

OPTIMIZING ORAL CARE AND QUALITY OF LIFE IN PATIENTS WITH ORAL CANCER RECEIVING CHEMOTHERAPY

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Abstract

Chemotherapy plays an important role in the treatment of malignant tumors of the oral cavity, but its systemic effects may significantly compromise oral health and quality of life. Patients frequently experience xerostomia, taste disturbances, mucosal sensitivity, dental complications, pain, and difficulties with eating and speaking. These problems may become more pronounced when oral hygiene is inadequate or when pre-existing dental disease is present. This article discusses strategies for optimizing oral care in patients with oral cancer undergoing chemotherapy. Particular attention is given to preventive dental assessment, individualized oral hygiene, management of xerostomia, dietary recommendations, pain control, and multidisciplinary monitoring. Early dental intervention and continuous oral care can reduce complications, support nutritional status, and contribute to better treatment tolerance and quality of life.

Keywords: oral cancer, chemotherapy, oral care, xerostomia, oral hygiene, quality of life, dental complications, supportive care.

Introduction

Oral cavity cancer is a serious condition that requires complex and prolonged treatment. Depending on the stage and characteristics of the disease, chemotherapy may be used alone or in combination with surgery and radiotherapy. Although chemotherapy targets malignant cells, it can also affect healthy tissues, including the oral cavity.

The oral environment is particularly vulnerable because the mucosa, salivary glands, teeth, and periodontal tissues can be affected by systemic cancer treatment.

Patients may develop dry mouth, altered taste, oral discomfort, increased dental sensitivity, and difficulty maintaining adequate oral hygiene. Such complications can negatively influence nutrition, communication, sleep, and psychological well-being.

Therefore, dental care should not be considered secondary during cancer treatment. An individualized oral-care program should be established before chemotherapy and maintained throughout the treatment process.

Oral Complications During Chemotherapy

One of the frequent problems is **xerostomia**, or the subjective sensation of dry mouth. Reduced salivary flow can impair lubrication and natural cleansing of the oral cavity. Saliva also plays an important role in buffering acids and protecting teeth. Consequently, persistent dryness may increase the risk of dental caries, mucosal irritation, and difficulties in swallowing.

Patients may also experience changes in taste. Foods that were previously enjoyable may become unpleasant or have a metallic or bitter taste. This can reduce appetite and contribute to inadequate nutritional intake.

Another important problem is increased oral sensitivity. Patients may experience discomfort when consuming hot, cold, spicy, or acidic foods. Existing periodontal disease or untreated carious lesions may further aggravate these symptoms.

Preventive Dental Assessment

A comprehensive dental examination before chemotherapy is an important component of supportive cancer care. The dentist should evaluate teeth, periodontal tissues, oral mucosa, existing restorations, and prosthetic appliances.

Potential sources of infection should be identified and treated whenever clinically appropriate before the patient's immune system becomes significantly compromised. Professional dental cleaning may also be useful for patients with substantial plaque or calculus accumulation.

Patients should receive clear instructions regarding oral hygiene. A soft toothbrush and gentle brushing technique can help maintain oral cleanliness while

minimizing mechanical trauma. Fluoride toothpaste may be recommended to support dental protection.

Management of Xerostomia

Management of dry mouth should focus on maintaining adequate moisture and protecting oral tissues. Patients should be encouraged to drink water regularly, unless fluid intake is restricted for another medical reason.

Sugar-free chewing gum or appropriate saliva-stimulating products may help stimulate salivary secretion in suitable patients. Excessive consumption of caffeinated beverages and highly sugary foods should be limited because they may contribute to discomfort or increase the risk of dental caries.

Artificial saliva or moisturizing oral products may also provide symptomatic relief. However, treatment should be individualized according to the patient's symptoms and overall medical condition.

Nutrition and Oral Health

Nutrition is closely associated with oral health during chemotherapy. Patients experiencing oral discomfort may avoid certain foods, resulting in insufficient caloric and protein intake.

Soft, nutrient-rich foods can be easier to tolerate. Foods should generally be served at a comfortable temperature, while excessively hot, spicy, salty, or acidic products may be avoided if they provoke irritation.

Dietary counseling should consider the patient's individual nutritional requirements, treatment regimen, oral symptoms, and general health. Cooperation between dentists, oncologists, and nutrition specialists can help maintain adequate nutritional status.

Pain and Oral Discomfort

Pain management is another important element of oral supportive care. Mild discomfort may sometimes be reduced through local supportive measures, while more severe symptoms may require systemic analgesic treatment prescribed by the medical team.

Patients should be encouraged not to discontinue oral hygiene because of discomfort. Instead, brushing should be performed gently, using appropriate oral-care products. Persistent or severe pain should be reported promptly because it may indicate mucosal injury, infection, dental disease, or another complication requiring professional assessment.

Multidisciplinary Approach

The successful management of oral complications requires cooperation between different healthcare professionals. The oncologist coordinates cancer treatment, while the dentist focuses on prevention and management of oral complications. Nurses can reinforce oral-care education, and nutrition specialists can address dietary difficulties.

Regular communication among these professionals allows oral complications to be identified earlier and managed more effectively. Patients should also be actively involved in their own care by reporting new symptoms and following recommended oral-hygiene measures.

Conclusion

Optimized oral care is an essential component of supportive treatment for patients with oral cancer receiving chemotherapy. Preventive dental assessment, effective oral hygiene, management of xerostomia, appropriate nutrition, pain control, and regular professional monitoring can help minimize oral complications and preserve quality of life.

The dental team should be involved before and throughout chemotherapy rather than only after severe oral complications develop. An individualized and multidisciplinary approach can improve patient comfort, support adequate nutrition, and help patients tolerate cancer treatment more successfully.

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