

Pre and Post Surgical Care for Patients Receiving Lymphatic Surgery

Julie Soderberg, MPT, ATC, CLT-LANA
Providence Little Company of Mary
Torrance, California

DISCLAIMER

PLEASE FOLLOW THE PROTOCOL OF THE SURGEON WHO IS DIRECTING THE CARE FOR YOUR PATIENT

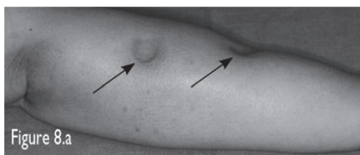
Surgical options

- * Suction-Assisted Protein Lipectomy (SAPL)
- * Vascularized Lymph Node Transfer (VLNT)
- * Lymphaticovenous Anastomosis (LVA)

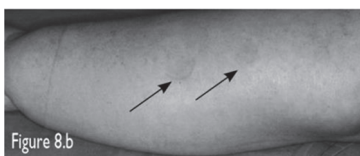
Fluid vs. Solid

- * Fluid:
Lymphaticovenous Anastomosis (LVA) vs.
Vascularized Lymph Node Transfer (VLNT)
- Solid:
Suction Assisted Protein Lipectomy (SAPL)

Fluid Component Evaluation: "Pitting"



Pitting Edema (deep thumb impression remains after 1 minute)



Non-Pitting Edema (minimal impression remains after 1 minute)

Source: Brorson et al, *The Facts About Liposuction As A Treatment for Lymphoedema*, Journal of Lymphoedema, 2008 Courtesy Dr. Hakan Brorson

Preoperative Assessment

- * Medical and Surgical History (Differential diagnosis)
- * Vascular assessment
- * Lymphoscintigraphy
- * Other etiologies (not all edema should be treated the same).

Preoperative Assessment

- * CDT (Complete Decongestive Therapy) or other lymphedema treatment history (if any)
- * Equipment previously used by patient
 - * Night garments
 - * Bandaging
 - * Compression sleeves and stockings (OTC vs. custom)
 - * Other equipment (pumps etc.)

Preoperative Assessment

Volume measurements

- * Bilateral measurements taken each time.
- * Circumferential measurements every 4 cm with volumes calculated by a spreadsheet via truncated cones method (Dr. Brorson's spreadsheet).
- * Assessment of type of edema (pitting present vs. hard, fibrotic non-pitting, vs. soft fatty).
- * Lymphedema Life Impact Scale (LLIS) – to determine functional disability.

Preoperative Assessment

- * Custom garment measurements taken depending on need and surgical procedure (SAPL vs. VLNT vs. LVA).
- * Bilateral measurements taken for garments as well.
 - * If bilaterally involved, measure in OR.

OR measurement



Suction Assisted Protein Lipectomy

- * Bandaging in the OR at the end of the case.
- * Patient is up and walking day of surgery.
- * Garments donned on post op day two, unless they required an OR measurement.
- * Patients with leg involvement wear two layers of garments (approx 6 mos post op)
- * Patients with arm involvement wear one layer of sleeve and glove. (glove to elbow)

Suction Assisted Protein Lipectomy

When is the patient done with reduction?

1. Pitting
2. Volumes
3. Shape (bony prominences)

SAPL



SAPL



OR Bandaging



OR Bandaging



Cosmetic Liposuction vs. SAPL Aspirate



Cosmetic Liposuction Aspirate



SAPL Aspirate

SAPL Aspirate



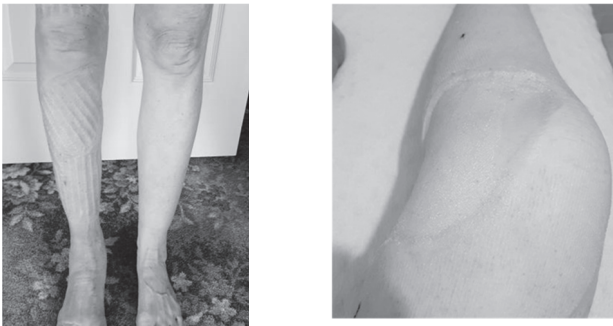
SAPL

- * Post operative volume measurements
 - * Taken at regular intervals per protocol (2,4, and 6 wks post op, 3,6, 9 and 12 mos)
 - * Performed bilaterally.
- * Garment measurements taken per protocol and adjusted as needed
 - * Patients may need to have garments taken in.

Garment Altering



Foam



SAPL precautions

- * Limit activity to 15 min duration for the first 6 wks to avoid excessive swelling.
- * In garments 23/7.
- * Wear padding over superficial tendons for the first two weeks.
- * No baths or swimming until all incisions are healed.

Padding



Take Home Message

- * Importance of measuring bilaterally.
- * Change out your tape measure regularly.

VLNT

- * Patients who are undergoing a VLNT for arm lymphedema wear an arm sling for 2-3 weeks post surgery.
- * JP drains located at the donor and recipient sites for 7-10 days.
- * No MLD or compression over the VLNT for 3 wks.
- * Restricted activity for the first 3 wks, limit activity to 15 min duration . Full activity around 6-8 wks depending on the intensity.
- * No baths or swimming until all incisions are healed.

VLNT



Arm Sling



VLNT (ARM)



VLNT (LEG)



VLNT (Leg donor site)



LVA precautions

- * Must use a donning aide to decrease the amount of shearing over the LVA sites. Compression garment is donned in OR at end of case.
- * No MLD within a two inch diameter around the LVA sites for the first 3 wks postoperatively.
- * Limited activity and ROM for the first 3 wks, full activity around 6-8 wks depending on the activity.
- * No baths or swimming until all incisions healed.

LVA



LVA



LVA



Postop/Follow up

- * If VLNT or LVA are performed, we establish a volume baseline preoperatively and then slowly and methodically back the patient down from garment use. The patient is followed closely during the weaning process.
 - * Encourage self monitoring of limb (Stemmer's sign, pitting edema, self-measuring).
- * Post op MLD
 - * Strongly encouraged daily during recovery.
 - * Use of foams and modalities as needed for post operative areas of edema.

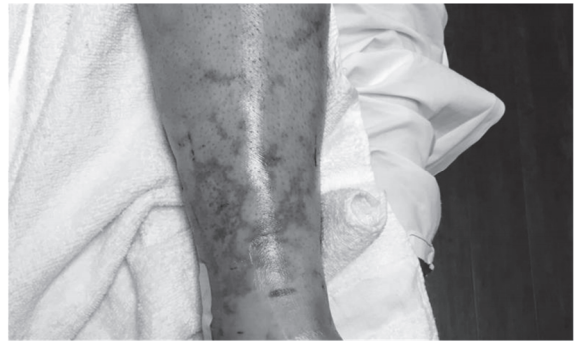
Possible post operative issues

- * Seromas
- * Skin (breakdown, rashes, blisters)
- * Infection
- * Transient decreased range of motion
- * Transient edema

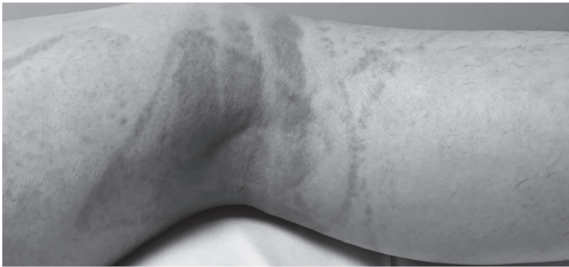
Seroma



Skin Issues



Skin Issues



Skin Issues



Take Home Message

- * Surgery is not a cure-all.
- * Reduced time spent on self-care.
- * Still need to observe infection risks.
- * Possibly reduced time spent in garment.
- * Increase in function.
- * Increase in ROM
- * Patient care collaboration with primary therapist.



Questions or comments always welcome:
jmsptclt@gmail.com
julie.soderberg@providence.org

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