HIV Oral Medicine: Case Histories in Crises 2012-2016

C. Mark Nichols, DDS
Director of Dental Services, Avenue 360 Health and Wellness, Houston
Dental Director, South Central AETC

Background information

- Most patients are in treatment for HIV and are maintaining adequate immune systems
- Typical presenting oral lesions: HPV and dysplasias, oral hairy leukoplakia (OHL), candidiasis, RAS
- However, due to various psychosocial factors some patients don’t seek medical intervention until a crises presents.
- Some patients do not respond well to antiretroviral therapy (HAART) and develop health crises.
- Some of these crises are severe oral lesions
Objectives:

By the end of the session, participants should be able to:

1. Identify 3 common oral conditions seen in immune-compromised individuals with HIV who present in crisis.
2. State at least 2 signs and symptoms commonly associated with necrotizing stomatitis, tumors, malignancies, infections, and hematological dysfunction.
3. Identify and describe “meth mouth” and discussed related psychosocial events.

Domestic Partner Physical Abuse 2014

• 47 yo African American heterosexual female
• On HAART
• CD4 658, HIV undetectable
• CBC WNL
• Years of physical abuse to the face from her husband
Human Papilloma Virus (HPV) Lesions

- Condyloma acuminatum – HPV 6,11
- Verruca vulgaris – HPV 1,2,4,7
- Verruca plana - HPV 3,10,28,41
- Focal epithelial hyperplasia – HPV 13,32
- HPV induced dysplasia – HPV 16,18,

HPV-16 induced severe dysplasia 2016

- 41 yo white MSM
- On HAART
- WBC 5.7k, Hgb 16.5, Plt 163k
- CD4 247, HIV 553
- Smokes tobacco
Tonsillar HPV-induced Squamous Cell Carcinoma

OraRisk® HPV - 16

Tonsillar HPV-induced Squamous Cell Carcinoma
Tonsillar HPV-induced Squamous Cell Carcinoma

- Severe dysplasia, R lateral tongue
- Referred to ENT. DX: stage IV disease
- TX: extractions, radiation, chemotherapy ongoing

Case History 2015-16

- 49 yo, white MSM
- Hg 16.9, WBC 6.0, Plt 125k,
- CD4 435, HIV RNA 3700
- On no medication
- CC - abscessed tooth
- Dental visit 6 wks prior, dx: odontogenic infection, extracted #18
- Infection did not resolve, advised to have #17 surgically removed at dental school
- Patient encountered some barriers and did not receive treatment, referred to Bering Omega
Case History

Differential Diagnosis?
Differential Diagnosis

- Squamous Cell carcinoma
- Lymphoma
- Metastatic disease
- Ameloblastic carcinoma

Treatment

Ext 17,19 and biopsy of mass
Diagnosis: Squamous cell carcinoma with nodal involvement

- Extract remaining teeth except for #32
- Refer to Ben Taub for imaging and staging
- Patient had surgical resection of the mandible and hard and soft tissue grafts and doing well
- Currently making him dentures
Medication Induced Necrotic Bone Disease
Bisphosphonates or Biologics 2016

• 53 yo Latino MSM
• On HAART
• CD4 283, HIV <20
• CBC WNL
• DX: Multiple Myeloma, treated with chemotherapy and 22 doses of zoledronic acid

Deep Fungal Infection – Histoplasmosis 2016

• 38 yo Latino HS
• Recently started HAART and prophylactic antibiotics
• CD4 9, HIV 52000
• CBC WNL
• Smokes
Severe Ulcerations 2014

- 42 yo white MSM
- CD4 125 (nadir <50)
- HIV 271180
- CBC WNL, ANC 1.4k
- Meds: tenofovir DF, emtricitabine, efavirenz, duloxetine
- Ulcerations on palate and buccal gingiva
Severe Ulcerations 2014

- Wk dx: HSV ulceration
- Tx: valacyclovir 500mg bid
- No response in 1 wk
- Bx: buccal gingiva and hard palate
- Dx: Coccidioidomycosis
- Refer to medicine for ROS and management
- Fluconazole 200mg bid

Candidiasis in 2014 to 2016

- 39 yo Latino MSM
- CD4 33, HIV-160000
- CBC WNL
- Meds: tenofovir DF/ emtricitabine/elvitegravir/cobicistat
- Voriconazole
  Previously tried: fluconazole, itraconazole
Candidiasis in 2014

Non-responsive to any antifungals.

Case History 2013 – Swollen Tongue

- 44 yr old African American MSM
- WBC 4.6, Hbg 14.5, Plt 233k
- CD4 552, HIV <48
- Meds: abacavir/lamivudine, darunavir, ritonavir, raltegravir
- CC: tongue seems to be larger for two weeks and has started biting it occasionally
Case History 2013 – Swollen Tongue

- DDX: HPV, sarcoidosis, amyloidosis, dysplasia, SCC
- Patient reported recurrence of “anal HPV” that coincided with enlargement of tongue
- HPV DNA – 83 high risk
- Biopsy dx: condyloma lata, secondary syphilis
Primary syphilis in 2013

- 48 yr old white MSM
- CBC – WNL
- CD4 23, PCR 186500
- Meds: tenofovir DF/emtricitabine, darunavir, ritonavir, TMP/SMX
- Rapid onset of mouth pain

Severely painful gums 2014

- 48 yr old white MSM
- CBC – WNL
- CD4 23, PCR 186500
- Meds: tenofovir DF/emtricitabine, darunavir, ritonavir, TMP/SMX
- Rapid onset of mouth pain
Ulcerations appear on both keratinized and nonkeratinized tissue, irregular borders
The palatal lesions are typical of intraoral HSV
5 days prior to symptoms had been with a group of children
No previous history of HSV labialis
Dx: Primary herpetic gingivostomatitis
Tx: valacyclovir 1000mg bid for 10 days
Necrotizing Stomatitis

- CD 4 cell counts usually below 100
- Leukopenia and neutropenia are common
- Most patients are unable to eat and have difficulty in swallowing pills
- Fear and anxiety levels are high
- Breath smells really bad
- When localized to peridontium – NUG, NUP
- Ulceration – necrotizing ulcer or NOMA-like lesion

NUP
necrotizing ulcerative periodontitis
Necrotizing ulcerations
NOMA-like lesion

Necrotizing ulcerations
NOMA-like lesion
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NOMA-like lesion

Necrotizing Ulcerative Periodontitis 2014

- 52 yo Latino MSM
- CD 694, HIV <20
- CBC WNL
- Tenofovir DF, emtricitabine, darunavir, ritonavir
- Hx: Bilateral hip replacement
- Tx: S/RP
- Metronidazole,
- Chlorhexidine
Necrotizing Ulcerative Periodontitis 2014

- 41 yo white MSM
- CD4 172, HIV 574,610
- CBC WNL
- Meds: tenofovir DF, emtricitabine, atazanavir, ritonavir
- Presents for routine cleaning
Necrotizing Ulcerative Periodontitis in 2014
Necrotizing Stomatitis in 2014

- 32 yo white MSM
- CD4 494, HIV 6,690
- Meds: tenofovir DF, emtricitabine, darunavir, ritonavir
- Valacyclovir 1gm tid
- Viscous lidocaine
- Quetiapine, paroxetine, mirtazapine

Wk Dx: nonspecific ulceration
TX: prednisone 60mg qday for 2wks, then taper and transition to clobetasol gel
Amoxicillin/clavulonic acid 875mg bid

1 wk post tx
5 wks post tx
5/10/2017

44 yr old, African American MSM in renal failure
- Hemodialysis M-W-F
- CD4 < 50, HIV viral load >750k
- Biopsy to rule out viral etiology
- Prednisone 60mg qday
- Amoxicillin/clavulanic acid, clindamycin, metronidazole, chlorhexidine rinse
- Thalidomide 200mg qday hs
- Debride as necessary

Necrotizing ulcerations

Necrotizing ulcerations

Historical case from 1995
Necrotizing ulcerations

12 weeks thalidomide 200mg qday

Adverse events of thalidomide

- Teratogenic effects (anti-angiogenesis)
- Somnolence – 97%, duration variable
- Skin Rash – 30%
- Peripheral neuropathy
  - Exacerbation of pre-existing neuropathy
- Decreased libido
- Neutropenia
- Nausea, headache, constipation
Thalidomide (α-phthalamide glutarimide)
Mechanism of Action

- Immune Modulation- Inhibits production of TNF-α by destabilizing the TNF-α mRNA
- HIV Inhibition
  - Reduces HIV-1 gag mRNA expression in latently infected monocyte cell lines
  - May inhibit HIV replication in macrophages by inhibition of NF-κB (NF-κB is an enhancer for transcription of HIV)
Thalidomide use in females

- Fecundity status – surgically sterilized or PM
- If of child bearing potential:
  - Begin IFC process very early
  - Frank discussion of sexual activity
  - Commercial sex worker?
  - Control in sexual situations
  - Ability to use two forms of birth control
  - Number of dependent children, sole caretaker?
  - Good communication with OB/GYN
  - Consider involving a social worker
- Also, reproductive intercourse should be discussed with any male patient

Necrotizing stomatitis in 2012

- 55 yr old African American heterosexual male
- HIV, Type I DM, HTN, renal transplant
- CD4 110, HIV <48
- ANC 880, ALC 392
- abacavir, lamivudine, lopinavir/ritonavir
- Tacrolimus, MMF, prednisone 5mg, carvedilol, clonidine, insulin

Recommended thalidomide to MD
Necrotizing stomatitis in a 55 yr old African American HS male in 2012

Severe Ulcerations 2014

- 47 yo, AA HS male
- CD498, HIV ?
- Hgb 10.6, WBC 3.0
- Plt 260k, ANC 0.3k
- Meds: darunavir, ritonavir, raltegravir (4wks)
- Large, deep ulcerations for 3 months
Severe Ulcerations 2014

- Bx: to rule out CMV
- Most consistent with neutropenic ulcers with a necrotizing component
- Prednisone 60mg qday
- Pain Meds
Kaposi’s sarcoma

- Multifocal reticuloendothelial cancer
- Most common CD4 < 200
- Coinfection with HHV 8
- Occurs primarily in MSM
- Incidence of oral KS lesions decreased sharply after HAART
  - From 7 new cases a month to 1-2 each year at Bering Omega

Kaposi’s sarcoma from 7/2012

- 39 yr old Latino MSM
- CD4 160, HIV 41,900, platelet 80k
- No antiretrovirals, only TMP/SMX
- Dermatology had biopsied a lesion on the head
  Patient did not return for any follow up appts
Kaposi’s sarcoma from 7/2012

Kaposi’s sarcoma from 7/2012
Treatment of Kaposi’s Sarcoma

- Watchful waiting with HAART (mild/mod)
- Surgical excision in some cases
- Systemic chemotherapy
- Radiation therapy
- Local chemotherapy
- Combined local/systemic chemotherapy

Kaposi’s sarcoma in 2013

- 33 yr old white MSM, LSP 10
- Dx with HIV in 2005 but inconsistent with medical care
- Started feeling tired and weak 3 months prior
- CD4 96, HIV 100,000 copies
- Began tenofovir DF/emtricitabine/efavirenz 2 weeks before dental visit
- Referred by MD for examination of oral lesions
- Multiple exophytic purple lesions primarily in maxilla, OHL bilateral tongue, HPV 68 (high)
Kaposi’s sarcoma in 2013

Kaposi’s sarcoma in 2013
Kaposi’s sarcoma in 2013

- Treatment plan with physician consultation
- Intralesional vinblastine - up to 4mg per session
- Estimate 4 sessions
- Manage pain with oxycodone and tramadol
- Manage any nausea with promethazine 25mg
- Watchful waiting for dermal lesions
ILV - Intralesional vinblastine

- 0.4mg/cc dilution with saline
- Local anesthesia
- 0.1mg/cm² of lesion
- Repeat every 2-3 weeks

Kaposi’s sarcoma in 2013

Injecting 3.6mg vinblastine sulfate, 0.4mg/cc for a total volume of 9cc
Kaposi’s sarcoma in 2013

2 weeks post first series

Kaposi’s sarcoma in 2013

2 weeks post second series of 3.6mg
Kaposi’s sarcoma in 2013

3 weeks post third series of 3.6mg

Nichols et al, JADA Vol. 124, No. 11-78-84 November 1993

Kaposi’s sarcoma in 2013

5 weeks after 4th treatment

Nichols et al, JADA Vol. 124, No. 11-78-84 November 1993
Kaposi’s sarcoma in 2013

5 weeks after 4th treatment

Soft palate lesion - 2014

CC – “something is in my throat”
Soft palate lesion - 2014

- 51 yr old, AA MSM identifies as HS
- CBC WNL
- CD4 18, PCR 63,800
- Meds: abacavir/lamivudine, darunavir, ritonavir, TMP/SMX
- DDX: salivary gland tumor, lymphoma, Kaposi’s sarcoma, SCC

Bx: Kaposi’s sarcoma with lymphoid hyperplasia
- Probably responding to HAART
- Tx: Watchful waiting or ILV
Lymphoma

- Ki 1 Large cell lymphoma
- Plasmablastic lymphoma
- B small cell lymphoma
- Diffuse large B-cell lymphoma
- Burkitt’s lymphoma

Lymphoma in 2013

- 45 yr old Latino MSM
- CD4 302, HIV 111,000, HPV normal
- Tenofovir TD/emtricitabine/efavirenz (sporadic nausea)
- Headaches, spontaneous paresthesia of bilateral lower lip, multiple masses consistent with metastatic disease
- Biopsy
Lymphoma in 2013
Lymphoma in 2013

[Image of oral cavity with lymphoma]

Lymphoma in 2013

[Image of dental X-ray showing lymphoma]

[Image of dental X-ray showing lymphoma]
Lymphoma in 2013

- Dx: EBV positive immunodeficient Burkitt’s lymphoma with strong plasmacytic features
- Aggressive B cell lymphoma
- One of the first types of lymphomas seen in the AIDS epidemic
- Patient was referred to MD Anderson and has received 3 rounds of chemotherapy
- Tumors are in complete remission
Lymphoma in 2014

- 33 yo white MSM
- CD4 195, HIV 126,240
- CBC WNL
- Meds: tenofovir DF, emtricitabine, darunavir, ritonavir
- valacyclovir, quetiapine
- Hx: crack cocaine, meth, soda
- CC: bleeding gums and loose teeth

Bx: high grade diffuse B cell lymphoma,
Minor HPV in retromolar area
Tx: extraction of all maxillary teeth prior to chemo
Referral to oncology
Meth Mouth

- 29 yo white MSM
- CD4 100, HIV 20k
- HAART, suboptimal adherence
- Methamphetamine acquired drug through sexual encounters
**Meth Mouth**

- 26 yo white MSM
- CD4 460, HIV<20
- CBC WNL
- Meds: tenofovir DF/emtricitabine/elvitegravir/cobi
- Hx of meth x7 yrs
- Reports trading sex for drugs at times

**Dermoid Cyst in 2013**

- 55yo AA MSM
- CD4 426, HIV 42
- CBC WNL
- Meds: tenofovir DF/emtricitabine/efavirenz, albuterol
- Dermoid cyst present for 2 years
- Patient becoming suicidal
Dermoid Cyst in 2013

Dermoid Cyst in 2013
Summary

- Even with significant advancements in the management of HIV disease, patients still present with critical or severe oral health conditions.

Preceptorships available

Thank you!

www.aidseducation.org
www.hivdent.org
mnichols@beringomega.org
713 341-3793
Invasive Procedure Risk Assessment

- **ITP - Idiopathic thrombocytopenia purpura**
  - < 150,000 plts/mm³ common in AIDS
  - > 60,000 plts/mm³ usually safe for dental/oral surgery
  - > 20,000 plts/mm³ usually safe for minor dental proc.
  - < 20,000 plts/mm³ any tissue manipulation contraind.
  - Aspirin (acetylsalicylic acid) - extreme caution with prolonged use

- **Anemia (Normal hemoglobin 12.7-18.1g/dL)**
  - Minor surgery routine with hemoglobin >7g/dL
  - Any dental procedure, extreme caution < 7g/dL
  - Respiratory depressing drugs contraind. <10g/dL

From the JADA (Journal of the American Dental Association)
Dental Management of the HIV-Infected Patient, 1995 & the American Academy of Oral Medicine

- **Antibiotic Prophylaxis for Infective Endocarditis**
  - no special consideration

- **General Antibiotic Coverage**
  - no specific indication for HIV/AIDS
  - neutrophils <500cells/mm³ & procedure 👉 bleeding
  - chlorhexidine rinse recommended

- **Antibiotics for Post Procedural Local Infections**
  - HIV/AIDS patients not at increased risk
  - if one develops, use PO systemic antibiotics
    - (amoxicillin, azithromycin, clindamycin, metronidazole, amoxicillin/clavulanic acid)

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CD4 cell count considerations

- No special indication for premedication based on CD4 cell count.
- However, if CD 4 cell count low, <50, may consider prophylaxis for candidiasis for delicate procedures such as sinus lifts, bone grafts, implants, and sinus fistula closures, or if patient needs corticosteroid treatment.
- Fluconazole 100mg qday

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Dental Management of the HIV-Infected Patient, 1995 & the American Academy of Oral Medicine