Clinical Manifestations of Oral Disease

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In North America, someone dies of Oral Cancer every hour of every day

The 5-year survival rate is only 22% when discovered in late stages, but when diagnosed early, it can be 80% to 90%

Unfortunately, only 35% of cases are diagnosed early

Late Diagnosis Leads to High Death Rate

## Survival

<table>
<thead>
<tr>
<th>Stage</th>
<th>5 Year Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>80%</td>
</tr>
<tr>
<td>II</td>
<td>60–80%</td>
</tr>
<tr>
<td>III</td>
<td>40–60%</td>
</tr>
<tr>
<td>IV</td>
<td>20–40%</td>
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</tbody>
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*Early Detection is Crucial*
Oral Cancer: The Forgotten Disease of Medicine

34,360 New Cases of Oral Cancer
Diagnoses estimated to be made this year in the U.S.

11,150 New Cases of Cervical Cancer
Diagnoses estimated to be made this year in the U.S.

Almost 3X More Cases of Oral Cancer Than Cervical Cancer

American Cancer Society. Cancer Facts and Figure 2007. Atlanta: American Cancer Society, 2007
Estimated U.S. deaths from Oral Cancer in 2007: 7,550

Compared to 3,670 estimated deaths from Cervical Cancer in 2007

More than Twice as Many Deaths From Oral Cancer as Cervical Cancer

American Cancer Society. *Cancer Facts and Figure 2007*. Atlanta: American Cancer Society, 2007
Case–Control Study of Human Papillomavirus and Oropharyngeal Cancer
Gypsyamber D'Souza, Ph.D., Aimee R. Kreimer, Ph.D., Raphael Viscidi, M.D.,
Michael Pawlita, M.D., Carole Fakhry, M.D., M.P.H., Wayne M. Koch, M.D.,
William H. Westra, M.D., and Maura L. Gillison, M.D., Ph.D.

Conclusion: “Oral HPV infection is strongly associated with oropharyngeal cancer among subjects with or without the established risk factors of tobacco and alcohol use.”
Typical Oral Cancer Prone Patient

- Male
- 40-70 years
- Heavy smoker
- Heavy drinker
- Poor oral hygiene
- Family Hx
Oral Cancer:
The Scope of the Problem

- 25% of Oral Cancer patients have no risk factors
- The greatest increase of new Oral Cancer patients has occurred in patients under age 40
  - Nearly 5-fold Increase in this age group
  - Great majority have no risk factors
  - Majority occur on the tongue

Schantz SP & Yu GP Arch Otolaryngol Head Neck Surg 2002
HPV

- 150 different subtypes
- Recent research shows that at any given time 42.5% of females are infected
- 7% of adults have oral HPV infection
HPV

- Cervical cancer subtypes 16 & 18 (70%)
- Anal cancer subtype 16 (85%)
- Genital warts subtypes 6 & 11 (90%)
- Oral Cancer subtype 16
- Gardisel vaccine treats subtypes 6, 11, 16, 18
Oral Cancer

- HPV oral cancer is second only to cervical cancer as the most common HPV related cancer

- It is estimated that by 2020 HPV will cause more oral than cervical cancer
“The nearly 5-fold increase in young oral cancer patients under the age of 40, many with no traditional risk factors, underscores the need for thorough examination of all patients and increased awareness of this devastating disease.”

ALL PATIENTS
Leukoplakia

- A white patch or plaque that can not be wiped off and cannot be characterized clinically as any other disease
Leukoplakia

- In the US population the majority of these lesions are benign
- Approximately 5% are malignant at the time of biopsy
- Another 5% will become malignant
Erythroplakia

- Red patch that can not be classified clinically or microscopically as another entity
Erythroplakia

- 40% show at least severe dysplastic changes
Approximately 50% of those lesions are squamous cell carcinoma
Squamous Cell Carcinoma

- Most common malignancy of the oral cavity
Solar Cheilitis

- Accelerated tissue degeneration secondary to sunlight
- Increased incidence in fair skinned Caucasians
Solar Cheilitis

- Atrophic pale, glossy appearing lip with mottled areas of hyperpigmentation, cracking, crusting and scaling
Lip

- Lower lip is more common than upper

- Major cause
  - Sunlight
  - Pipe smoking
Lip

- 25–30% of oral carcinoma
- 50–70 years
- M>F
Lip

- Chronic non-healing ulcer or exophytic mass
- Deep invasion occurs late
Tongue

- 60–80 years (expect this to lower due to HPV)
- M>F
- Typically asymptomatic
- Typically presents as indurated non-healing ulcer with elevated margins
- 25–40% of all oral cancers
Tongue
Tongue

- Location
  - 45% posterior lateral border of anterior 2/3
  - 25% posterior 1/3
    - Poorer prognosis due to late Dx
Most erythroplakic lesions of the tongue are dysplasia or invasive squamous cell carcinoma.
Tongue

- Metastases are common

- Nodes are
  - Ipsilateral
  - Submandibular
  - jugulodiagastric
Tongue
Floor of Mouth

- Second most common
- 15–20% of intraoral squamous cell Ca
- Predominately older males
Floor of Mouth

- ETOH & tobacco major factors
- Painless, indurated ulcer, white or red patch
Floor of Mouth

- Metastases to submenthal nodes
Buccal Mucosa & Gingiva

- 10% of oral squamous cell carcinoma
- Typical patient is 70 year old male
- Smokeless tobacco is major factor
Buccal Mucosa & Gingiva

- Tends to be white patch to non-healing ulcer to exophytic lesion
Palate

- Soft palate
  - 10–20%

- Hard palate
  - Very uncommon
  - Adenocarcinoma more common
  - Increased with reverse smoking
Palate
Palate

Benign

Malignant
Similar lesions
Malignant Melanoma

- Survival rates
  - Skin
    - 65% 5 year survival rate
  - Oral
    - 15% 5 year survival rate
Traumatic Ulcer

- Usually due to dental trauma
- Usually a cause and effect relationship
  - Helps Dx
- Increased incidence with patients with abnormal habits and fractured teeth
- Most common oral soft tissue lesion
Traumatic Ulcer
Reticular Lichen Planus

- “Lace Like” Striae (Wickman’s Striae)
- Buccal mucosa most frequently involved
- Usually symmetrical
- Also tongue, lips and gingiva
- Minimal symptoms
Reticular Lichen Planus
Plaque form of Lichen Planus

- Resembles leukoplakia
- Plaques slightly elevated, smooth, sometimes irregular surface
- Primary sites, dorsal tongue & buccal mucosa
Plaque form of Lichen Planus
May be seen with erosive or reticular types
Portion of keratinized to atrophic areas change with time
Attached gingiva “desquamative gingivitis”
Usually symptomatic burning
Atrophic form of Lichen Planus
Erosive form of Lichen Planus

- Surface is granular & erythematous
- May bleed
- Psuedomembranous plaque may cover
- Changing pattern
- May see radiating striae
Other Similar Lesions

- Lichenoid Stomatits
- Pemphigus
- Pemphigoid
- Candidiasis
Questions?