Multifactorial Lymphedema

Combined decongestive therapy positively impacts primary lymphedema and lipedema

By Colette Swain

STUDY PROFILE

Introduction

My primary objective is to demonstrate how Combined Decongestive Therapy (CDT) can help with volume reduction in primary lymphedema. A secondary objective is to demonstrate how manual lymphatic drainage (MLD) can help with the symptom of pain in lipedema.

Background

A 72-year-old retired female patient suffers from multifactorial lymphedema and has been struggling with swelling in her legs, arms and trunk since birth. This picture (Figure 1) was taken on September 3, 2012. Notice the fold of tissue at the ankles and how her feet are virtually uninvolved. She reports that her outer thighs are painful, especially to the pinch test and she bruises easily. These are classic signs of lipidema. Her primary concern is regarding her continual battle with recurrent cellulitis attacks. Second to this is the discomfort and pain that accompanies swelling of this magnitude.

Etiology

The patient had been diagnosed with primary lymphedema that was classified as hereditary. She has a co-morbidity of lipedema, a painful hereditary condition that occurs primarily in women and causes symmetrical impaired fatty tissue distribution. Characteristically, the feet and hands are usually free of edema.

Patient history

A medical history of bilateral knee replacements, tubal ligation, gall bladder removal, gastroplasty, obesity and a breast lumpectomy (non cancerous) have all contributed to her current status. She had been struggling with a sore left ankle, due to a mild twist that occurred while walking, more than two months earlier. After receiving a succession of eight physiotherapy treatments, the sore ankle remained unchanged.

Notice the scar on the anterior portion of her right leg. She injured her shin many years prior to this date, but continues to have pain at the scarred area.

As well, her thighs—just proximal and lateral to her knee—have felt "thick" and "sore" for years and she continually rubs the area to bring relief.

She uses a pneumatic pump and finds that it does help her. She had been treated in 2005 with CDT—with great results, but didn't keep up with the treatment protocol.

Patient's treatment goals

This patient came with specific goals of fluid reduction, reducing her pain and discomfort as well as minimizing the frequency of cellulitis attacks.

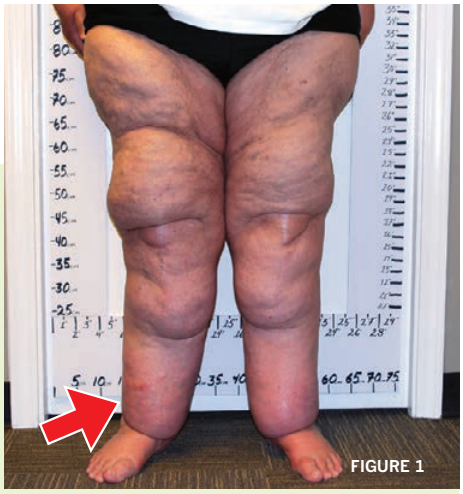
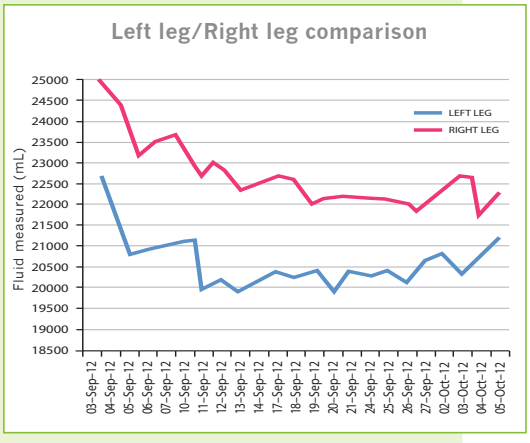


FIGURE 1

Treatment plan

We administered a treatment plan of Combined Decongestive Therapy for three consecutive weeks. The patient received MLD followed by an application of compression bandaging five days per week. The compression bandages were worn until her next treatment. We monitored the fluid volumes in her legs, and once a plateau was reached a garment fitter was called in to measure the patient for custom compression garments to be worn during the day and removed at night. Self-bandaging, homecare exercises, skin care and education were all addressed to prepare her for a life-long maintenance program.



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Objective outcomes

By the end of the third week—a total of five litres and 394 ml of fluid was lost—and no longer applying unnecessary pressure. The left leg had a 12 percent reduction in volume (2,687 ml) and the right left had an 11 percent reduction (2,707 ml).

This picture (Figure 2) was taken on September 20, 2012 in the same office position, with the same lighting, camera and camera settings. Unfortunately with lipidema, the visual changes are not drastic, but the keen eye can pick up the changes that are definitely present. For example, the more obvious is the lack of redness around her lower leg and the lack of shininess to the skin. A closer look will show the scar on her right shin is less vibrant in its color as well. The amount of overhanging tissue at her ankles is decreased; there is, on average, a 4 cm decrease in the circumferential measurements of her lower leg. Notice too how her base of support stance is substantially decreased. This narrower base of support will take the added pressure off her hip, knee and ankle joints that her previous stance applied and help maintain her joint health.

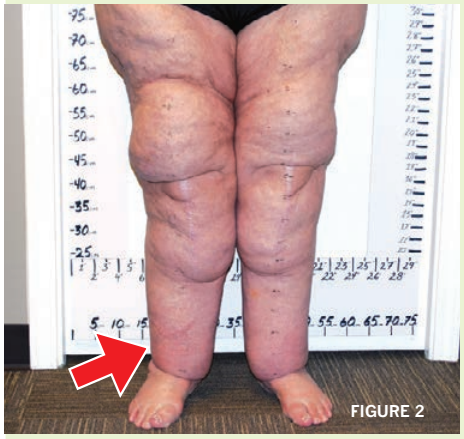


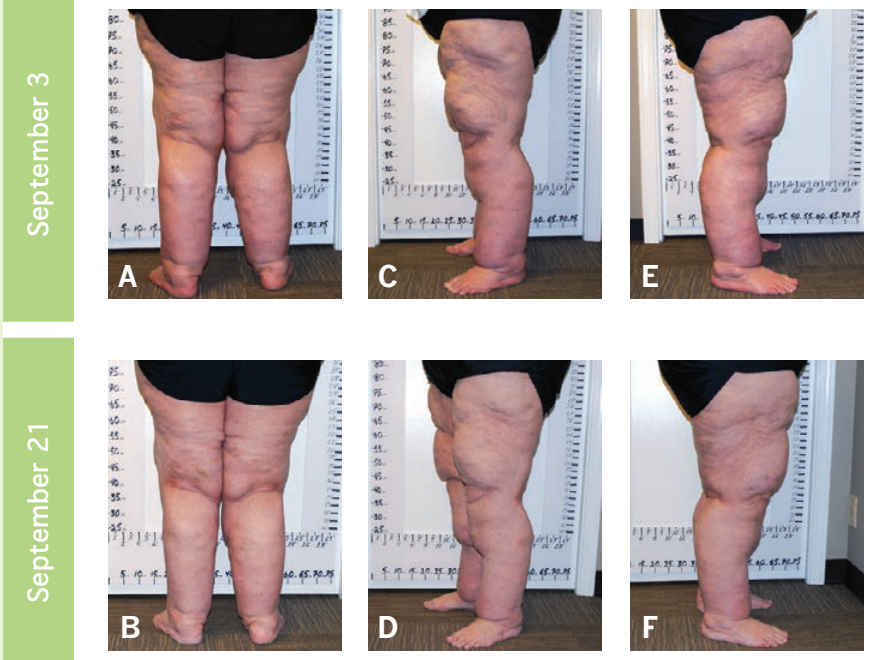
FIGURE 2

The abnormal fatty deposition of lipidema cannot be removed by this treatment process. The patient is fully aware and educated regarding the difficulties of lipedema, and is accepting of her current state.

Patient self-reported outcomes

- The pain in her left ankle was gone.
- Pain at the scarred area of her right shin was gone.
- Her thighs felt "softer" and weren't hurting anymore.
- She lost a total of 14.8 pounds.
- No recurrence of cellulitis to date.

Her goals of reduced fluid levels and pain reduction were met.



Post treatment assessment

I believe there is more fluid yet to be removed from her legs, but the patient has chosen to maintain this current level until a future date. At that time we will re-assess and re-treat with the hope of reaching a new low in her level of reduction, giving her a new high in her quality of life. LP

References

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Editor's Note: Comparison of Lymphedema and Lipedema

	Lymphedema	Lipedema
Presentation	asymmetrical	symmetrical
	feet and hands may be affected	feet and hands not affected
	any part of the body	from hips to ankles and sometimes from shoulder to wrist
Gender	female and male	99% female
Age of onset	any age, dependent on cause	typically in puberty
Pain	usually painless	often painful especially lateral thigh
Hematomas (easy bruising from capillary fragility)	not usual	frequent
Tolerance to pressure (e.g., compression)	yes	no
Cellulitis (infection)	frequently	no

Source: Robert Harris, Senior Instructor, Dr. Vodder School – International