

Managing Complications of Radiation Therapy in Head and Neck Cancer Patients: Part V.

Management of Mucositis

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Head and neck cancer is becoming a more recognizable pathology to the general population and dentists. The modes of treatment include surgery and/or radiation therapy. Where possible, pretreatment dental assessment shall be provided for these patients before they undergo radiation therapy. There are occasions, however, whereby head and neck cancer patients are not prepared optimally for radiation therapy. Because of this, they succumb to complicated oral adverse effects after radiation therapy. The second last part of this series reviews and discusses the management of complication that commonly occur to the oral mucosa, i.e. mucositis. [*Singapore Dent J* 2006;28(1):16–8]

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Mucosal complications are common during radiation therapy. This is usually transient in nature. Among the common complications to the oral mucosa are mucositis and candidiasis. Mucositis is a painful, debilitating, dose-dependent side effect of radiation therapy for which there is no widely accepted prophylaxis or effective treatment. The severity depends on the dosage, target area, and duration of treatment.

The first sign of inflammatory change is seen at the end of the first week as a white discoloration.¹ This is due to decreased mitotic activity and subsequent longer retention of superficial cells, allowing them to become more highly keratinized. As these cells are lost, they are not replaced in sufficient numbers by the underlying epithelium so that the mucosa becomes thin and red, leading to ulceration in severe cases. These ulcerated areas may be covered by a white or yellow fibrinous exudates.² (See Part III of this series for the management of mucosal ulceration). Mucositis, coupled with the lack of saliva,

will result in an increased sensitivity to strong flavours in food as well as to the flavouring agents in toothpaste.¹

As pain from mucositis affects eating, swallowing and talking, the basis of management is palliative, prevention of dehydration, and adequate nutrition.^{1,3} Attempts to conserve necrotic, ulcerated mucosal tissues should be made. This can be done by advising patients against abrasive food, alcohol, smoking, and spicy food.⁴ The only clinical condition that requires aggressive intervention is the radionecrosis of the mucosa whereby haemorrhage is a major problem related to erosion of major vessels.⁴

Mild form of mucositis can be managed with good oral care, i.e. cleansing with a soft toothbrush and rinsing with saline solution or sodium bicarbonate.^{4,5} However, no studies have been done to confirm any beneficial advantage upon mucositis.^{4,6}

The discomfort of mucositis can be reduced with coating agents, topical anaesthetics, and analgesics, although systemic analgesics may frequently be needed.⁶ A number of formulations of palliative topical agents are listed in Table.

Milk of magnesia that contains aluminium hydroxide/magnesium hydroxide and sucralfate has been suggested as coating agents for the oral mucosa. About 15–30 mL