Systematic review of quality of life and patient reported outcomes in patients with oncologic related lower extremity lymphedema

Division of Plastic and Reconstructive Surgery, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, USA

▲ Background

Lower Limb Lymphedema (LLL) is a common complication of cancer treatment and is characterized by abnormal tissue swelling, fibrosis, and adipose deposition. The disease is debilitating and usually progressive and treatment remains palliative with no known cure. Despite significant morbidity, there have been limited studies that have analyzed the impact of this condition on health-related quality of life (HRQOL). We performed a systematic review to summarize the known literature on HRQOL effects of LLL secondary to can-
crer in order to identify valid treatment strategies for this disease.

Methods and Results
We utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement as a guide for our systematic review. 25 studies were identified, 6 met inclusion criteria (Tab. 1). Levels of evidence included: no level I studies, level II (n=3), level III (n=1), and level 4 (n=2). 5 PRO HRQOL instruments were used, only 1 specific to cancer-related lymphedema. Treatment strategies assessed included complete decongestive physiotherapy (CDP), exercise, and compression bandaging. CDP yielded significant enhancements in HRQOL, patients specifying less pain and fatigue and had less lymphedema. Patients with BMI greater than 26.5 kg/m² reported significantly decreased quality of life. In contrast, compression bandaging significantly improved physical functioning, bodily pain, social functioning, emotional and mental health domains of HRQOL.

Conclusions
Our review suggests there is a deficit in high quality studies for HRQOL in patients with LLL secondary to cancer. This is surprising and worrisome since the lower limb is the most commonly affected area in patients developing lymphedema worldwide. Furthermore, of the studies present, most did not use lymphedema condition specific PRO instruments or conform to guidelines set for the assessment of HRQOL. Despite these deficits, it appears that compression bandages and decongestive therapy improve HRQOL while increasing weight decreases it. We recommend that high level studies be performed to bridge the gap in our understanding of LLL. New measures specific to assessing this detrimental condition are essential if we are to gain precise evaluation of how this debilitating disorder affects HRQOL, and hence will enable the development of valid treatment strategies to treat it.

Correspondence address
Dr. Babak J. Mehrara
Division of Plastic and Reconstructive Surgery
Department of Surgery
Memorial Sloan-Kettering Cancer Center
New York, New York 10065, USA
E-Mail: mehrarab@mskcc.org

Tab. 1: Assessing the methodology of studies looking at QOL in LLL patients.