

# Pre and Post Surgical Care for Patients Receiving Lymphatic Surgery

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## \*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"

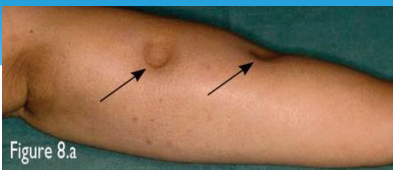


Figure 8.a

Pitting Edema (deep thumb impression remains after 1 minute)

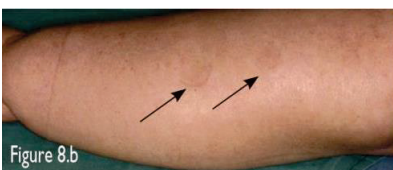


Figure 8.b

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



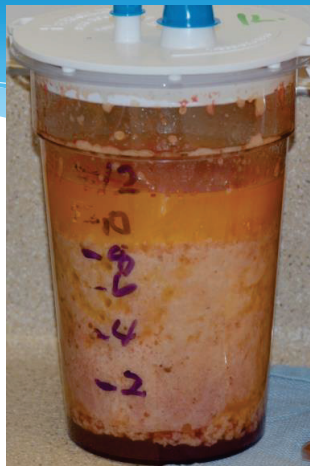
## OR Bandaging



## 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

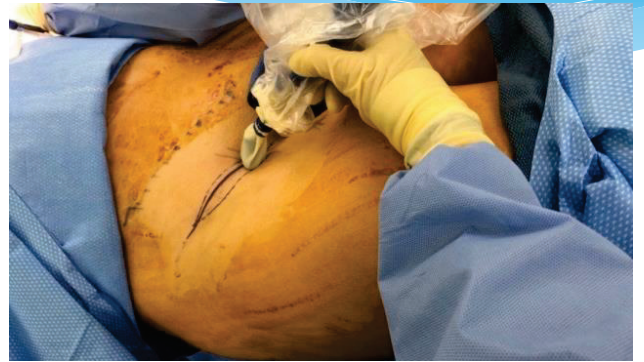
- \* Importance of measuring bilaterally.
- \* Change out your tape measure regularly.



## 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:  
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