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Cathy Kleinman-Barnett's interest in lymphedema started as a labor of love and blossomed into a prolific career. Kleinman-Barnett, CLT-LANA, a lymphedema specialist at Northwest Medical Outpatient Rehab Center in Margate, Fla., first learned about lymphedema after she witnessed her mother, who passed away in 1979, battle breast cancer. Many years later, her stepmother developed lymphedema after undergoing surgery to successfully treat her breast cancer. This is when Kleinman-Barnett made the decision to specialize in treating this chronic, common, and sometimes debilitating condition.

Lymphedema is an accumulation of lymphatic fluid in the interstitial tissue that causes swelling in the arms and/or legs. Primary lymphedema can occur when lymphatic vessels are missing, impaired, or damaged. Secondary lymphedema can occur after lymph nodes are removed such as following breast cancer surgery. What happens next is lymphatic fluid builds up in the affected area, causing swelling, pain, and possibly infection.

"There is no cure for lymphedema. It's never completely gone, but manual lymphatic drainage [MLD] definitely works," she says. "It's a team effort and if patients don't put in an effort and do follow-up, it won't work, but the success rate is really high for people who are motivated."

MLD methods

There are several MLD methods for treating lymphedema. Kleinman-Barnett is a student of the rather ubiquitous Vodder approach. Developed in Europe in the 1930s by Emil Vodder, the Vodder protocol begins with an initial evaluation to determine the cause of the lymphedema. The next step, she explains, is called complete decongestive physiotherapy. It consists of MLD via external massage, followed by compression bandaging to keep the swelling from recurring. The MLD involves light, rhythmic, gentle stretches of the skin around the lymph nodes and lymphatic vessels.

Although simple, the technique is not easy. Without proper training and credentials, a therapist can actually make things worse. "If you push the wrong way, the fluid will go where it doesn't belong, and if you touch too deeply, you may damage other lymphatic vessels. You always massage toward the heart and away from the affected extremity, so you are creating alternate pathways for drainage," Kleinman-Barnett explains.

The next step in the Vodder method involves the use of a multilayer compression wrap, which helps keep the affected limb from re-filling with fluid.

Proper skin care also is an important component of the Vodder method and other MLD techniques, she adds. Patients with lymphedema need to be watchful of cuts and scrapes, as they can become a breeding ground for bacterial infections. "The skin should be kept dry, being very careful to dry in between creases," she explains. "The skin should also be

moisturized thoroughly using a low pH moisturizing lotion, and it's important to protect against sunburn."

The Vodder method works in phases. "Phase I comprises going to the rehabilitation center and working with a lymphedema specialist five days a week for two weeks," she says.

For Phase II, therapists teach patients general therapeutic and decongestive exercises to help move the lymphatic fluid through the system. "This is the maintenance phase where you do the exercises at home," she says. "Patient education is a very important part of the protocol."

The therapist typically will see the patient six months later for follow-up.

"You will feel better and the swelling will be gone within approximately two to three weeks. You are not cured, but you are better," she says.

"The Vodder method is much more in line with the anatomy and physiology of the lymphatic system, and takes into consideration the very superficial location of the lymph vessels associated with lymphedema," adds Joachim E. Zuther, PT, MT, director of the Academy of Lymphatic Studies in Sebastian, Fla.

"These vessels are located directly beneath the epidermis [and] very light pressure in the performance of MLD is therefore crucial to the success of treatment," he says.

The Vodder approach also is recognized by major insurance companies and reimbursed under the Women's Health and Cancer Rights Act of 1997.

Opening the drain

Other MLD methods include Foeldi, LeDuc, Casley-Smith, and Chikly.

"Foeldi took Vodder's techniques and improved these considerably by deleting noneffective aspects, and adding more effective strokes and techniques," Zuther adds. Foeldi also coined the phrase "complete decongestive therapy," which includes MLD, decongestive exercises, skin care, and compression therapy, he adds.

Both the LeDuc and Casley-Smith MLD techniques are very similar to the Vodder, but use somewhat more pressure with hands-on techniques.

Created by Bruno Chikly, MD, the Chikly approach is known as "lymphatic mapping." Practitioners learn to detect the rhythm, direction, depth, and quality of the lymphatic vessels in the body. Then they use their hands to perform manual lymphatic mapping of the vessels. This helps to assess overall circulation and determine the best alternate pathways. Chikly therapists use a flat hand and all the fingers to create specific wavelike movements that activate lymph and interstitial fluid circulation.

Marc Lebed, MD, MDR, and Sherry Lebed Davis developed a sequence of exercises and movements that are done to music either before or after MLD and have been shown to augment the effects of MLD in reducing swelling from lymphedema.

"There are 10 specific movements for the upper portion and eight for the lower that are taught in a specific sequence," explains Lebed Davis, founder of The Lebed Method and its "focus on healing through movement and dance," based in Lynnwood, Wash. "It opens the major drains of the lymphatic system, thereby allowing the lymph fluid to move through the drains in the same pattern and direction as it would during MLD. It allows the MLD therapist to do less strokes and get better results."

Some lymphedema specialists use compression pumps, but this is controversial. "If we push the fluid with our hands, we can direct it, whereas with compression pumps, we can't tell where it is going," Kleinman-Barnett explains. Sometimes a therapist can use pumps as an adjunct to manual therapy.

Specialized garments can be used to retain progress once edema is under control. "These can be used in Phase II in place of the compression wrap," she says.

When patients come in for therapy, they wear garments for the full day. "When they are finished with therapy, they wear one from when they wake up to the time they go to sleep at night for the rest of their life," she says. "There may be some times, such as when going to a formal affair, that they can't bear to wear it, so they can take it off for a few hours."

Fortunately, the garments are not overly bulky. "They are basically opaque stockings that are worn over the affected limb," she adds. Special nighttime garments also are available.