

## Editorial

# Management of Oral Mucositis

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Across the continuum of oral and gastrointestinal mucosa, from the mouth to the anus, mucositis is defined like inflammatory lesions. Many etiologies are evoked as infectious disease, immune deficiency, medications and high dose cancer therapy can be causative. In addition, a recent study suggest a possible relationship between coagulase-negative staphylococci and the development of oral mucositis, in the case of acute lymphoblastic leukemia undergoing antineoplastic chemotherapy.

Importance and gravity of mucositis are real, indeed, in conformity of the last grade in World Health Organization (WHO) the grade 4: (Ulcers, Alimentation no possible) or another classification in NCI, (National Cancer institute) (Common Terminology Criteria for Adverse Events (CTCAE)) version 4.0 the grade 5 corresponding of the ultimate stade "the death". Important inconvenient is represented by the high risk of malnutrition following a high dose chemo radiotherapy regimen in relation with swallowing problems (oral mucositis). This problem implicated and early enteral nutrition started.

The ins and outs of these risks with the combination therapy (e.g. head and neck radiation with concurrent chemotherapy) may increase the severity of oral mucositis. In these conditions management of oral mucositis is one of the main challenges , with risk of sepsis related to the degree of mucosal barrier breakdown and depth of marrow suppression.

Proposition of treatment of oral mucositis and debilitating complications in patients undergoing intensive chemotherapy followed by hematopoietic stem cell transplantation are experimented. Selenium can reduce the duration and severity of OM after high dose chemotherapy. The efficacy and safety of recombinant human Epidermal Growth Factor (rhEGF) oral spray for OM (WHO grade >3 ) induced by intensive chemotherapy followed by HSCT showed better results compared to the placebo group Palifermin is recommended in a dose of 60 µg day for 3 days before conditioning

treatment and for 3 days post-transplant for the prevention of oral mucositis in patients with hematological malignancies receiving high dose chemotherapy and total irradiation with autologous stem cell transplantation.

Low-Level-Laser Therapy (LLLT) was effective in improving the patient's subjective experience of OM and quality life in head and neck cancer patients receiving chemotherapy induced OM. However, additional well designed research is needed to evaluate the efficacy of laser and other light therapies in various cancer treatment settings.

Cryotherapy for prevention of oral mucositis is another possibility tested in patients receiving bolus 5-FU chemotherapy or high dose melphalan. This technique is also used for treatment to decrease mucositis in patients treated with bolus doses of edatrexate.

Specific adjuvant treatment are tested like the effects of Irsogladine Maleate (IM) on fluorouracil-induced oral mucositis, IM significantly reduced incidence and maximum severity of oral mucositis in patients treated with 5-FU-chemotherapy.

Oral management is necessary for decrease the occurrence of OM resulting of allogenic or autologous hematopoietic SCT. Radiotherapy and chemotherapy. Mouth rise like Caphosol R (supersaturated Ca<sup>2+</sup>/PO<sub>4</sub> oral rinse) in patient receiving high-dose cancer therapy is subjected for the efficacious at reducing the grade and/or duration , as well as pain associated with OM. However important reserve for the inclusion of Caphosol in regimens for prevening or reducing the debilitating effects of OM because the limitation of the studies.

Mouthwash for the prevention of OM in head and neck cancer patients receiving moderate dose radiation therapy (up to 50 Gy) without concomitant chemotherapy is recommended (e.g; saline mouth rinses 4-6 times/day). The results of *in vitro* drug release experiments demonstrated that all the hydrogel showed sustained release properties. Alcohol-based mouth rinses should be avoided like Chlorhexidine, antimicrobial lozenges are not recommended for prevention of radiation induced oral mucositis, but the use of a soft toothbrush is also suggested consistent with good clinical practice. For oral mucositis pain in patients undergoing HSCT (I,A) analgesia with morphine is recommended.

However, based on the information gathered in this systematic search of the literature, topical treatment of mucositis pain today is based on empiricism and not on scientific evidence.