Oral cancer

YOUNG ADULTS (LESS THAN 45 YEARS)

Incidence and Prevalence

- 60 percent increase from 1973 and 2009 in cancers of the base of tongue, tonsils, soft palate and pharynx in people younger than age 45.
- Caucasians increased incidence of 113% (especially in males)
- African Americans decreased risk but lower 5-year survival rate
- HPV exposure and infection increases the risk of oropharyngeal squamous cell cancer independently of tobacco and alcohol use
- Five-year survival for the study group was 54 percent

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Prevalence Data

- Study showed a 225 percent increase in HPV-positive oropharyngeal cancers during 1988 through 2004, compared to a 50 percent decrease of HPV-negative cancers over the same time period.


Risk Factors for HPV-associated oropharyngeal carcinomas

- **Male**—incidence is four times higher among men than women,
- Higher among **younger adults**, 3
- Smoking and heavy alcohol use associated with older adults’ oral cancer but not in younger adults.
- Higher lifetime **number of sex partners** (vaginal and oral), 5, 9

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From the American Dental Association: Statement on Human Papillomavirus and Squamous Cell Cancers of the Oropharynx, Jan 2013
Symptoms

- Persistent sore throat
- Dysphagia
- Hoarseness
- Ear pain
- Enlarged lymph nodes
- Weight loss
- EXAM: carefully evaluate head and neck examination.

Young adult—24 year old smoker

- A 24-year-old married female was referred urgently to oral surgery having presented to her general medical practitioner complaining of a lump under her tongue of about 3 weeks duration.
- On presentation, she admitted to a lump on the right side of her tongue which had previously been asymptomatic but had begun to cause occasional discomfort as it increased in size. The lump was interfering with the patients ability to eat.
- Previous medical history revealed that the patient had undergone cervical diathermy to remove severely dysplastic cells, which had been diagnosed as CIN III (cervical intra-epithelial neoplasia grade III).
- Otherwise her medical history was clear, and the patient was teetotal but smoked up to 20 cigarettes per day.
And it really was.....

- Extraoral examination revealed the presence of right hand side jugulodigastric lymphadenopathy.

- Intraorally there was evidence of swelling on the right lower lateral border of the tongue extending into the floor of the mouth, which was tender and indurated (Figure 1). There was no fixation of the mass to the mandible.

- An incisional biopsy was performed and histopathologically demonstrated well differentiated squamous cell carcinoma.
Young adult—20 year old female

- A 20-year-old female, was referred by her practitioner regarding a 20 mm by 3 mm asymptomatic ulcerative lesion on the right lateral border of the tongue.
- This had been present for 3 weeks and had gradually reduced in size. The patient was unaware of the lesion, which had never caused any symptoms.
- There was no relevant medical history. The patient consumed minimal alcohol and smoked up to 30 cigarettes per day.
- Her paternal uncle had died from laryngeal carcinoma. Intraorally an erosive lesion of the right lateral margin of the tongue with surrounding areas of hyperkeratinisation was noted.
- Incisional biopsy of the lesion was performed providing a histopathological diagnosis of erosive lichen planus with no evidence of neoplasia.
- Continued next slide............

And then it became......

- Six months post-biopsy she attended her general practitioner complaining of a lump on her tongue, was reassured and dismissed.
- A further 2 months later the patient attended her local accident and emergency department for treatment of a sudden hemorrhage from the right side of her tongue. The hemorrhage was arrested and the patient discharged with no advice to seek further assistance.
- Two days later she presented suffering from marked dysarthria and dysphagia. Extraoral examination revealed a tender, hard, enlarged right jugulodigastric lymph node. Intraoral examination demonstrated a large, tender, indurated ulcer on the right lateral border of the tongue (Figure 2). The patient was admitted and incisional biopsy of the lesion was performed which histopathologically was squamous cell carcinoma. Magnetic resonance imaging (MRI) showed that the lesion extended mesially to the midline of the tongue, inferiorly to the muscles of the floor of the mouth and posteriorly to the fauces without tonsillar involvement. Isotope bone scan and chest CT were clear, but MRI demonstrated abnormalities in the right jugulodigastric lymph nodes.
HPV Vaccine (Gardasil) prevention

- Participants: women aged 18 to 25 who received HPV 16/18 vaccines in 2004 and 2005
- Oral specimens from 5,840 participants
- HPV vaccine reduced the prevalence of these infections by 93 percent.
- Four years after vaccination, there was only one HPV infection in the vaccine group, while there were 15 infections in the control group.