

Post-Radiation Lymphedema Functional Improvement Not Mirrored in SOMA-LENT

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INTRODUCTION: Hyperbaric Oxygen Therapy (HBOT) is an established treatment for delayed radiation injuries. Breast cancer patients who have had breast-conserving surgery in conjunction with radiation therapy have an increased risk of injury, including breast lymphedema and pain.¹

MATERIALS AND METHODS: During 2009, seven women with post-radiation breast lymphedema received 40 treatments of 100% oxygen for 90 minutes at 2.2 ATA. Each completed the breast cancer SOMA-LENT questionnaire and narrative comments about pain and restricted activities before starting, mid-way, and after completing HBOT therapy. Pain scores (0 – 10) were recorded before and after the daily HBO treatment.

RESULTS: We report summative data based on retrospective chart reviews. Pre-treatment SOMA-LENT scores ranged from 6 to 10. After completion, scores ranged from 4 to 5. Daily pre- and post-treatment pain scores (0-10) were out of character with verbal pain statements. Narrative comments elicited by interviewing with a structured list of pain-inciting factors showed dramatic improvement in pain, level of function, and activities not shown in SOMA-LENT scores.

CONCLUSIONS: We found no correlation between a patient's SOMA-LENT score or daily pain scores with her subjective responses. Since pain and SOMA-LENT criteria were 'sometimes' events, we found better correlation of improvement with verbal descriptors. These women described difficulty with the following activities: hugging, jogging, exercising, walking in crowds, sleeping positions, sexual relations, wearing a bra, and other ADLs. We propose developing a new tool that incorporates a numerical scale for specific functional activities that are limiting due to post-radiation breast pain and lymphedema.

Suggested Category: Wound Healing and Important Adjuncts

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¹ Schmidt-Ulrich, R., Wazer, D.E., Tereilla, O., (1989). Tumor margin assessments, a guide to optimal conservation surgery and irradiation in early breast carcinoma. *International journal of radiation oncology, biology, physics*. 17:733-738.