Pre-and -Post Surgical Care for the Lipedema and Lymphedema Patient

compression guru

EDUCATION SERIES

On March 30th, 2021, a panel of experts in the field of Lipedema and Lymphedema came together to discuss pre- and post- surgical care in their practices and outline general recommendations. The panel consisted of a mix of doctors and lymphedema therapists. Several on the panel are leading the charge to develop a standard of care for Lipedema, so clinical responses from this webinar were recorded to aid in that effort. The moderator, Dr. Karen Herbst, recorded the responses and recommendations made throughout the webinar and summarized them in the document below.

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A Panel of Experts: Pre-and -Post Surgical Care for the Lipedema and Lymphedema Patient

March 30, 2021

Panelists:

Philip Brazio, MD *Plastic and Reconstructive surgeon specializing in microsurgical reconstruction at Cedar Sinai*

Jay Granzow, MD *Plastic Surgeon specializing in Lipedema and Lymphedema Surgery atManhattan Beach Plastic Surgery*

Emily Iker, MD *Director of the Lymphedema Center in Santa Monica specializing in Lymphedema, Lipedema, andLymphatic disorders.*

Linda Anne Kahn, LMT, CLT-LANA *A certified lymphedema therapist who specializes in the treatment of Lymphedema, Lipedema, Dercums, Chronic Venous Insufficiency, Lyme disease and post-surgical therapy and treats all patients with an Integrative approach.*

Kathleen Lisson, LMT, CLT *A certified lymphedema therapist and owner of Solace Massage and Mindfulness*

Moderator:

Karen L. Herbst, PhD, MD *An endocrinologist and lipedema authority who is spearheading the effort to establish a standard of care for lipedema.*

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SUMMARY

Diagnosis

Patients may present for surgery with a diagnosis of lymphedema but actually have lipedema. They may also have lymphedema in addition to lipedema (lipolymphedema). This is in part because medical doctors receive less training in the lymphatic system than therapists, especially certified lymphedema therapists (CLT).

Each patient is different, and recommendations are therefore patient specific, and each patient may not fit into the recommendations below.

General Instructions Pre- and Post-Surgery

Pre-Op

Patients opting for surgery must be in CDT treatment prior to the surgical procedure to reduce the fluid component in the subcutaneous tissue and ideally be well-controlled in terms of fluid. Many patients travel out of town for procedures. They must be taken care of by their home therapist before and after the surgical procedure as they know where the patient's trouble spots are, and they know what success or not they have had with specific garments and treatment.

Lipedema treatment is likely not as intense as that for lymphedema as the lymphatic system from people with lipedema is generally intact (this absolutely varies along a spectrum of the disease), and therefore drainage of fluid from the treated area can happen much more quickly after surgery for lipedema than for lymphedema.

Use motivational interviewing to find out what patients do for their self-care for lipedema or lymphedema when they are at their best, and to encourage them to continue these actions before and after surgery (nutrition,exercise, etc.).

You can find a free 1-hour class on motivational interviewing from the BMJ:
https://new-learning.bmj.com/course/10051582

A pre-surgery plan is important. Counseling on procedure outcomes sets realistic expectations. For example, the patient needs to know that after surgery, the limb may be smaller, but the shape may be similar. The type of compression garment that patients will wear after the surgery should also be discussed, as should pain during and after surgery and drainage that often occurs post-surgery.

Motivational interviewing can identify what the patient can do to empower themselves after surgery such as nutritional eating, different types of exercise, meditation, and other self-care activities they have established in their life to improve their lipedema or lymphedema. They should embrace the opportunity and collaborate with their therapist and or doctor to further define self-care after surgery such as walking to the farthest bathroom, and fixing their meals, etc. There will be some tough days after the surgery, but patients overwhelmingly improve after surgery.

During surgery

To stay ahead of swelling, the patient can be bandaged in one area after the procedure in that area is completed, while the surgeon moves on to treat other areas.

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Post-Op

After surgery, the patient should be cared for by a local therapist who has also seen the patient before surgery, then care is transitioned back to the home therapist. Each therapist will have a different approach, and therefore the therapist or team of therapists should ideally be the same before and after surgery to optimize care. General Involvement of therapists early in the process is highly important for good outcomes.

Postop surgical regimens vary significantly between patients, procedures, and surgeons. Therefore, generalized treatment recommendations are difficult to make. After liposuction for lipedema, most patients note that pain is greatly reduced or eliminated, and mobility improves. Compression should be placed immediately after surgery (except for free flaps). Some wounds may be open and draining. Drainage usually stops around day 2-3. At that point, the compression garment should be changed if it has not been changed already. Elevate the limbs when not walking or standing unless the elevation causes significant discomfort. Manual lymphatic drainage (MLD) can be performed gently after surgery on top of the garment.

Exercise after Surgery

These are general recommendations only and may vary in each specific case. Patients should be up and walking right away. Light exercise can be started at 3 weeks and heavier exercise at 6-8 weeks after surgery. Heavier exercise examples are skiing, skydiving, judo, chopping wood, volleyball, golf,surfing, intense yoga, or cooking for 20 or so people. If they were not a skier before, they should not choose skiing as their first activity. Exercise must be gradually increased to where they were before surgery, such as trying light weights before heavy weights. Even if they were a skier before, 6-8 weeks usually is the time when they can gradually progress into heavier more aggressive exercise.

Compression Prior to Surgery for Lipedema

Patients should be wearing micro massage garments before surgery (Solidea, Bioflect, CZSalus). Patients should also receive MLD, and they can receive treatment with a sequential pneumatic compression pump (with a special sleeve insert per Dr. Iker). Even patients with lipedema who undergo total knee replacement have done well with compression oruse of a pump before and after surgery.

Compression After Surgery for Lipedema

Compression garments are generally off the shelf and not custom because the measurements are going to change over time as healing occurs. For example, use Marena full body garment with Velcro or hooks on the front or side so as they start to lose the fluids, they can make the garment tighter, and they do not have to buy a new garment in a smaller size. A second garment should be considered so the patient can wear one garment whilethe other is being washed.

Layering garments is common to control swelling due to gravity especially on the lower limbs such as a knee-high compression stocking (e.g., Jobst or Juzo) in addition to the Marena for the lower legs or a bike short type of compression on top of the Marena for the thighs. You can also use Velcro wraps (e.g., Sigvaris, Juzo, circaid, Farrow), because the legs are so sensitive after the surgery these Velcro garments are adjustable to swelling and to pain. People with lipedema should have what Karen Ashforth calls a “capsule wardrobe of garments”. Women with lipedema don’t just have one garment they have a several solutions based on whether the lipedema (or lipolymphedema) is more or less under control. Patients have had success controlling their fluid with a Lipoelastic garments out of the Czech Republic (www.lipoelastic.com/compression-garments) orthe garment their surgeon provides to them after surgery which can be patient specific. The garment can be worn

to cover half of the foot even if only the leg was treated because there can be some foot swelling andpartial covering of the foot helps with this.

Edema Wear by Compression dynamics can be considered for the arms and the legs after surgery to help reduce fibrosis. This compression is an open weave but offers compression in alternating compression profiles that helps to reduce fibrosis. This is not used immediately after surgery but as part of the capsule wardrobe of garments.

Compression for the Arms

A micro massage type fabric bolero is pretty good compression for the arm of a person with lipedema. The fit of the bolero can be tighter pre-surgery so after the surgery it will fit well. The liposuction is often of the upper arm though the lower arm can be treated as well. The compression may vary depending on if the surgery is staged with liposuction first followed by brachioplasty later. The arm will swell after liposuction and the brachioplasty is generally better once the swelling has healed from the liposuction and you can see how much skin needs to be removed. The patient may also be focusing on weight loss which can create more loose skin that can be removed. Opsite dressing may also be placed on the arm after the brachioplasty, especially if the surgery extends into the axillary area or torso, making sure to spare the lymphatic vessels in that area.

When the surgery extends to the torso, a postop bra type garment may be used in addition to the upper limb garment. Upper garments are traditionally harder to fit, and the therapist is the best friend for the patient as they can look at hand swelling and strength of compression. The elbow can be an area where the garment is pinching. The patient may have to buy a second garment or rotate between garments to get the best treatment for the arm.

If the brachioplasty occurs at the same time as the liposuction, then there are going to be scars that can extend into the axillary area so the garments can be irritating. In this case, a liner is recommended. You can also consider simply bandaging the patient in place of a garment and have the patient order the Juzo or similar Velcro wraps for the arm. Edema Wear could be used as a liner, though fibrosis is less common for liposuction of the arm. Watch the hand for swelling.

Compression garment compression strength for lipedema

Almost universally less than those used for lymphedema unless the patient with lipedema has lymphedema as well (lipolymphedema) and then should be treated more like a lymphedema patient.

Take Home Message

Compression should be worn before and right after surgery for people with lipedema. The garment may be different before and after surgery and is usually patient specific.

Stopping supplements before surgery

Supplements are often medication strength and are not regulated by the FDA. Supplements that inhibit clotting should be stopped such as fish oil. Red wine should also be stopped. The surgeons did not have problems with enzymes for liposuction. However, stopping supplements one month before surgery reduces variables that can affect surgery. For surgeries involving free flaps such as VLNT surgery, enzymes should be stopped. Overall, the surgeons recommend stricter stopping of supplements prior to surgery with a free flap or VLNT.

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Compression after Surgery for Lymphedema

In reference to liposuction for fat associated with lymphedema, Dr. Håkan Brorson[1] had a garment pre-made that matched the size of the unaffected limb. Sterile bandaging under the garment can help protect the leg as described by Dr. Brorson. Up to three days after surgery, you do not change the garment. Garments for lymphedema are almost always custom as they fit better and control the swelling better. The garments are exchanged for smaller size garments after limb size reduction is evident (often after 3 weeks).

If there is not an unaffected leg to measure, the limb can be measured and the garment ordered after the surgical procedure is complete; the limb is then bandaged until the garment arrives. Jobst Elvarex may be a good right option but someone else may prefer a Medi compression garment – the garment chosen is very patient specific.

Compression is not placed over a vascularized lymph node flap. This is the transfer of a free flap from one area of the body to another. While the flap is robust, it is also rather delicate and has vascular ingrowth (blood and lymphatic) from the edges for the first few weeks. You do not want to compress the area until approved by the surgeon and this will be surgeon specific as this can cause problems for the patient instead of improvements.

Compression for LVAs has undergo an evolution as in the past, compression was not used over LVAs. However, compression has now been found to be helpful for LVAs. For LVAs and vascularized lymph node transfers (VLNTs), the patient should have seen a therapist before surgery to reduce swelling, so that the surgery maintains the reduction in swelling. A large reduction in volume after surgery suggests improper therapy beforehand. The patients after surgery will see some volume reduction, for example some definition in the ankle will come back and the tendons will become more visible in the hands.

Compression garment compression strength for lymphedema

For suction assisted protein lipectomy surgery (SAPL), compression levels are custom Class II for the arm and Class III (e.g. Elvarex) for the legs matched to thecontralateral leg placed over a dressing and are changed about day 3 after surgery. An ACE wrap should not be used as compression. For LVAs, compression levels can be similar to what the patient was wearing before surgery, Class I in the arm and Class II in the leg. Wei Chen, MD, now at Cleveland Clinic, has wrapped the limb after LVA without even closing the incision and for a second cohort they did not wrap the limb and just watched that patients. There was no venous reflux of blood into the lymphatic vessel in the patients that had been wrapped whereas in the patients that were not wrapped, a small percentage of patients had venous reflux into the lymphatic vessel. So to some degree, when you are wrapping an LVA, it is for the limb but it canalso be for the LVA as well. The wrapping can help regulate venous pressure in the limb to reduce venous hypertension that can cause backflow and clot off the anastomosis.

If there is liposuction performed on a limb and a VLNT that is proximal on that limb, compression can be applied distally without any fear of harming the proximal free flap just performed. Be aware that there are always exceptions.

Therapy for patients with lymphedema after surgery

Patients undergoing the SAPL procedure can be seen right away by a therapist. For LVA, therapy often begins between 1-3 weeks after the surgery. Again, be sure to check each surgeon's protocol since each surgeon has their own preferences, and each patient has their own needs.

Manual lymphatic drainage therapy should not be painful. Online there are videos of people doing manual therapy that is not MLD and is painful, but this is not correct. MLD is a skin stretching stroke that you should not have to takea pain pill to endure. Patients should learn self-MLD which they should perform at home in

between appointments with their therapist. Klose Training self-MLD Videos can be found on the Compression Guru website and are by Vicki Ralph, MPPA, OTR/L, CLT-LANA.

Flying after Lymphedema Surgery

Flying is common after lymphedema surgery due to the small number of surgeons doing this procedure requiring patients to fly before and after the surgery. They can usually fly one week after the surgery; this may be extended to two weeks depending on the surgery and how the patient is doing. If they fly in from overseas, they may stay longer (e.g., a month) after the surgery and there is less of a connection to the therapist near their home. During the flight, they should get up and go to the bathroom or walk up and down the aisle every hour once the seatbelt sign is off. The same goes if they are driving a long distance – they need to stop and walk once an hour. This helps reduce deep venous thrombosis (DVT) risk and also helps to mobilizethe fluid.

When flying they should get an aisle bulkhead seat so they can have more legroom. They will likely need a note from their surgeon as they will get checked by TSA at the airport especially with a bigger bandage.

Supplements after surgery

Supplements should be held for 24 hours to 2 weeks after surgery which depends on the type of surgery and the surgeon.

References

1. Schaverien MV, Moeller JA and Cleveland SD. Nonoperative Treatment of Lymphedema. *Semin Plast Surg* 2018; 32: 17-21.