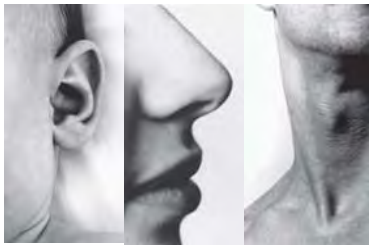

ORAL CAVITY TUMOURS

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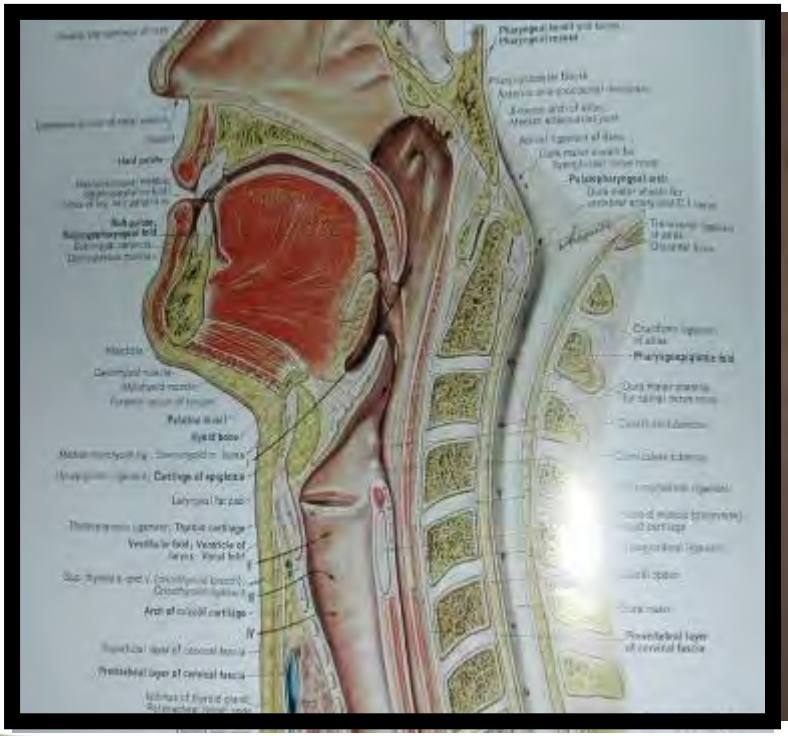
11 March 2009

ORAL CAVITY



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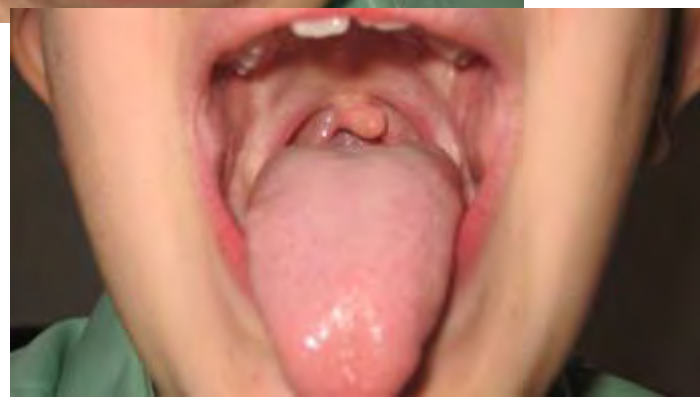
& NECK SURGEON

SUBSITES OF ORAL CAVITY

- Lip
- Buccal mucosa
- Lower alveolar ridge
- Upper alveolar ridge
- Retromolar trigone
- Floor of mouth
- Hard palate
- Oral Tongue
- (ie anterior 2/3, demarcated
- by circumvallate papillae)



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Other lesions of mouth

- Torus palatinus and torus mandibularis
- Lingual thyroid
- Developmental cysts (eg dermoid, duplication, nasoalveolar)
- Fibroma (aka FEP – Fibroepithelial Polyp)
- Pyogenic Granuloma
- Ulcerations (aphthous, lichen planus, pemphigus, pemphigoid, Behcet's)
- Necrotising Sialometaplasia
- Infections (fungal, viral, bacterial)

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BENIGN TUMOURS

- Papilloma
- Granular Cell Tumour
- Neurofibroma
- Lipoma
- Haemangioma
- Ameloblastoma
- Pleomorphic Adenoma

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Suspicious Lesions

- LEUKOPLAKIA ERYTHROPLASIA
- Usually:
- lower grade dysplasia vs higher grade dysplasia

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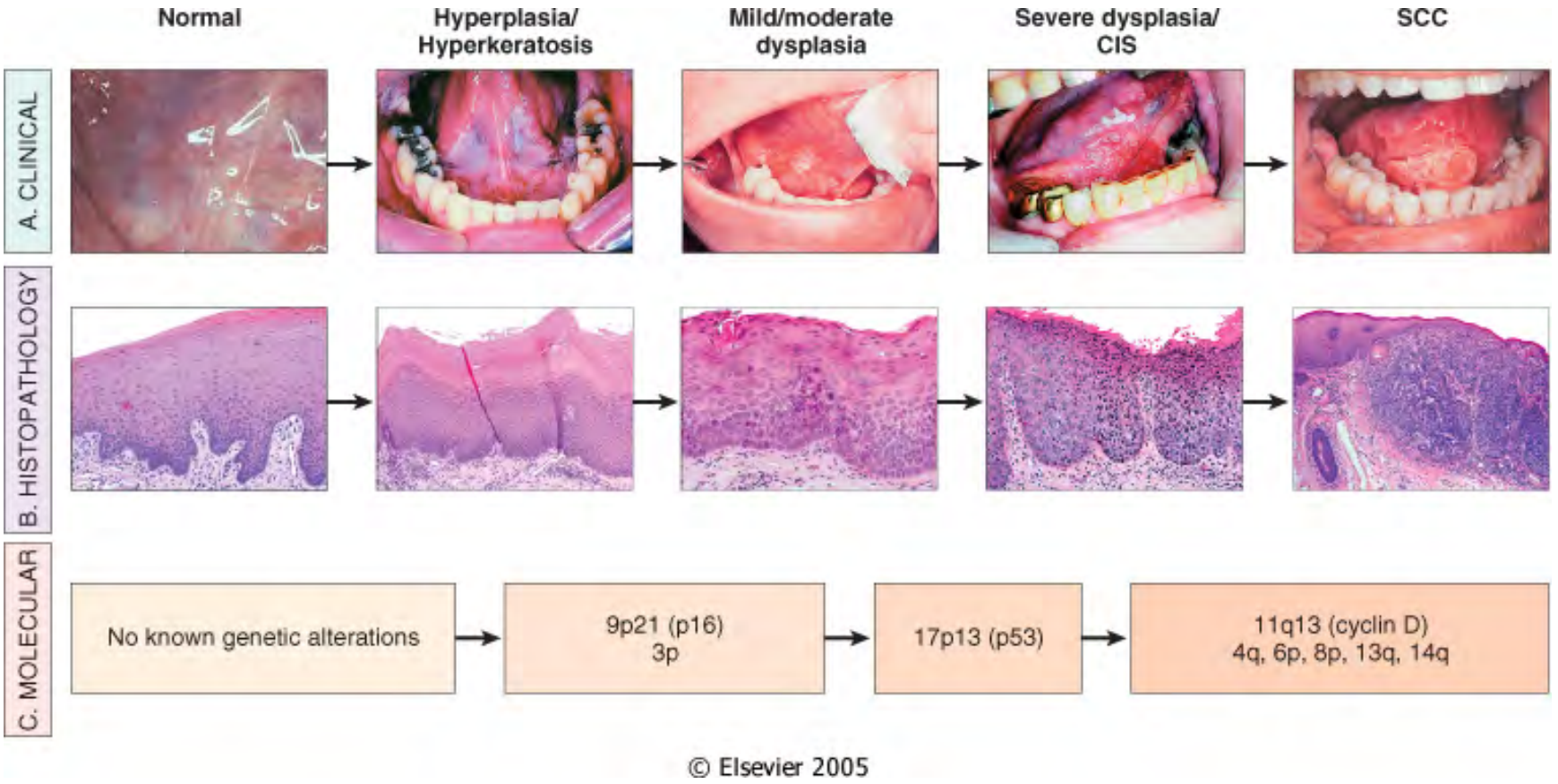
PROGRESSION TO CARCINOMA



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MALIGNANCIES

- **Squamous Cell Carcinoma**
- Verrucous Carcinoma
- Mucoepidermoid Carcinoma
- Acinic Cell Carcinoma
- Adenoid Cystic Carcinoma
- Malignant Melanoma
- Sarcomas (eg Osteo, Kaposi's etc)
- Lymphoma

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SQUAMOUS CELL CARCINOMA

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SQUAMOUS CELL CARCINOMA

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MULTIDISCIPLINARY TEAM

ALL Head and Neck Malignancies Should be managed through a multidisciplinary team:

Head and Neck Surgeons:

- Otorhinolaryngologist Head and Neck Surgeon (HN training)
- General Surgeon with HN training
- Plastic Reconstructive Surgeon with HN training
- OMF Surgeon with HN training

Radiation + Medical Oncologists

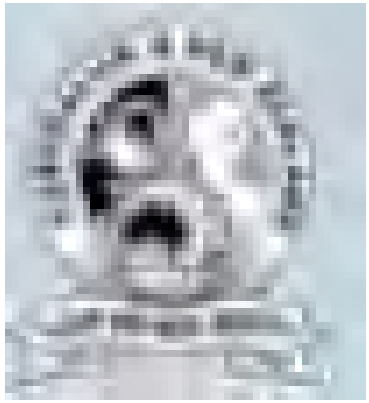
Radiologist

Pathologist

Speech Pathologist

Dietitian/Physio/OT

Nursing Staff



ANZ Head & Neck Society

Workup of a HNC patient

- History and Examination (see below)
- Ix:
- Biopsy of primary lesion if easily accessible & LA
- CT neck + chest + Contrast
- OPG
- U/S tongue (frequently these days)
- Commonly MRI
- Most times PET/CT
- Usually USG FNAc
- Panendoscopy + Biopsies

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Demographics etc

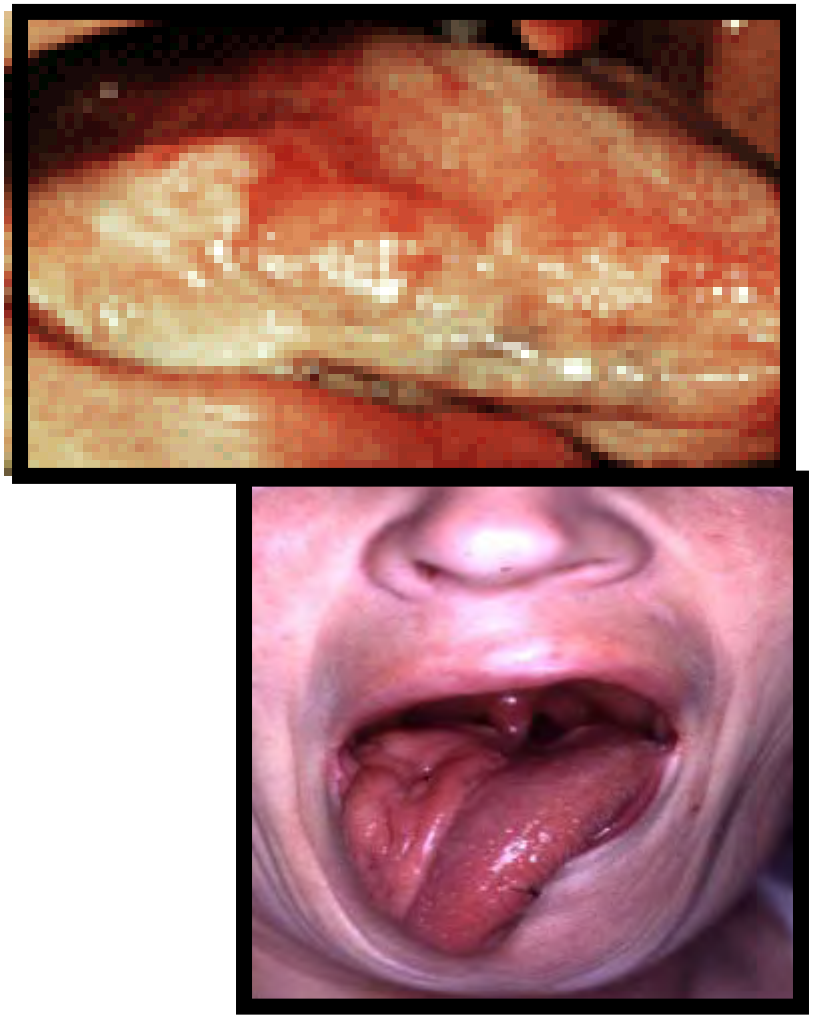
- Oral ca. accounts for 3% of all cancer deaths.
- Males are approximately twice as likely as females to be diagnosed with and to die from oral cancer.
- 90% of oral cancer cases occur among persons over 45 years of age, and the average age of diagnosis is 60 years.
- Oral cancers are the sixth most common cancer
- Five-year relative cancer survival rates 56%
- 90% oral cancers are SCC
- 5% are salivary gland malignancies,
- 5% melanomas, sarcomas, and lymphomas

Hx: PREDISPOSING FACTORS

•Known risk factors for squamous cell carcinoma:
–long-term tobacco use
–alcohol use
–immunosuppression
–use of the betel (areca) quid
–long-term sun exposure
–***recent studies indicate infection with human papillomavirus (eg oral sex)***

Examination of Oral Cavity

- Adequate light,
- 2x tongue depressors
- Tongue
  - Movement
  - Lateral aspect
  - Dorsal surface
- Floor of mouth
- Palate
- Teeth
- BIMANUAL PALPATION!!!!
- SALIVARY DUCTS



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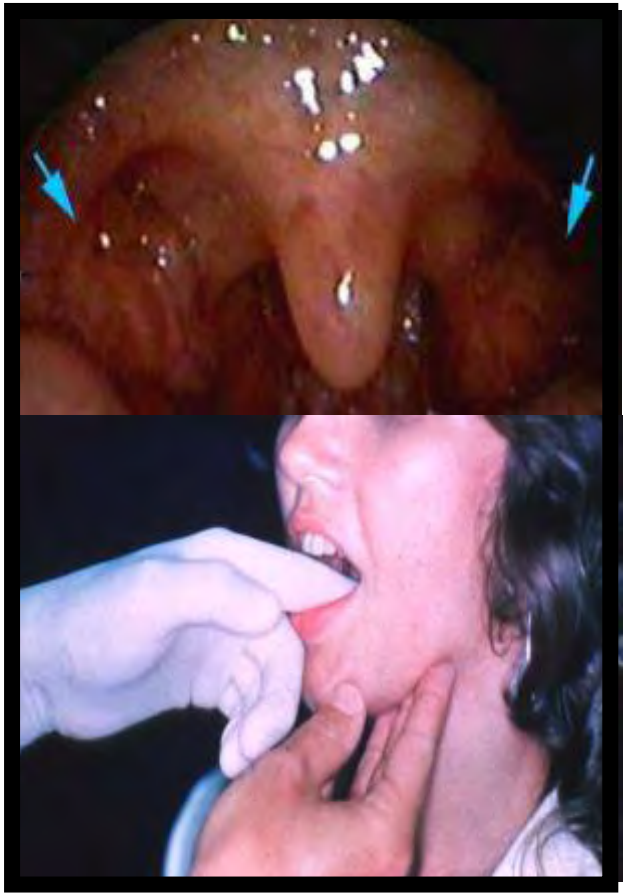
COMPLETE Examination

- Complete ENT examination
  - Skin, oral cavity, oropharynx, nose, ears, neck, nerve Fn & sens-n
- Flexible Fibreoptic nasopharyngolaryngoscopy



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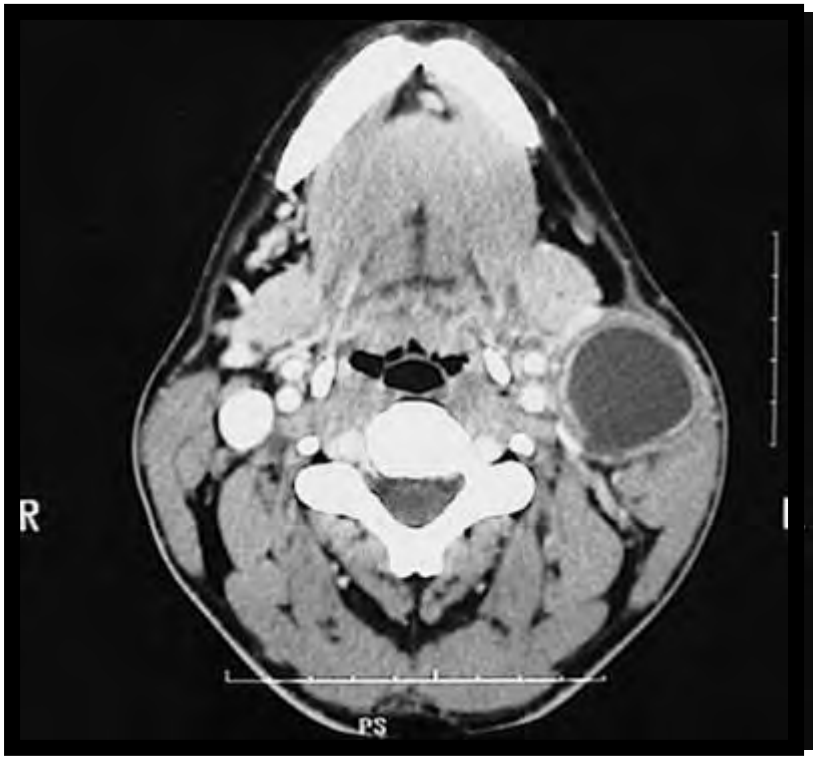
FINE NEEDLE ASPIRATION

COMMONLY UNDER U/S

Fast
Minimally invasive
Cheap
Sensitive
Few complications



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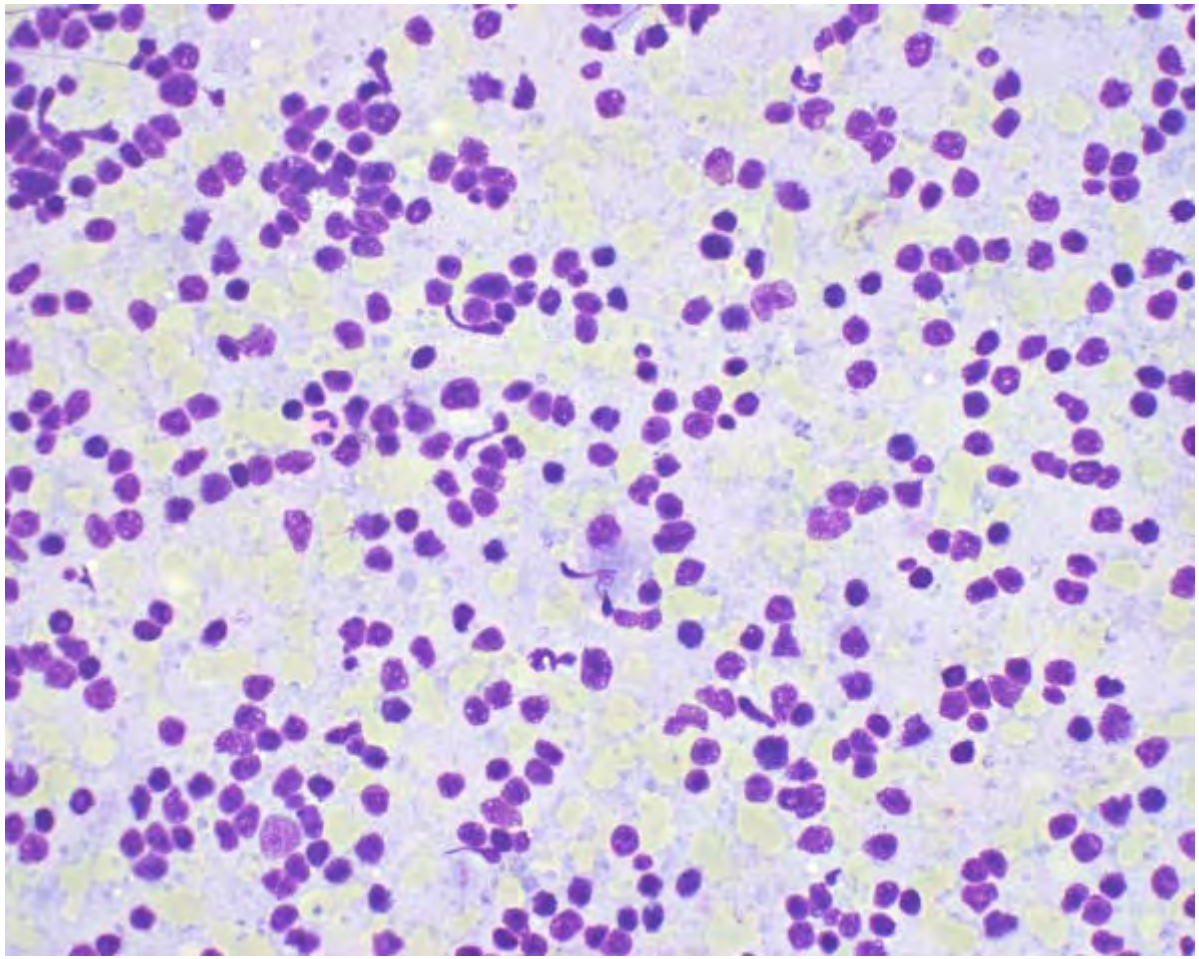
Follicular lymphoma



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Cancer Staging – TNM

- Spread of carcinoma
  - Local invasion
  - Lymphatic spread
  - Haematogenous spread
- TNM classification
  - T – local invasion
  - N – lymph node involvement
  - M – metastatic spread
    - Lung, Liver, Bone

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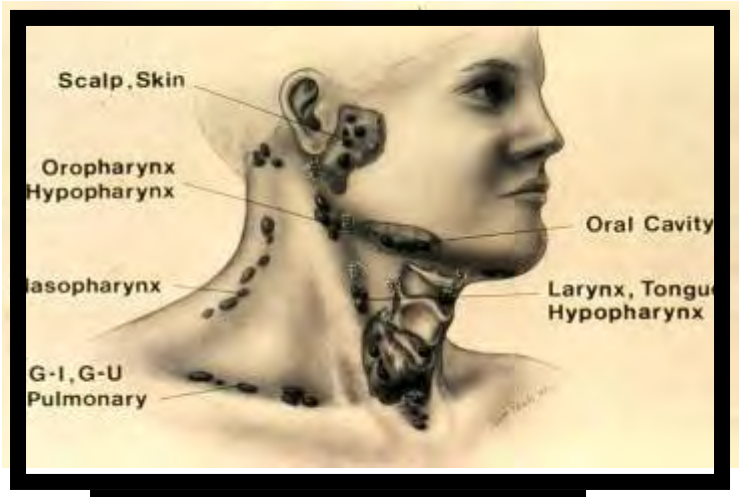
TNM STAGING (AJCC)

- Tx: primary cannot be assessed
- T0: No evidence of Primary
- Tis: Ca in situ
- T1: Tumour 2cm or less in greatest dimension
- T2: >2 but NOT MORE than 4cm (ie inclusive)
- T3: More than 4 cm
- T4 (lip): through cortical bone, IAN, FOM, skin of chin or nose
- T4a: through cortical bone, Deep (extrinsic) m of tongue, Maxillary sinus, skin of face
- T4b (unresectable): masticator space, pterygoid plates, skull base, encases ICA, prevertebral muscles
- (NB: superficial alveolar erosion of alveolar tumour isn't enough for T4)

N – Nodal Disease



- 200 nodes in head/neck
- Malignant disease in head and neck follows predictable drainage patterns
- Malignant disease almost always spreads to local lymph nodes prior to distant metastasis

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TNM STAGING

Nodal Staging:

Nx: not assessed

N0: No regional cervical lymph node mets

N1: Single ipsilateral node 3cm OR LESS

N2a: Single ipsi node more than 3cm but not more 6cm

N2b: Multiple ipsi nodes “

N2c: Contralateral or bilateral nodes none >6cm

N3: Metastasis MORE THAN 6cm in lymph nodes

Metastatic Staging

Mx (not worked up yet)

M0: no distal mets

M1: any mets outside the neck

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STAGE GROUPING

- STAGE 0: Tis N0M0
- STAGE I: T1 N0M0
- STAGE II: T2 N0M0
- STAGE III: T3 N0M0 (OR T1-3 N1M0 *?stage II)
- STAGE IVa: T4a N0-1M0 OR T1-4a N2M0
- STAGE IVb: T4b N0-3 M0 OR any T N3 M0
- STAGE IVc: any T any N M1
- *NB: The AJCC calls an N1 as stage III, but in practice we treat some T1-2 N1 like Stage II

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Mx according to stage

- Stage I–II usually single modality Rx, unless adverse features: see below

- Stage III–IV: usually combined modality Rx

Other important features:

- Tumour thickness (eg if tongue SCC is thicker than 7mm, it's XRT anyway)
- Perineural invasion
- Lymphovascular invasion of primary
- Close <5mm / Positive Margins
- Extracapsular spread (nodal disease)

- These are usually identified
- POST RESECTION
- But sometimes ESTIMATED from imaging

Treatment Options

- Surgery
- Radiotherapy (XRT)
- Chemotherapy
- COMBINATION THERAPY

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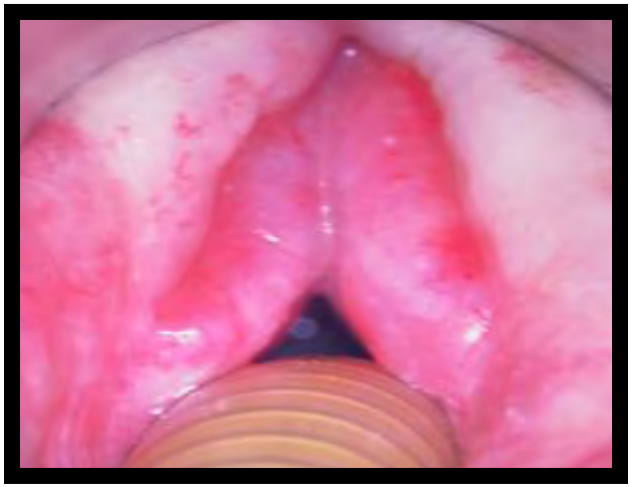
Radiotherapy – Principles

- Cells killed in mitosis
- Cancer cells divide more frequently
- Malignant cells repair less efficiently
- Selective destruction of neoplastic cells

Complications of XRT

- Skin reaction
  - sunburn / tan
- Mucositis – damage to mucos membrane
  - Pain, odynophagia, weight loss, anorexia
- Xerostomia
  - Dry mouth
- Osteoradionecrosis
- Long term
  - Dry mouth, poor wound healing
  - Can only be given once
  - 10% chance of developing cancer due to treatment
  - Damage to vital structures
    - Brain, spinal cord, eye



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Chemotherapy

- Limited role to play in management of head and neck cancers as a sole modality
- Used together with other modalities

Decision to Operate

- Cure for some
- Local control for others
- Sometimes the most difficult but wisest decision is for non-operative palliation

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Surgery

- Stage disease
  - Local tumour – size / function
  - Nodal disease
  - 2nd primary
- Remove tumour with surrounding cuff of normal tissue: 5mm margin or greater
- Replace defect with appropriate reconstructive surgery (flaps / grafts)
- Surgery for nodal disease if necessary: Neck dissection

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Neck Dissection

- Palpable metastatic nodes in the neck, radiologic +/- FNA proven disease:
- usually Comprehensive ND (I-V)

- High likelihood of occult secondaries in neck, without palpable disease,
- *But how do we decide when do dissect elective N0 necks?*

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TUMOUR THICKNESS (Patel et al 2009):

- No patient with tumour thickness <= 2mm had nodal mets
- 40% with tumours >2mm
- Using the 5mm cut off:
- 19% nodal mets<=5mm vs 44% >5mm
- Using Weiss' principle of elective neck dissection with 20% or more risk, the 5mm cut off appears appropriate

Tumour Thickness (Jalisi 2005)

- T1/2 FOM with thickness <=1.5mm is safe to observe rather than neck dissection (they found that thickness of 1.6-3.5 mm correlated with 33% of cervical mets, and 60% of cases 3.6mm and greater)

- T1/2 Oral tongue <4 mm is safe to observe
- T1/2 Lip carcinomas

- ANYTHING ELSE IN ORAL CAVITY GETS A ND

ND, BUT WHICH LEVELS?

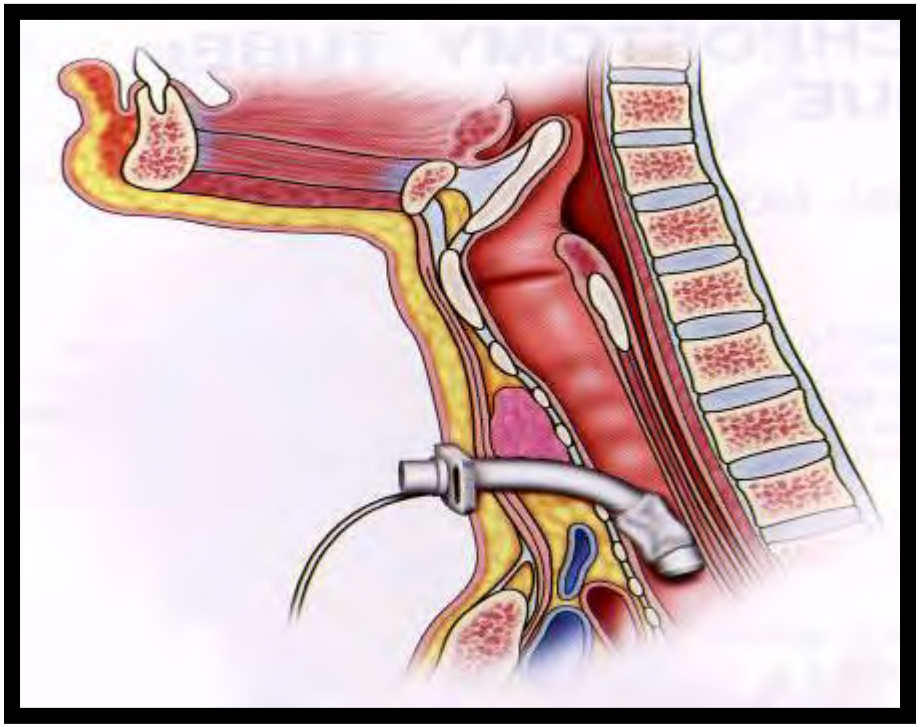
- Ipsilateral SOHND (supraomohyoid Neck Dissection) Ia, Ib, IIa, IIb, III: standard care if dissecting an N0 neck for oral SCC
- Level IV: Byers et al report skip mets of 15% to level IV WITHOUT other level involvement in oral tongue that warrants a neck dissection
- CONTROVERSY PERSISTS HERE: some dissect Level IV in all oral SCC necks
- SOME SAY dissect I-IV if I looks suspicious rather than doing I-V even

SHOULD WE DISSECT THE CONTRALATERAL NECK?

- 14% INCIDENCE OF CONTRALATERAL DISEASE REGARDLESS OF TUMOUR STAGE, SO

- CURRENT RECOMMENDATION IS FOR CONTRALATERAL NECK DISSECTION WITH CARCINOMA INVOLVING MIDLINE, BILATERAL OR TONGUE TIP (WITHIN 2CM)

Tracheostomy



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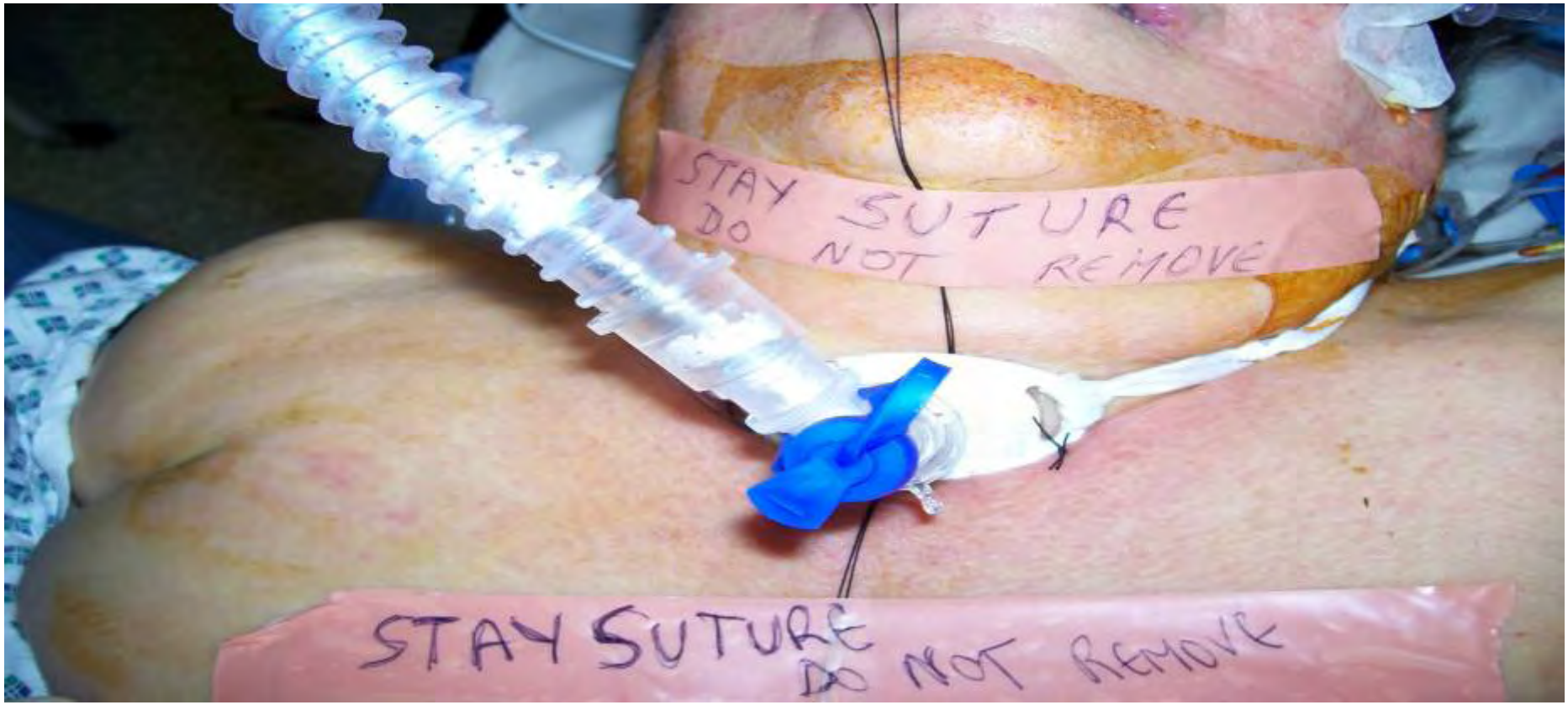
Tracheostomy: some are tricky



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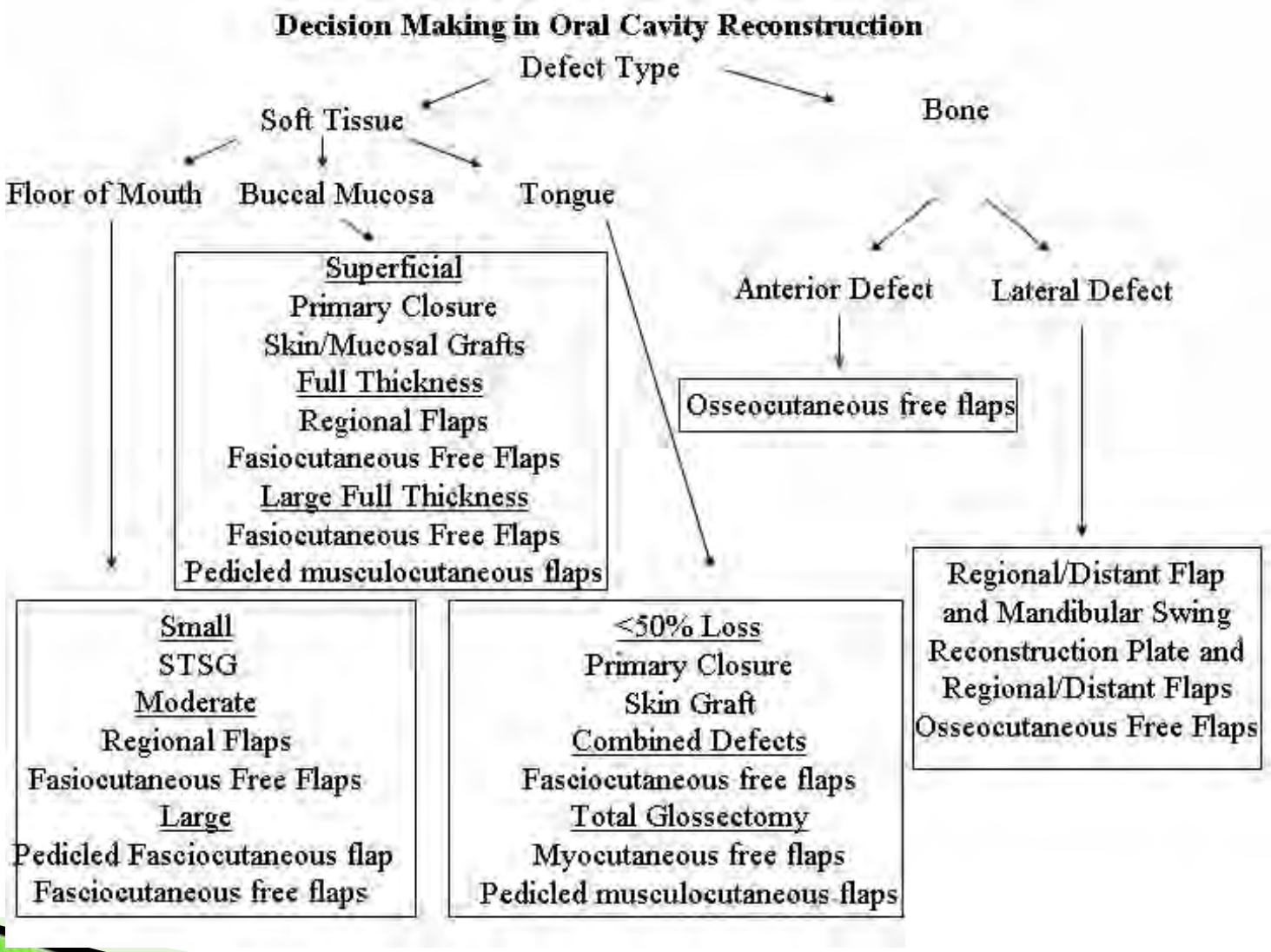
Reconstructive algorithm



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Long Term Problems Post Major Head and Neck Surgery

- Deformity
- Speech
- Swallowing (aspiration)
- Emotional / social aspects

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Seven Warning Signs for Head & Neck Cancer

1. Change in mole or new skin lesion
2. Non-healing mouth ulcer
3. Change in denture fit
4. Hoarseness
5. Persistent throat / ear pain
6. Neck lump
7. Unilateral nasal obstruction or bleeding

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SALIENT POINT

- MOST ORAL CAVITY CANCERS ARE TREATED WITH SURGERY +/- XRT OR CHEMORT AS A PRIMARY MODALITY

- ON THE OTHER HAND MOST OROPHARYNGEAL MALIGNANCIES ARE TREATED WITH XRT / CHEMORT AS THE PRIMARY MODALITY AFTER ADEQUATE STAGING

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References used:

- RCSI lecture series
- UTMB lecture series
- Bailey + Cummings textbooks of ORL HNS
- AJCC Cancer Staging Handbook, 6th edn 2002
- Salient articles:

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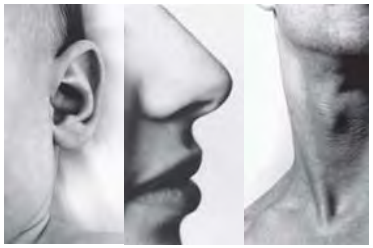
- Jalisi S. Management of the Clinically Negative Neck in Early Squamous Cell Carcinoma of the Oral Cavity. Otolaryn Clin N Am 38 (2005) 37–46
- AND REFERENCES TO THOSE ARTICLES



questions?

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