

Online Exclusive

# Managing Stomatitis in Patients Treated With Mammalian Target of Rapamycin Inhibitors

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Mammalian target of rapamycin (mTOR) inhibitors are a class of targeted cancer therapeutic agents with clinical benefit for multiple tumor types. Oral ulcerations are a common side effect of mTOR inhibitors; however, the clinical findings resemble aphthous stomatitis rather than the mucositis seen with chemotherapy. Consequently, the appearance of aphthous-like oral ulcerations has been referred to as mTOR inhibitor-associated stomatitis (mIAS). The severity of mIAS can be minimized by following common preventive steps and initiating treatment at the first sign of mouth discomfort, thereby reducing the likelihood of treatment discontinuation. mIAS can be managed through prophylactic measures, such as patient education in oral hygiene and avoidance of triggers. Patients who develop mIAS may be treated topically using rinses or other local therapies, including corticosteroids. In severe cases, dose modifications may be required. Oncology nurses have an important role in the management of patients with cancer and are well positioned to offer strategies for minimizing the occurrence and impact of mIAS.

**M**ammalian target of rapamycin (mTOR) inhibitors, a drug class used for its immunosuppressive effects in the prevention of transplantation rejection, have emerged as key components of cancer therapy (Sankhala et al., 2009; Saunders, Metcalfe, & Nicholson, 2001). Although generally well tolerated by patients with cancer, mouth ulcers or mucositis or stomatitis are the most common dose-limiting toxicities (DLTs) of these agents (Fasolo & Sessa, 2008; Hidalgo et al., 2006; Mita, Britten, et al., 2008; Mita, Mita, et al., 2008; Raymond et al., 2004; Tabernero et al., 2008; Vignot, Faivre, Aguirre, & Raymond, 2005). Mucositis is a common side effect of cancer

## At a Glance

- ◆ Stomatitis commonly occurs during treatment with mammalian target of rapamycin (mTOR) inhibitors; the ulcers resemble canker sores rather than chemotherapy-induced mucositis.
- ◆ Steps that may be taken to minimize mTOR inhibitor-associated stomatitis (mIAS) include good oral hygiene; avoiding spicy, acidic, hard, and hot foods and beverages; using mildly flavored toothpaste; and cleansing with baking soda rinses.
- ◆ Treatment of mIAS may include specific medications, palliative interventions, and dose modifications.

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