

Case presentations: The pitfalls in diagnosis and management of oral lesions in cancer patients



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SUPPORTIVE CARE IN CANCER



Faculty Disclosure

<input checked="" type="checkbox"/>	No, nothing to disclose
<input type="checkbox"/>	Yes, please specify:



Case presentation

- Tonsil cancer + neck metastases
- Unilateral radiation therapy 2 years previously
- Right parotid and submandibular glands within radiation field



Disturbance of oral homeostasis by cancer therapy

Inadequate oral hygiene

Salivary gland hypofunction

Mucosal damage/mucosal diseases

Soft, high-carbohydrate diet

Immunosuppression

Antibiotics

Other systemic diseases

Nutritional deficiencies

Tobacco



Oral infection



Risk of systemic infections



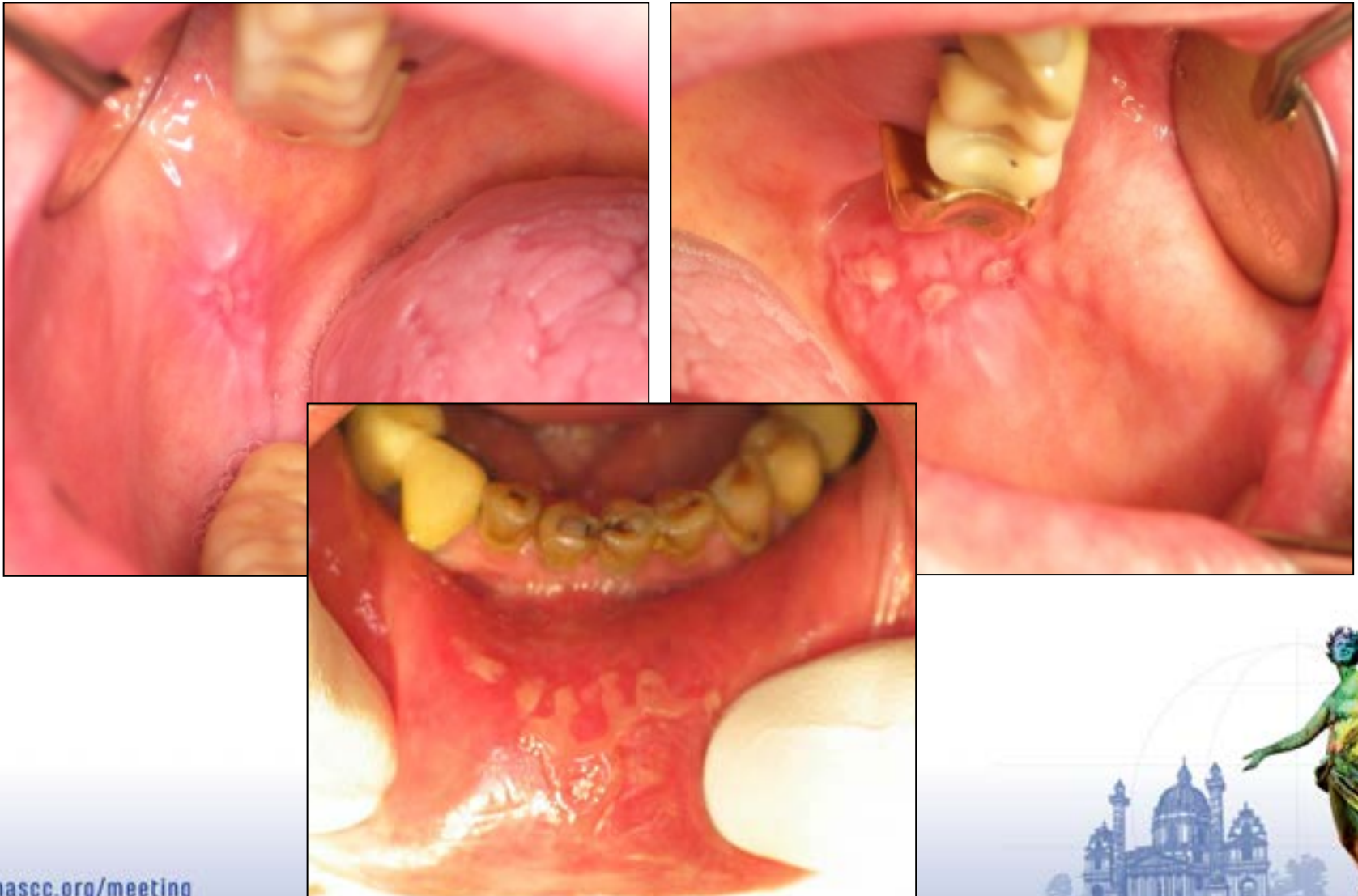
Case presentation

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Oral mucositis

Methotrexate



Oral mucositis



Aphthous ulcers, targeted therapies



Sonis et al. Preliminary characterization of oral lesions associated with inhibitors of mammalian target of rapamycin in cancer patients.
Cancer 2010





Aphthous stomatitis, targeted therapies

- Topical glucocorticoid (gel)
To be applied immediately at the initial symptoms
- Systemic glucocorticoid

Contraindicated with infections



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Oral candidosis

Candida albicans

(*C. glabrata*, *C. tropicalis*,
C. krusei and *C. dubliniensis*)

Erythematous



Pseudomembraneous



Hyperplastic



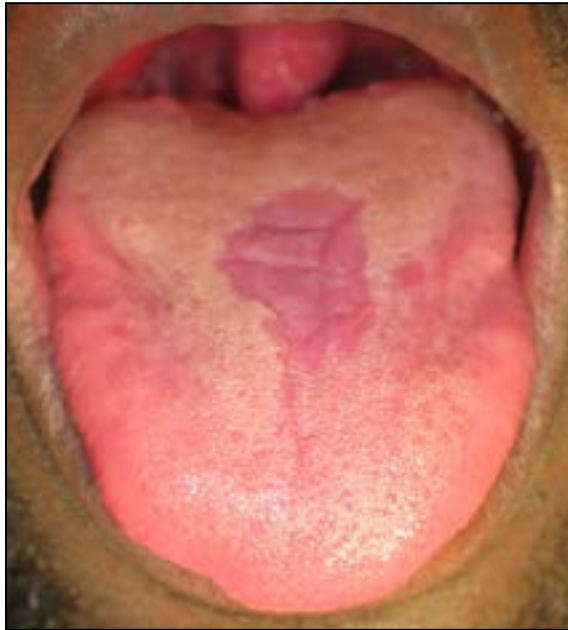


Candida-associated lesions

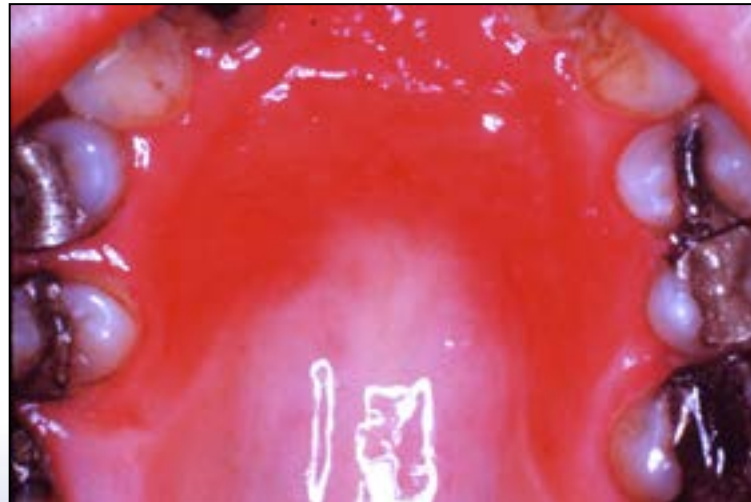
Angular cheilitis



Median rhomboid glossitis



Denture stomatitis





Oral candidosis, diagnosis



Subjective symptoms

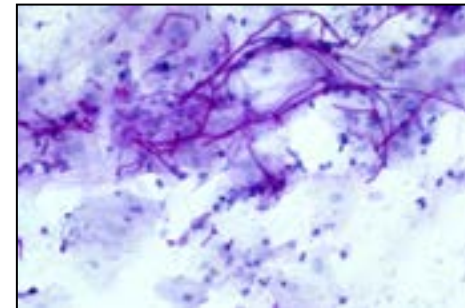
- Soreness/burning sensation
- Metallic or salty taste
- Xerostomia

Objective clinical signs

- Erythema
- White patches, can be rubbed off
- Hyperplastic
- Angular cheilitis

Paraclinical tests

- Cytosmears, PAS staining (periodic acid Schiff)
- Blastospores and hyphae



Lack of clinical response/repeated relapses:

- Swab/culture, species identification and susceptibility testing



Oral candidosis



Eradicate local/systemic predisposing factors

Consider:

- Systemic or topical antimycotics
- Treatment or prevention
- Compliance, administration
- Activity against fungal species/resistance
- Drug interactions
- Availability and costs

Lalla et al. Support Care Cancer 2010

Worthington et al. Cochrane Database Syst Rev 2010

Clarkson et al. Cochrane Database Syst Rev 2007 (update 2009)

www.mascc.org/meeting



Oral candidosis



Treatment (during cancer therapy)

“Absorbed drugs are more effective than drugs not absorbed from the gastrointestinal tract” (two trials, n=69)

”There is insufficient evidence to claim or refute a benefit for any antifungal agent in treating candidiasis”

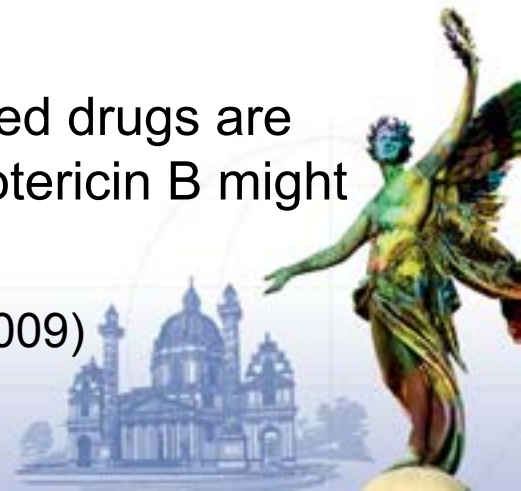
Worthington et al. Cochrane Database Syst Rev 2010

Prevention (during cancer therapy)

“Drugs fully absorbed (fluconazole, ketoconazole and itraconazole) and partially absorbed (miconazole and clotrimazole) are effective compared with placebo or no treatment”

”There is no evidence that overall the group of non-absorbed drugs are effective, i.e. nystatin, however, weak evidence that amphotericin B might be of benefit”, seven trials, n=1153

Clarkson et al. Cochrane Database Syst Rev 2007 (update 2009)





Apply institutional/national protocol for prophylaxis/treatment

Topical antifungals, prescribe sugarfree

- Nystatin, Clotrimazole, Miconazole

Systemic antifungals, tablet or oral suspension

- Fluconazole, Itraconazole, Ketoconazole

Lalla et al. Support Care Cancer 2010

Worthington et al. Cochrane Database Syst Rev 2010

Clarkson et al. Cochrane Database Syst Rev 2007 (update 2009)

Drug interactions, azoles:

- Everolimus, tacrolimus, sirolimus
- Inhibition of CYP3A4 and P-glycoprotein
- Monitoring and dose reduction needed

Example:

Fluconazole and everolimus, n=12 healthy persons

Significant increase in AUC (15-fold), C_{max} (4-fold), t_{1/2} (2-fold)

Kovarik et al. J Clin Pharmacol 2005





Chlorhexidine mouthwash

- **Antiseptic (bacteria and fungi)**
- **Binds to acrylic, epithelial and tooth surfaces**





Case presentation

Moderate dose chemotherapy, prostate cancer



Courtesy of Dr. Deborah P. Saunders, Canada

Oral pain

Mucositis (lower lip)

Viral infection (tongue)

Fungal infection (corners of the mouth)

Bacterial infection (gingival)

Hyposalivation and xerostomia



Oral viral infection

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Reactivation of latent virus / *de novo* infection

Herpes simplex virus

High-dose chemotherapy/haematopoietic stem cell transplant: ~75% recurrence
Radiation therapy head and neck cancer: ~20% recurrence

Varicella zoster virus

Immunocompromised

- Atypical clinical viral infection presentation
- Acute, painful oral ulcer, unknown cause ➡ viral lab investigation
- Antiviral prophylaxis / immediate systemic antivirals



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Angular cheilitis

Consider fungal or bacterial infection (*Staphylococcus aureus*)



Samaranayake et al. Periodontology 2009



Conclusions

- A variety of oral complications appear concurrently
- Complicates differential diagnosis and management



- Implementation of stringent basic oral care
- Consider treatment/prophylactic antifungals, antivirals or antibacterials
- Interdisciplinary team, including oral health professionals, to work closely with the patient to ensure early diagnosis
- Precaution needed for immunocompromised patients: vague/atypical inflammatory signs





International Society of Oral Oncology (ISOO)

Patient Care Fact Sheets

21 languages

How to Care for Your Mouth During Active Chemotherapy

How to Care for Yourself Before Head and Neck Radiation Begins

How to Care for Yourself After Head and Neck Radiation Begins

How to Care for Yourself During Head and Neck Radiation

<https://www.mascc.org/oral-care-education>

Thank you!

