

Microsurgery in the Treatment of Lymphedema: Indications and Long Term Results.

Campisi Corradino, MD, PhD, Boccardo Francesco, MD, PhD

Department of Surgery - Unit of Lymphatic Surgery and Microsurgery

S.Martino Hospital - University of Genoa

Largo R.Benzi 8, 16132, Genoa, Italy

campisi@unige.it; francesco.boccardo@unige.it

Background: More than 2000 patients with peripheral lymphedema have been treated with microsurgical techniques. These techniques were used for both surgical therapy and prevention of lymphedema.

Methods: Derivative lymphatic micro-vascular procedures recognize today its most exemplary application in multiple lymphatic-venous anastomoses (LVA), and particularly in the end-to-end telescopic technique, that allows to avoid any contact between lymphatics and the blood stream. For those cases where a venous disease (valvular insufficiency, venous hypertension, etc.), is associated to more or less latent or manifest lymphostatic pathology of such severity to contraindicate a lymphatic-venous shunt, reconstructive lymphatic microsurgery techniques have been developed (autologous venous grafts or lymphatic-venous-lymphatic-anastomoses - LVLA). Objective assessment was undertaken by water volumetry and lymphoscintigraphy.

Results: Subjective improvement was noted in 87% of patients. Objectively, volume changes showed a significant improvement in 83%, with an average reduction of 67% of the excess volume. Of those patients followed-up, 85% have been able to discontinue the use of conservative measures, with an average follow-up of more than 10 years and average reduction in excess volume of 69%. There was a 87% reduction in the incidence of cellulitis after microsurgery.

Conclusions: Microsurgical lymphatic-venous anastomoses have a place in the etiological and functional treatment and prevention of peripheral lymphedema and should be the therapy of choice in patients who are not sufficiently responsive to nonsurgical treatment. Improved results can be expected with operations performed earlier at the very first stages of lymphedema.