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Preface

Sook-Bin Woo and Nathaniel S. Treister

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Multidisciplinary Approach to Cancer Treatment: Focus on Head and Neck Cancer

Robert Haddad, Donald Annino, and Roy B. Tishler

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This article focuses on squamous cell carcinoma of the head and neck (SCCHN), the most common malignancy of the head and neck area. Early detection limits morbidity of treatment and increases the chances of a cure. The treatment of SCCHN is often multidisciplinary in nature and provides a model for how multimodality therapy may be applied for optimal patient management. The role of surgery in SCCHN is continually undergoing evolution, and the surgeon's role in the multidisciplinary treatment of head and neck cancers has changed as more cancers are being treated by chemoradiotherapy. Salvage surgery has become more common, and with it the increased challenges in managing metastatic disease to neck nodes as well as managing failure of organ preservation treatments. Surgeons continue to develop and refine reconstruction techniques to optimize cosmetic and functional outcomes.

Dental Treatment Planning and Management in the Patient Who Has Cancer

Michael T. Brennan, Sook-Bin Woo, and Peter B. Lockhart

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The oral cavity has the potential to be a major source of short-term and long-term complications from cancer therapy. Appropriate evaluation and elimination of potential sources of oral infection before cancer therapy is vital because oral bacteria are a known source of bacteremia and septicemia during cancer therapy. Cancer diagnosis with previous and planned treatment, past medical history, past dental history, current medications, drug allergies, social history, family history, laboratory values, extraoral findings, intraoral findings, and radiographic findings must all be evaluated in planning dental treatment for these complex cases.

Management of Patients Who Have Undergone Head and Neck Cancer Therapy

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Dena J. Fischer and Joel B. Epstein

Patients who undergo treatment for head and neck cancers often suffer from acute or late reactions to therapy. Severity of these oral complications may be based on the location and extent of tumor, as well as the type and extent of treatment. Some complications are transient, whereas others require a lifetime of management secondary to damage that results in permanent dysfunction. Patients who have a history of head and neck cancers are also at an increased risk for recurrences or second malignancies, and therefore require close follow-up. Dental professionals should provide preventive and supportive care, including education and symptom management, for patients experiencing oral complications related to cancer therapy, and should closely monitor patients' level of distress, ability to cope, and treatment response.

Management of Oral Mucositis in Patients Who Have Cancer

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Rajesh V. Lalla, Stephen T. Sonis, and Douglas E. Peterson

Oral mucositis is a clinically important and sometimes dose-limiting complication of cancer therapy. Mucositis lesions can be painful, affect nutrition and quality of life, and have a significant economic impact. The pathogenesis of oral mucositis is multifactorial and complex. This review discusses the morbidity, economic impact, pathogenesis and clinical course of mucositis. Current clinical management of oral mucositis is largely focused on palliative measures such as pain management, nutritional support and maintenance of good oral hygiene. However, several promising therapeutic agents are in various stages of clinical development for the management of oral mucositis. These agents are discussed in the context of recently updated evidence-based clinical management guidelines.

Oral Graft-Versus-Host Disease

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Mark M. Schubert and Maria Elvira Pizzigatti Correa

Hematopoietic cell transplantation is used to treat malignancies, hematologic and immune deficiency states, marrow failure syndromes, and autoimmune diseases. Graft-versus-host disease (GVHD) is a clinical syndrome seen following allogeneic transplantation where donor-derived immunocompetent T cells and inflammatory responses attack host tissues. GVHD can cause significant morbidity and even result in mortality. The oral cavity is a frequently involved site with clinical changes resembling autoimmune collagen vascular diseases. Recognition, diagnosis, and monitoring of oral GVHD can help with diagnosis and grading of GVHD and judging responses to therapy. Topical and local management of symptomatic oral GVHD can reduce oral symptoms that can interfere with oral function and quality of

life, and can reduce the need for more intensive immunosuppressive systemic therapies.

Biophosphonate-Related Osteonecrosis of the Jaws

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Salvatore L. Ruggiero and Sook-Bin Woo

In 2003 and 2004, the first reports of patients who developed necrosis of the jawbones while taking biophosphonates appeared in literature; most patients were on this drug for treatment of cancer and some osteoporosis. Since then, more than 500 cases have been identified and the number of these cases continues to grow. This article reviews the action of bisphosphonates, the condition called bisphosphonate-associated osteonecrosis of the jaws, strategies to minimize occurrence, and treatment of this condition.

Management of Oral Infections in Cancer Patients

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Mark A. Lerman, Joel Laudenbach, Francisco M. Marty,
Lindsey R. Baden, and Nathaniel S. Treister

The myelosuppressive and mucosal-damaging consequences of cancer and cancer therapies place patients at high risk for developing infectious complications. Bacterial, fungal, and viral infections are all commonly encountered in the oral cavity, contributing to both morbidity and mortality in this patient population. Prevention, early and definitive diagnosis, and appropriate management are critical to ensure optimal treatment outcomes. With the majority of cancer patients treated as outpatients in the community setting, oral health care professionals play an important role in managing such infectious complications of cancer therapy.

Considerations in the Pediatric Population with Cancer

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Catherine H. Hong and Marcio daFonseca

This article is divided into three time periods according to the different phases of cancer treatment: pre, inter, and postcancer therapy. The purpose of dental protocols prior to cancer therapy and the incidence and management of acute and long term oral complications from cancer therapy in the pediatric population are discussed.

Orofacial Pain and Neurosurgery Disorders and Dysfunction in Cancer Patients

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Glenn T. Clark and Saravanan Ram

Orofacial pain and altered nerve sensation may be the initial sign of oropharyngeal or nasopharyngeal cancer. This article focuses on the most common orofacial pain conditions and neurosensory alterations that affect cancer patients, such as neuropathic pain, muscle spasm or contractures, mucositis, and increased or

decreased sensory discrimination in the affected area. The various pharmacotherapeutic modalities for cancer pain management ranging from non steroidal anti-inflammatory drugs (NSAIDs) for mild pain to opioids for severe pain are discussed in detail.

**Oral Manifestations of Internal Malignancy
and Paraneoplastic Syndromes**

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Victoria L. Woo and Rafik Abdelsayed

Malignant tumors of visceral organs are a fundamental feature of familial cancer and paraneoplastic syndromes. In many instances, the presence of an internal and often occult malignancy may be forewarned by various external manifestations. Several of these findings are preferentially localized to the head and neck region, including the oral cavity proper. This places the dental practitioner in a unique position to detect these "markers" of occult neoplastic involvement. Because these markers may present before an established syndrome or cancer diagnosis, even representing the first expression of disease in some cases, early recognition by a dentist may lead to timely diagnosis and management of these cancer-associated syndromes.

Psychosocial and Economic Impact of Cancer

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Linda S. Elting, Elenir B.C. Avritscher, Catherine D. Cooksley,
Marylou Cardenas-Turanzas, Adam S. Garden,
and Mark S. Chambers

This article explores the psychosocial and economic implications of cancer and their relevance to the clinician. After a general overview of the topic, the authors focus on aspects of particular importance to the dental professional, including the psychosocial and economic implications of the oral complications of cancer and its therapy, head and neck cancers, and special issues among children with cancer and cancer survivors.

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