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# Effect of an Oral Mucositis Protocol on Quality of Life of Patients With Head and Neck Cancer Treated With Radiation Therapy

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This study was conducted to determine the effect of an oral mucositis prevention protocol on nutritional status and quality of life for patients undergoing radiation therapy for head and neck cancers. This randomized, controlled, experimental study placed 20 patients in an intervention group where they received an oral care protocol and a nutrition protocol. Thirty patients were placed in the control group. Data were collected through face-to-face interviews using an oral assessment guide, oral evaluation guidelines, an oral toxicity scale, a visual analog scale, a subjective global assessment index, and a quality-of-life scale. As time post-treatment progressed, the prevalence of malnutrition in the intervention group was lower than in the controls group, and the intervention group experienced significantly less pain related to oral mucositis. Similar deteriorations in quality of life were noted in each group.

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**H**ead and neck cancers (HNCs) pose a unique difficulty for healthcare providers related to the anatomic, cosmetic, and functional features of their location. Proximity of HNCs to certain anatomic structures can cause substantial functional losses depending on local invasion (Çukurova, Çerci, Arslan, Demirhan, & Özkul, 2007). Radiation therapy (RT) can result in a wide range of complications when used for treatment of HNCs. Oral mucositis from irradiation occurs in 80%–100% of patients (Barasch & Epstein, 2011; Çavusoglu, 2007; Sonis, 2004) and is one of earliest effects of radiation, generally manifesting two weeks after the onset of RT (Çavusoglu, 2007; Yilmaz, 2007). Oral mucositis causes mouth dryness, pain, burning sensations, infections, and ulcerations. Grade 3 and 4 mucositis may limit the ability to eat, drink, swallow, and speak (Shih, Miaskowski, Dodd, Stotts, & MacPhail, 2003; Silverman, 2007).

Oral mucositis impairs food intake for patients, leading to malnutrition. Malnutrition is seen in 40%–80% of patients with cancer and is a major cause of morbidity and mortality (Ertem,

2008; Kömürçü, 2004). Providing nutritional support via protocols is critical during treatment.

Close monitoring and evaluation of mucositis or grade severity progression is very important. However, oral mucosa evaluation is often not practiced sufficiently (Çubukçu & Çinar, 2012; Peterson, 2006; Shieh, Wang, Tsai, & Tseng, 1997; Silverman, 2007; Stonea, Flidnerb, & Smiet, 2005). Randomized and nonrandomized clinical trials aimed at reducing the severity of oral mucositis have reported that cryotherapy (ice chips in the mouth), the use of antiseptic and antifungal agents, applying topical analgesics, and adherence to regular mouth care protocols may be efficient in treating and alleviating oral mucositis (Migliorati et al., 2013; Nicolatou-Galitis et al., 2013; Peterson, Öhrn, & Bowen, 2013; Raber-Durlacher, Von Bültzingslöwen, & Logan, 2013).

Oral hygiene is very important and has been found to diminish oral mucositis in patients who were given regular mouth care (Borowski et al., 1994; McGuire, Correa, Johnson, & Wienandts, 2006). Guidelines from the Multinational Associati-