MANAGEMENT OF MOST COMMON ORAL HIV/AIDS MANIFESTATIONS OF HIV/AIDS - *Shubi F.M.*

INTRODUCTION

Oral-facial lesions are common in HIV-infected individuals and AIDS victims, and could constitute the first manifestation of the syndrome. Oral lesions are important in the clinical spectrum of HIV/AIDS, arousing suspicion of acute sero-conversion illness (aphthous ulceration and candidiasis), suggesting HIV infection in the undiagnosed individual (candidiasis, hairy leukoplakia, Kaposi's sarcoma, necrotizing ulcerative gingivitis), indicating clinical disease progression and predicting development of AIDS (candidiasis, hairy leukoplakia), and marking immune suppression in HIV-infected individuals (candidiasis, hairy leukoplakia, necrotizing periodontal disease, Kaposi's sarcoma, long-standing herpes infection, major aphthous ulcers). In addition, oral lesions are included in staging systems for HIV disease progressions and as entry criteria or endpoints in clinical trials of antiretroviral drugs.

Still and many of the oral HIV/AIDS lesions cause serious problems, which can range from pain impeding normal eating to infectious or neoplastic diseases that can overload an already weak immune system. Recognition and management of these oral conditions is important for the health and quality of life of the individual with HIV/AIDS.

Evaluation and management of early HIV Infection includes recommendations that an oral examination, emphasizing oral mucosal surfaces, be conducted by the primary care provider, and patients should be informed of the importance of oral care and educated about common HIV-related oral lesions and associated symptoms.

It is therefore not uncommon for a dental surgeon to be the first to diagnose the symptoms of the disease. Therefore Dentists should be familiar with the most common oral manifestations of medical conditions that are likely to be identified in the dental clinic, including those associated with HIV infection.

It is essential for dental professionals to familiarize themselves with the oral manifestations, their classification, critical relevance, diagnostic and prognostic importance as well their management. In addition, dental professionals should become acquainted with the "universal precautions" recommended, in order to protect themselves, their staff, and their patients to minimize the risk of disease transmission in the oral health care setting.

CLASSIFICATION OF COMMON ORAL MANIFESTATIONS OF HIV/AIDS

Bacterial Infections

Gingivo-Periodontal Disease

1. Linear gingival erythema (LGE)
2. Necrotizing ulcerative periodontitis (NUP)
3. Necrotizing stomatitis (NS)

Fungal Infections

1. Candidiasis
   a. *Pseudomembranous*
   b. *Hyperplastic*
   c. *Erythematous*
2. Angular cheilitis
3. Other Fungi

Viral Infections

1. Epstein-Barr Virus
2. Oral Hairy Leukoplakia
3. Herpes Simplex Virus
4. Primary herpetic gingivo-stomatitis
5. Recurrent herpetic infection
6. Variacella-Zoster Virus
7. Herpes zoster
8. Human Pailloma Virus
9. Condyloma accuminatum
10. Multifocal epithelial hyperplasia
11. Cytomegalovirus

Neoplasms

1. Kaposi's sarcoma
2. Lymphoma
3. Other neoplasms

Other Oral Lesions

1. **Oral ulcers**
2. Salivary gland enlargement

CANDIDIASIS

PSEUDOMEMBRANEOUS

Are creamy white or yellow patches located anywhere in the mouth, that can be easily wiped off, leaving reddish surface.

ERYTHEMATOUS

Are multiple, flat red patches on mucosal surface such as the palate, top dorsum of the tongue and buccal mucosa.

ANGULAR CHEILITIS

These are fissures or linear ulcers at the corners of the mouth. Typically the lesions are bilateral

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HYPERPLASTIC CANDIDIASIS

MANAGEMENT

Gentian violet (0.5%) aqueous solution painted in mouth three times daily. Nystatin suspension oral 100000 iu/ml 2.5 ml 5 times daily. Nystatin lozenges sucked 6 hourly for 10 days (1 lozenge = 100000 iu). In severe cases or if the above treatment fails: 2% miconazole oral gel applied twice daily for 10 days. Other are amphotericin B lozenges 10mg 6 hourly for 10 days. Ketaconazole 200-400 mg orally once a day for 7 days. Fluconazole 50 – 100mg orally once a day for 7 days. Intraconazole 200mg orally once a day for 7 days. Dry or cracked lips can be kept moist with Vaseline, glycerine or liquid paraffin

Different manifestations or complications may occur simultaneously with the above symptoms. Involvement of the oesophagus makes swallowing painful. This must be treated promptly and if response is poor, refer for further treatment. Due to high sugar contents of some anti-fungal medication, topical fluoride should be used daily to prevent tooth decay. Chlorhexidine digluconate 0.2% mouth rinse 2-4 times daily is useful as an adjunct. Note that chlorhexidine and nystatine should NOT be used at the same time. Remove dentures when using medication and minimise local contributory factors such as continuous denture wear, poor denture hygiene, smoking and xerostomia.

OROPHARYNGEAL CANDIDIASIS

Oropharyngeal thrush can occur as an initial infection. The treatment of this condition is in three groups. Preferred regime(s), alternative regime(s) and maintenance.

Preferred regime(s) include; fluconazole 100 mg per oral 4 times daily, clotrimazole oral troches 10 mg 5 times per day and nystatin 500000 units gargled 5 times per day

Alternative regime(s) are amphotericin B oral suspension 1-5 m. qid swish and swallow, amphotericin B 0.3 – 0.5 mg/kg per day iu and itraconazole 200 mg day (tabs) or 100 mg per day oral suspension.

Treat until symptoms resolve (usually 10-14 days). Fluconazole 100 mg per day and itraconazole 200 mg per day are comparable to ketoconazole 400 mg per day in efficacy and show reduced side effects. Amphotericin B (Oral or iu) and itraconazole are usually reserved for patients who fail with other oral regimens; most common with chronic azole administration and azole resistant candida species. Itraconazole in liquid formula appears to be as effective as fluconzole for treatment and prophylaxis. In vitro resistance is most common with prior azole exposure, late stage HIV infection/s and non-albicans species. High rates of response (48/50) to fluconazole despite in vitro resistance have been reported. Doses up to 800 mg per day may be tried. Alternatives are oral amphotericin and intraconazole 200 mg bid.

OROPHARYNGEAL CANDIDA

Oropharyngeal (Thrush) Initial infection

MAINTENANCE (Aptional or as needed)

Preferred regimen(s)

Nystatin 500000 units gargled 5 times per day, clotrimazole oral troches 10 mg 5 times per day and fluconazole 100 mg po per day or 200 mg 2 times per week.

Alternative regimen(s) includes tablets itraconazole 200 mg per day or 100 mgs oral suspension qid and ketoconazole 200 mg per day.

The advantage of fluconazole for maintenance treatment is prevention of deep fungal infection; cryptococosis and candida esophagitis with CD4 count <100/mm3 and reduction of frequent relapse. Fluconazole is superior to clotrimazole in prevention relapses of thrush. Most patients will relapse within 3 months post therapy if treatment is discontinued in absence of immune reconstitution. Options are treatment of each episode or maintenance.

ORAL HAIRY LEUKOPLAKIA

Bilateral whitish/grey vertical corrugations on the sides of the tongue they cannot be wiped off. Oral hairy leukoplakia is useful for clinical staging of HIV. Treatment is usually asymptomatic because effective treatment is not available. Although acyclovir 800 mg orally, 8 hourly for 10 days may be used for patients with discomfort. Patients treated with Acyclovir often relapse when treatment is stopped. Highly Active Anti-Retroviral Therapy (HAART) may clear lesions.

HERPES SIMPLEX:

These are lesions located on the gums, hard palate and lips. However any mucosal surface may be involved. It presents as vesicles which usually rupture to become painful, irregular ulcers.

TREATMENT

Gentian violet 0.5% aqueous solution painted in mouth 3 times daily Or 1% Topical Povidone Iodine. Acyclovir 400 – 800 mg orally, 8 hourly for 5 – 10 days or velacyclovir 500 – 1000 mg 12 hourly for 7 days or famciclvoir 125 – 250 mg orally 12 hourly for 7 days. Gargling with salt water mouth wash (1/2 teaspoon salt in a cup of lukewarm water) for 1 minute 2 times daily can also be done. Antiviral therapy is

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useful if administered early. Viruses may occasionally become resistant. Treat recurrences aggressively. Recurrent cases have extensive lesions and have crust formations on edges of the lips. Refer if condition is severe and/or patient is dehydrated. Paracetamol 500 mg orally, 4-6 hourly for pain. 2% viscous Lidocaine gel every 3-4 hours. Fluid diet is preferable but avoid acidic foods and drinks

HERPES ZOSTER
It is a very painful unilateral ulceration limited to the area supplied by trigeminal nerve or any other sensory trunk. The treatment of herpes zoster is acyclovir 800 mg orally, 5 times daily for 14 days or valacyclovir 1000 mg oral 8 hourly for 7 days or famciclovir 250 mg orally, 8 hourly for 7 days. Gentian violet 0.5% aqueous solution painted in mouth 3 times daily may take up to 4 weeks to resolve the lesions. Refer if there is ocular involvement. Chlorhexidine digluconate 0.2% mouth rinse is useful as an adjunct therapy.

APHTHOUS ULCERS
Single or multiple, recurrent, well circumscribed lesions. The lesion present with whitish covering surrounded by a reddish halo. Usually limited to mucosa of the soft palate, buccal mucosa, tongue and tonsillar area.

The condition is extremely painful and often recurs. The aims of treatment of aphthous ulcers are to reduce pain, reduce ulcer duration and increase disease-free intervals. Treatment depends on severity of ulcerations. If ulcers persist despite treatment, refer for biopsy. Although aphthous ulcers may resemble some forms of candidiasis , they will respond to steroid treatment, unlike fungal infections. Gentian violet 0.5% aqueous solution may be useful, chlorhexidine digluconate 0.2% mouth rinse 2-4 times daily or 1% topical Povidone Iodine. Another treatment is topical triamcinolone acetonide in orabase 0.1% 8 hourly. For severe ulcerations refer for further treatment.

Chlorhexidine should not be used at the same time with topical steroids or antifungals. 2% Viscous lignocaine gel every 3-4 hours is useful or paracetamol 500 mg orallly 4-6 hourly in reducing pain. Also benzydamine hydrochloride mouth rinse may bring relief. In case of secondary bacterial infections, antibiotics may be required. Oral Prednisone, starting at 40 mg a day with taper over one month, for severe disease resistant to topical agents are found to be useful. Ulcers can be associated with the use of some HIV antiviral therapy.

PERIODONTAL (GUM) CONDITIONS
They include gingival erythema and necrotising ulcerative gingivitis: Gingival erythema. Involves destruction of one or more inter-dental papillae. Symptoms include bleeding, ulceration, necrosis & sloughing. Tissue destruction is limited to gingival tissue and does not involve alveolar bone. Necrotising ulcerative periodontitis presents with advanced necrotic destruction of the periodontium. There is rapid loss of periodontal attachment, destruction or sequestration of bone. The teeth may become loose. Severe pain and bad breath may be prominent. May also present with nectorising stomatitis.

MANAGEMENT OF PERIODONTAL (GUM) CONDITIONS
Professional scalling and local debridement with topical 1% providone iodine irrigation. Thorough oral hygine is necessary; tooth brushing, flossing and 0.2% chlorhexedine gluconate mouth rinse 2-4 times daily. Amoxycillin 250 mg 8 hourly for 5 days or for penicillin-allergic patients, Erythomycin 250 mg orally, 6 hourly before meals for 5 days and metronidazole 200 mg orally 8 hourly for 5 days. Clindamyoint 300 mg orally, 8 hour for 7-14 days or clavulanic acid and amoxyllin 375 mgs orally, 8 hourly for 5 days. Recall patient should be every 4 weeks until stabilized. Gargle with salt water mouthwash (½ teaspoon salt in cup of lukewarm water) for 1 minute 2 times daily as home based care.

Antibiotic regimen should be repeated if not resolved after 5 days. Mobile teeth may need to be splinted or extracted. Infected bone should be removed under local anaesthesia and antibiotic cover. Benzydamine hydrochloride mouth rinse may bring relief. Other pain killers such as paracetamol 500 mg orally 4-6 hourly to relieve pain. Smoking should be discouraged as it exacerbates gum disease. Prolonged use of chlorhexidine may cause staining of the teeth and alteration of taste so that the patient should be informed.

KAPOSIS SARCOMA
Present as one or more reddish or slightly bluish swelling with or without ulcerations. It is predominantly seen on the gingiva or palate. Kaposi's sarcoma can mimic many diseases in its early stages, so needs differential diagnosis. Treatment options include radiotherapy for isolated oral lesions, intralesional injections of vinblastine and laser or surgical excision is sometimes useful.

Note that radiation causes mucositis and dry mouth (xerostomia) so patient should be informed. Benzydamine hydrochloride mouth rinse may bring relief and is recommended for obstructive symptoms. Systemic chemotherapy may be indicated. Good oral hygiene, plaque control and antibiotics to prevent secondary infection is mandatory. Highly Active Anti-Retroviral Therapy (HAART) may reduce lesions.

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PAROTID ENLARGMENT AND XEROSTOMIA

Unilateral or bilateral diffuse swelling of the parotid salivary glands often causes dry mouth. It may also be accompanied by pain and swelling.

Management include to treat dry mouth with salivary substitutes like moisturizing, lubricating or artificial saliva containing a methyl-cellulose or mucin base. Glycerine may be useful. For salivary flow stimulation, sugar-less chewing gum and topical fluoride should be used daily to prevent tooth decay.

Dry mouth (xerostomia) may occur with or without parotid swelling. It may be drug-induced so proper diagnosis is essential. Thorough oral hygiene and dietary control are essential to avoid caries. Treat parotitis with appropriate antibiotics and analgesics

TOOTH DECAY/CARIES MANAGEMENT

Thorough oral hygiene is necessary; tooth brushing with a tooth paste containing fluoride; flossing of teeth, use topical fluoride varnish, gels or rinses. Dietary control is essential to limit sugar and sugary foods. Fresh fruit and vegetables are preferable. Due to high sugar content of some medications, topical fluoride gels or rinses should be used daily, if frequently prescribed. Regular dental check-ups are essential to maintain healthy teeth and gums

SUMMARY:

The aim of proper management of oral manifestations of HIV/AIDS is to improve the quality of life of these patients. Timely management increases the chances of success. The dentists have an important role to play in both diagnosis and treatment.

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