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LETTERS TO THE EDITOR

Plastic surgery in lymphedema treatment: a microsurgery perspective

Cirugía Plástica en el tratamiento del linfedema: una mirada desde la microcirugía

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Dear Director:

Lymphedema, affecting over 250 million people worldwide, represents a significant clinical and socioeconomic burden, particularly for cancer survivors. (1) While conservative therapies (e.g., compression and manual drainage) remain the cornerstone of lymphedema management, microsurgery, as a subspecialty of reconstructive plastic surgery, has recently opened doors to redefine the treatment paradigm. However, critical challenges persist regarding accessibility and standardization.

The data are compelling, lymphatic microsurgery has demonstrated superior efficacy in recent studies. Lymphovenous anastomoses (LVA), facilitated by

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indocyanine green (ICG) mapping, achieve 35-50 % volumetric reduction in treated limbs, with a 17-44 % decrease in cellulitis episodes. [2,3]

Current international literature confirms that vascularized lymph node transfer (VLNT) significantly improves quality of life and reduces limb volume in patients with secondary lymphedema. This procedure leads to substantial improvements in both physical functioning and psychological well-being, regardless of donor site. [4] Orthotopic VLNT has demonstrated efficacy in treating breast cancer-related lymphedema. [5]

These outcomes, once considered unattainable, are now reproducible with demonstrated efficacy and safety in the scientific literature. However, optimal patient selection remains crucial: while LVA requires functional lymphatic vessels, VLNT shows superior efficacy in established fibrosis.

Hybrid approaches are emerging as the standard in tertiary referral centers. The LVA + VLNT combination synergizes benefits, delivering both immediate edema reduction and sustained lymphatic regeneration. [2] Despite these advances, only a limited number of global centers offer lymphatic microsurgery, highlighting unacceptable disparities in comprehensive cancer care.

Active prevention represents the immediate future. Studies demonstrate that prophylactic VLNT during mastectomy reduces lymphedema incidence. [6] However, widespread implementation requires three fundamental pillars: standardized protocols based on multimodal staging (ICG + lymphoscintigraphy), specialized microsurgical training for plastic surgeons, and public funding to democratize techniques currently concentrated in elite centers.

In the author's opinion, there remains a need to integrate lymphatic microsurgery into healthcare systems as an essential component of cancer survivorship. Current evidence supports its role not as a last resort, but as an early intervention that alters the natural history of this condition.

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CJAP: Conceptualization, formal analysis, investigation, methodology, visualization, writing – original draft, writing - review and editing.

CONFLICT OF INTERESTS

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