

A Retrospective Case Study on Acupuncture for Lymphedema in an Oncology Setting

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Lymphedema is a common complaint of male and female breast cancer patients following breast surgery with lymph node removal or commonly following radiation to the axilla. Lymphedema is an abnormal buildup of lymph fluid that causes swelling and sometimes pain and occurs most often in the arms and legs. In a healthy lymphatic system, fluid containing debris is pushed through vessels and back into the blood circulation. Lymphocytes, which are housed within nodes, trap and destroy harmful organisms, playing a major role in our immune system. Surgical removal of breast tissue, lymph node removal and radiation are essential components of breast cancer treatment. Staging alone also involves breast tissue and lymph node removal. Some individuals have 2-3 lymph nodes removed while others may have all of the lymph nodes in a particular area removed. The likelihood of developing lymphedema increases with more extensive surgery, increased number of lymph nodes removed, and amount of radiation therapy to the axilla following surgery.

According to [UpToDate](#), an online evidence-based resource, women undergoing sentinel lymph node biopsy (fewer lymph nodes removed) versus axillary dissection (a greater number of nodes removed) have a 64 percent lower risk of developing lymphedema. However, there still remains a clinically relevant risk of lymphedema in women with sentinel lymph node biopsy alone. Increased risk is also associated with higher body mass index, delayed wound healing, postoperative infection and injury. Women with lymphedema may experience pain, limited range of motion, physical and emotional distress, body image insecurities and hypervigilance to avoid symptom exacerbating activities. Risk reduction practices according to the National Lymphedema Network include maintaining clean and dry extremities and nails, providing sun protection, and avoiding punctures in the affected area. If the affected area is scratched or punctured, it is very important to wash with soap and water and use topical antibiotics on the area of concern.

Few research studies have been published on the benefits of acupuncture for lymphedema. Although we are not aware of any negative studies of needling into the affected arm, caution is used when performing acupuncture in a hospital setting. Theoretical concerns exist based on the avoidance of injections and blood draws as a precaution against infection. A study reported in "*Acupuncture in Medicine*" shows that acupuncture and topical herbs have the potential to clinically cure 44 percent and positively affect 52 percent of lymphedema cases when used together for 12 weeks.

A safety study from the same journal in 2011 found no adverse events in 73 treatment sessions of acupuncture and 30 percent reduction in the extent of lymphedema after four weeks. A recent study from the journal "*Cancer*" found no serious adverse events and no infections after 255 treatment sessions and 33 percent reduction in lymphedema. The only side effects that could be found in any study were minimal discomfort or bruising, which are typical side effects of acupuncture in general. The authors concluded that acupuncture appears safe and may reduce lymphedema associated with breast cancer treatments. A randomized clinical trial is currently underway to follow-up on this pilot study.

Case Report

The patient was a 53-year-old female that was diagnosed with breast cancer in 2008 that resulted in a TRAM flap reconstruction and right chest wall radiation. Her lymphedema began four months afterwards. In 2011, she had a right mastectomy and 13 lymph nodes removed, and she has had no evidence of disease since that time.

Her lymphedema began and remained in the right upper extremity. It was described as "significant," as it both limited her ability to wear certain clothing and also limited function. She received physical therapy regularly since 2008 for rehabilitation. In addition to lymphedema, she had significant radiation therapy change on the skin and evidence of a TRAM flap. Her left breast had significant scarring in the upper outer quadrant.

In July of 2012, her surgeon referred her to both cold laser and acupuncture. She also continued physical and occupational therapy at the time. She began acupuncture shortly following. She presented with lymphedema in her right arm, pain in her right shoulder, and hot flashes from hormone treatment. She had 16 treatments in two months, roughly two treatments per week before she left the area.

The patient noticed marked reduction in her swelling with her first treatment. She said that the swelling was better than it had been in a very long time. She said she overused her arm out in the heat, and the swelling returned prior to her second treatment. She continued to notice less swelling in her upper arm with every treatment. On 7/23/12, her treatment was extended to 2-3 points over the lymph pathways on her right arm. At the following appointment, she said her lower arm was finally responding. She also reported significant reduction in skin redness over areas treated with acupuncture on her chest from radiation. On 8/6/12, needles in the affected limb increased resulting in increased swelling after the treatment. She was able to have two more treatments before ceasing acupuncture, so the affected arm was not needled again. By the time she left, her swelling had gone back down.

Discussion

This case study supports acupuncture as first line therapy for lymphedema. A small study from the UK supports the idea that acupuncture can indeed improve quality of life for cancer survivors with upper body lymphedema with no serious side effects. This study also uses the application of moxibustion along with the acupuncture and will hopefully lead to more research on the use of each method separately. An important concept to note in this case study is that it is possible that the arm with lymphedema reached a needle threshold of sorts. The patient was gradually noticing less and less swelling with two to three needles used on the affected side. In one treatment, the number of bilateral needles increased, and her swelling increased. Due to time constraints, the affected side was not needled again, but she continued to notice a decrease in swelling.

Conclusion

A patient presented with lymphedema of four years duration. After 1 or 2 sessions of acupuncture, she saw relief and with continued acupuncture, she saw additional relief. Acupuncture seems to be a reasonable alternative management strategy for managing lymphedema.

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