

Patient Name: Bramblette , Sarah

DOB: 1977-09-10

Age: 43

Referring Physician: Dr. Keri Livingstone, DR. L. MAIN OFFICE: 660
N.E. 95 ST., MIAMI SHORES, FL 33138- 2758, Ph. (305) 751- 8071

Patient Phone: 305-409-0471

Patient Email: sbramblette@gmail.com

The patient gave permission for this telemedicine visit.

Dr. Herbst has a temporary medical license or approval for this telemedicine visit in the state of FL.

CC: Lipedema

HPI: Sarah Bramblette is a 43 year young female with a history of Lipedema, Lymphedema who presents for care. Lipedema began before puberty. Rest is helpful.

She is considering surgery and she wants to be poised to do well. She needs to take meds for her SVT or needs an ablation. With regular therapy and pool work she is not losing the lipedema tissue. She had regained 100 lbs in Ohio. At the end of 2019 was at 450 lbs. When she went to the ER for SVT and she was back up to 470 lbs with no reason why. She is watching things closer. She is not over-eating and tracks on her Fitness Pal.

Lymphedema is getting better. Had infections from March to June 2020. In June started home health care for reduction kits for lower legs. Could not wear tributes at night as they were too big. Nothing on her thighs right now.

Her arms have been burnt because her arms are larger.

She feels she has good skin elasticity.

She would like her legs surgically treated first.

Diet: Works Wednesday through Saturday evenings so does not eat before but eats later. She is on 12-hour intermittent fasting. She bought some protein shakes. Does not eat a lot of sugar, eats fruits and vegetables. She is not sure if she absorbs well but her iron level is good.

Exercise: Was in the pool twice a week.

Average Daily Pain Score (1-10):

Worst Daily Pain Score (1-10):

Lowest Daily Pain Score (1-10):

She does not have the pain Stage 1 and Stage 2 people have but she does not have pain

Conservative Therapy

Compression Garments: Yes

Sequential Pneumatic Compression Pump: Lymphapress Body Pod; not using regularly as it is too big for her

Manual Lymphatic Drainage Therapy: Yes since June 2020

Weight

Any history of weight gain: Yes

Any history of weight loss: Yes

Ever use of the following meds

Phentermine:

Dextroamphetamine:

Adderall:

Metformin: No

MEDICAL HISTORY

First Menses: 13
Lipedema
Lymphedema
Acid Reflux
IBS
Sleep Apnea
Past history of DVT (2004)
TIA (2004/2005)
Frequent cellulitis
Anemia
Anal fissure/hemorrhoids
Vitamin D deficiency
Supraventricular tachycardia
Ostium secundum type atrial septal defect
Mild sleep apnea on CPAP for a month - has not noticed a huge difference

Immunizations

Fluzone Quad 2019- 2020 60 mcg (15 mcg x 4)/0.5 mL intramuscular susp. 09/25/2019 completed
SARS- COV- 2 (COVID- 19) vaccine, UNSPECIFIED" 02/03/2021 completed
SARS- COV- 2 (COVID- 19) vaccine, UNSPECIFIED" 01/12/2021 completed
influenza, injectable, quadrivalent, contains preservative 10/07/2020 completed

SURGICAL HISTORY

D&C April 1996 RNY Gastric Bypass w/ gallbladder removal April 2003 PFO closure January 2006
Incisional/Ventral hernia repair w/ panniculectomy December 2006 Hernia repair w/ mesh October 2007
Brachioplasty 1 and Brachioplasty 2 with breast lift and back skin flap removal - 2008 RNY revision w/ hiatal hernia repair - September 2010

MEDICATIONS

Allergies: Cephalosporins, Bactrim, tape/adhesive sensitivity
Medications: Aspirin, iron, Zyrtec for dizziness, Nexium, Vitamin D, Vitamin C, Selenium, Butchers Broom, Turmeric, Pre-natal vitamin, B-12 sublingual, Verapamil, Lupron (has never seen weight gain with this medication)
Turmeric helps with plantar fasciitis and a heel spur
Selenium helps with her heavy legs
Butcher's broom helps her heavy legs

[Medications were reviewed]

SOCIAL HISTORY

Smoking: Never
Alcohol: 0

REVIEW OF SYSTEMS

General: weight loss and weight gain
HEENT: No complaints
Cardiovascular: Has palpitations
Dermatology: Easy bruising, unusual scars and stretch marks
Endocrine: Has fatigue out of 10
Gastrointestinal: Fatty liver on recent ultrasound. has bloating, abdominal pain and early satiety
genitourinary: Has nocturia twice a night
Vascular: Lymphedema, water retention ring on at night, history of blood clot in the vein, edema and dark skin of the lower legs.
Immunology/Infectious Disease/Allergy: History of recurrent cellulitis. allergies.
Musculoskeletal: Left knee pops. Muscle aches, muscle weakness, joint aches and flexible joints.
Neurology: Vertigo
Pulmonary: Shortness of breath and sleep apnea
Psychiatry: No complaints
Other symptoms or concerns: See history of present illness and medical history.

FAMILY HISTORY

Diabetes, depression, breast cancer, thyroid issues, Raynaud's, anemia, high blood pressure, lymphedema

Father Malignant neoplastic disease 62 Myelofibrosis

Mother Kidney disease CRI

Mother Anemia

Mother Disorder of thyroid gland

Mother Malignant neoplastic disease Breast

Mother Diabetes mellitus

Mother Pancreatitis

Sister Disorder of thyroid gland

Sister Problem TAH for irreg bleeding

Sister Anemia Aplastic anemia, died age 20

Paternal Grandmother Malignant neoplastic disease Breast

Early hysterectomy in the family (mother and sister)

Maternal Aunt Disorder of thyroid gland

PHOTOGRAPH AND TELEMEDICINE EXAM

Weight: 470 Height: 5'3" BMI: 83.43

Bruises visible on the arms.

Large buttock shelf (with small lower buttocks)

Hanging tissue on the upper arms

Lipedema tissue on both legs

Beighton Score:

5th digits - 2/2

Thumbs - 2/2

Elbows - 2/2

Knees - 2/2

Hips - able to bend and touch the floor keeping the legs together and straight = 1

Score: = 9/9

Fibrotic Tissue: Yes

Heavy Tissue: Yes

Labs:

01/25/2021

ALT 9 U/L 6- 29

AST 14 U/L 10- 30

alkaline phosphatase 67 U/L 31- 125

bilirubin, total 0.3 mg/dL 0.2- 1.2

globulin 3.3 g/dL (calc) 1.9- 3.7

albumin 3.9 g/dL 3.6- 5.1

protein, total 7.2 g/dL 6.1- 8.1

calcium 9.2 mg/dL 8.6- 10.2

carbon dioxide 21 mmol/L 20- 32

chloride 107 mmol/L 98- 110

potassium 3.9 mmol/L 3.5- 5.3

sodium 140 mmol/L 135- 146

eGFR non- afr. american 84 mL/min/1.73m² > or = 60

creatinine 0.85 mg/dL 0.50- 1.10

urea nitrogen (BUN) 17 mg/dL 7- 25

glucose 90 mg/dL 65- 99

serum T4, free 1.0 NG/dL 0.8- 1.8

TSH + free T4, serum TSH 3.09 mIU/L

06/30/2020

prealbumin, serum prealbumin 13 mg/dL 17- 34

folate, serum 12.0 NG/mL

vitamin B12 571 pg/mL 200-1100

ferritin 14 NG/mL 16- 232 **low**
iron, total 34 mcg/dL 40- 190 **low**
CBC normal except: RDW 16.8 % 11.0-15.0 **high**; MCHC 29.7 g/dL 32.0-36.0 **low**; hemoglobin 10.5 g/dL 11.7- 15.5 **low**
vitamin D,25-oh,total,ia 30 NG/mL 30- 100
hemoglobin A1C 4.9 %_of_total_HGB <5.7
cholesterol, total 149 mg/dL <200 normal
LDL- cholesterol 86 mg/dL_(calc) normal
triglycerides 49 mg/dL <150 normal
HDL cholesterol 49 mg/dL > or =50 **low**

The lower extremity functional scale (**LEFS**) is a measure of disability for the legs. Lower scores indicate more dysfunction. Score = 17/80 **SEVERELY LOW**

Five Questions for Hypermobility: 2/5

A positive answer for two or more questions has a sensitivity of 91%, a specificity of 75% for predicting hypermobile joints (BMC Musculoskelet Disord. 2020; 21: 174).

ASSESSMENT

1. Lipolymphedema Stage 3 Type III and IVDU mean measurements before and after using the lymph upon?

Lipedema is a congenital enlargement (hyperplasia of the adipose tissue) of the loose connective (fat) tissue on the legs almost exclusively seen in women by the third decade. According to an epidemiologic study by Földi E and Földi M, lipedema affects 11% of the female population. Lipedema was initially described by Allen and Hines in 1940; its etiology remains unknown and it remains under-diagnosed. Classically women with lipedema have disproportionate bodies with larger legs and hips than arms and waist. In 1951 Wold et al. analyzed 119 cases and provided the diagnostic criteria for lipedema:

- 1) Almost exclusive occurrence in women
- 2) Bilateral and symmetrical manifestation with minimal involvement of the feet
- 3) Minimal pitting edema; the Kaposi-Stemmer sign is negative
- 4) Pain, tenderness on pressure
- 5) Increased vascular fragility; easy bruising
- 6) Persistent enlargement after elevation of the extremities or weight loss
- 7) Arms are affected 80% of the time
- 8) Hypothermia of the skin
- 9) Swelling worsens with orthostasis in summer
- 10) Unaffected by caloric restriction

The stage of disease refers to how the skin and tissue appear visually:

When the skin is still smooth, the lipedema is stage 1.

When the skin and tissue have indentations in a mattress pattern, the lipedema is stage 2. Lipedema stage 3 has larger out-pockets of tissue.

The types of lipedema refer to the location of the fat:

Type I: In the area of the buttocks and hips (saddle bag phenomenon)

Type II: Buttocks to knees, with formation of folds of fat around the inner side of the knee

Type III: Buttocks to ankles

Type IV: Arms

Type V: Legs

In lipedema, there are increased macrophages in tissue, a microangiopathy (leading to increased bruising), dilation of subdermal capillaries which can be seen as telangiectasias and petechiae on the skin, dilation and leakage of lymphatic vessels in the subcutaneous fat - leaking lymphatics into subcutaneous fat increases growth of adipose tissue in mouse models.

Diuretics such as Lasix concentrate proteins in the interstitium increasing the work load of the lymphatic system.

Do not use diuretics.

Corticosteroids should be avoided as they weaken blood vessels (and lymphatics) and cause a rebound increase in adipose growth once stopped.

For any surgery, there must be professional manual lymphatic drainage at minimum one week before and for four weeks after the surgery - longer if there is a slow recovery. In lipedema and lymphedema (lymphatic dysfunction), there is difficulty in handling all the fluid and inflammation after surgery. This means there is a need for hands on MLD from a trained practitioner. Mismanagement of MLD after surgery would risk the development of difficult to control lymphedema. Adequate MLD after surgery is standard of care.

2. Hypermobile joints

Hypermobile Joint Syndrome: Hypermobility is thought to be the same or similar to Ehlers Danlos Syndrome hypermobile type (EDS-HT). The gene for EDS-HT is not known although tenascin-X made from the TNXB gene has been found in some families. Tenascin-X plays an important role in organizing and maintaining the structure of tissues that support the body's muscles, joints, organs, and skin (connective tissues). In particular, studies suggest that it helps to regulate the production and assembly of certain types of collagen. Collagens are a family of proteins that strengthen and support connective tissues throughout the body. Tenascin-X is also involved in regulating the structure and stability of elastic fibers, which provide flexibility and stretchiness (elasticity) to connective tissues. Fat tissue is known as "connective tissue" which consists of connective tissue proteins in sheets called fascia, as well as fat cells. Blood vessels, nerves and lymphatics pass through fat on fascia highways and fat lobules slide on thin wet fascia ropes between skin and muscle accommodating movement. When there are changes in the genes causing connective tissue proteins to be differently formed, skin loses its ability to maintain shape, blood vessels leak, lymph vessels dilate and fail to pump and the fascia ropes tighten and inhibit movement. Skin stretches losing shape, fluid, protein and cell wastes sit in fat, and fat cells grow and proliferate in this nutrient-rich environment. Joints, muscles, tendons, and ligaments are looser and more fragile. Not everyone with hypermobility develops symptoms. Different genetic changes may also result in similar symptoms. Fat disorders, including lipomas, may result from changes in genes important in mobility. The diagnosis of EDS-HT based on history and a clinical exam. Women with hypermobile joints have a risk of osteoporosis and should have a DEXA scan for bone disease at menopause. You can read more about Ehlers danlos hypermobile type here: <http://www.ncbi.nlm.nih.gov/books/NBK1279/> and here: <https://www.cda-adc.ca/jcda/vol-67/issue-6/330.html>

3. Obesity due to lipedema s/p bariatric surgery

PLAN

1. Lymphapress garments for the Lymphapress Optimal - Lymphapants and comfy sleeve. Sarah is not getting effective treatment at home with the lymphapod because she feels that is too big for her and it is not treating all of her lipedema tissue. her lymphedema makes the need for a pump at home essential for her as she has a history of cellulitis.

SARAH PLEASE TAKE MEASUREMENTS BEFORE AND AFTER USING THE LYMPHAPOD TO PROVE IT IS NOT EFFECTIVE FOR HER.

2. Find out the weight limit of the surgery table in Dr. Schwartz suite.

3. **Metformin** is the only medication that I know that not only inhibit the formation of fibrosis as does other anti-inflammatory medication but it also can break down the fibrosis that forms after trauma, and I consider lipedema tissue to be traumatized tissue. I used the same dose as for prediabetes or diabetes and that is 1 g twice a day. I like people to start on half a tablet with the largest meal of the day and increase over time to 2 tablets twice a day.

4. Consider **semaglutide** if metformin does not work.

5. **Nattokinase to degrade fibrin clots:** If you have angiolipomatosis, then you have fibrin clots in your blood vessels. These clots kill off vessels or parts of vessels resulting in hypoxia (low oxygen). I Stephanie. I have a patient who was giftedThe body responds by increasing vascular endothelial growth factor (VEGF) which stimulates more vessel growth. Mast cells populate angiolipomas as they are a source of VEGF. To reduce fibrin clots, consider nattokinase. Nattokinase is absorbed by the bowel and the absorbed Nattokinase degrades plasma fibrinogen (Biol. Pharm. Bull. 1995;18(9):1194-6). The recommended amount of Nattokinase is more than 2,000Fibrin Degradation Unit (FU) / day. It is considered best to take Nattokinase after dinner or before sleep since a thrombus is more likely to be produced aroundmid night to early morning. Nattokinase comes from natto extract, which naturally contains vitamin K which can change coumadin dosing. Some Nattokinase is now made without vitamin K. The evidence demonstrating the safe use of Nattokinase in humans is also very limited. While no adverse reactions were reported in human clinical studies, the number of people taking Nattokinase in each of the studies was very low (15-45) and the duration of Nattokinase treatment was short (2, 6 or 7 months). Unfortunately, not all the studies examined the effect of Nattokinase on the blood clotting pathway. However, one study suggested that Nattokinase may make even an otherwise healthy individual more susceptible to bleeding following trauma. Brand examples include: Brand examples include: Doctors Best who monitor enzyme activity in every batch.

If nattokinase does not improve your tissue after 90 days, you could consider switching to serrapeptase starting at 40,000 international units. After another 90 days, if you see no improvements in your tissue, you can switch over to serrapeptase 120,000 units.

6. Glycine: Glycine is one of the only published compounds that has been shown to improve weight loss in Dercum's disease (Wohl and Pastor, 1938). The dose is 7-10 grams a day. You can take Glycine as a powder mixed in water as 3 grams daily. Buy your own in bulk which is available on many websites. You can read more about glycine here: <https://sweetamine.com/>

- Glycine is not essential to the human diet, as it is biosynthesized in the body from the amino acid serine, which is in turn derived from 3-phosphoglycerate, but the **metabolic capacity for glycine biosynthesis does not satisfy the need for collagen synthesis**,
- <https://pubmed.ncbi.nlm.nih.gov/20093739/> This result supports earlier suggestions in the literature that **glycine is a semi-essential amino acid and that it should be taken as a nutritional supplement** to guarantee a healthy metabolism.
- **Glycine is extremely sensitive to antibiotics** which target folate, and blood Glycine levels drop severely within a minute of antibiotic injections. Some antibiotics can deplete more than 90% of Glycine within a few minutes of being administered.
- ACS Chem Biol. 2010 Aug 20; 5(8): 787–795. doi: 10.1021/cb100096f
- The principal function of glycine is as a precursor to proteins. Most proteins incorporate only small quantities of glycine, a **notable exception being collagen, which contains about 35% glycine** due to its periodically repeated role in the formation of collagen's helix structure in conjunction with hydroxyproline.^[26]
^[29]
- ^[26] Nelson, David L.; Cox, Michael M. (2005). *Principles of Biochemistry* (4th ed.). New York: W. H. Freeman. pp. 127, 675–77, 844, 854. [ISBN 0-7167-4339-6](#).
- **Szpak, Paul (2011). "Fish bone chemistry and ultrastructure: implications for taphonomy and stable isotope analysis". *Journal of Archaeological Science*. 38 (12): 3358–3372. doi:10.1016/j.jas.2011.07.022.**ICD-10 codes for this visit

7. Agree with your current supplements (Vitamin C, selenium, turmeric, Butcher's broom) and the Zyrtec.

8. Agree with whole body vibration. LifePro. If you get a LifePro use a code "FLOW" for 10% off.

I89.0 Lymphedema

R60.9 Lipedema

M79. 605 Pain in the left leg

M79. 604 Pain in the right leg

Q79.62 Hypermobility Ehlers Danlos Syndrome

This visit was 60 minutes with >50% time spent counseling on lipedema and other causes of fat tissue growth and possible treatments that may help Sarah.

Electronically signed by Karen L. Herbst, MD, PhD

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