



# HIV MEDICAL ALERT

FOR PRIMARY HEALTH CARE PROVIDERS  
AND HEALTH PROFESSIONALS

**February 2004**  
**Vol. 8, Issue No. 1**

## **HIV Medical Alert**

provides clinicians with comprehensive and up-to-date information about diagnosis, treatment, and prevention of HIV.

## **HIV Medical Alert**

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## **Webpage**

**HIV Medical Alert** is also available on-line at [www.upstate.edu/cei](http://www.upstate.edu/cei)



WELCOME to the *HIV Medical Alert* Newsletter Continuing Medical Education (CME) format. This activity has been planned and implemented in accordance with the Essentials and Standards of the Medical Society of the State of New York through the joint sponsorship of Glens Falls Hospital and Upper Hudson Primary Care Consortium. The Glens Falls Hospital is accredited by the Medical Society of the State of New York (MSSNY) to sponsor continuing medical education for physicians. The Glens Falls Hospital designates this continuing medical education activity for a maximum of 1 hour of Category I credit towards the American Medical Association Physician's Recognition Award (AMA-PRA). Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

## **Oral Health in HIV Disease**

by **Stuart L. Fischman, D.M.D.**

**O**ral lesions can be an early manifestation of HIV-associated immune deficiency and a clinical marker of disease progression: these include ulcerative lesions, candidiasis, oral hairy leukoplakia and gingivitis. Reduced CD4 lymphocyte counts and high HIV viral loads have been related to oral pathology. This newsletter reviews the clinical manifestations and treatment of the more common oral lesions encountered in the course of caring for HIV-infected individuals.

### **Oral Candidiasis**

Oral candidiasis is the most prevalent oral lesion associated with HIV/AIDS. Caused by overgrowth of *Candida albicans*, a normal inhabitant of the oral cavity, clinically apparent candidiasis is usually seen only in "unhealthy" individuals. These include persons with poorly controlled diabetes, those receiving broad spectrum antibiotic therapy or long term steroid treatment. In individuals infected with HIV, the development of oral candidiasis may be an indication of immune deterioration and frequently portends the development of AIDS (CD4 counts generally < 350 cells/mm<sup>3</sup>). Candidiasis is one of the clinical indicators for initiating and continuing prophylaxis for *Pneumocystis carinii* pneumonia (PCP), irrespective of CD4 count.

The following forms of oral candidiasis are frequently associated with HIV infection: pseudomembranous, erythematous, and angular cheilitis.

- Pseudomembranous type (thrush) is generally diagnosed on the basis of its characteristic clinical appearance: white curd-like material that may be easily wiped off and, when removed, reveals an erythematous mucosa. Examination of a cytologic smear of the pseudomembrane revealing

hyphal forms confirms the diagnosis. This procedure may not be necessary if the lesions are clinically consistent with oral candidiasis and resolve with antifungal therapy.

- Erythematous candidiasis presents as flat, red, sometimes painful macules that may first appear on the soft palate and oropharynx or on the dorsal tongue. It may occur independently of, or simultaneously with, pseudomembranous candidiasis. Erythematous candidiasis is less well recognized than the pseudomembranous type, and its clinical appearance is not specific to candidiasis. Therefore, the identification of hyphal forms on a mucosal smear or biopsy and/or response to antifungal therapy is important for confirmation.
- Angular cheilitis appears as erythema or fissures of the labial commissures and frequently accompanies intra-oral candidiasis. In patients with deeply pigmented skin, depigmentation may occur. Cytological smears of angular cheilitis are often negative for fungal hyphae. Angular cheilitis is quite common among dental patients, regardless of HIV status and has been associated with certain anemias and nutritional deficiencies, as well as poorly fitting dental prostheses. A response of the lesions to antifungal therapy confirms the role of *Candida* in the etiology of this lesion.

Many effective treatments are available including topical azoles (miconazole, ketoconazole). Up to 14 days of treatment should suffice for most patients. Continuous prophylaxis is discouraged because of possible development of refractory candidiasis.

### **Hairy Leukoplakia**

Oral Hairy Leukoplakia (OHL) most commonly presents as a white, ragged, corrugated, or irregular lesion involving the lateral and dorsolateral tongue; lesions are typically bilateral, but may be unilateral. OHL is caused by infection with Epstein-Barr virus (EBV) and histologically exhibits vacuolated epithelial cells (koilocyte-like), and little or no inflammatory infiltrate in the underlying connective tissue; hybridization techniques demonstrate EBV in biopsy specimens. Biopsy confirmation should be considered if the diagnosis is in doubt or other diseases (e.g., carcinoma) are significant in the differential diagnosis. OHL is never seen in the normal population and is associated with defects in host cellular immunity.

For some patients, hairy leukoplakia lesions may be cosmetically objectionable. Hairy leukoplakia has been treated successfully with oral antivirals (acyclovir 800mg qid x 2 weeks)-other treatment options include topical tretinoin and podophyllin. Lesions generally recur following cessation of treatment.

### **Oral Ulcers**

The most commonly reported oral ulcers seen in patients with HIV are herpes simplex ulcers and aphthous ulcers. Oral ulcers also may develop due to other opportunistic diseases, including CMV infection, histoplasmosis, herpes zoster, and lymphoma. Ulcers associated with zalcitabine (dideoxycytidine or ddC) and foscarnet also have been noted. With accurate diagnosis and appropriate treatment, most oral ulcers resolve in a short time.

### **Herpes Simplex Ulcers**

Oral ulcers caused by herpes simplex virus (HSV) occur as either primary infection (gingivostomatitis) or recurrent forms (herpes labialis and recurrent intra-oral herpes simplex ulceration). Primary infection is most common in children and involves pharyngeal and oral mucosa, frequently with fever and adenopathy, resolving in 10-14 days. Recurrent herpes labialis appears as a crop of vesicles that coalesce and form an irregular ulcer on the vermilion of the lips or perioral skin. Intra-oral recurrent herpes simplex infection presents as a localized crop of vesicles that characteristically form only on keratinized mucosa. In immunocompetent individuals, these ulcers follow a predictable course and usually resolve spontaneously in 7 to 10 days however in patients with advanced HIV infection ulcers caused by herpes simplex infection tend to be persistent. In HIV-infected patients, persistent herpetic

lesions that do not resolve after 4 weeks fulfill the Centers for Disease Control and Prevention (CDC) criteria for a diagnosis of AIDS.

Diagnosis of herpes labialis is generally clinical, however cultures and PAP smears of fresh lesions may be diagnostic-serology is generally not recommended as a diagnostic tool. Systemic anti-viral agents (usually oral acyclovir, valacyclovir or famciclovir) are preferred over topical agents.

### **Aphthous Ulcers**

Increased frequency and severity of episodes of typical aphthous ulcers have been reported in patients with HIV. Major aphthous-like ulcers, also called ulcerative stomatitis, present as painful, deep, crater-like lesions that may extend through the epithelium into the connective tissues. These can be quite large, often multiple and do not resolve spontaneously - there is subsequent scarring; associated CD4 counts are in the range of 50 cells/mm<sup>3</sup>.

Minor aphthous lesions are small but painful and superficial, generally multiple and remain superficial-these heal spontaneously and without scarring. These are similar to aphthous lesions seen in non-HIV-infected individuals.

Topical corticosteroid gels, creams, and ointments, with or without adhesive bases, have been successful in promoting healing and shortening the clinical course of recurrent aphthous ulcers, especially when applied in the prodromal stage of the lesions. However, the use of topical corticosteroids may induce a secondary candidiasis. Oral thalidomide has been shown to be effective for the treatment of non-resolving aphthous ulcers in HIV-infected patients.

### **Periodontal disease**

HIV associated periodontal disease-due to alteration in the oral bacterial flora-is often rapidly progressive and unusually painful. Candida has been recognized in the initiation and progression of periodontal disease in the HIV+ patient. Control requires professional treatment and conscientious oral hygiene. Povidone iodine irrigation may help manage the acute disease state. Because of the severity of the periodontal complications and the immunosuppression of the patient, antibiotics are often required for successful management. Metronidazole has been the most effective antibiotic.

#### **The Role of the Medical Provider**

- Oral health care services should be fully integrated with available primary care services for HIV-infected patients.
- The medical provider should encourage all patients under his/her care to schedule a semi-annual oral health examination and to adhere to the oral health care provider's recommendations regarding appropriate follow-up.
- All medical health care providers should be aware of oral health referral sources for patients under their care.
- Documentation that a dental referral was made or that the patient is under the care of a dental provider should be evident within the clinical care plan of the medical record.
- The medical provider should forward any requested clinical information to the patient's oral health care provider in a timely fashion.

#### **The Role of the Dental Provider**

- To ensure adequate access to oral health care services, structural, financial, personal; and cultural barriers should be considered and addressed by the oral health care staff.
- The oral health care provider should promptly communicate to the patient's medical provider any clinical findings that may signify a change in the patient's systemic health or any planned, extensive surgical procedures that may impact the patient's systemic health.

From *Oral Health Care for People With HIV Infection*  
(NYSDOH AI booklet, December 2001)

Patients with gingival disease may develop acute necrotizing ulcerative gingivitis (NUG). In some HIV+ patients, this may progress to large ulcerations of the palate and gingival mucosa, termed “necrotizing ulcerative periodontitis” or “NUP.” These extensions can be managed by aggressive systemic antibiotic therapy. Biopsy should be considered to rule out lymphoma. These large ulcers are most frequently seen when the patient’s CD-4 count drops below 200. Once the acute infection is stabilized, compulsive oral hygiene is essential to prevent recurrence.

### **Xerostomia**

Xerostomia (dry mouth) may be due to medications or to HIV-related salivary gland disease. Bilateral parotid gland enlargement can occur in both children and adults who are HIV positive. In some patients, a complex similar to Sjögren’s syndrome has been described. The presence of xerostomia increases the risk of the development of dental caries and periodontal disease.

For patients with xerostomia, additional measures should be employed to prevent dental caries and periodontal disease. Such measures include topical fluoride therapy, chlorhexidine oral rinse, decreased sugar consumption, and meticulous oral hygiene. To ameliorate the dryness, artificial salivas and sugarless chewing gum may be recommended.

### **Conclusion**

The oral cavity provides a readily visible snapshot of the immunologic health of patients with the appearance of some lesions (OHL and candidiasis) suggesting the need for HIV testing. For those HIV-infected, oral pathology impacts health on many levels including altered nutritional status and reductions in overall quality of life. In light of the advances and promise of potent antiretroviral therapies, monitoring and ensuring oral health is a necessary component of quality HIV care.

### **For further reading:**

NY State AIDS Institute Guidelines are also available at: <[www.hivguidelines.org](http://www.hivguidelines.org)>

Additional material is also posted at <[www.critpath.org/daac](http://www.critpath.org/daac)> A useful Web site with some interaction possible is: <[www.hivdent.org](http://www.hivdent.org)>

### **Author**

Stuart L. Fischman, D. M. D., is Professor Emeritus of Oral Diagnostic Sciences at the School of Dental Medicine of the State University of New York at Buffalo. He has retired as Director of Dentistry at the Erie County Medical Center in Buffalo, but continues to coordinate the oral health care program for the AIDS Designated Center. Dr. Fischman is a Consultant to the Erie County Medical Examiner and a member of the Scientific Staff of the Erie County Sheriff’s Department.

Dr. Fischman has had three sabbatical leaves at the Hebrew University School of Dental Medicine in Jerusalem. In 2001 and 2002, Stuart and Jane spent several months on “personal solidarity missions” to Israel. Stuart volunteered at the dental school in Jerusalem and Jane took part in programs at Yad Vashem. In June 2002, they received the Community Relations Award from the Buffalo Niagara Chapter of the American Jewish committee.

# Continuing Education Test

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## To earn credit:

1. Read the CME article.
2. Review the objectives
3. Study and apply the content to the objectives and to your practice.
4. Complete the Post-Test.
5. Return the completed test and evaluation form as directed at the bottom of the evaluation page.

**Note: This CME activity and quiz is designated for 1 CME credit which expires February 2006.**

## Objectives: At the conclusion of this activity, the learner will be able to:

1. Describe common oral health needs of people with HIV/AIDS.
2. Determine prevalent clinical oral manifestations associated with HIV infection.
3. Discuss the diagnosis and management of soft-tissue lesions and periodontal disease encountered in the care of HIV-infected individuals.

## Select the best answer for each of the following.

1. Early manifestations of HIV are often oral lesions. These lesions can also be an indicator of disease progression.  
 a. True  
 b. False
2. A 62-year-old black woman presents with oral candidiasis, depigmentation of her skin and poorly fitting dentures. The physician should consider the following possible diagnosis: [Check all that apply.]  
 a. Nutritional deficiencies  
 b. Aemia  
 c. HIV  
 d. All of the above
3. What steps should each medical provider take to ensure that they are in compliance with the NYS Oral Health Guidelines?  
 a. Integrate oral health care services with primary care.  
 b. Encourage all patients to schedule a semi-annual oral health exam.  
 c. Promote adherence to oral health care providers recommendations.  
 d. Document dental referrals and forward requested clinical information in a timely fashion.  
 e. All of the above.
4. Oral Hairy Leukoplakia (OHL) is usually treated successfully with acyclovir 800 mg. qid x 2 weeks.  
 a. True  
 b. False
5. Ulcerative stomatitis is treated using the following methods: [Check all that apply.]  
 a. No treatment needed – ulcers resolve spontaneously  
 b. Metronidazole  
 c. Corticosteroid gels  
 d. Oral thalidomide

# Evaluation of CME Activity

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## Overall Activity

	Excellent	Good	Fair	Needs Improvement
1. Was the subject matter well balanced in fact and theory?	1	2	3	4
2. Was the format clear and easy to read?	1	2	3	4
3. Did subject matter have sufficient detail?	1	2	3	4
4. Was subject matter valuable for practical application?	1	2	3	4
5. Were objectives listed on test page met?	1	2	3	4
6. Was the writer clear in content, sequence and style?	1	2	3	4
7. Overall program was?	1	2	3	4

## Comments/Topic Suggestions:

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PLEASE PRINT CLEARLY TO ASSURE ACCURATE DOCUMENTATION OF CME CREDIT

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**Profession:**  Physician  PA  NP  CNM  RN  LPN  Other \_\_\_\_\_

**Name:** \_\_\_\_\_ **County:** \_\_\_\_\_

**Organization** \_\_\_\_\_

**Address:** \_\_\_\_\_  
Street City/Town State/Zip

**Signature** \_\_\_\_\_ :

(Please sign legibly for CME records)

**Return the completed test and evaluation form by June 30, 2004 to:**

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