneumatic compression for a short period. In the vast majority of patients, however, with careful followup and liberal use of antibiotic drugs, purchase of a compression pump and need for its prolonged use has been unnecessary.

It was only a few years ago that an elaborate and expensive "finger-pumping" device called Lympha-Press was advocated as the ideal unit for management of primary lymphedema. This machine was merely a variation on the old "Wineburger circulator" which ironically was devised by a dentist to assist his own wife with post-radical mastectomy lymphedema. Despite their ingenuity, the complexity of these devices has commonly generated greater mechanical problem with little advantage over "single-cell" units. It is probably for these reasons that Zelikovski et al have opted to simplify compression management and have designed a "new" pneumatic arm sleeve. However, as an inflatable hollow sleeve and one-piece unit it is more than likely that insensible water loss and perspiration are readily trapped beneath the sleeve with the arm taking on a damp, moist feeling much like a snake. It is also reasonable to assume that where edema extends onto the shoulder or chest, (i.e. beyond the upper limits of the sleeve) that little or no improvement in these regions occurs and indeed are probably worsened as tissue fluid forcibly becomes translocated upward from the arm. Moreover, if this unit is used for only 5-6 hours/day then, during the interim, swelling is likely to recur at a rate proportional to ambient temperature, gravitational position, activity of the limb, and the degree of impaired lymphatic return. Thus, to rely solely on this unit as definitive treatment without stockinette, proper exercise and a coordinated program as outlined earlier, is short-sighted and too often an unfortunate waste of time, money and energy. Massively edematous arms would still require special order units and if available would undoubtedly be prohibitively expensive. It is also worth remembering that these devices

carry the potential to do harm. For example, if compression pressures exceed 60mmHg, capillary integrity in the extremity becomes compromised and edema worsens as plasma leaks in bulk from the vascular to the extravascular compartment. Although external pressures less than 50mmHg are probably safe, many patients with turgid limbs cannot even tolerate relatively low increments of pressure and it requires considerable time and effort to condition them to just "withstand" repeated application of compression. Finally, with burgeoning recognition that breast cancer is most often a systemic disease with increasing reliance on chemotherapy and irradiation and less on extensive surgery in its management, fewer patients develop severe, brawny arm swelling characteristic of the classic Halstedian mastectomy with its radical removal of the chest muscles and complete dissection of the axilla.

In summary, nearly all patients nowadays with post-mastectomy (or post-axillary dissection) lymphedema can be managed with a simplified, non-operative regimen consisting of initial pneumatic compression and thereafter use of an inexpensive elastic sleeve and anti-gravitational exercise. Seldom, if ever, is it necessary to purchase a mechanical compression device. When used long-term (as opposed to 7-14 treatment days and subsequent wearing of form-fitting elastic stockinette), it has proved of limited usefulness.

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