




STUDY
CLUBS

Q2 STUDY CLUB: ORAL CANCER--WHAT YOU NEED TO KNOW

FEATURING DR. VINCENT CARRAO

NADG-SUPPORTED ORAL & MAXILLOFACIAL SURGEON





TODAY'S **AGENDA:**



ORAL CANCER: WHAT YOU NEED TO KNOW



THE EXAMINATION & DIAGNOSIS



TREATMENT

ORAL CANCER: THE FACTS

60 1 PERSON DIES FROM ORAL CANCER EVERY HOUR

40% OF THOSE DIAGNOSED DIE WITHIN FIVE YEARS

3X INCIDENT OF ORAL CANCER IS 3X GREATER THAN CERVICAL CANCER

40 MORTALITY RATE HAS NOT IMPROVED IN 40 YEARS

WELCOME

DR. VINCENT CARRAO, DDS, MD, FACS

NADG-SUPPORTED ORAL & MAXILLOFACIAL SURGEON

ORAL HEALTH BOARD: SPECIALTY CHAIR

DIRECTOR OF ORAL & MAXILLOFACIAL SURGERY

ORAL MALIGNANCIES

SQUAMOUS CELL CARCINOMA

OSTEOSARCOMA

SALIVARY GLAND

CHONDROSARCOMA

- **MUCOEPIDERMOID CARCINOMA**
- **ADENOCYSTIC CARCINOMA**
- **ACINIC CELL CARCINOMA**
- **ADENOCARINOMA**

FIBROSARCOMA

MELONOMA

METASTATIC

SQUAMOUS CELL CARCINOMA

MOST COMMON FORM OF ORAL CANCER

95.0%

UNITED STATES

2.0-5.0%

MALES

2:1

AVERAGE AGE

50-60

RACIAL PREVALENCE

2:1 (AA:W)

RECURRENCE

50.0%

MORTALITY

50.0%

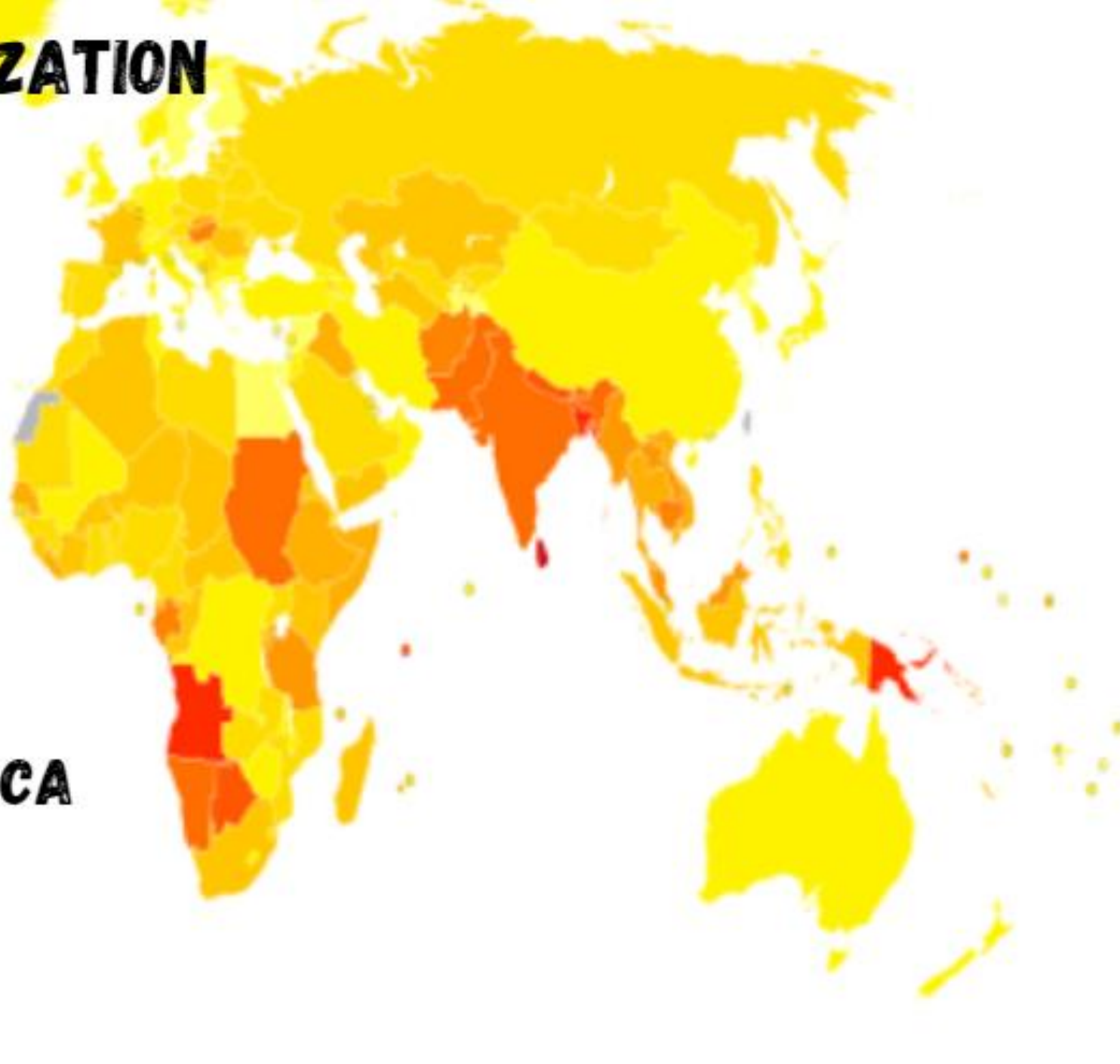
THIRD WORLD

30-40%


WORLD HEALTH ORGANIZATION

DEATH RATES WORLDWIDE SCCA

- NO INFO GREY
- 0-2% BRIGHT YELLOW
- 6-8% YELLOW
- 22-25% DEEP ORANGE
- OVER 25% RED



ETIOLOGY




TOBACCO

- SMOKING, CHEWING




ALCOHOL

- POOR NUTRITION



BETEL NUT LEAF / ARECA NUT



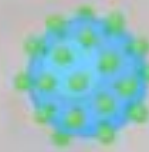
GENETICS



IMMUNE STATUS

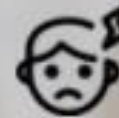


SUN EXPOSURE



VIRUSES

- HPV 16



TRAUMA

ANATOMICAL LOCATION

LATERAL BORDER OF THE TONGUE

FLOOR OF MOUTH

ORAL PHARYNX

PRESENTATION

PRESENTATION

- **VARIABLE**

CHARACTERISTIC DESCRIPTION

- **RAISED, WHITE/RED, ULCERATED, PAINLESS**

EARLIER THE BETTER

RULE OF THUMB

- **LESION PRESENT FOR MORE THAN 14 DAYS**
 - **BIOPSY**

LATE PRESENTATION

INDURATED LARGE MASS

FIXED AND IMMOBILE

FRIABLE TISSUE

PALPABLE NODES

TUMORS



DIAGNOSIS

HISTORY

CHIEF COMPLAINT

HISTORY OF PRESENT ILLNESS

PAST MEDICAL HISTORY

REVIEW OF SYSTEMS

MEDICATIONS

ALLERGIES

FAMILY HISTORY

SOCIAL HISTORY

DIAGNOSIS

PHYSICAL EXAM

BEGINS WHEN THE PATIENT WALKS INTO THE ROOM

HEAD & NECK

ASYMMETRY

VISUAL

PALPABLE

EENT

PALPATE THE NECK FOR LUMPS, BUMPS, OR MASSES

BILATERAL ANTERIOR

BILATERAL POSTERIOR

THYROID GLAND

ORAL EXAM

MAX /MAN VESTIBULES

PALATE

HARD AND SOFT

TONSILLAR PILLARS

ORAL PHARYNX

TONGUE

DORSUM

VENTRAL

FOM

VELSCOPE

INTENDED USE

- AN ADJUNCT TO TRADITIONAL ORAL EXAMINATION BY INCANDESCENT LIGHT TO ENHANCE THE VISUALIZATION OF ORAL MUCOSAL ABNORMALITIES
- USED BY A SURGEON TO HELP IDENTIFY DISEASED TISSUE AROUND A CLINICALLY APPARENT LESION AND THUS AID IN DETERMINING THE APPROPRIATE MARGIN FOR SURGICAL EXCISION.

USEFULNESS

- TAKES PRACTICE TO USE AND HAS SOME SUBJECTIVITY TO INTERPRETATION
- IT FORCES US TO LOOK
- IF IT'S A FALSE POSITIVE "NO HARM DONE"

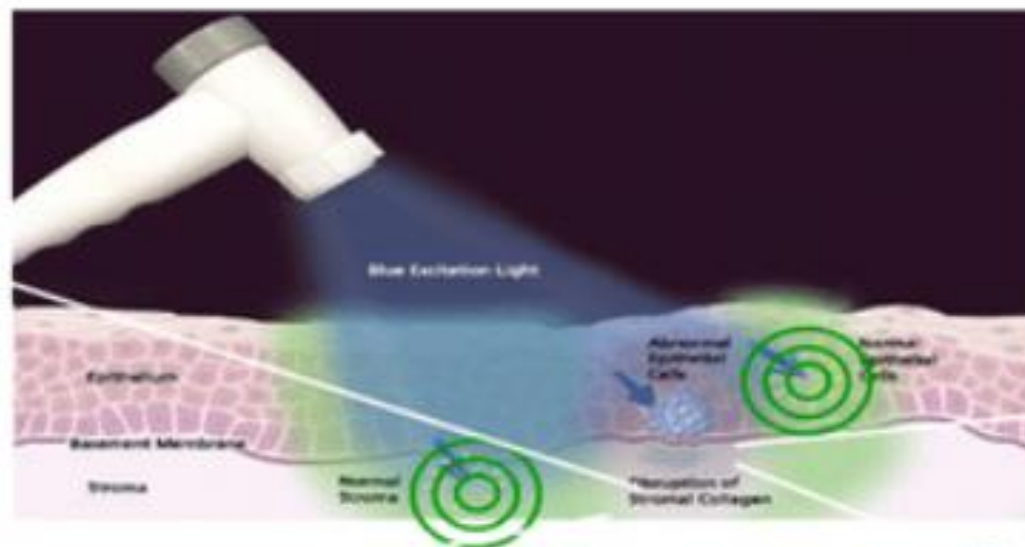
Tissue Fluorescence & Dysplastic Progression

Breakdown of Collagen Matrix (prelude to invasion)
Collagen cross-links ↓

Fluorescence ↓

Micro-Vascularization
(recruitment of new blood supply)
Inflammation
Blood absorption ↑

Fluorescence ↓



Metabolic Activity ↑
FAD ↓

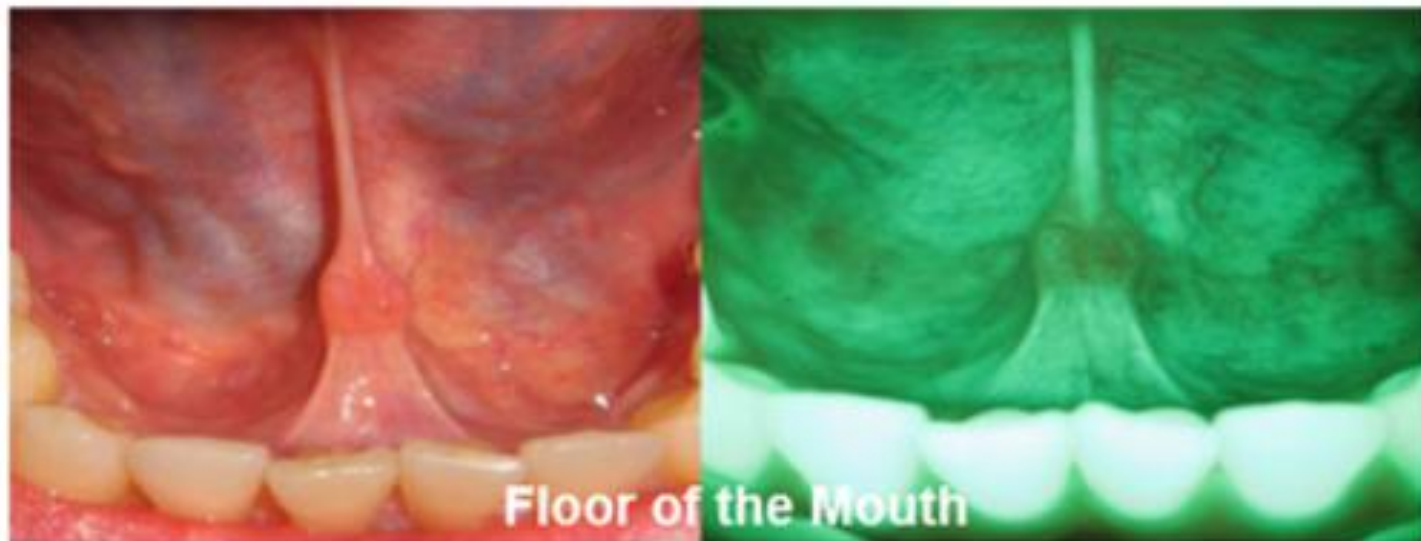
Fluorescence ↓

Nuclear back-scattering ↑
Fluorophores excited ↓

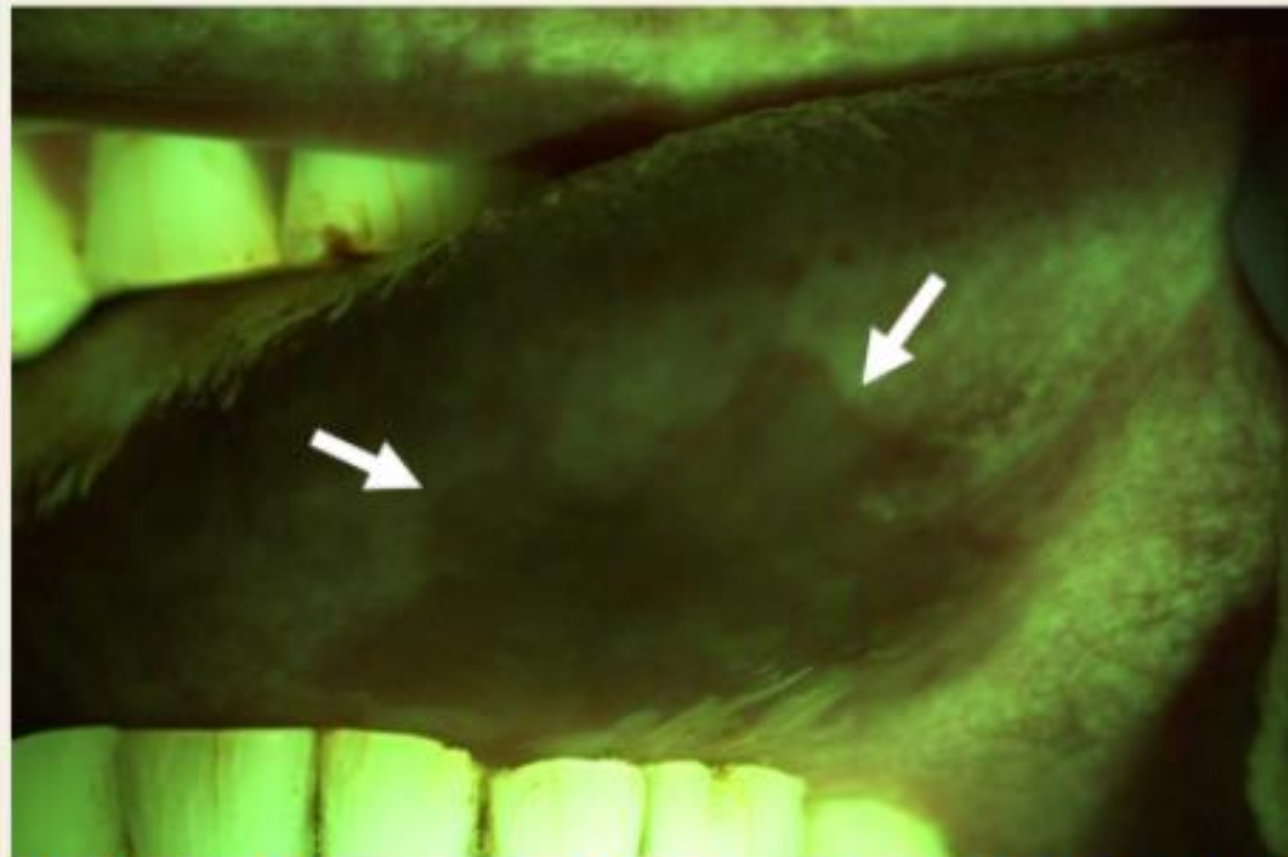
Fluorescence ↓

***Fluorescence intensity decreases
with dysplastic progression***

ENHANCED TECHNOLOGY



ENHANCED TECHNOLOGY



EXCISIONAL BIOPSY: SEVERE DYSPLASIA
ORAL LESION MAY SHOW AS IRREGULAR, DARK AREAS

DIAGNOSIS

IF A PHYSICAL EXAM REVEALS A POSSIBLE CANCER LESION, THE NEXT STEPS WOULD BE:

- **BIOPSY**

- **INCISIONAL VS EXCISIONAL**

- **BLADE, PUNCH, BRUSH**

- **RESULTS MUST CORRELATE WITH PHYSICAL FINDINGS ***

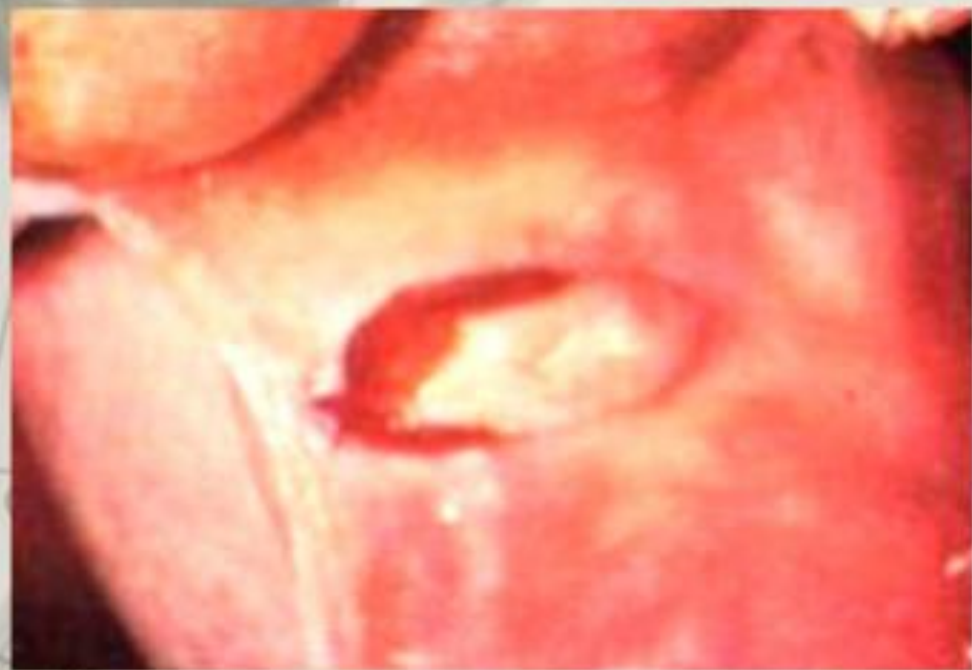
- **IMAGING**

- **PLAIN FILMS**

- **CT SCAN WITH CONTRAST**

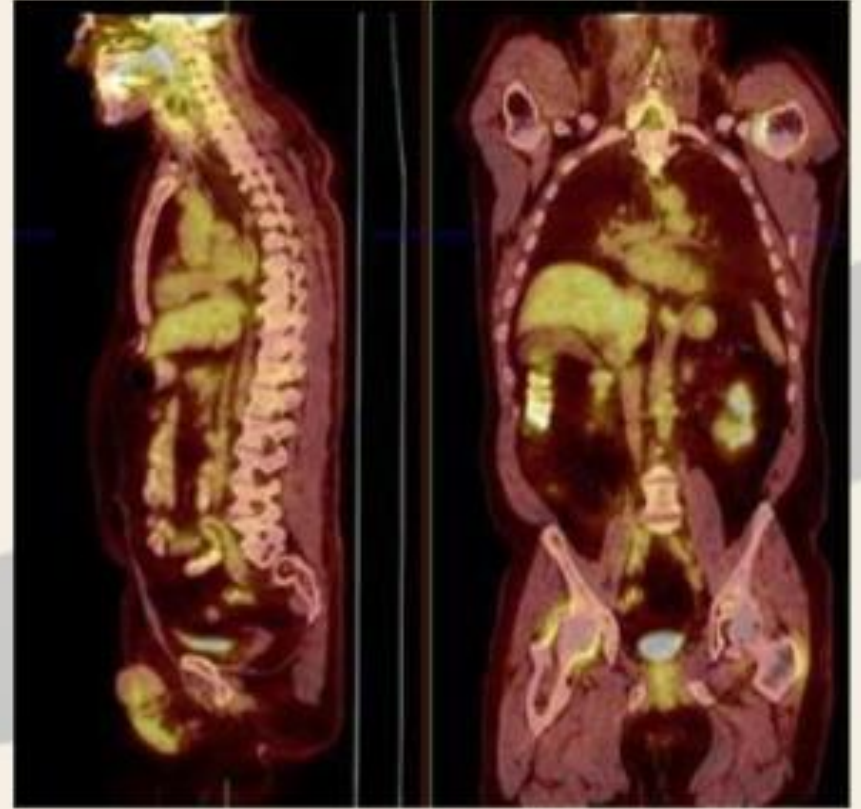
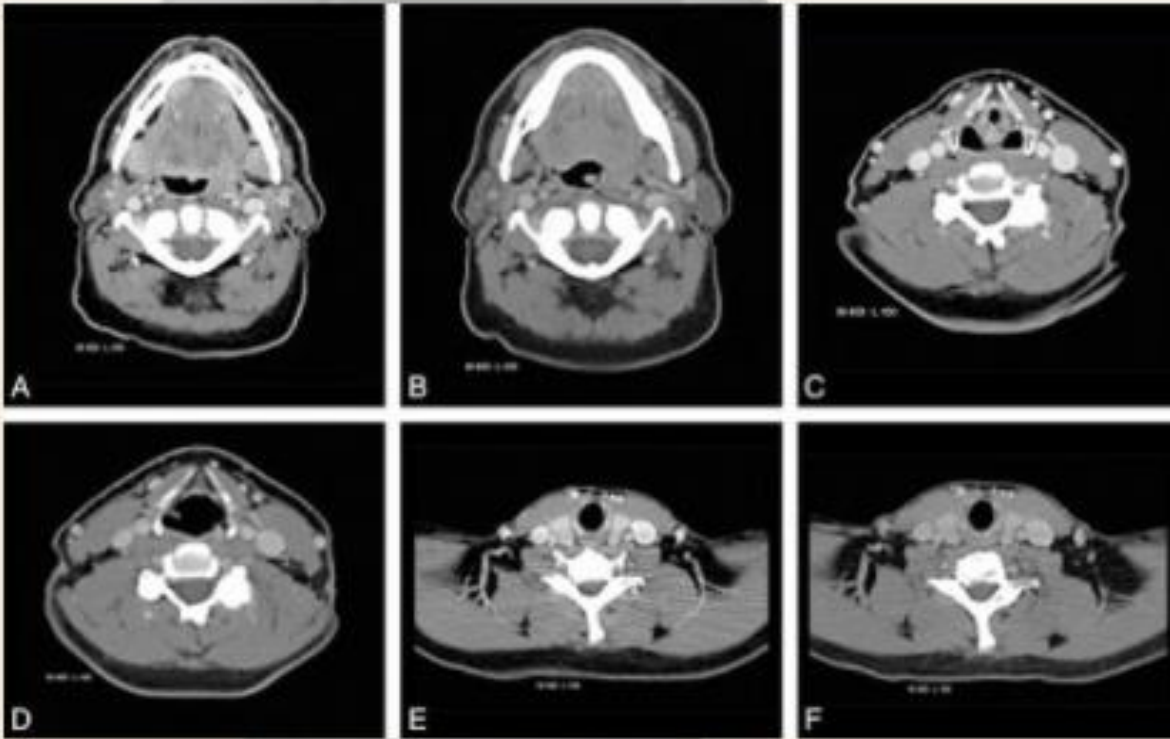
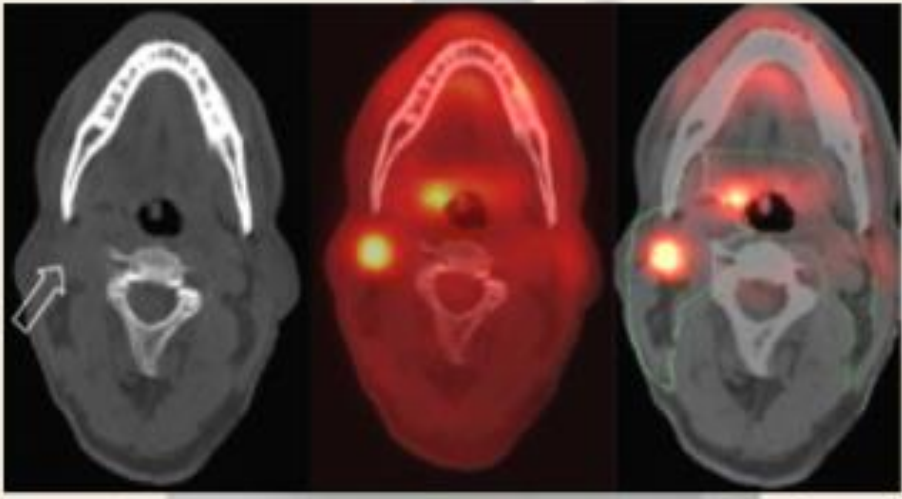
- **PET SCAN**

BIOPSY



Adenoma

IMAGING



STAGING - TNM

T=TUMOR

- **TX=UNABLE TO ASSESS**
- **T0=NO TUMOR**
- **T1=<2 CM**
- **T2=>2 CM/<4 CM**
- **T3=>4 CM**
- **T4= INVADES BONE, MUSCLE, SKIN**

STAGING - TNM

N=REGIONAL LYMPH NODE OF THE NECK ON THE CT SCAN

- **NX=UNABLE TO ASSESS**
- **N0=NO NODES**
- **N1=SINGLE <3 CM (SAME SIDE)**
- **N2=SINGLE 3-6 CM (SAME/OPPOSITE SIDE)**
- **N3=>6 CM (SAME/OPPOSITE)**

STAGING – TNM

M=DISTANT METASTASIS

- **MX = UNABLE TO ASSESS**
- **M0 = NO METASTASIS**
- **M1 = METASTASIS**

PROGNOSIS:

TMN STAGING:

- **DIRECT CORRELATION TO OUTCOME**

GRADING:

- **WELL DIFFERENTIATED**
- **MODERATELY WELL DIFFERENTIATED**
- **POORLY DIFFERENTIATED**

PROGNOSIS:

TMN STAGING:

- **DIRECT CORRELATION TO OUTCOME**

GRADING:

- **WELL DIFFERENTIATED**
- **MODERATELY WELL DIFFERENTIATED**
- **POORLY DIFFERENTIATED**

TREATMENT:

TUMOR BOARD

SURGICAL RESECTION:

- **NO RECONSTRUCTION**
- **RECONSTRUCTION**

NECK DISSECTION

RADIATION:

- **T1 LESION NO SURGERY**
- **SURGERY AND RADIATION**

CHEMOTHERAPY:

- **NO ROLE**

SURGICAL RESECTION



RECONSTRUCTION

IMMEDIATE BONE GRAFT

- **VASCULARIZED**
- **FREE GRAFT**

DELAYED BONE GRAFT

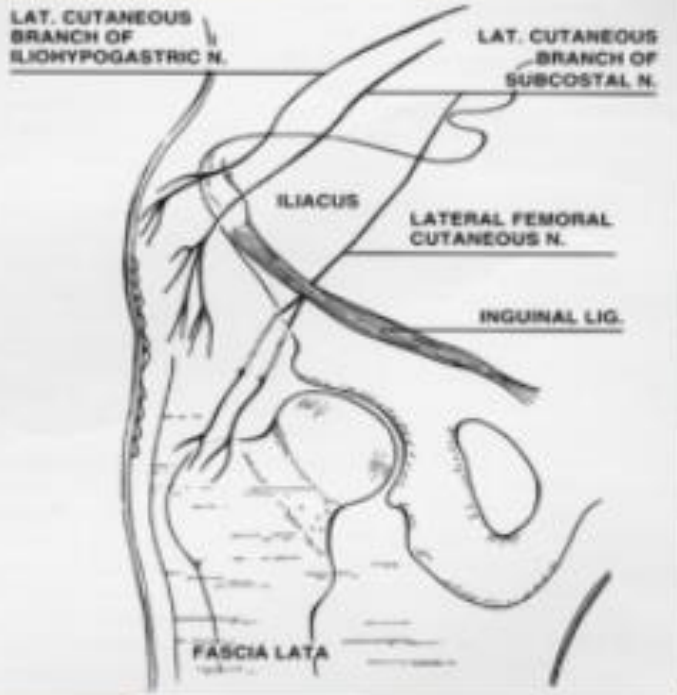
- **STABILIZE WITH RECONSTRUCTION PLATE**

NO RECONSTRUCTION

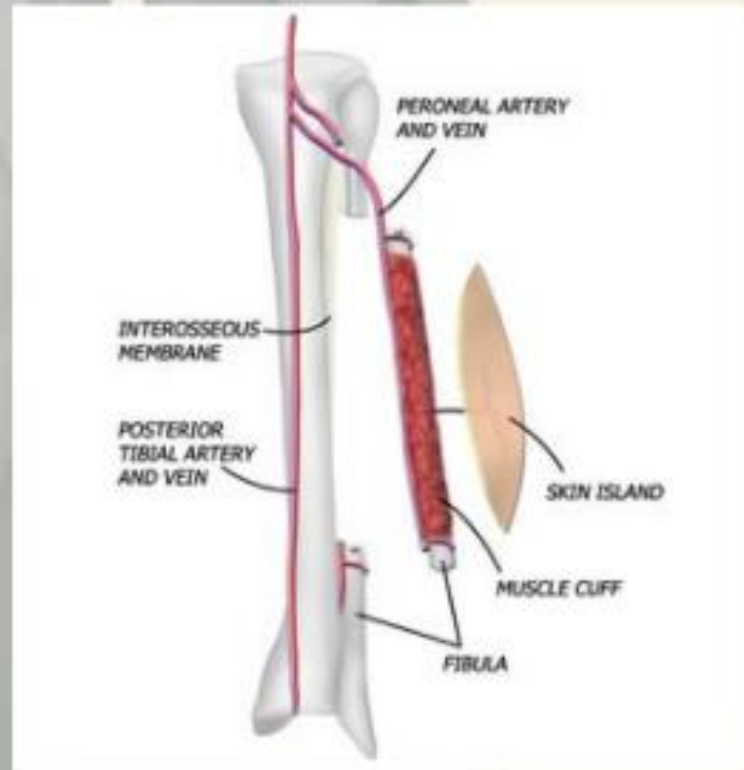
- **PECTORALIS FLAP (NO BONE GRAFT)**

OBTURATOR

GRAFT HARVEST



GRAFT HARVEST



RADIATION THERAPY

DAMAGES ACTIVELY DIVIDING CELLS

EXTERNAL BEAM

IMPLANTS

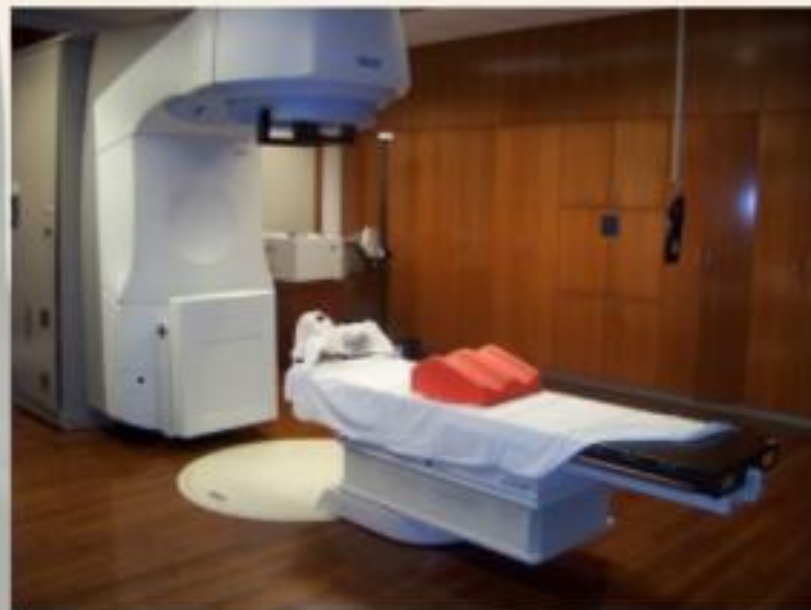
MEASURED IN RADS OR GREYS

- **100 RADS = 1 GREY**

MAXIMUM DOSE:

- **7500 RADS OR 75GY**

RADIATION THERAPY



POST-RADIATION THERAPY

MUCOSITIS

- **LASTS 2-3 WEEKS**

XEROSTOMIA

- **3 MOS POST RADIATION**
- **CERVICAL DECAY**

OSTEORADIONECROSIS

- **DECREASED BLOOD SUPPLY**





HYGIENE HUB

HYGIENE HUB—EPISODE 7:

**PUTTING IT ALL TOGETHER: CONSISTENT BEHAVIORS
THAT DRIVE BEST IN CLASS CARE**

MAY 19TH @ 12:15 PM EST

MAY 21 @ 1:15 PM EST

HUB





LET'S MAKE A DIFFERENCE.

Verification code: PDAOralCancer0421

THANK YOU.

PDA

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