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Oral finding of HIV (AIDS)patients

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A 47-year-old man was referred to the Oral Medicine clinic

complaining of discomfort during eating and speaking because of the presence of a painless nodule on the posterior dorsal surface of the tongue.

The patient had noticed the tongue lesion 1 month ago







- **Human immunodeficiency virus (HIV) comprises 2 main RNA viruses**
- **(HIV-1 and HIV-2) that tend to give rise to a similar clinical picture.**
- **This infection came to clinical and public attention in the early 1980s**
- **However, for example in 2015, there are 37 million individuals across the globe living with HIV disease.**





The virus is **mainly transmitted by sexual, parenteral (recipients of blood) or transplacental routes** (Pinheiro et al. 2009).

Centers for Disease Control and Prevention (CDC) in 1993 had defined **acquired immunodeficiency syndrome (AIDS)** as the **occurrence of one or more group of life-threatening opportunistic infections**, malignancies, neurologic diseases, and other specific illnesses in patients with HIV infection **and/or with CD4 counts less than 200/mm³.**





Stages in HIV disease

Stages	CD4 count range	Duration
Acute infection	1,000–750	1–4 weeks
Asymptomatic	750–200	2–15 weeks
Early symptomatic	500–100	1–5+ years
Late symptomatic	50–200	1–4+ years
Advanced disease	50–0	0–2+ years





List and Dates of World Workshops in Oral Health and Disease in AIDS (Greenspan and Challacombe,2020)



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WW1	San Diego	USA	1988
WW2	San Francisco	USA	1993
WW3	London	UK	1996
WW4	Skukusa	South Africa	2000
WW5	Phuket	Thailand	2004
WW6	Beijing	China	2009
WW7	Hyderabad	India	2014
WW8	Bali	Indonesia	2019





Common

Correlate with HIV load

Easily evaluated

Criteria for initiation of prophylaxis for HIV and Opportunistic infections

Indicate HIV infection

Primary/early/incident

Criteria for entry into vaccine and therapy trials and endpoints in such trials

Prevalent

Merit treatment

Reduced and changed with antiretro viral therapy

Prominent features of progression

Used in staging systems

But may indicate “breakthrough” and need for change of therapy

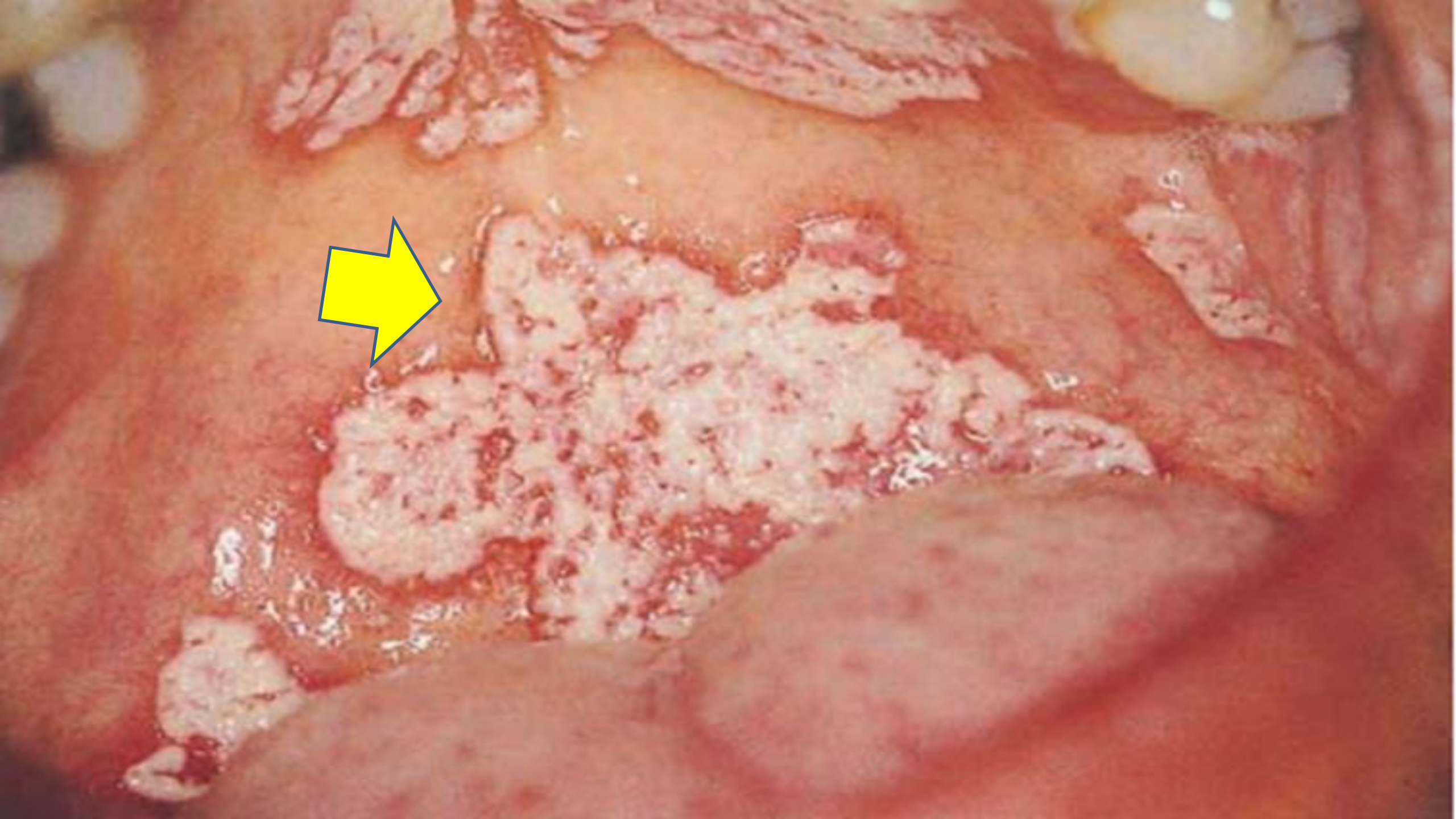
May predict progression independent of CD4 count





- The most common oral manifestations of HIV disease are
- **Oral finding that Strongly Associated with HIV Infection**
 - 1• **Candidiasis: Erythematous, pseudomembranous, and angular cheilitis**
 - 2• **Hairy leukoplakia**
 - 3• **Kaposi sarcoma (KS)**
 - 4• **Non-Hodgkin lymphoma (NHL)**
 - 5• **Periodontal diseases: Linear gingival erythema, necrotizing gingivitis, and necrotizing periodontitis**









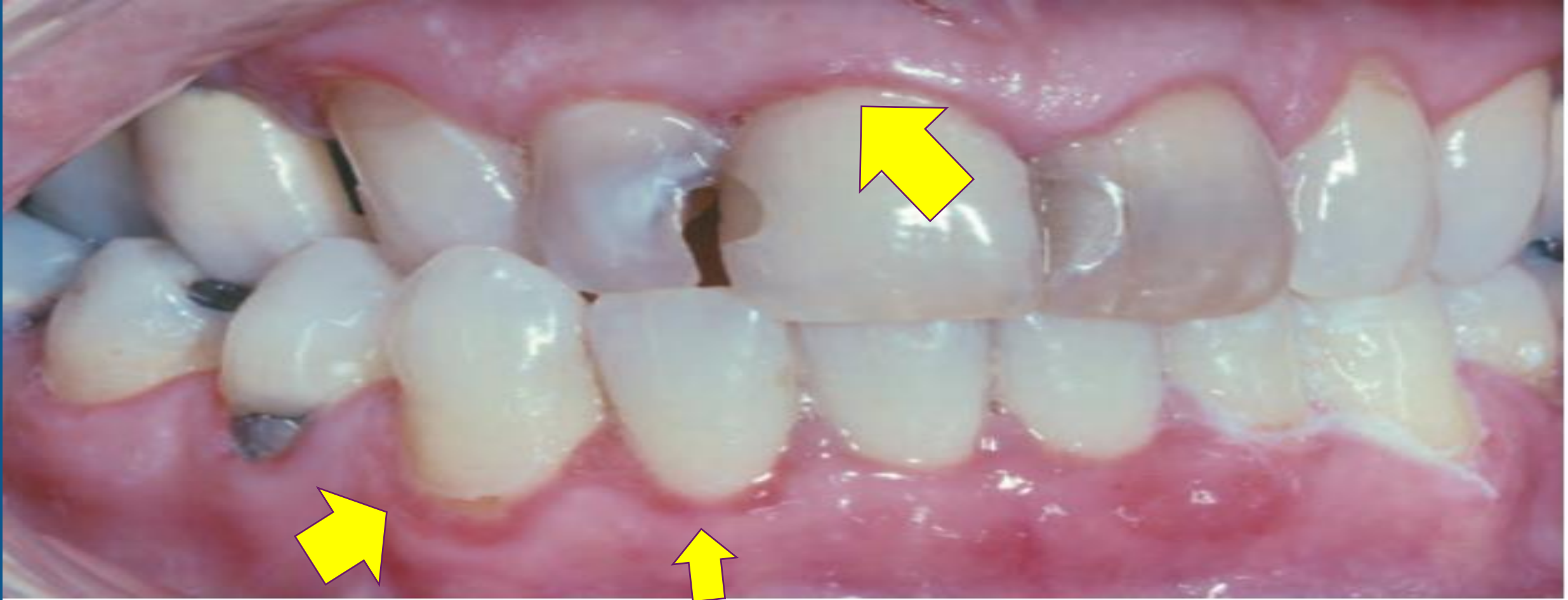


• **Fig. 7-34 HIV-associated Oral Hairy Leukoplakia (OHL).** Vertical streaks of keratin along the lateral border of the tongue.





Hairy leukoplakia. White lesion on lateral border of the tongue with corrugated surface



• **Fig. 7-45 HIV-associated Gingivitis.** Band of erythema involving the free gingival margin.

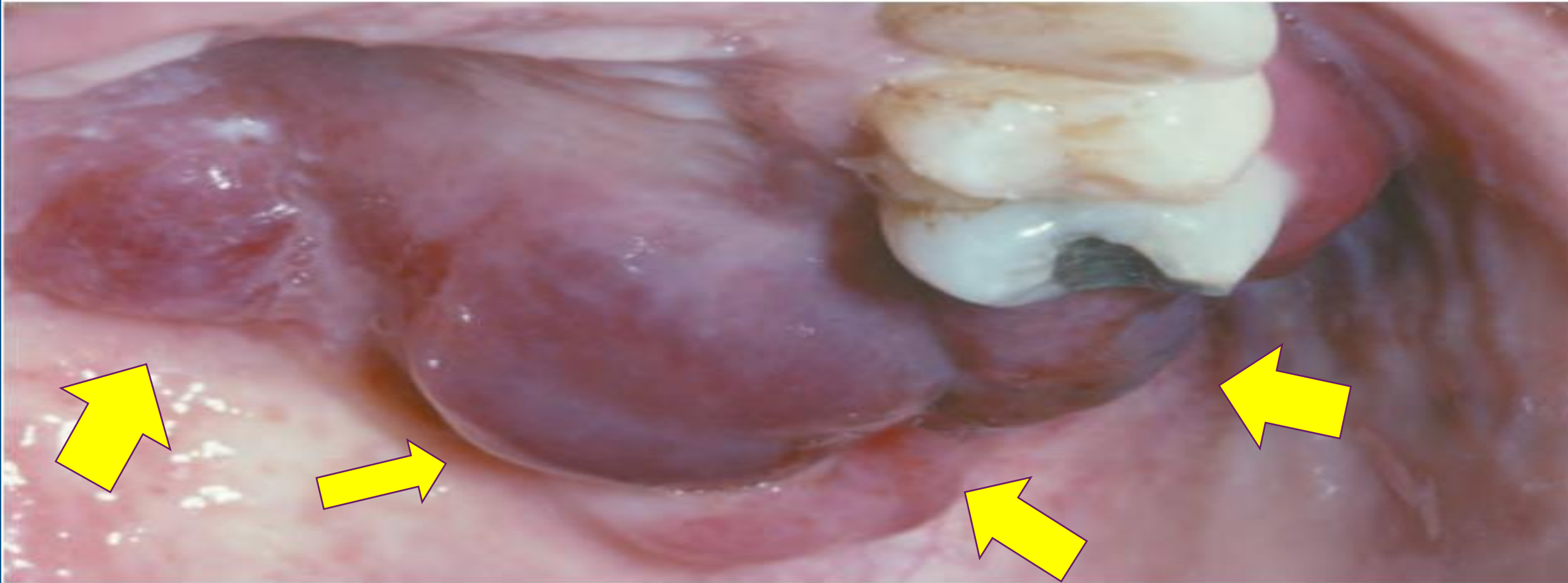






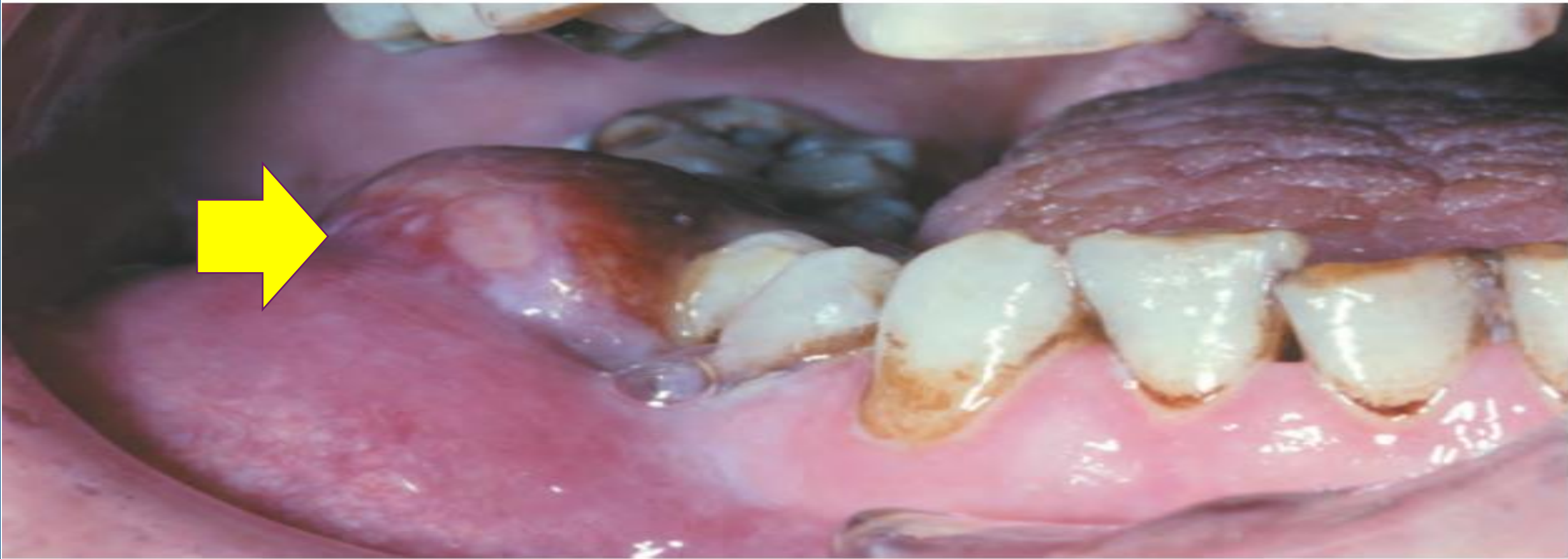
• **Fig. 7-40 HIV-associated Kaposi Sarcoma (KS).** Raised, dark-red enlargement of the left mandibular anterior facial gingiva.





• **Fig. 7-41 HIV-associated Kaposi Sarcoma (KS).** Diffuse, red-blue nodular enlargement of the left hard palate.



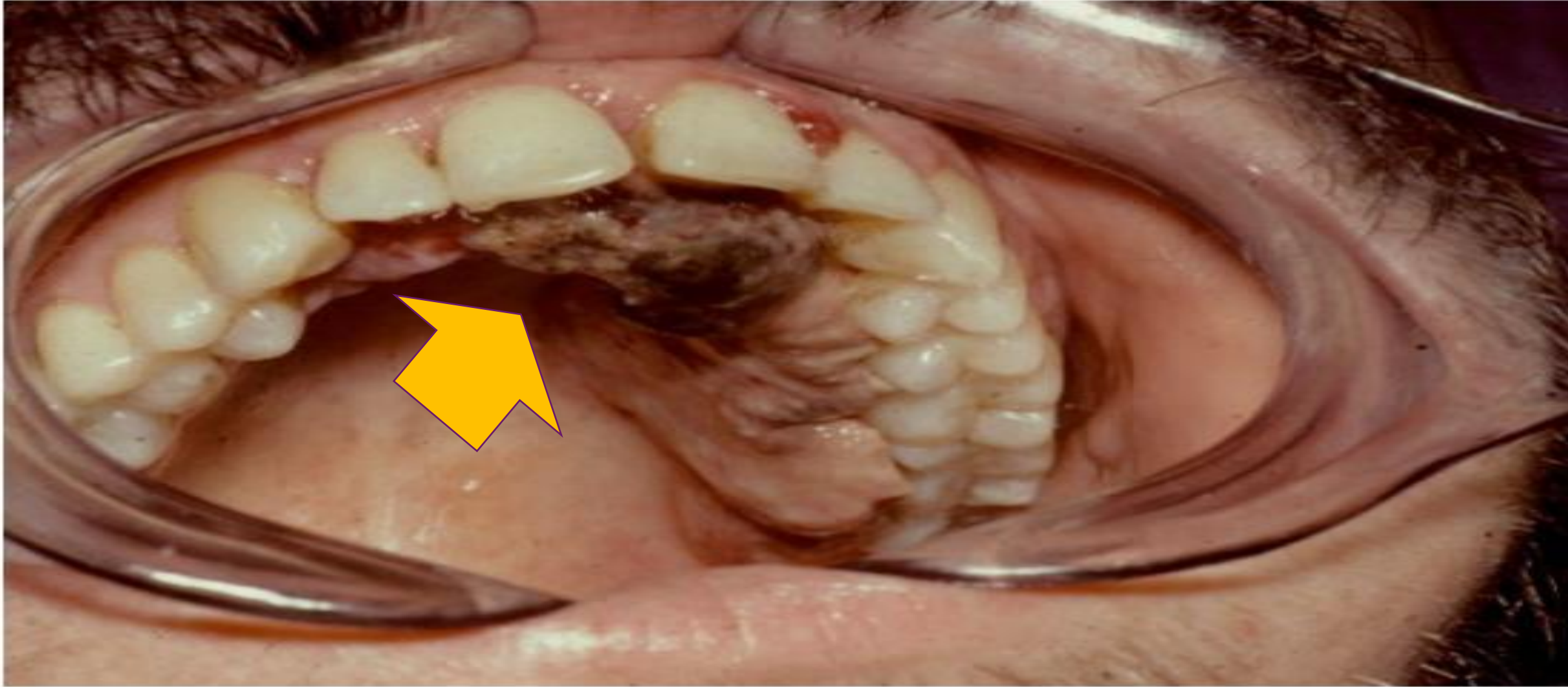


• **Fig. 7-44 HIV-associated Lymphoma.** Erythematous and ulcerated soft tissue enlargement of the posterior mandibular gingiva and mucobuccal fold on the right side.





Clinical presentation of one of the first cases non-Hodgkin's lymphoma (NHL) in 1981





The management of HIV disease is **two aspects** :

1- one aimed at **managing opportunistic infections**

2- other **targeted** at the **virus itself**.

Four groups of drugs can be used to combat the virus.

A **combination of these drugs** may be used in the management of HIV infection. These regimens are **referred to as highly active antiretroviral therapy (HAART)**





Table 3 Antiviral therapy for management of HIV infection

Drug	Examples	Mechanism of action
Fusion inhibitors	Enfuvirtide	It is an anti-HIV peptide that inhibits entry of the virus into host cells
Nucleoside reverse transcriptase inhibitors (NRTIs)	Abacavir Didanosine Lamivudine Stavudine Zalcitabine Zidovudine	They terminate the elongation of the growing DNA chain and reduce or prevent replication of HIV in infected cells
Non-nucleoside reverse transcriptase inhibitors (NNRTIs)	Nevirapine Efavirenz Delavirdine	They inhibit a vital step in the transcription of RNA genome into double stranded viral DNA
Protease inhibitors (PIs)	Indinavir Ritonavir Atazanavir	They inhibit the cleavage of viral proteins





WHO (1997) recommended '**Universal Safety Precautions**' for preventing the sprHand washing.

- Creating appropriate barrier by use of gloves, masks, gowns, eye protectors.
- Careful handling of sharp objects.
- Proper sterilization and disinfection.
- Disposal of instruments after use/decontamination.
- Proper disposal of infected waste .





D.D

pyogenic granuloma

benign tumor (schwannoma, neurofibroma,
rhabdomyoma, granular cell tumor,

developmental abnormality (lingual thyroid),

we did not

include malignant neoplasms





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