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## LYMPHEDEMA CASE STUDY

Patient is a 63-year-old female realtor who was diagnosed with breast cancer in April 2006 and underwent two complete bilateral mastectomies later that month. Right mastectomy also included resection of the pectoralis major on the right side of approximately 2/3. She then underwent 33 radiation treatments on the right which ended on 12/20/06. She was seen for initial evaluation on 1/22/07.

Subjectively, she complained of discomfort in the right shoulder and anterior pectoral region, a build up of fatty tissue in the right axillary region, weakness of the right upper extremity and swelling which has progressively increased.

Her diagnosis was of right upper extremity lymphedema.

Objectively she presented with limited range of motion of the right shoulder as compared with the left with stiffness, tightness of the anterior chest wall, with significant loss of skin mobility over the anteropectoral region, symptoms of medial and ulnar nerve tension affecting the hand with any type of reaching activities, fullness which was limiting her ability to wear tighter shirts, particularly in the right axillary region. She was taking Levothyroxine, Lisinopril, Ramadex and medication for dizziness.

She began course of complete decongestive physiotherapy and lymphatic drainage therapy on her next visit. She was seen for a total of 23 visits through early May. On average, she was seen 2 x per week. At two periods, she had a 1 month lapse. Throughout course of therapy, patient was in denial of her symptoms and was somewhat reluctant to initiate bandaging on her own. She had intermittent increases in swelling early on, secondary to lack of bandaging on her part at home.

Early therapy included lymphatic drainage therapy and instruction in home program, manual lymphatic mapping, displayed movement of excess fluid into the contra lateral axillary region, both anteriorly and posteriorly. At the inferior margin of her right scapula, there was inferior movement into the right ipsilateral inguinal region.

Average length of sessions was 1 hour. During this period, patient would receive ½ hour of LDT beginning proximally and moving distally to the right upper extremity. Emphasis was placed on proximal lymphatic movement to the opposite axillary region. Patient early on was instructed in skin precautions and proper care with use of suntan lotion, bug spray, adequate hydration, etc.

Patient following LDT techniques received bandaging for the right upper extremity from the fingers to the axilla. Treatment ended with 15-20 minutes of therapeutic exercise to the right upper extremity in a gravity assisted position working at all joints. She was instructed in regular therapeutic exercise to be performed at home during bandaging. Patient had progressed to the point where she was independent with bandaging and was reduced from 3 x per week to 2 x per week.

At time of discharge, patient had total lymph volume decrease of 20% and had brought the right upper extremity to within 7% of total in volume as compared with the left upper extremity.

She was discharged with home program. Patient then returned to the clinic in July '08 for persistent upper extremity lymphedema. On initial evaluation, she relayed that she had been non-compliant with home program. She had been seen at another lymphatic center in which they performed fairly similar treatments. Again, she was non-compliant with program and was seen by her cancer oncologist in June '08 for referral for lymphedema treatment.

On initial evaluation, patient showed marked increase of lymphedema from her original assessment approximately 2 years ago. She exhibited thickening of tissue in the right anterior forearm and increase in fullness in the right axillary region. She has recently initiated lymphedema treatment on a 3 x per week basis.

Treatment continues with LTD x  $\frac{1}{2}$  hour, compression bandaging and exercise. She had no red or irritated areas on initial evaluation. She has had 6 treatments at this time.

We have contacted a pharmacy that would be meeting with patient on discharge when she is fully reduced to assess her for a Beleisse garment with probable Swell spot to the right axilla, as well as a night sleeve which patient had not used.

Patient at this point in time is now more accepting of her condition and realizes that it will be a life long commitment.

Total limb volume for the right upper extremity was 3098 ml, total limb volume left upper extremity 2037 ml as of 7/29/08. Total percent difference of the right upper extremity vs the left equals 3098 minus 2037, which equals 1061 ml. 1061 ml divided by 2037 ml x 100 equals 52%.

At patient's second visit on 7/31/08, patient had overall reduction of 98 ml with a 3% total decrease in overall volume and a 47% increase over the left upper extremity as compared with 52% on initial evaluation.

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## **INITIAL EVALUATION 07/29/08**











