

**LIPOSUCTION REDUCES ARM LYMPHEDEMA WITHOUT SIGNIFICANTLY ALTERING THE ALREADY IMPAIRED LYMPH TRANSPORT****H. Brorson, H. Svensson, K. Norrgren, O. Thorsson**

Departments of Plastic and Reconstructive Surgery (HB,HS), Radiation Physics (KN), and Clinical Physiology (OT), Malmö University Hospital, Malmö, Sweden

**ABSTRACT**

*In a prospective study, 20 patients with arm lymphedema after breast cancer treatment underwent liposuction combined with Controlled Compression Therapy (CCT) or CCT alone. Indirect lymphoscintigraphy (ILS) was used to study lymph kinetics before and after intervention. Lymphoscintigrams from the contralateral, non-edematous arm were characterized by prompt transit of the radiotracer ( $^{99m}\text{Tc}$ -albumin nanocolloid) to the axillary nodes, whereas tracer accumulation as dermal backflow characterized tracer transport in the lymphedematous arm. Neither liposuction with CCT nor CCT alone, changed this ILS profile. Liposuction combined with CCT reduced arm edema volume by (median) 115% (range 92-179%), whereas CCT alone decreased arm edema volume by only 54% (range 7-81%) ( $p=0.008$ ). Because liposuction in conjunction with CCT was not associated with further impairment to an already restricted lymph transport, we recommend this therapy (liposuction with external compression) for chronic arm lymphedema, as it reduces edema volume safely, rapidly, and more efficiently than external compression alone. Moreover, it does not worsen an already impaired lymph transport in the lymphedematous upper extremity.*