Assessment of External Lymphedema in Patients With Head and Neck Cancer: A Comparison of Four Scales

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Damage to or removal of regional lymph nodes and vessels from cancer or its treatment are among the most common conditions that lead to secondary lymphedema in the United States (Holcomb, 2006; Rockson & Rivera, 2008). Although lymphedema is an acknowledged problem in the breast cancer population, the problem is only now being recognized in patients with head and neck cancer (HNC) (Bruns et al., 2004; Deng et al., 2012; Deng, Ridner, & Murphy, 2011; Lewin, Hutcheson, Barringer, & Smith, 2010; Micke et al., 2003; Smith & Lewin, 2010). Aggressive multimodal treatment has improved survival rates for patients with HNC, leaving them at risk for the development of late treatment effects. Patients with HNC are at high risk for the development of secondary lymphedema because of treatment-related lymphatic system damage from surgery, radiation, and tumor infiltration of soft tissues (Deng et al., 2012; Smith & Lewin, 2010). These patients may develop secondary lymphedema externally (e.g., face, neck) and internally (e.g., larynx, pharynx). The current study’s authors reported the results of a cross-sectional analysis of lymphedema in 103 patients with HNC post-treatment. Those results indicated that lymphedema is a frequent complication of HNC treatment associated with substantial symptom burden, functional deficits, and decreased quality of life (QOL) (Deng et al., 2013). Although the data clearly indicated that lymphedema is a clinically meaningful problem in the HNC population, confirmatory data are lacking, in part because of a lack of validated tools for lymphedema assessment in this population.

To date, little attention has been given to methodologic approaches specific to secondary lymphedema in patients with HNC (Deng et al., 2011; Földi, Földi, Strössenreuther, & Kubik, 2007; Lymphedema Framework, 2006). Prior to selecting the assessment tools for their preliminary study, the current authors developed a comprehensive literature review to select the most suitable tools to measure lymphedema in their cross-sectional study. Based on that review, they identified four scales that evaluated secondary lymphedema. Some tools were specific to patients with HNC, whereas others were developed for lymphedema in general without reference to the cause. Specifically, two scales were developed for grading head and neck lymphedema: the Common Terminology Criteria for Adverse Events (CTCAE) Lymphedema Scale.