Oral health is an important component of individual health, and any alteration will reflect directly on quality of life (Eilers & Milloin, 2011). Therefore, different oral care protocols and strategies were established for patients with cancer to prevent and minimize oral mucositis. Oral cryotherapy is an application of ice chips or ice water prior to, during, and after the infusion of chemotherapy and is one of the recent modalities to prevent and manage oral mucositis (Salvador, Azusano, Wang, & Howell, 2012). Oral cryotherapy works by inducing vasoconstriction to the oral mucosa blood vessels to decrease exposure to chemotherapy. Use of cryotherapy shows a decrease in the incidence and severity of oral mucositis induced by chemotherapy (Gori et al., 2007; Svanberg, Öhrn, & Birgegård, 2010).

Myeloablative conditioning is a high dose of chemotherapy or a combination of chemotherapy and radiotherapy that is used in bone marrow transplantation (BMT) protocols to prepare patients for the transplantation. The goal of using myeloablative conditioning is to eradicate the residual malignant cells and make space for the new stem cells used for engraftments (Brown, 2010; Rinkus, 2009). Oral mucositis is affected by different factors, such as disease type, conditioning regimen, and any other underlying disease (Eilers & Milloin, 2011). About 70%–99% of patients receiving myeloablative conditioning for BMT experience severe oral mucositis (Gori et al., 2007; Kashiwazaki et al., 2012). Patients with oral mucositis (67%–86%) also experience oral pain (Brown & Wingard, 2004; Svanberg, Birgegård, & Öhrn, 2007). Oral mucositis prolongs hospital length of stay, decreases the patient’s quality of life, and increases the need for parenteral nutrition and pain management, as well as increases the risk for infection (Stone, Fliedner, & Smietc, 2005). The purpose of this article is to clarify the effect of cryotherapy on oral mucositis among patients receiving myeloablative conditioning followed by BMT.