

Oral Health for USMLE Step One

Section 2: Oral Lesions

Lesions

1. Viral
2. Bacterial
3. Fungal
4. Vitamin Deficiency
5. Autoimmune
6. Medication Induced
7. Precancerous
8. **Malignant Neoplasms**



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Oral Health

for USMLE Step One

Pathology of Oral
Cavity

Lesions

Congenital

Salivary
Pathology

Dental
Pathology

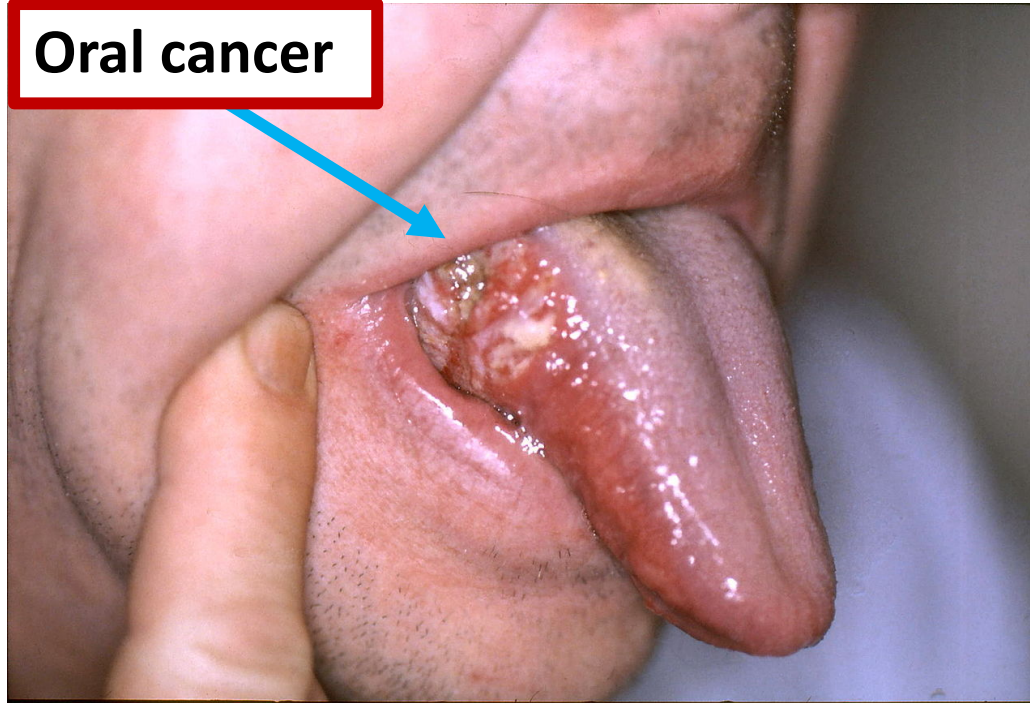
Other

1. Viral
2. Bacterial
3. Fungal
4. Nutritional Deficiency
5. Autoimmune
6. Medication Induced
7. Precancerous
8. **Malignant Neoplasms**

Malignant Neoplasm of the Oral Cavity

Squamous Cell Carcinoma

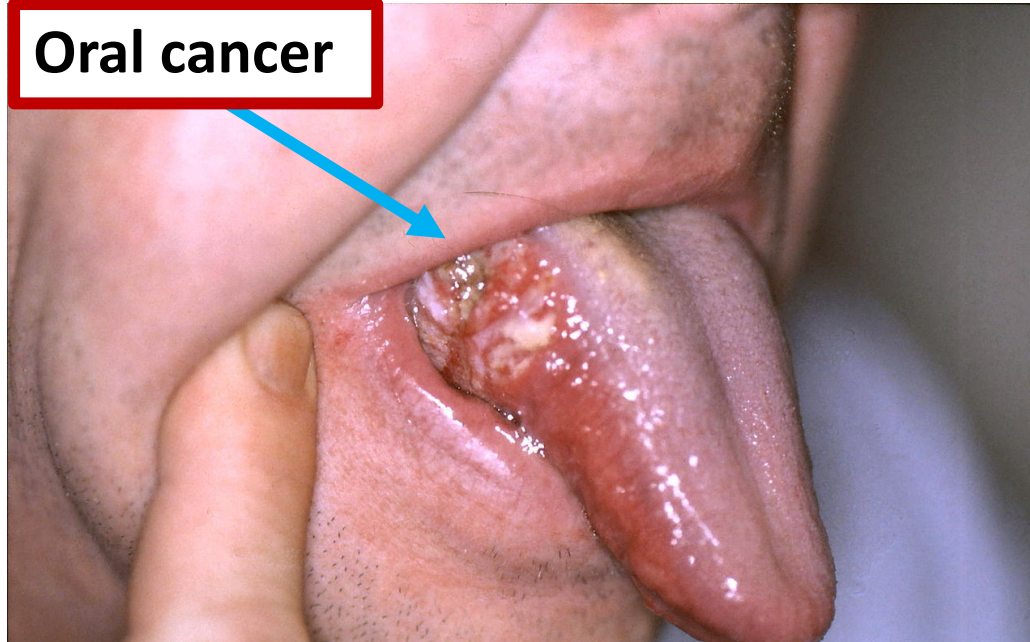
Oral cancer



Malignant Neoplasm of the Oral Cavity

Squamous Cell Carcinoma

Oral cancer



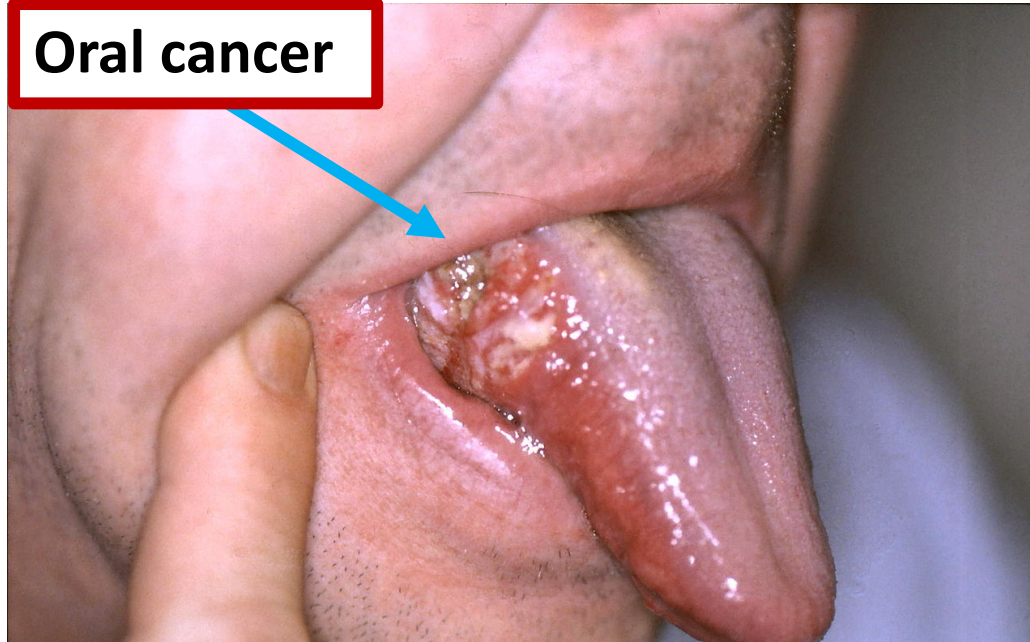
Risk Factors

- HPV-16

Malignant Neoplasm of the Oral Cavity

Squamous Cell Carcinoma

Oral cancer



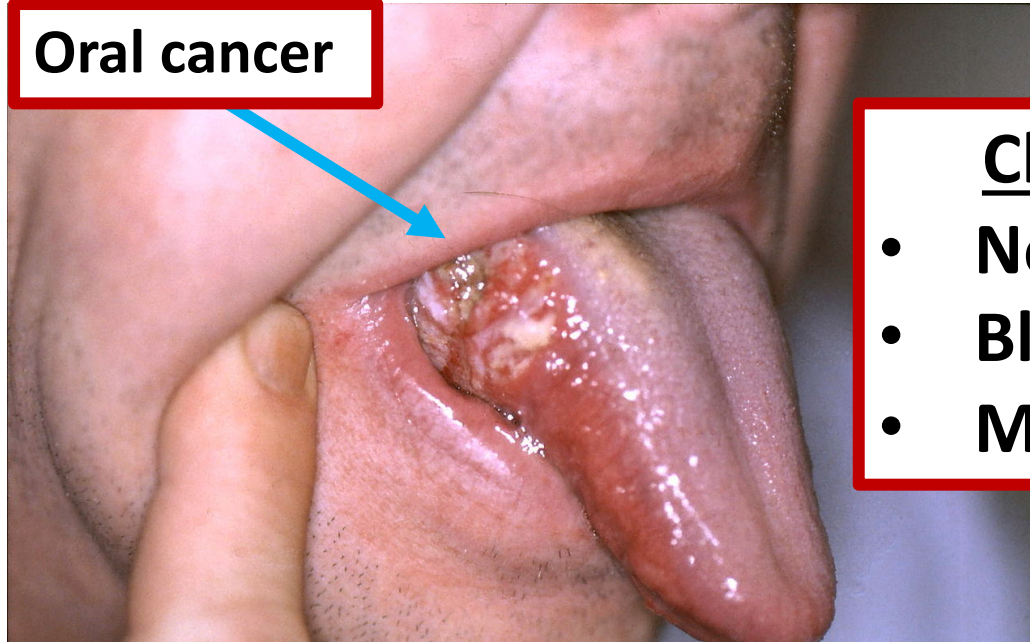
Risk Factors

- HPV-16
- Tobacco and Alcohol Use

Malignant Neoplasm of the Oral Cavity

Squamous Cell Carcinoma

Oral cancer



Clinical Presentation

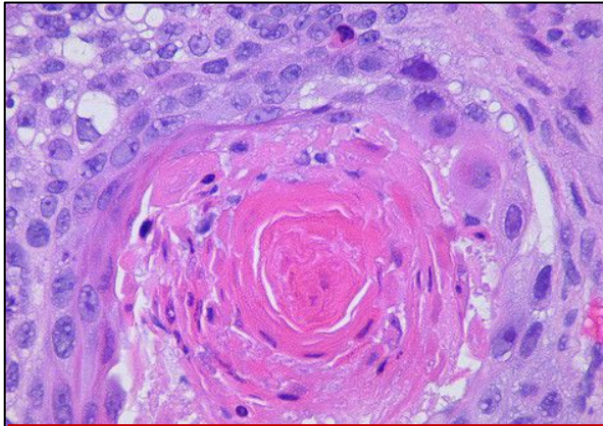
- Non-healing* oral ulcer
- Bleeds easily
- Mass-like lesion

** defined by persistence over two weeks*

Risk Factors

- HPV-16
- Tobacco and Alcohol Use

Pathology of all Squamous Cell Cancers
(regardless of location)



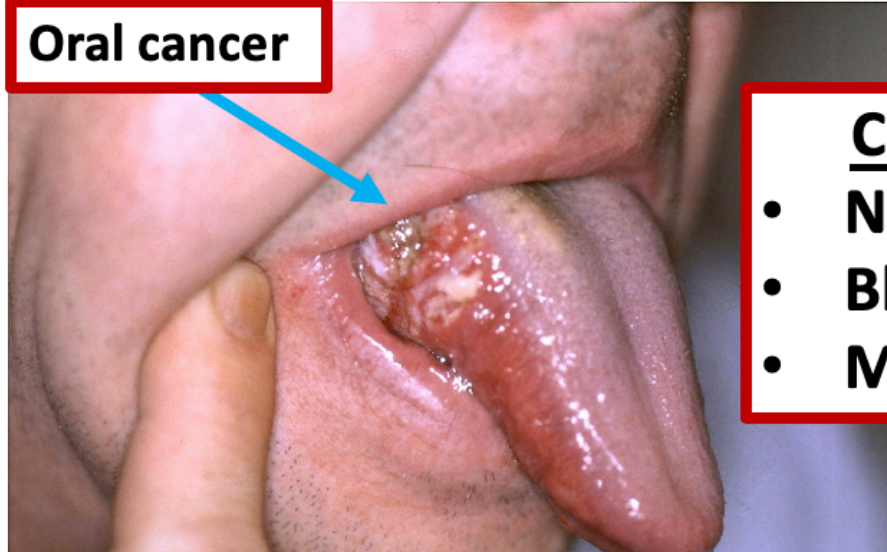
Keratin Pearls

Intercellular Bridges



Squamous Cell Carcinoma

Oral cancer



Clinical Presentation

- **Non-healing*** oral ulcer
- **Bleeds easily**
- **Mass-like lesion**

** defined by persistence over two weeks*

Risk Factors

- **HPV-16**
- **Tobacco and Alcohol Use**

Oral Health

for USMLE Step One

Pathology of the Oral Cavity

Lesions

1. **Viral**
2. **Bacterial**
3. **Fungal**
4. **Nutritional Deficiency**
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8. **Malignant Neoplasms**

Congenital

1. Cleft Lip
2. Cleft Palate
3. Osteogenesis Imperfecta
4. Congenital Syphilis

Salivary Pathology

1. Sialadenitis
 - a. Infection
 - b. Obstruction
2. Tumors
 - a. Benign
 - b. Malignant

Dental Pathology

1. Erosion
 - a. GERD
 - b. Bulimia
 - c. Bacteria
2. Caries
3. Abscess

Other

1. TMJ
2. Medications w/ Oral Effects
3. SBE Prophylaxis

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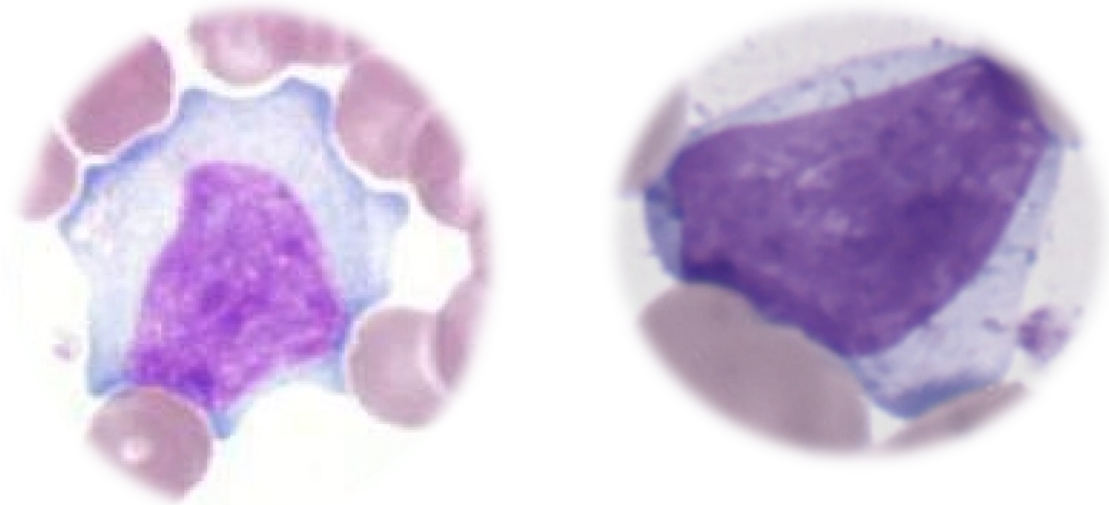


Q1. A 20-year-old female college student presents to her family physician with 1 week of low-grade fever and headache. Exam reveals exudative pharyngitis and posterior cervical lymphadenopathy. Lab testing shows a WBC count of $16\,000/\text{mm}^3$ with 55% atypical lymphocytes. The heterophile antibody test is positive. Which of the following is the most likely cause of this patient's symptoms?

- (A) HIV infection
- (B) *Neisseria meningitidis*
- (C) *Streptococcus pyogenes*
- (D) Epstein-Barr virus
- (E) Diphtheria

Q1. A 20-year-old female college student presents to her family physician with 1 week of low-grade **fever** and headache. Exam reveals exudative **pharyngitis** and **posterior cervical lymphadenopathy**. Lab testing shows a WBC count of $16\,000/\text{mm}^3$ with **55% atypical lymphocytes**. The **heterophile antibody test is positive**. Which of the following is the most likely cause of this patient's symptoms?

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- (D) Epstein-Barr virus**
- (E) Diphtheria



*Atypical (Reactive) lymphocytes
CD8+ cytotoxic T-cells*

Q1a. A 20-year-old female college student presents to her family physician with 1 week of low-grade fever and headache. Exam reveals exudative pharyngitis and posterior cervical lymphadenopathy. Lab testing shows a WBC count of $16\,000/\text{mm}^3$ with 55% atypical lymphocytes. The heterophile antibody test is positive. Which of the following is the **most characteristic complication** of this patient's illness?

a) **Hairy leukoplakia: a benign condition**

b) Dental caries

c) Leukoplakia

d) Airway obstruction

e) Aphthous ulcers

f) Squamous cell carcinoma of tongue



- *Lateral border of tongue*
- *Can **NOT** scrape this lesion off*
- *This is a **benign** condition*

Q1a. A 20-year-old female college student presents to her family physician with 1 week of low-grade fever and headache. Exam reveals exudative pharyngitis and cervical lymphadenopathy. Lab testing shows a WBC count of $16\,000/\text{mm}^3$ with 55% lymphocytes and the heterophile antibody test is positive. Which of the following is the **most likely oral complication** of this condition?

- a) Hairy leukoplakia: a benign condition
- b) Dental caries: Sjogren's (xerostomia)
- c) Leukoplakia: Precancerous
- d) Airway obstruction: Diphtheria pseudomembrane
- e) Aphthous ulcers: Autoimmune
- f) Squamous cell carcinoma of tongue
 - *EBV is associated with **nasopharyngeal carcinoma and lymphoma***



- *Lateral border of tongue*
- *Can **NOT** scrape this lesion off*
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Q2. A 6-year-old who is home schooled and seldom visits the doctor presents to the pediatrician. Symptoms include conjunctivitis, cough, runny nose, and a fever for 3 days. Small lesions with blue-white centers are seen in the oral cavity. Which of the following is the most likely cause of the child's symptoms?

- (A) Adenovirus
- (B) Diphtheria
- (C) Roseola
- (D) Rubella
- (E) Rubeola

Q2. A 6-year-old who is home schooled and seldom visits the doctor presents to the pediatrician. Symptoms include conjunctivitis, cough, runny nose (coryza), and a fever for 3 days. Small lesions with blue-white centers are seen in the oral cavity. Which of the following is the most likely cause of the child's symptoms?

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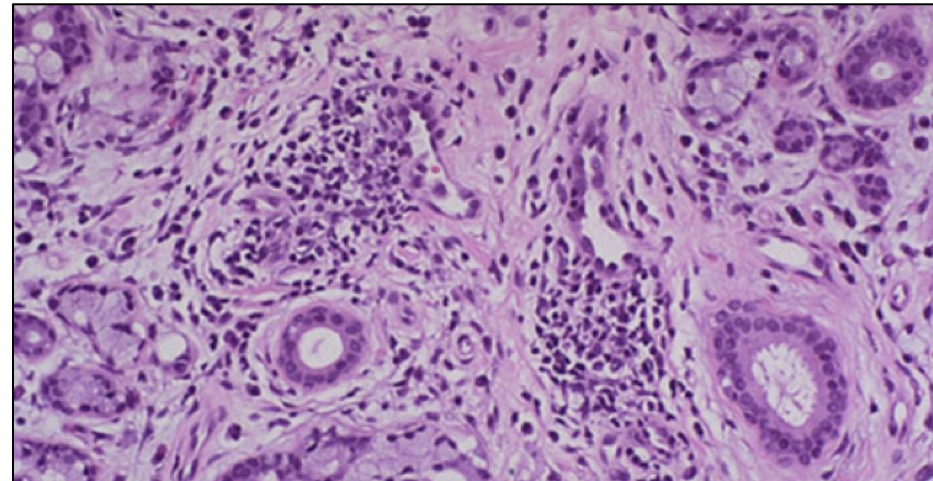
Koplik Spots
Cough, Coryza, Conjunctivitis

Q3. A 38-year-old woman visits her physician with dry mouth, chronic mild cough, difficulty swallowing, and dry eyes for the last several months. Examination reveals low grade fever and multiple joints are tender. Which of the following additional conditions is the patient most likely to develop?

- (A) Pneumonia
- (B) Septic joint
- (C) Erythema migrans
- (D) Retinopathy
- (E) Dental Caries

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Mononuclear infiltrates with Acinar Atrophy

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