

GOOD HEALTH! IT STARTS IN THE MOUTH

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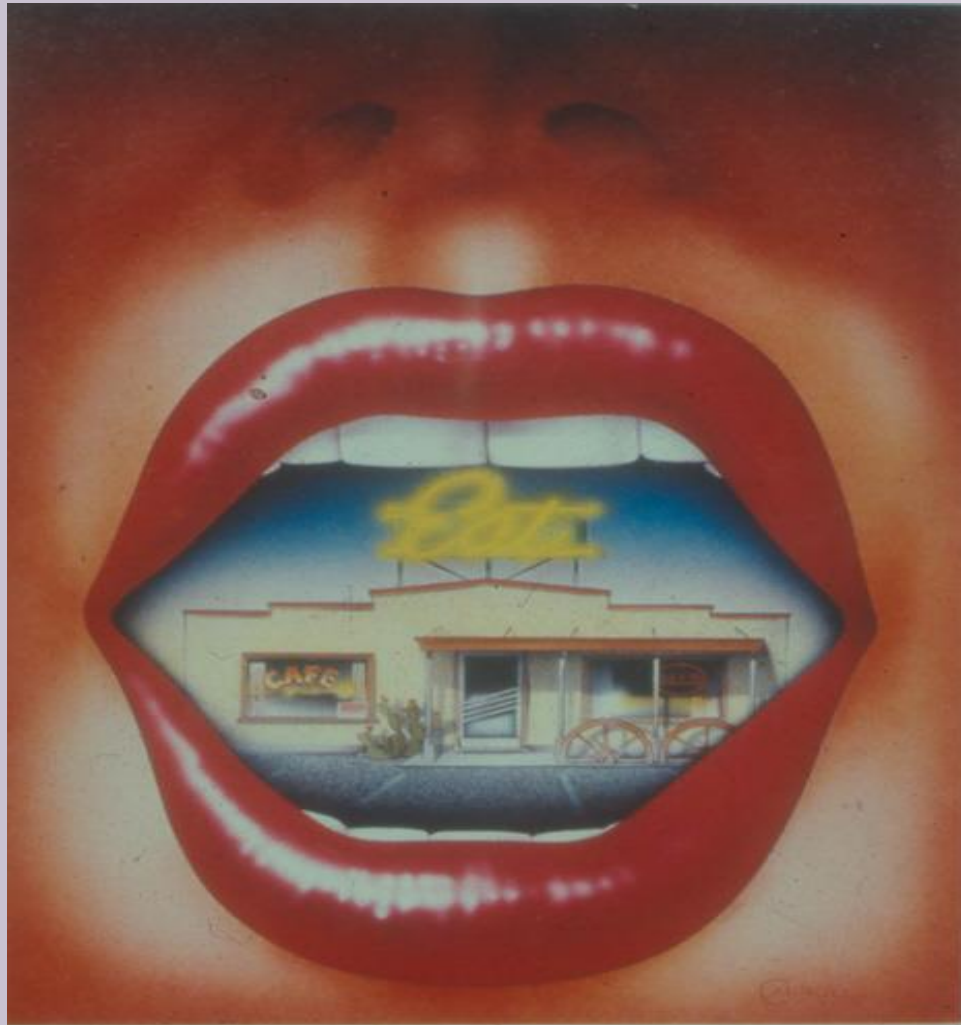
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Body Positive 27th September 2013

“THE JOURNEY STARTS HERE”



Oral Cavity

- ▣ The mouth mirrors many systemic diseases, so it can be useful diagnostically and can even help to predict the future course of disease
- ▣ Failure to consider the oral cavity may sometimes lead to further morbidity
- ▣ The mouth is frequently forgotten in medical treatment plans

Dentistry & Medicine

- ▣ The “gap”...sometimes not clear where to go for management of mouth problems



A “pre-op” dental over-haul
requested by Cardiac Surgeon



High rate of oral manifestations in HIV

- ▣ **More than 90% of patients have at least one oral lesion during their disease course**
- ▣ **Prevalence of 30% in patients on HAART**
- ▣ **Take a variety of appearances that are for the most part characteristic**

New York State Dept of Health AIDS Institute's Best Practices. Promoting oral health care for people with HIV infection. January 2004.

Impact of Oral Conditions in HIV

- ▣ **High rate of oral manifestations**
- ▣ **Oral lesions may be an indicator of progression in HIV condition**
- ▣ **Relative ease of access to identification of lesions by those in clinical practices**
- ▣ **Potential impact on general health as well as impact on quality of life and finances**

Sifri R, Diaz V, Gordon L, Glick M, Anapol H. et al. Oral health care issues in HIV disease: developing a core curriculum for primary care physicians. J Am Board Fam Pract 1998; 11(6):434-44

Plan of lecture

- ▣ Mention some HIV related oral lesions
- ▣ Look at those conditions, their impact and how to prevent / manage them
- ▣ Look at the relationship between Oral Health and General Health

Highly Active Antiretroviral Therapy (HAART)

- ▣ The introduction of HAART has contributed to a global reduction in some oral lesions in adults and children (WHO 2005).
- ▣ The prevalence of oral lesions has reduced some 10-50%, although other reports suggest that this is not the case
- ▣ Highest number of lesions in patients with lower CD4 counts or higher viral counts

Common infections in the oral cavity in all people

- ▣ **Caries**
- ▣ **Periapical lesions- nonvital teeth**
- ▣ **Fungal and viral infections**
- ▣ **Gingivitis**
- ▣ **Periodontitis**

Other common problems of the mouth

- ▣ Mouth ulcers
- ▣ White patches
- ▣ Cysts
- ▣ Salivary gland problems
- ▣ Malignancies

Oral lesions associated with HIV

- ▣ **Fungal:** Candidosis (Thrush)
- ▣ **Viral:** Herpes simplex, Herpes Zoster, CMV, Oral Hairy Leukoplakia (EBV), Oral warts (HPV) and Human Hominus Virus-8 (Kaposi's Sarcoma)
- ▣ **Bacterial** Linear Gingival erythema, Caries
ANUG, TB, Mycobacterium Avium complex

Other Oral Lesions in HIV

- ▣ **Neoplastic:** Kaposi's sarcoma, Lymphoma, Squamous cell carcinoma
- ▣ **Other:** HIV-necrotising oral ulceration, HIV salivary gland disease (dry mouth), Oral mucosal pigmentation

Oral Candidosis

- ▣ Most common oral manifestation
- ▣ Often predicts HIV progression (and promote it?)

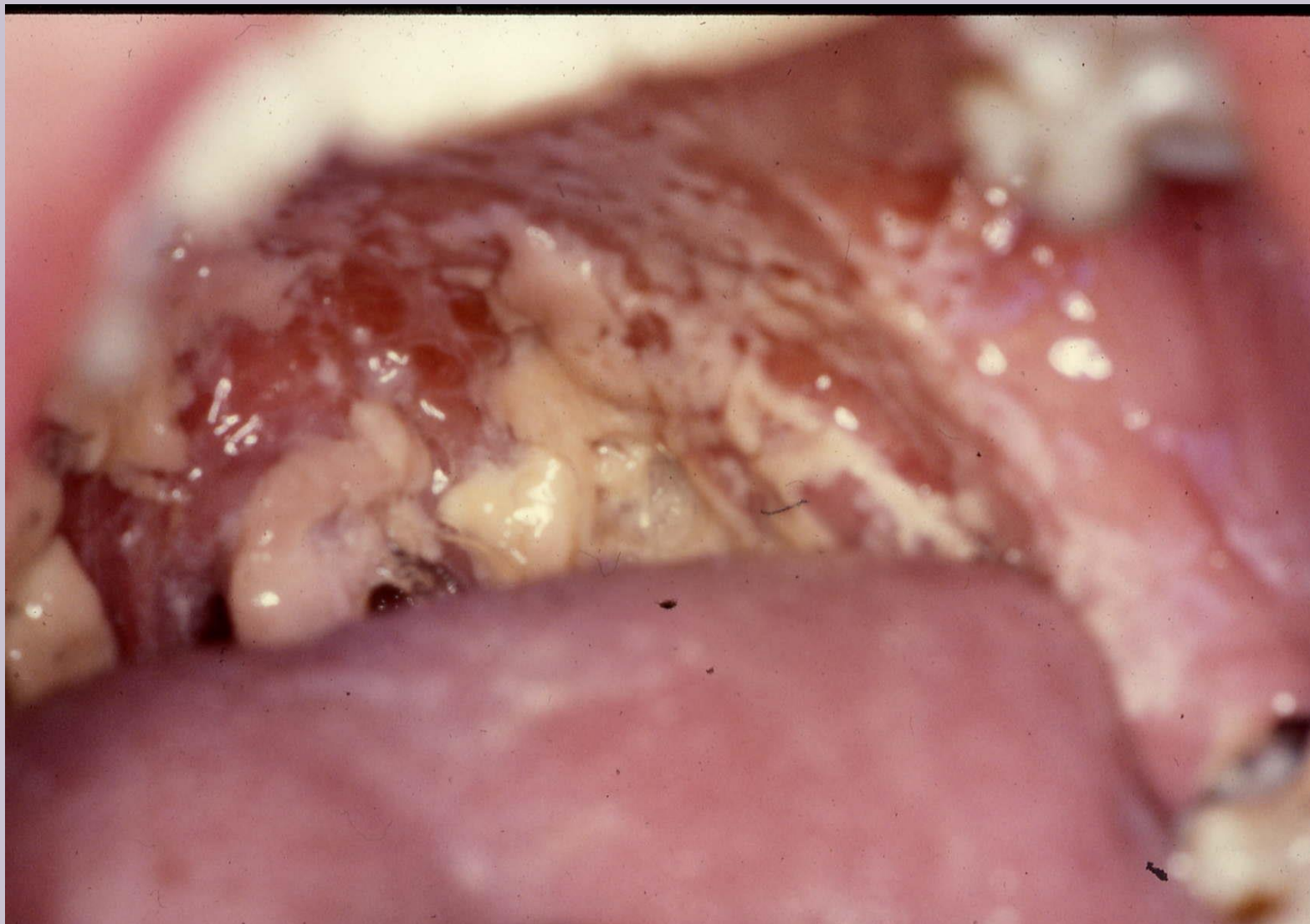
Clinical Classification of Oral Candidosis

- ▣ Pseudomembraneous (white)
- ▣ Erythematous (red)
- ▣ Chronic Hyperplastic (Candidal leukoplakia)
- ▣ Median Rhomboid Glossitis
- ▣ Angular Cheilitis

Pseudomembraneous

- ▣ Painless, creamy patches that can be wiped away leaving red, sometimes bleeding area underneath
- ▣ Creamy substance consists of old epithelial cells and dead body defence cells,
- ▣ Can be acute or chronic





Atrophic Candidosis

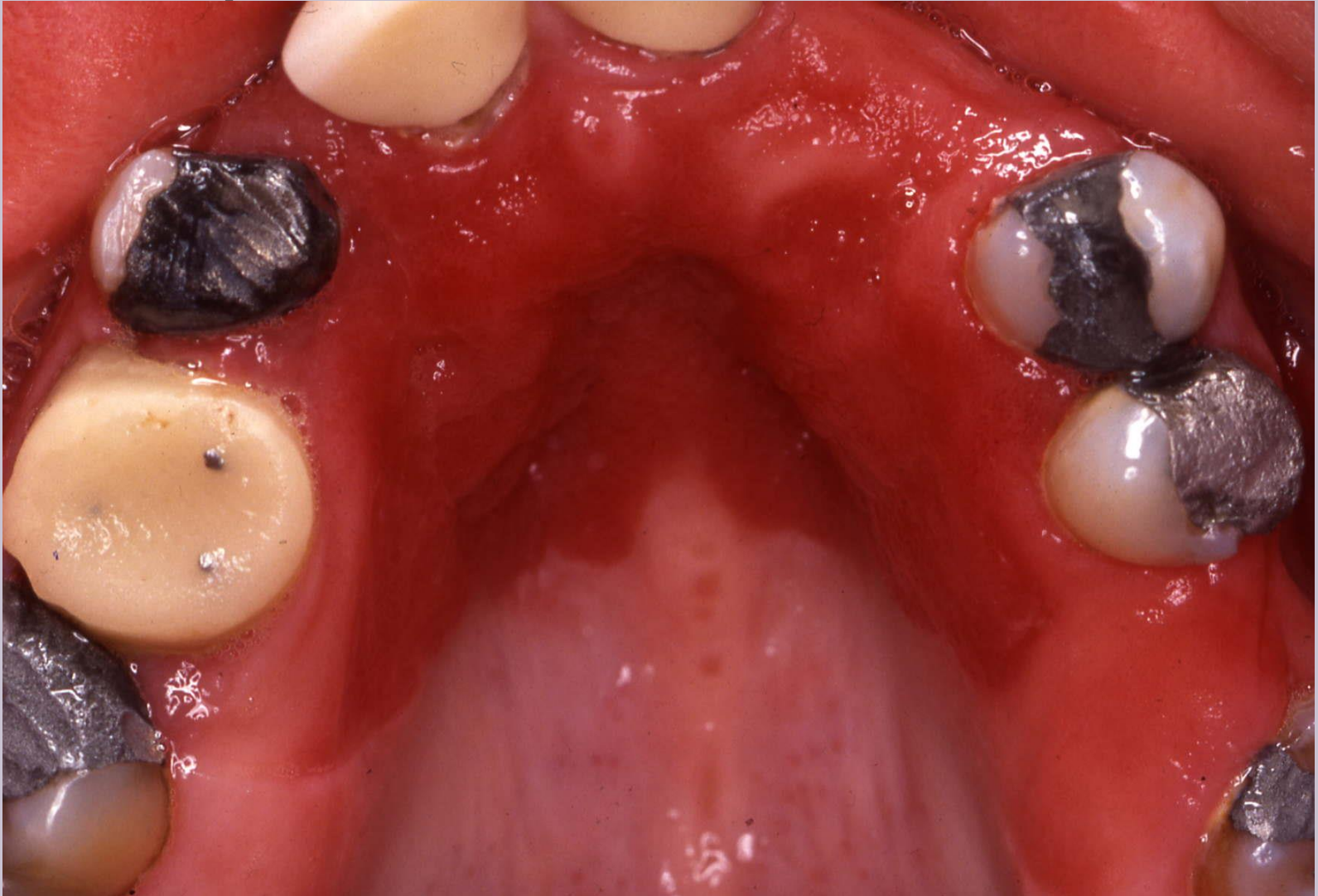
- ▣ Acute form is uncommon & painful and usually secondary to antibiotics, steroids, diabetes and sometimes HIV
- ▣ Chronic form in immunosuppression, but most common CAC is “denture stomatitis”
- ▣ Usually due to poor denture hygiene and fit, although other factors such as diet and xerostomia contribute



Denture Stomatitis



Erythematous Candidosis





Chronic Hyperplastic Candidosis

- ▣ Usually inner commissure of lips
- ▣ Homogenous or speckled
- ▣ Often associated with smoking
- ▣ Potential for malignant change
- ▣ Biopsy, treat (systemic anti-fungals & smoking cessation) and follow up





Median Rhomboid Glossitis

- ▣ Well demarcated, central, non-ulcerated, depapillated red area in middle 1/3 tongue and palate
- ▣ 0.2-3.0% population
- ▣ Associated with steroid inhalers, smoking, diabetes, HIV, dentures
- ▣ Rx: Underlying cause and antifungals





Angular Cheilitis



Angular Cheilitis

- ▣ Caused by *S. aureus* or *Candida*
- ▣ Frequently denture related
- ▣ Sugar drinks & sweet used to alleviate dryness & taste provide nutrition for *Candida* and reduce pH, increasing adherence
- ▣ Associated with low iron (other nutrients to a lesser extent) This can be due to chronic disease or difficulties eating due to xerostomia, dentures, immobility



Prevention & Management of Oral Candidosis

- ▣ Recognise it and the risk factors
- ▣ Denture hygiene
- ▣ Diet (sugar reduction)
- ▣ Rinse after Steroid Inhalers
- ▣ Chlorhexidine
- ▣ Antifungals

Oral Hairy Leukoplakia

- ▣ White, often corrugated appearance
- ▣ Appears in late latency stages HIV or precursor of AIDS
- ▣ Epstein Barr Virus
- ▣ Treat for cosmetic reasons
- ▣ Reports that topical aciclovir can give relief



Oral Tumours in HIV

- ▣ Kaposi's sarcoma can be oral or perioral...often early indicator of HIV (300 times more common than in renal transplant patients)
- ▣ HHV-8 noted as herpes virus co-factor in KS
- ▣ Reactive lesion...neoplasm of blood vessels
- ▣ Also lymphoma
- ▣ Squamous cell carcinoma





Lymphoma

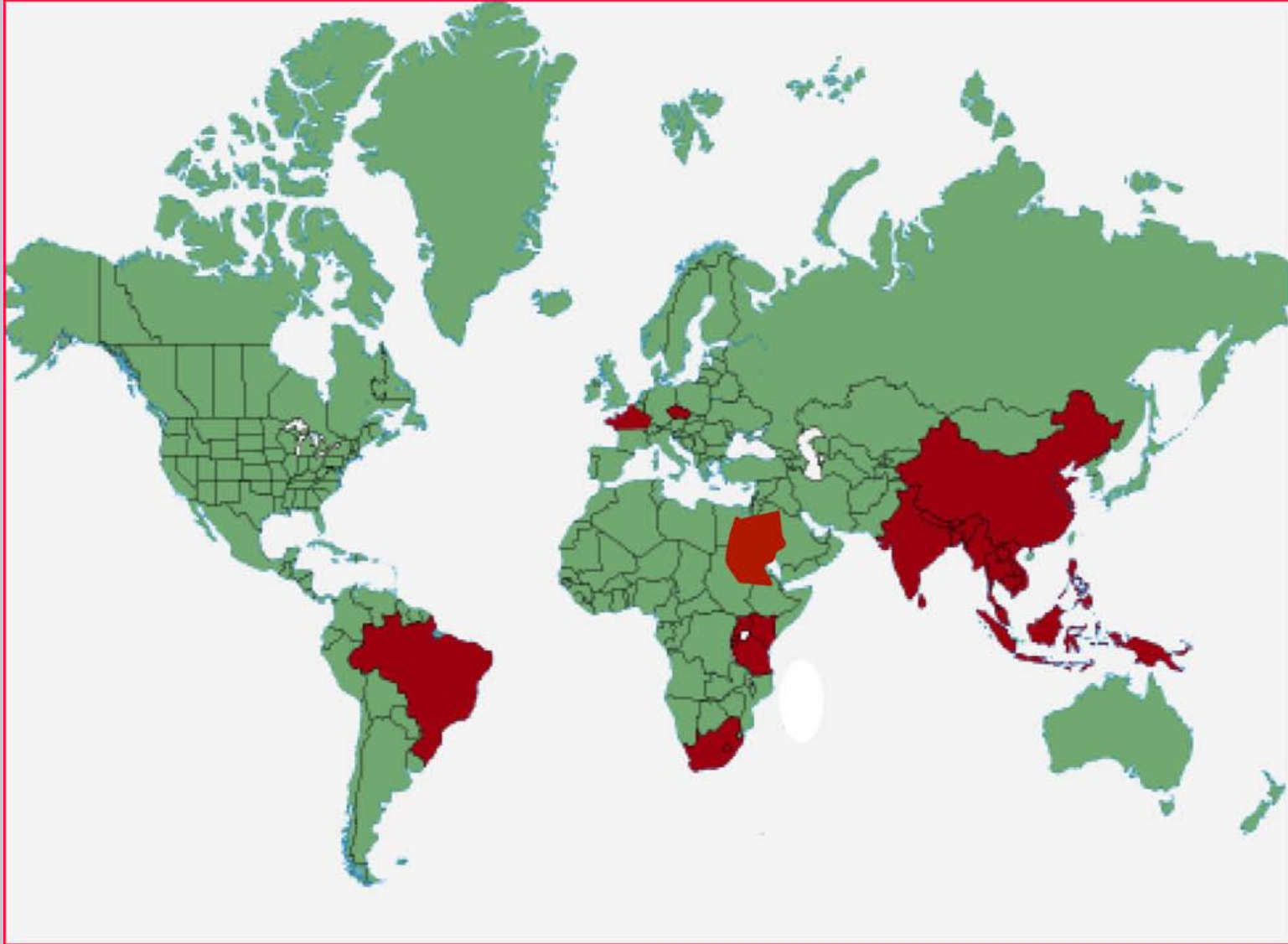




Oral Cancer remains a significant challenge for all people in NZ

- ▣ A disease of older age associated with lifestyle risk factors, notably alcohol, tobacco and betel. (Users of both tobacco and alcohol have a 50-fold (or greater) increased risk of developing head and neck cancer*)
- ▣ Increasing involvement of HPV in some tumours and a younger age
- ▣ Mortality & morbidity remain high, mainly through late diagnosis

* Maier et al 1992 Tobacco and alcohol and the risk of head and neck cancer. *Clinical Investigator*, 70, 320-327.



Countries with high incidence and mortality from oral cancer.

From Warnakulasuriya, Oral Oncology 45: 309, 2009

Slide from Prof Mark Elwood University of Auckland

2009 in New Zealand

- ▣ All new cancers 21,000 people
- ▣ Oral & oropharyngeal 338 (1.6%)
- ▣ Total deaths from cancer 8500 people
- ▣ Death from oropharyngeal cancers **104 (1.2%)**
people (cervix 44, larynx 33,
mesothelioma 101)

New Zealand: men. Trend from 1982 to 2009

- ▣ **Oral cavity cancers:** very slight increase, not statistically significant
- ▣ **Oropharyngeal cancers:** slight, non-significant increase 1982 to 2004 (1% per year) but a very rapid and significant increase 2004-2009 (10% per year)
- ▣ Research by Professor Mark Elwood, UOA. Manuscript in preparation

What does Oral Cancer look like?



Presenting complaint of sore
gums and weight loss

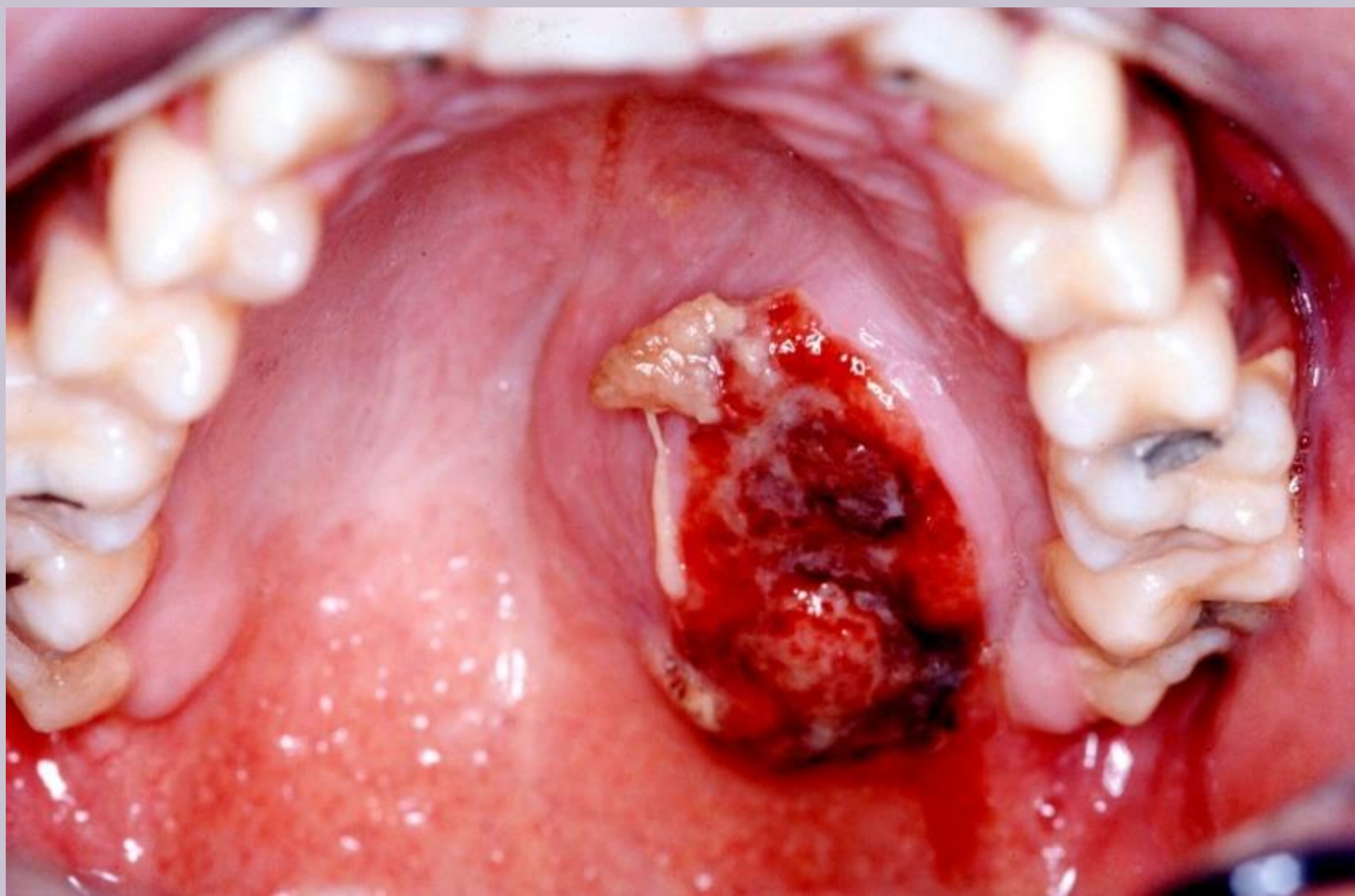


Patient presented as denture did not fit









Risk factors

- Smoking (60% all, 80% FOM)
- Alcohol > 21 units (24% all, 41% FOM)
- Betel nut
- Social deprivation and older age (?non-dental attenders)
- Radiation
- Previous oral cancer
- Nutrition & sunlight
- Viruses, especially HPV, EBV, HIV
- Poor OH, non-dental attenders

Oral Ulceration



Oral Ulceration

“Apthous Ulcers”

- 1-3mm “regular” outline oral or oval ulcers
- Occur in crops, with variable ulcer-free periods
- Last up to 10 days & heal without scarring
- Never occur on the roof of the mouth
- Painful



Other causes of oral ulcers

- 20% population
- Anaemia due to Iron, Vitamin B12 or Folic Acid
- Stress
- Allergies to some foods E210-219 (benzoic acid)
- Sodium lauryl sulphate in toothpaste

RAS management

- Pain relief (Topical anaesthetics)
- Topical steroids..Oracort
- B vitamins especially B6...2/3 reported improvement
- Avoidance of benzoic acid, cinnamonaldehyde, chocolate
- Other e.g. stress, splint therapy.....

Pigmentation 3rd most common
intra-oral lesion in HIV



HIV Salivary Gland Disease

- ▣ Dry mouth
- ▣ Major salivary Gland Swelling

Xerostomia

Salivary Hypofunction

- A common disorder
- Frequently undiagnosed and, therefore, untreated
- Barriers to appropriate diagnosis and treatment include the **diverse symptomatology and presentations** of the condition, **lack of awareness** of the condition and its management by health professionals and a **perception** that the condition is **mild** and that **therapy is either not available or not necessary.**

Xerostomia..oro-facial symptoms

- ▣ Dryness
- ▣ Unpleasant taste / loss of taste
- ▣ Difficulty eating
- ▣ Sore mouth
- ▣ Denture difficulties
- ▣ Swelling of major salivary glands
- ▣ Difficulties with speech & swallowing

Signs and consequences of Salivary Hypofunction

- Dryness
- Clicking speech
- Mirror sticks
- Lobulated tongue
- Candidosis
- Caries
- GUM disease
- Salivary Gland Disease / Swellings

Caries in dry mouth



Dental Caries

- ▣ Dental decay requires a tooth, sugar and micro-organisms to occur
- ▣ The micro-organisms feed on the sugar or other carbohydrates and the by-products are acidic. This acid causes damage to the tooth surface.
- ▣ After sugar consumption, the mouth remains acidic for 45 minutes and is regarded as *vulnerable*
- ▣ Milk, cheese, etc neutralise this acid.
- ▣ Fluoride protects greatly against tooth decay
- ▣ Lots of saliva dilutes the effect (a dry mouth worsens it) Dental caries requires a tooth, sugar and micro-organisms and time

Management of Xerostomia

- Avoidance strategies...dry, sweet foods, alcohol, smoking and effect of other medication
- Dental care
- Avoid excess acid or sugar when relieving dry mouth

GUMS IN HIV

GUMS AND GENERAL HEALTH









What causes periodontitis?

Periodontitis is a gum infection, initiated by **specific bacteria that activate a series of **inflammatory and immunologic changes** leading to destruction of connective tissue and bone, and possible loss of teeth.**

Periodontitis and Systemic Inflammation

- 55% of patients with severe periodontitis manifest positive arterial blood cultures after chewing parafin
Murray 1941
- Immediately following dental scaling, bacteremia resulted in increased circulating serum TNF- α and IL-6.
Ide 2004
- Perio treatment decreases systemic inflammation (serum CRP, TNF- α).

Genco 1998, Iwawoto 2003, D'Aiuto 2004

Oral (periodontal) health and general health

- ▣ Coronary heart disease
- ▣ Pre-term low birth weight babies
- ▣ Hyperglycaemic control in diabetes
- ▣ Stroke
- ▣ Rheumatoid arthritis
- ▣ Left ventricular hypertrophy
- ▣ Obesity
- ▣ Pulmonary infection
- ▣ Malignant diseases
- ▣ Death risk in the elderly
- ▣ Physical fitness

Risk factors for periodontal disease

- ▣ **Bacterial plaque**
- ▣ Smoking
- ▣ Socio-economic factors
- ▣ Diabetes
- ▣ Other systemic diseases
- ▣ Age

Reducing the micro-organisms that cause decay & gum disease

Regular brushing and flossing to remove dental plaque

Fluoride

Chlorhexidine (Savacol) mouthwash can help

Eating sucrose less frequently and do not brush immediately after sugar or acid.

Barriers to good Oral Health

Knowledge on home care

Actually donig that home care

Failure to be a regular attender

Cost

Oral Health Clinic, Akoranga Drive (AUT) 3 visits, education, cleaning, x-rays at cost (\$60.00) **09 921 9155**

An Irish Toast

The Health of The Salmon to You,
A Long Life,
A Full Heart,
And a Wet Mouth.

