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# Managing Tissue Necrosis Associated With Oral Carcinoma

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## Patient History

Ms. W, a female older adult patient, was diagnosed with squamous cell carcinoma of the left oral cavity and underwent a wide local excision of the lesion with segmental mandibulectomy. About nine months later, she presented with an aggressive local recurrence. Because of the tumor's location, Ms. W found oral intake to be extremely difficult; therefore, a percutaneous endoscopic gastrostomy tube was placed in February 2002. Upon physician assessment in February 2003, the patient had a large exophytic necrotic tumor involving the tongue, floor of the mouth, and buccal mucosa (see Figure 1). The lesion involved the skin of the left cheek and was seeping serosanguineous fluid. Ms. W's condition deteriorated after she experienced respiratory distress; as a result, she was transferred to an intensive care unit, where she was intubated. Radiation therapy was planned for the patient, but it was evaluated for its impact on the integrity of the oral cavity. What nursing care measures should be instituted to manage tissue necrosis in Ms. W's oral cavity?

## Head and Neck Cancer

Head and neck-related cancers are a growing problem in the United States. In 2004, an estimated 28,260 Americans will be diagnosed with cancers of the oral cavity and pharynx and 7,230 will die from these diseases. Although more common among men, cancers of the head and neck do occur in women, and an estimated 9,710 women will be diagnosed with cancer of the mouth in 2004 (Jemal et al., 2004).



**FIGURE 1. ORAL LESION PRIOR TO METRONIDAZOLE THERAPY**

Some of the problems commonly associated with oral cancers are halitosis, periodontal disease, delayed wound healing in the oral cavity, dental caries, dysphagia, oral infection such as candidiasis, and buildup of white mucosal macules (leukoplakia) and red mucosal macules (erythroplakia) (Rodriguez-Monge, Shin, & Lippman, 1997; Walsh & Epstein, 2000). With the numerous problems that head and neck-related cancers can cause, oral care is

a vital part of treatment for this patient population (Walsh & Epstein).

## Assessment

Several days after a physician assessed Ms. W, a wound ostomy continence nurse (WOCN) consultation was received from the pulmonary physician regarding recommendations for oral care. The WOCN provided patient consultation and conducted an initial assessment. The assessment of a patient's oral cavity includes visual inspection of the oral mucosa, tongue, gums, and lips; amount and consistency of saliva; and range of motion of the mouth, tongue, and jaw. In addition, malodor may be present and should be noted. Pain assessment involves measuring severity with a 0–10 scale and examining the location of discomfort, duration, and precipitating and alleviating factors. The ability to eat and speak also should be assessed.

The WOCN observed a small amount of purulent yellow drainage at the left lesion site in Ms. W's oral cavity and a malodor from the oral cavity. The patient also was unable to open her mouth because of the intubation tube, and she reported her oral cav-

ity tenderness as 3 on a 0–10 scale. The current treatment consisted of swabbing the patient's mouth with normal saline, but this had little success in decreasing the odor or keeping her mouth clean.

## Intervention

Most oral care agents and mouthwashes have cleansing and drying action on the oral cavity. Cleansing and drying actions may be very uncomfortable and painful for patients who have lesions or oral carcinomas; therefore, many oral care options are available such as nystatin swish, normal saline, and metronidazole solution. Nystatin mouthwash can be very effective if a yeast component is present. Normal saline is safe for mouth care if oral lesions are present in the oral cavity but is ineffective against odor or in decreasing bacterial count. Most patients try to avoid oral care for fear of introducing pain and tenderness or traumatizing oral lesions.

In wound care, metronidazole commonly is used as a topical dressing treatment in the management of carcinoma-related wounds and is effective against aerobic and anaerobic bacteria (McMullen, 1992). Metronidazole 1% solution is effective in decreasing odor in malodorous wounds in fungating or metastatic skin lesions (Bauer, Gerlach, & Doughty, 2000; Hampson, 1996; Moyer, Angelini, & Kagan, 1997). Metronidazole comes in a variety of preparations ranging from spray, paste, solution, gel, and IV (Finlay, Bowszyc, Ramlau, & Gwiedzinski,

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