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Saturday, June 10, 2017

(Room 8)

14:00 - 14:55 WS #148: Case Studies of Lumps in the Neck

15:05 - 16:00 WS #160: Case Studies of Lumps in the Neck (Repeated)

Diagnostic features of a lump

Size

Site

Consistency

Edge

Colour

Fixity

Transillumination

Pulsation

Tenderness

Nodes

Primary site

Most important diagnostic features of a neck lump

Age of patient

Site of lump

Duration

Progression

Age

- Child
 - Infective/inflammatory
 - Congenital
- Young adult
 - Congenital
 - inflammatory
- Adult
 - Neoplastic

Site

- Anterior
 - Suprahyoid
 - Infrahyoid
- Lateral
 - Carotid/Jugular
 - Posterior supraclavicular
- Submandibular
- Angle of Jaw
- Post Auricular Occipital
- Back of Neck

Back of Neck

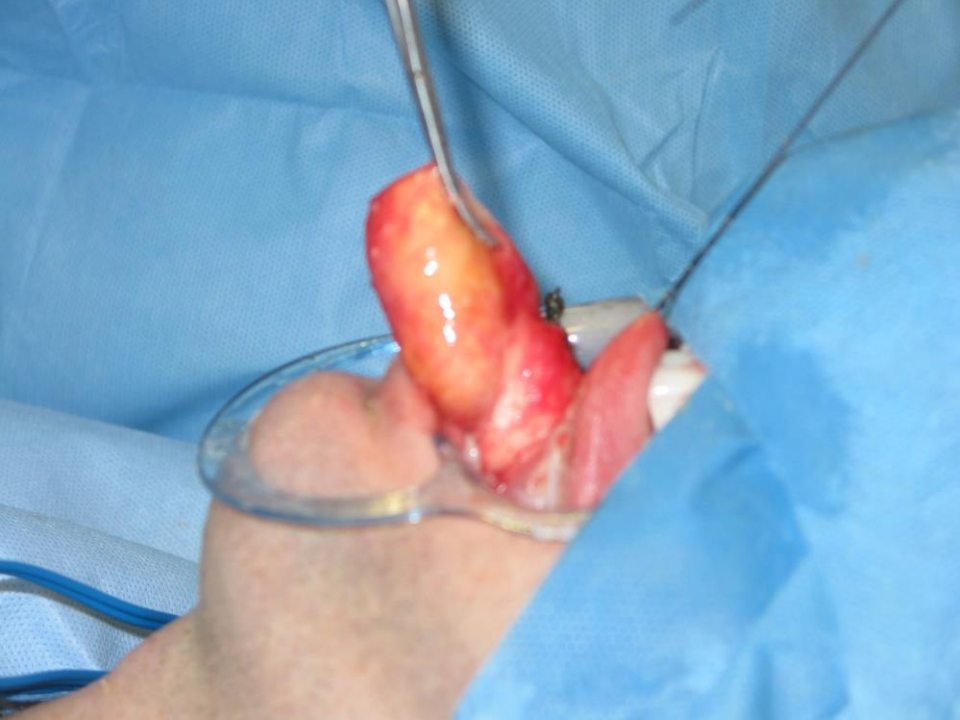
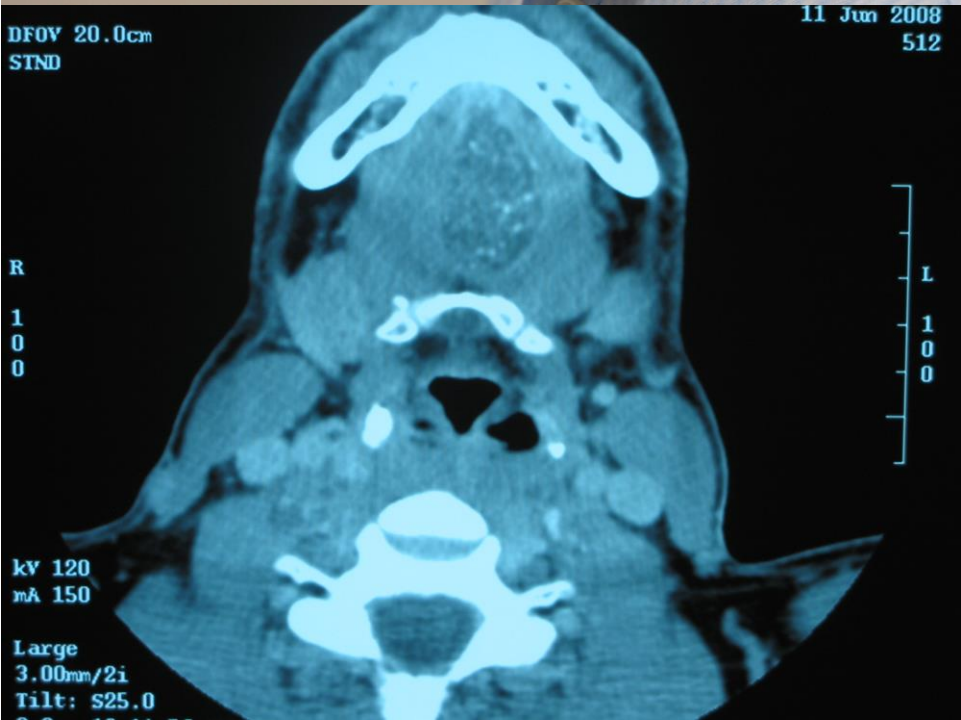
- Lipoma
- Sebaceous/epidermoid Cyst
- Vascular/ lymphatic malformations

Occiptal post auric

- Node
- Abscess (nodal/ mastoiditis)

) Midline neck mass

- Infrahyoid
 - Thyroid related
 - Thyroid nodule/ Goitre
 - 90% Thyroglossal duct cysts
 - Node related
 - Pretracheal lymph node (delphian node)
 - Thyroid or laryngeal malignancy
- Suprahyoid
 - Thyroid related
 - 10% Thyroglossal duct cysts
 - Lingual or undescended thyroid
 - Node related
 - Metastatic skin, lip, floor mouth malignancy
 - Inflammatory- acne, dental
 - Other
 - Dermoid





Thyroid

- Anterior neck
- Slightly lateral to midline
- Rises with swallow
- May be multiple/ bilateral
- May be retrosternal
- May be Nodes
- Toxicity/ hypothyroidism
- Pain with thyroiditis or recent bleed



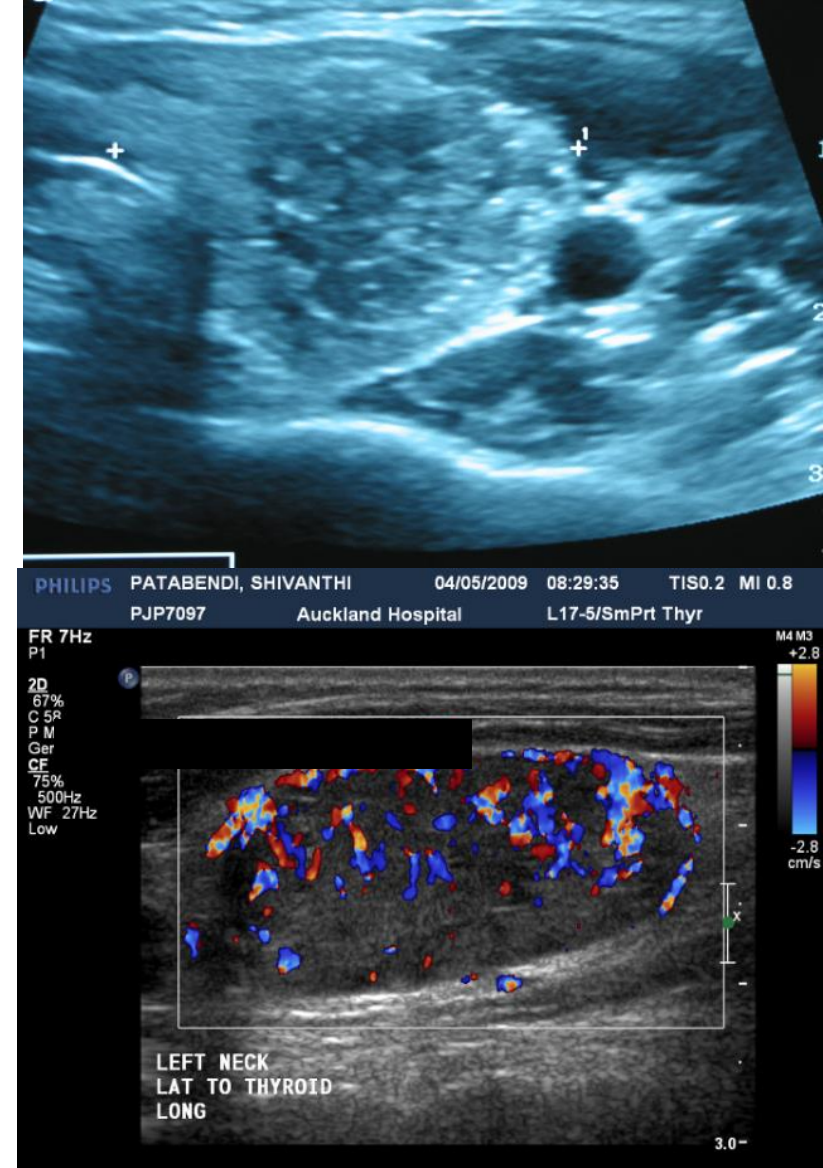


Is it malignant?

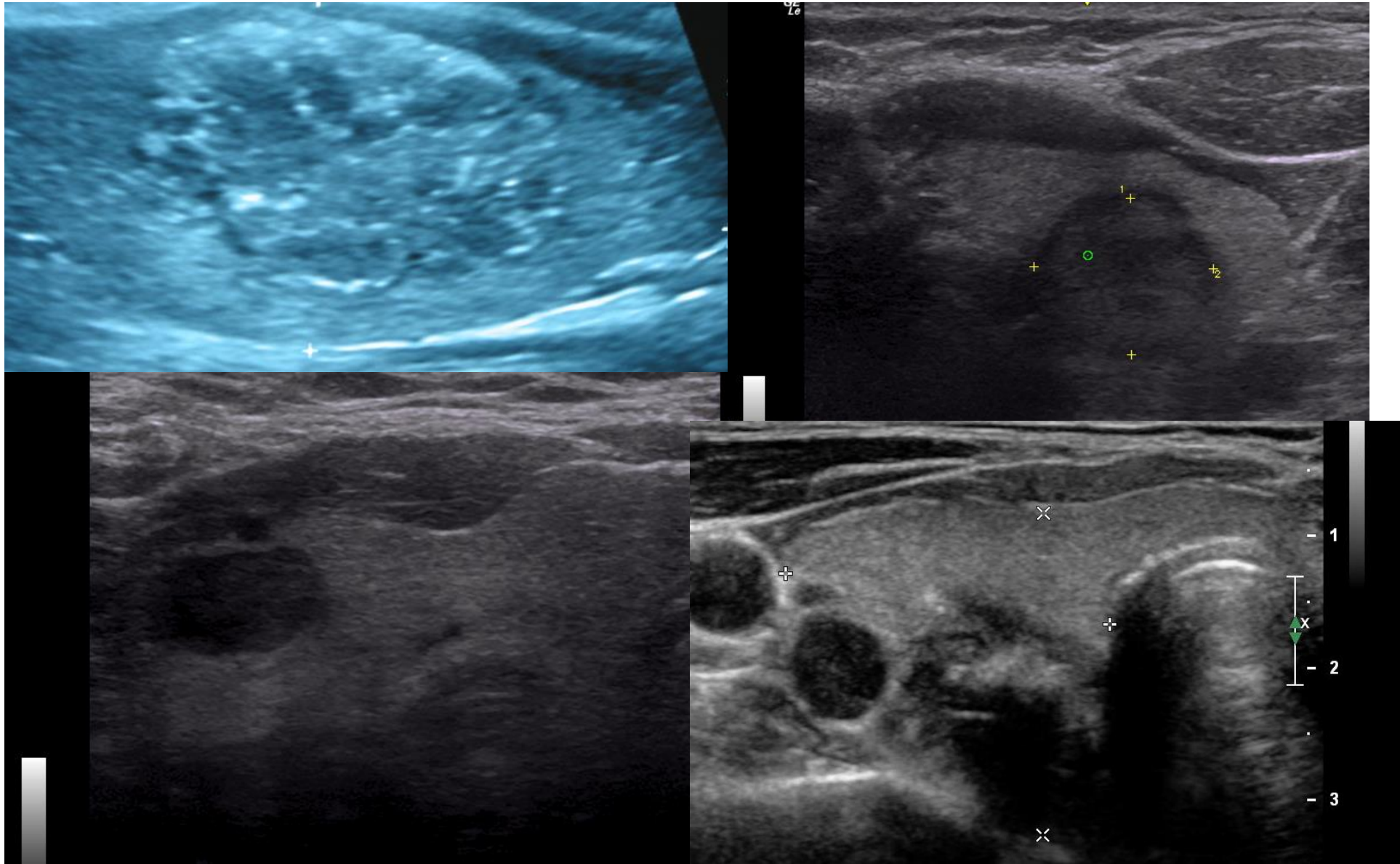
ultrasound

- Solid
- Hypoechoic
- Taller than wide shape
- Irregular margin
- Microcalcification
- Associated nodes with similar features

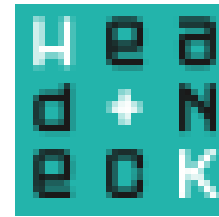
TIRADS 1-6



Malignant thyroid nodules

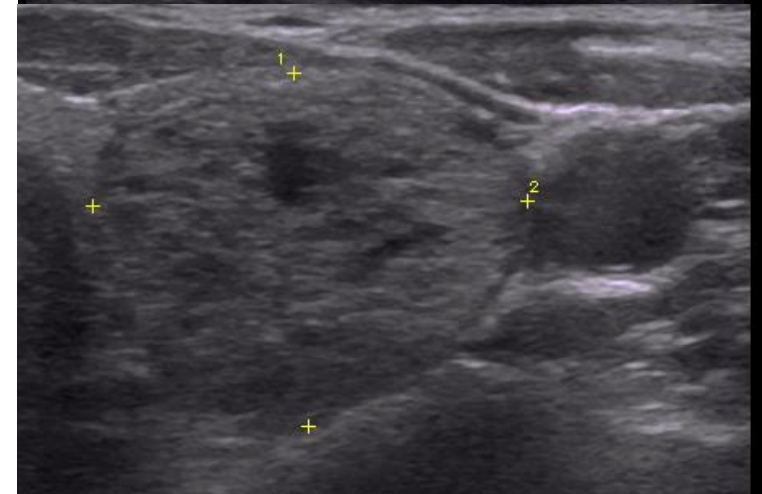
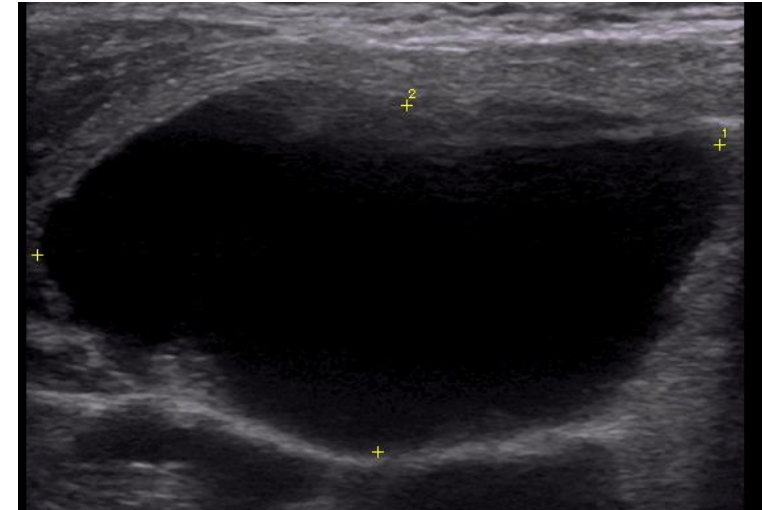


Benign Features



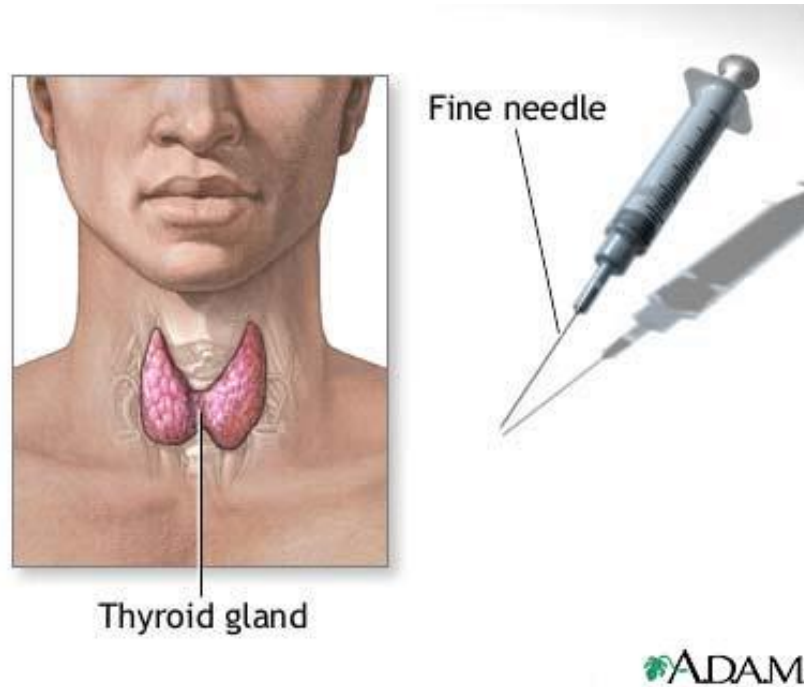
**Auckland
Head & Neck
Associates**

- Simple cystic
- Spongiform
- Isoechoic



Is it malignant?

US guided FNA cytology



FNA is a safe test with negligible risk of seeding

Auckland Head and Neck Associates

Is it malignant?

FNA cytology

Bethesda category	malig%
I. Non diagnostic	3-8%
II. Benign	0-3%
III. Atypical follicular	8-15%
IV. Follicular neoplasm	20-30%
V. Suspicious for cancer	50-60%
VI. Carcinoma	97-100%

Is it malignant?

FNA cytology

Bethesda category		malig%	
I.	Non diagnostic	3-8%	
II.	Benign	0-3%	observation vs surgery
III.	Atypical follicular	8-15%	
IV.	Follicular neoplasm	20-30%	surgery
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Is it malignant?

FNA cytology

Bethesda category		malig%	
I.	Non diagnostic	3-8%	repeat FNA
II.	Benign	0-3%	observation vs surgery
III.	Atypical follicular	8-15%	repeat FNA vs surgery
IV.	Follicular neoplasm	20-30%	surgery
V.	Suspicious for cancer	50-60%	
VI.	Carcinoma	97-100%	

Is it malignant?

bloods

TSH, T3, T4

- standard. TSH usually normal in ca.

Rapid swelling with hypothyroid consider lymphoma

? Thyroglobulin, Tg Ab

- useful for surveillance

? Calcitonin

- ?Bethesda 4-6 solitary nodule, +FH



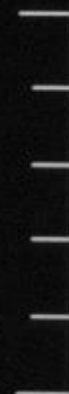
/CE
511.9mm
0.00
R=1.2
207, 256)

12.07.95 15:29:30.0
120kV/230mAs
68Y/M
HCT
-4.5mm/r
INTERP-1

R

L = 35
W = 250

943:72
SOVUE+H2O



1.5s
S/5
SU/HE/VFF
EC12/NEG

D

+00.0°
5.0mm
45.0cm
x= +0.00cm
y= +0.00cm
DETL

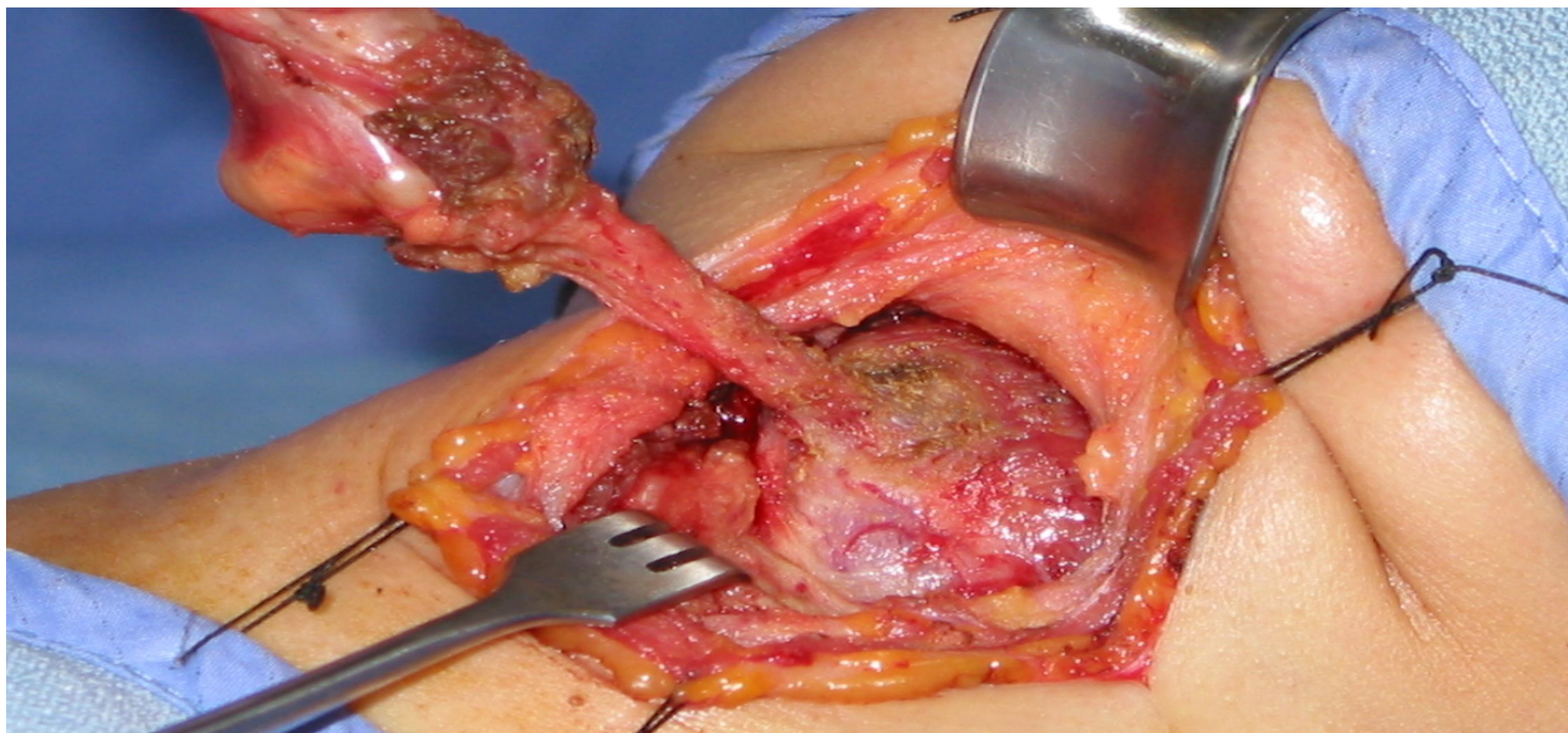
HELICAL SCAN
C+
QDS
QHSQHC

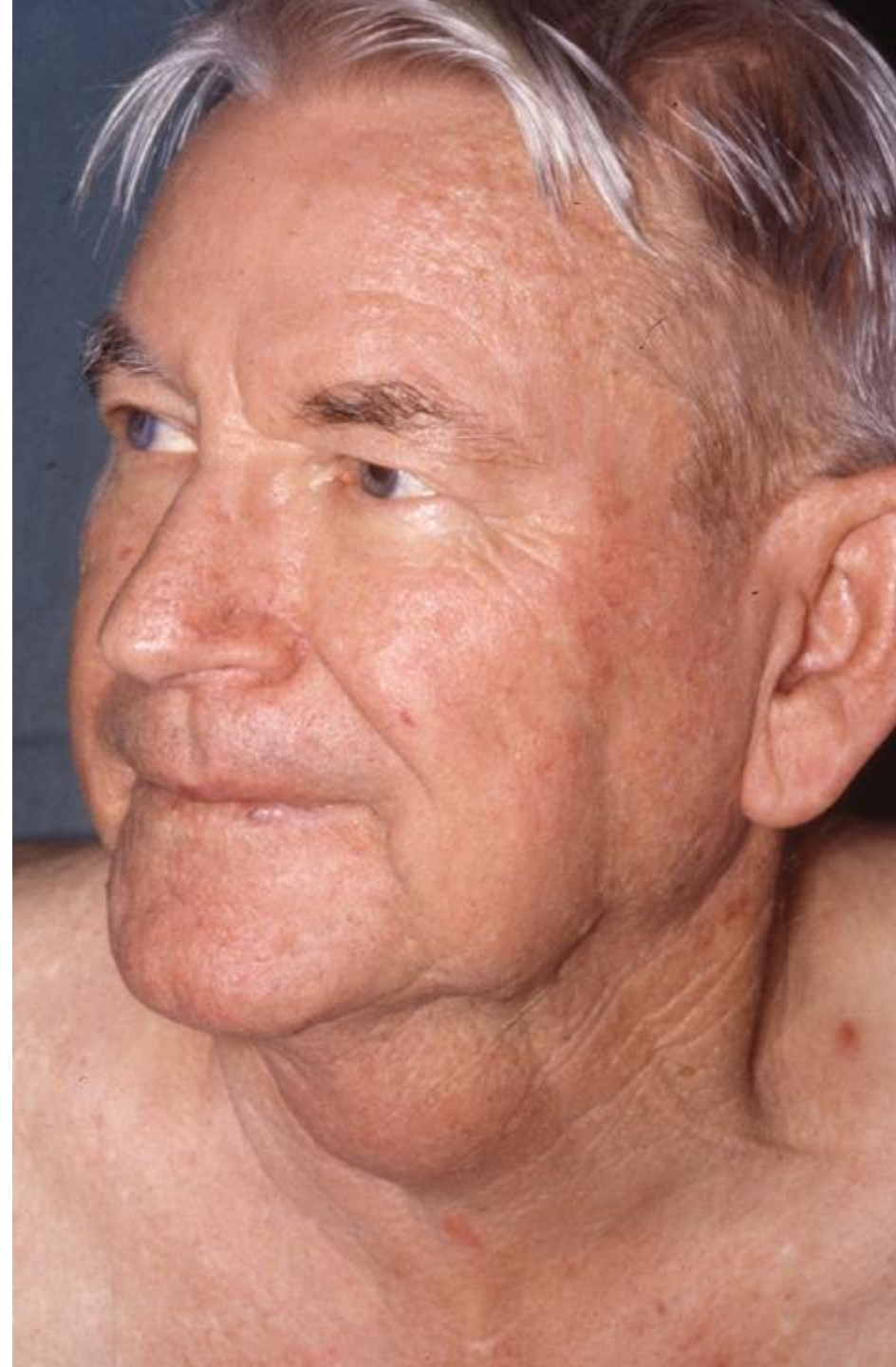
2

R

120 kV
250 mA
1.0 sec
50-CAL

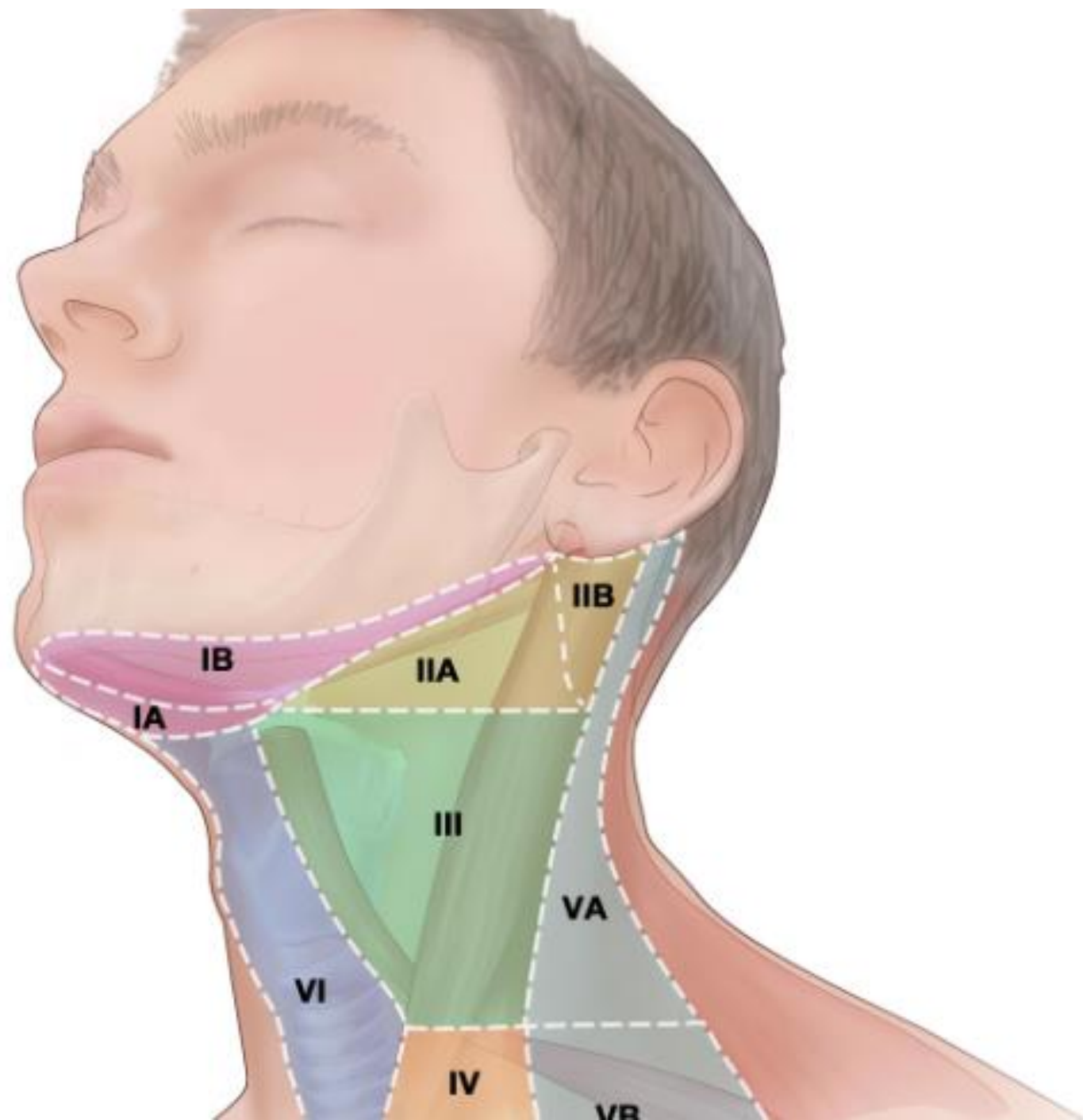




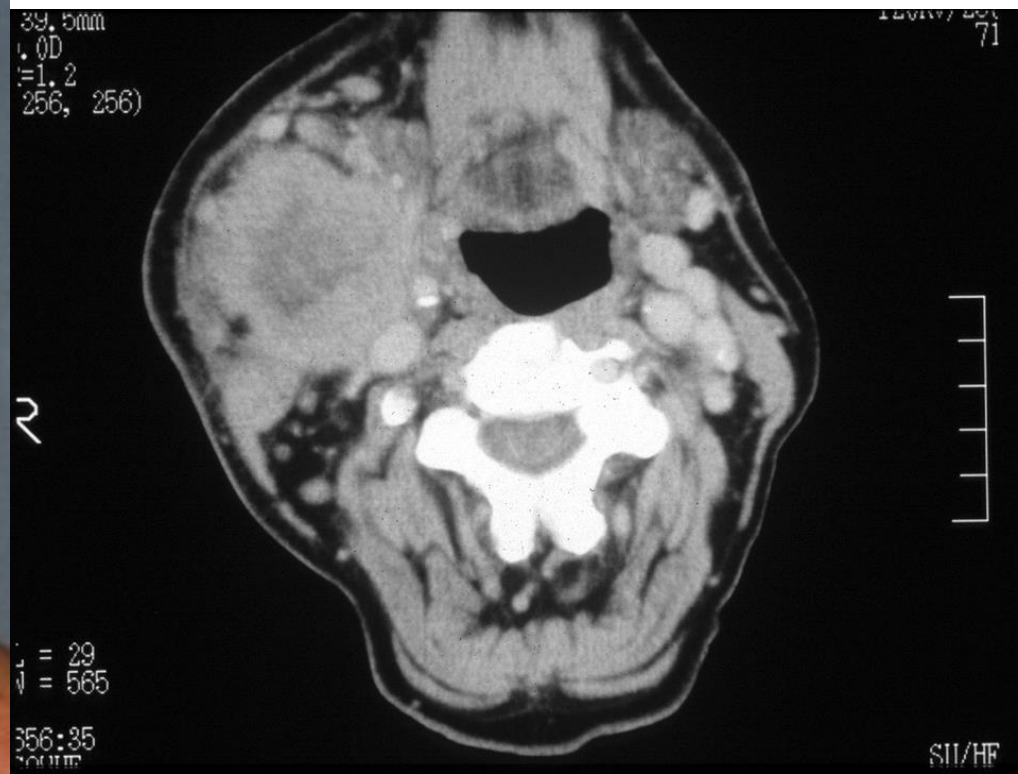
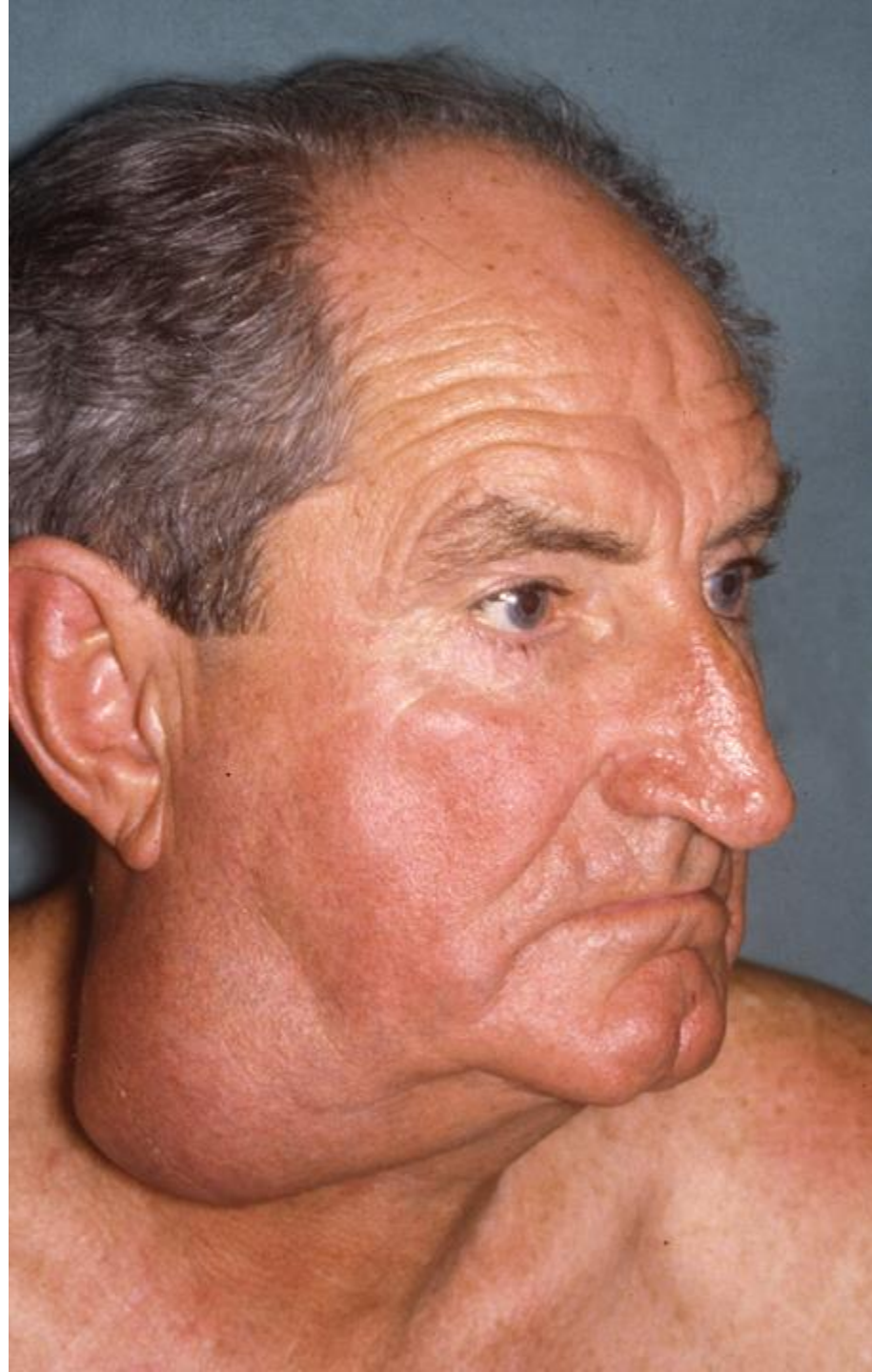


Lateral Neck Swelling

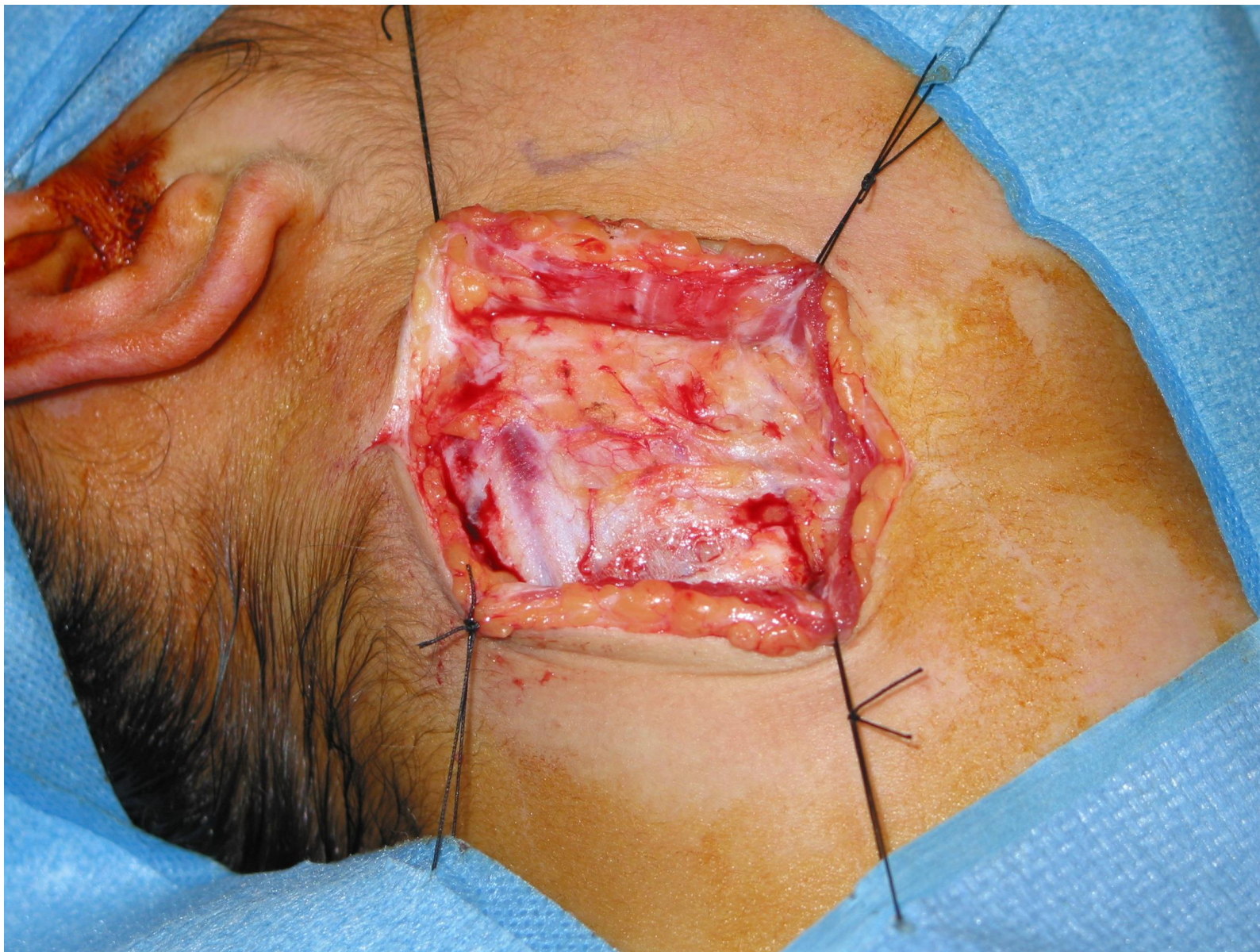
- Solid
 - **Malignant**
 - Primary
 - Lymphoma
 - Sarcoma
 - Secondary
 - SCC skin/mucosa/unknown melanoma, thyroid, salivary
 - **Benign**
 - Inflammatory node, carotid body tumour, neural tumour
- Cystic
 - Congenital
 - Branchial cleft cyst, lymph/haemangioma, vasc malformation
 - Acquired
 - Cystic malignant node, abscess











3CM

WHS@HL



3
0
cm

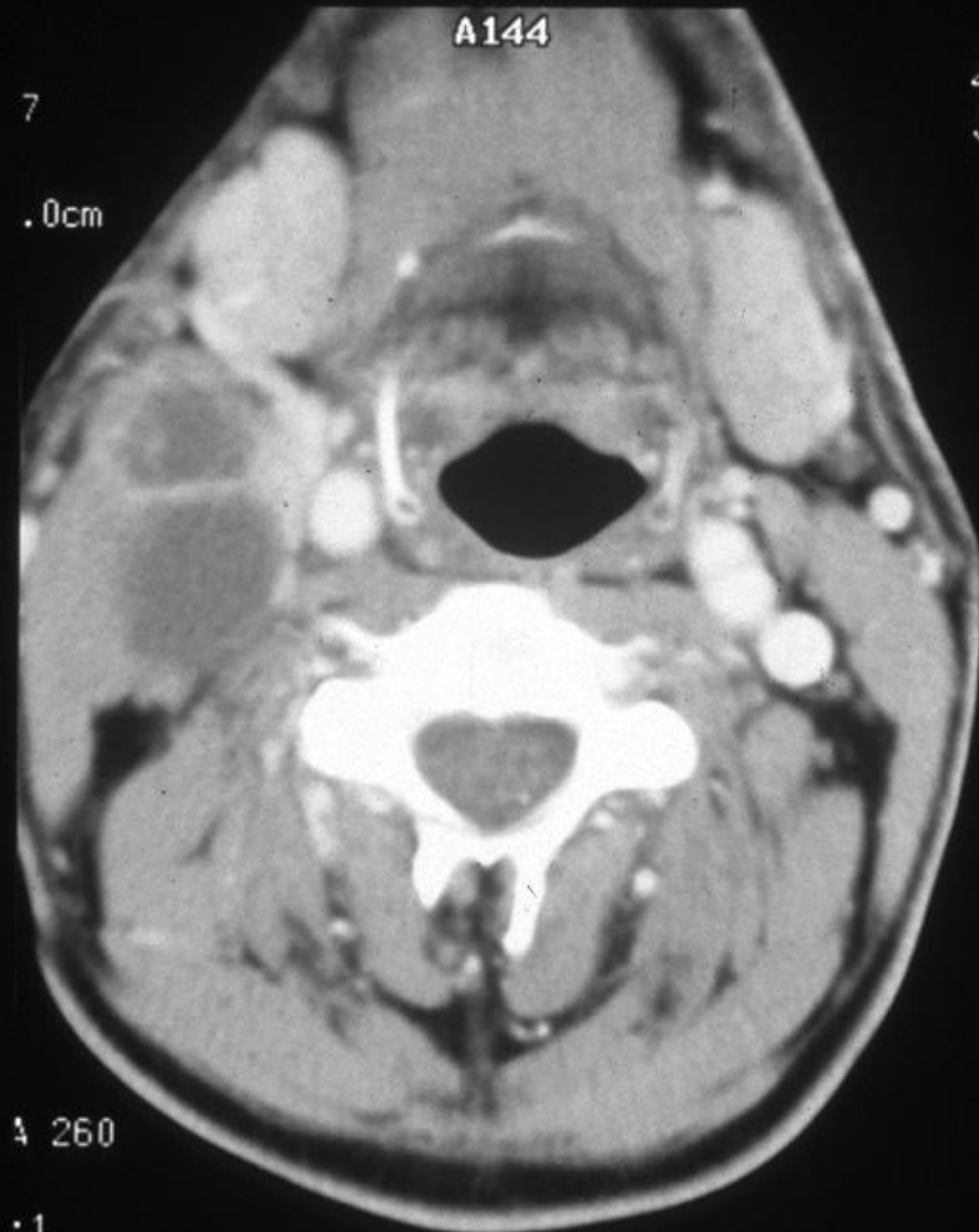
L

A144

47 M 60517
JAN 23, 19
E

7

.0cm



A 260

:1

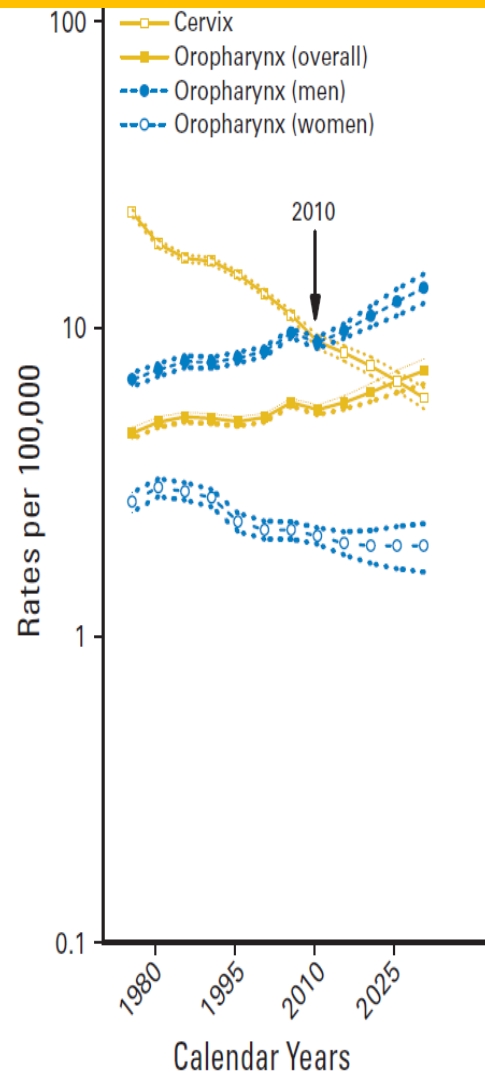
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F 01.50.45 PM/11 00 036

Beware Metastatic SCC
from HPV related Tonsil or Tongue Base Primary

presenting as
a Cystic Mass in the Lateral Neck in Adults

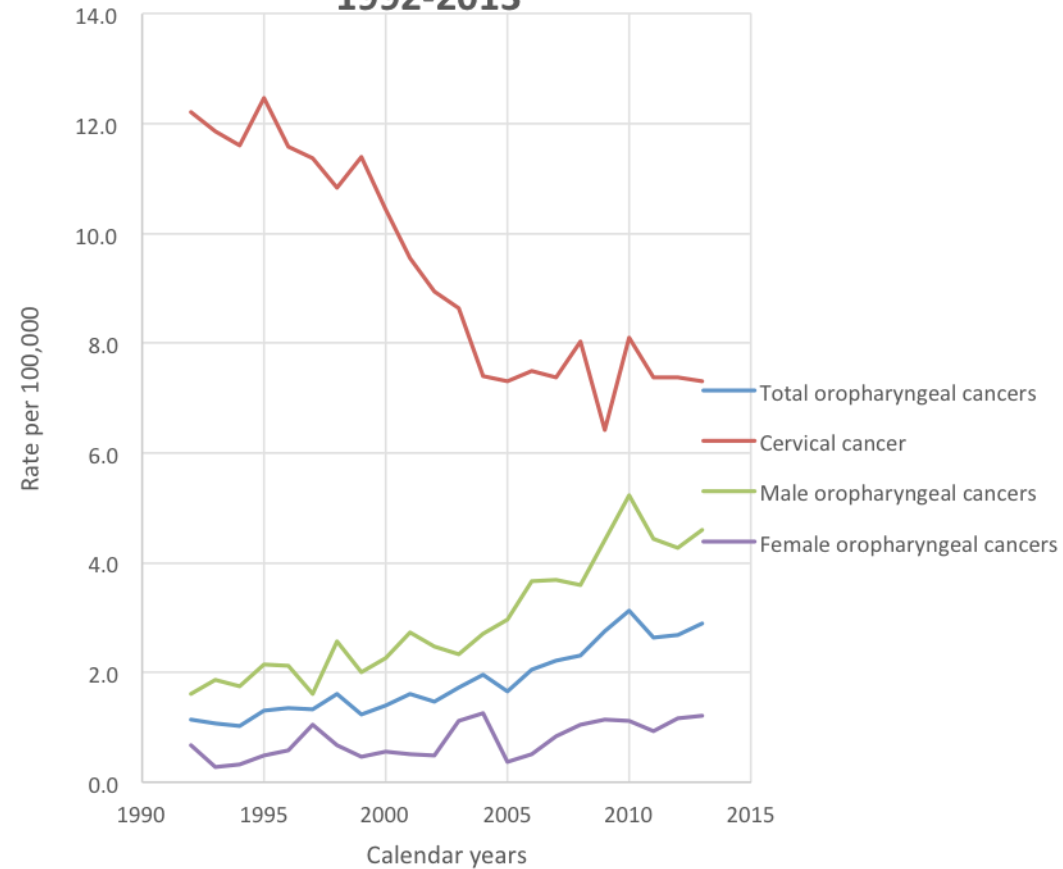
Oropharyngeal ca in men now more common than cervical ca in women



Chaturvedi AK et al. J Clin Onc
2011;29:4294-4301

Oropharyngeal cancer incidence – New Zealand

Comparison of oropharyngeal and cervical cancers from 1992-2013



2013: 96 men, 26 women diagnosed with oropharyngeal cancer

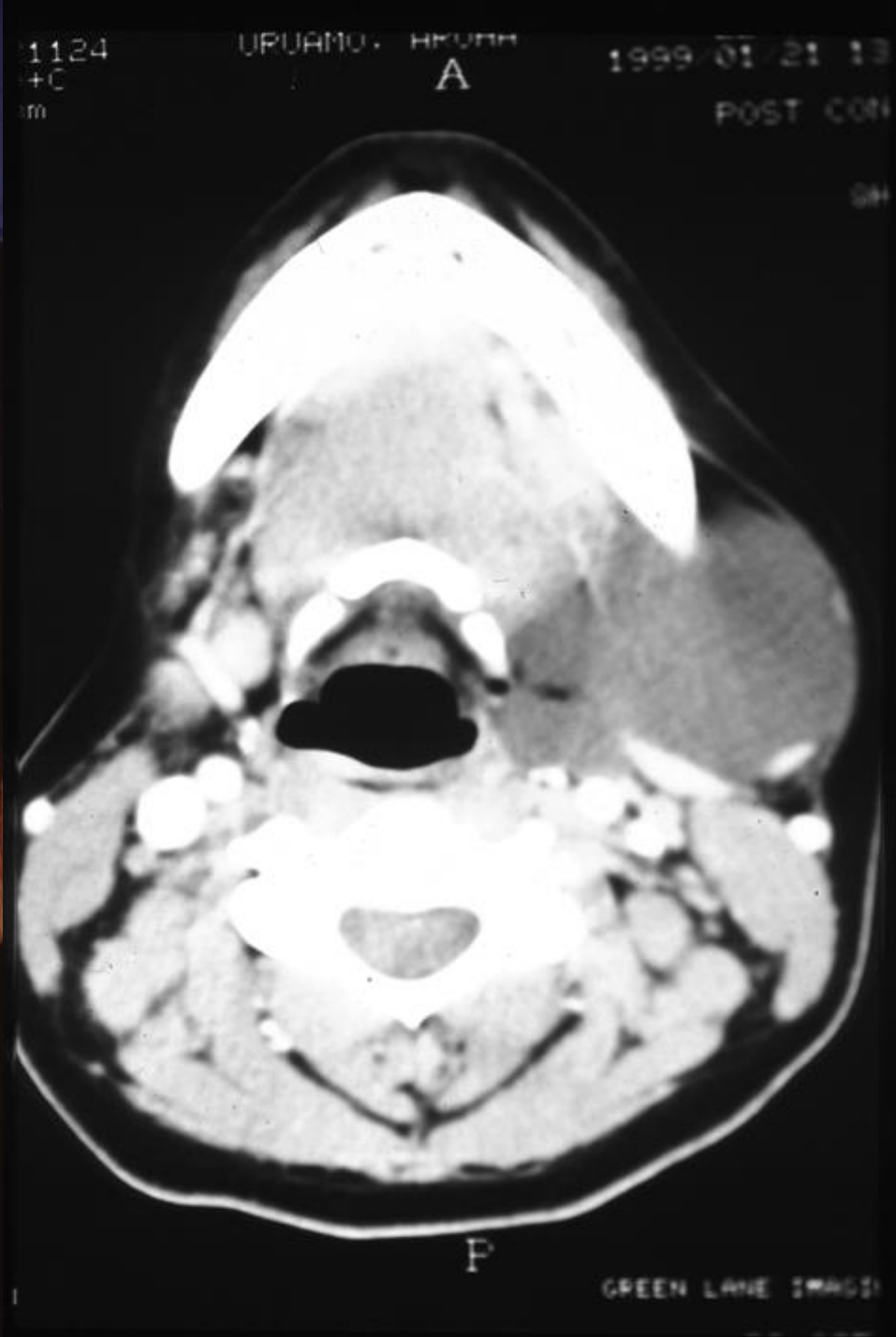
OPC in Auckland 2010-2011

Characteristics	OPSCC _{HPV} (<i>n</i> = 41)	HPV-negative OPSCC (<i>n</i> = 14)	<i>P</i> -value [‡]
Gender			
Male	38 (93%)	12 (86%)	NS
Female	3 (7%)	2 (14%)	
Age			
Mean	56.6 ± 10.3	67.1 ± 13.8	0.001 [§]
Range	40–83	50–96	
<60 years old	30 (73%)	4 (29%)	0.004
≥60 years old	11 (27%)	10 (71%)	
Ethnicity			
New Zealand European	29 (71%)	8 (57%)	NS
Other European	6 (15%)	4 (29%)	
Maori	3 (7%)	1 (7%)	

76% of 55 cases oropharyngeal SCC HPV related ANZ J Surg Sept 2016

Submandibular Swelling

- Salivary gland related
 - Sialadenitis/ sialolithiasis
 - Salivary tumour
 - Plunging ranula
- Lymph node related
 - Metastatic skin , lip, oral cancer
 - Dental abscess



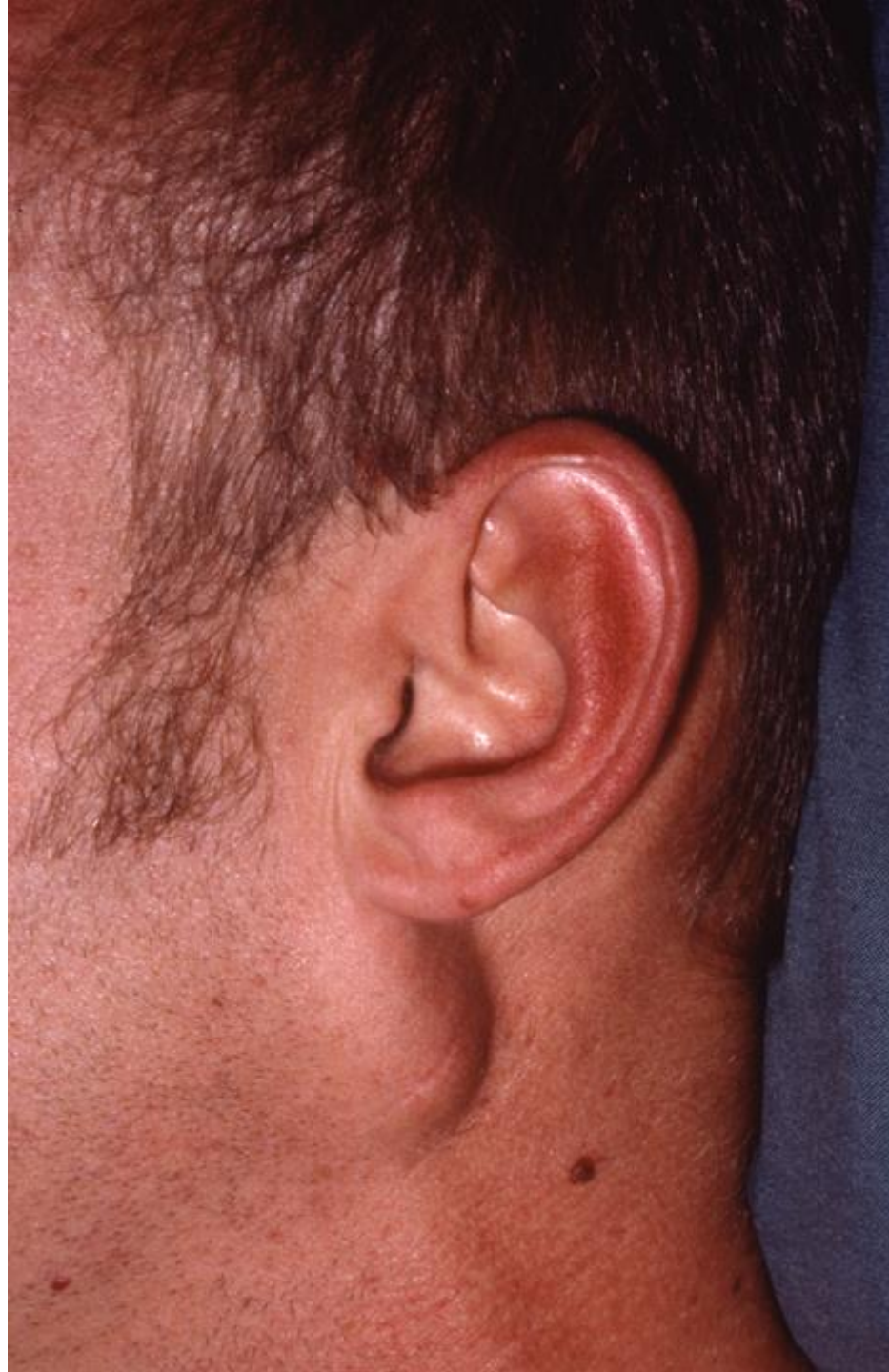






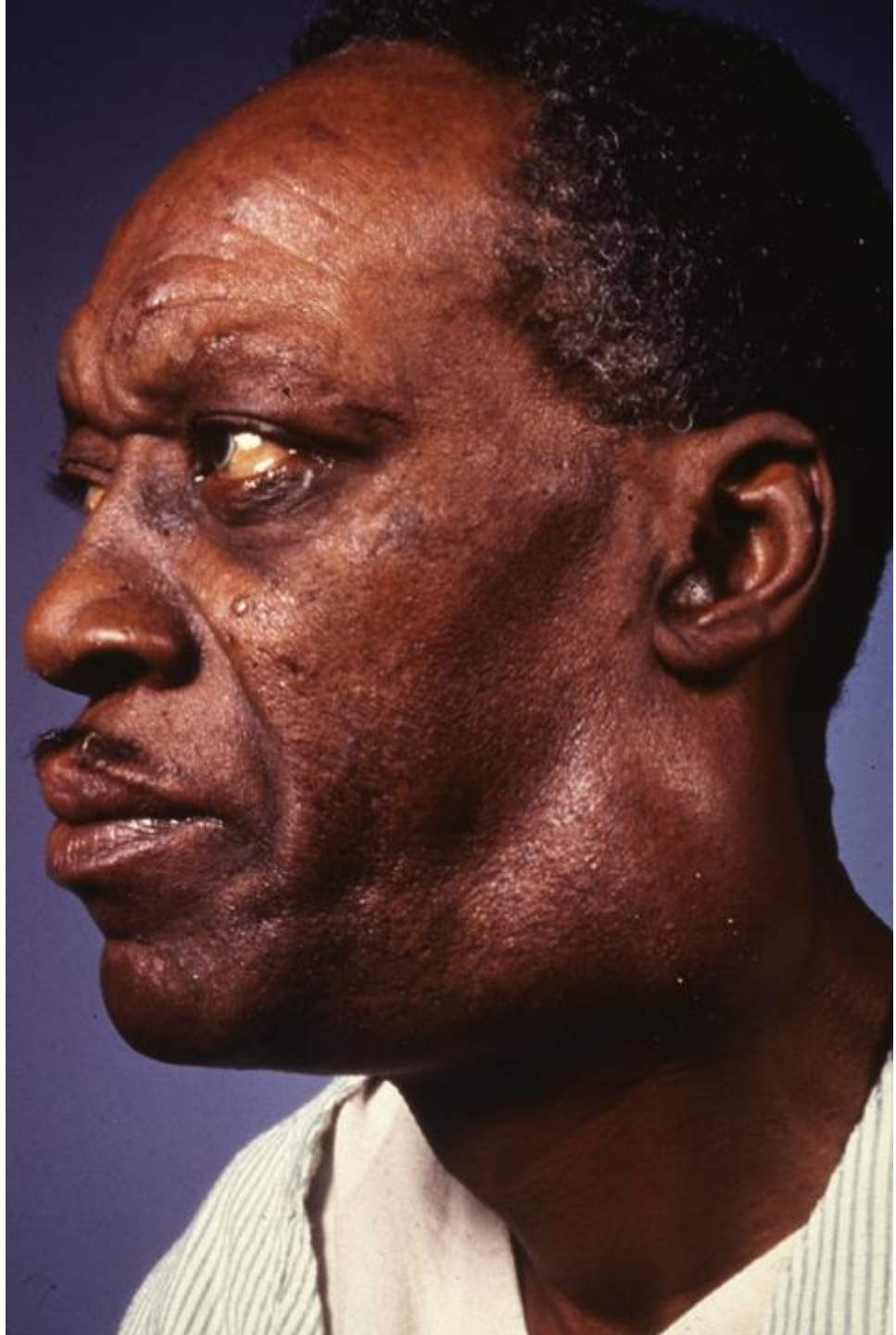
Lump at the Angle of the Jaw

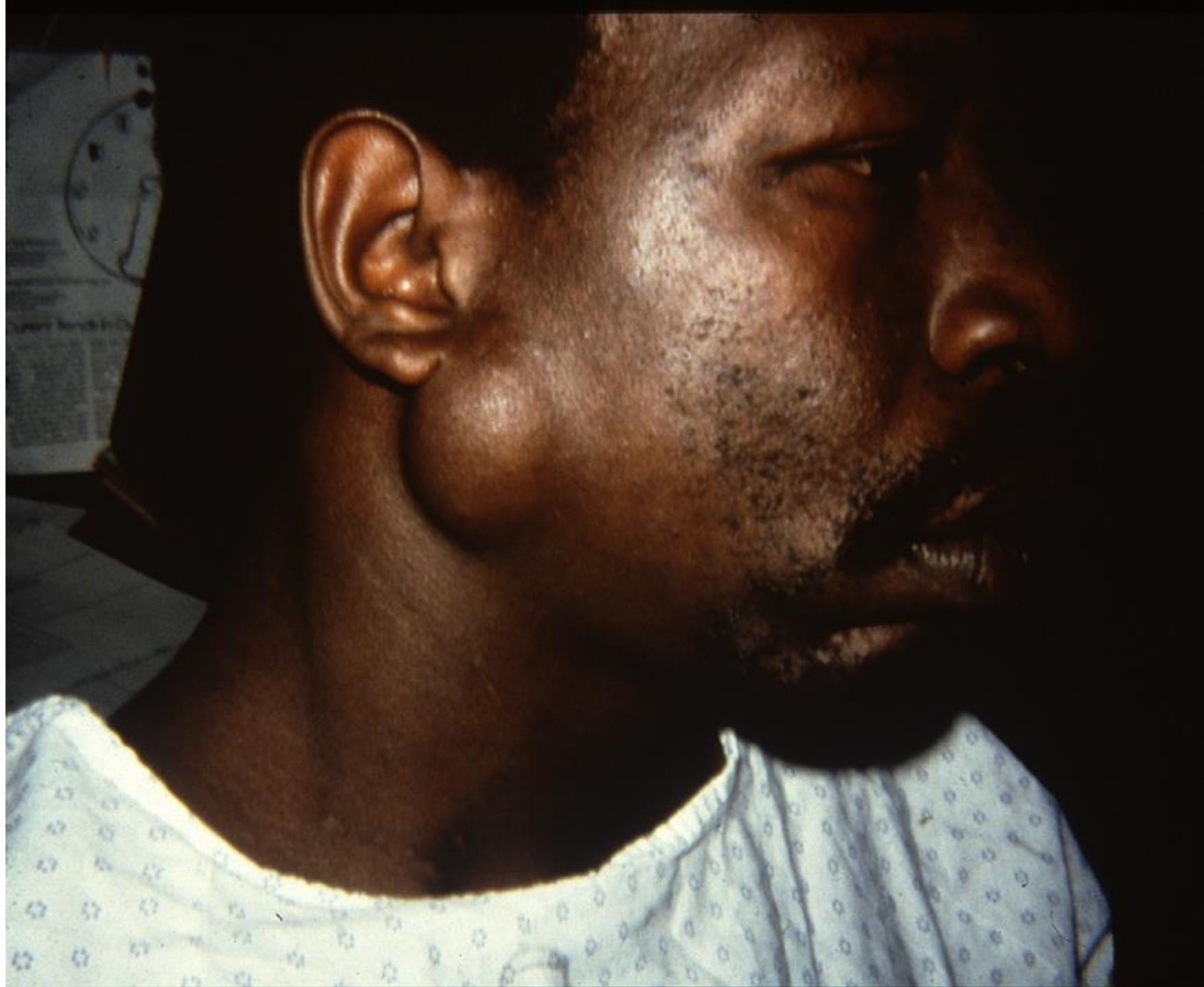
- Parotid Gland Related
 - Benign salivary gland tumour
 - Malignant- salivary gland tumour
 - Metastatic cutaneous malignancy
 - Sialadenitis/sialolithiasis
- Congenital Cyst
 - 1st branchial arch
- Upper cervical node

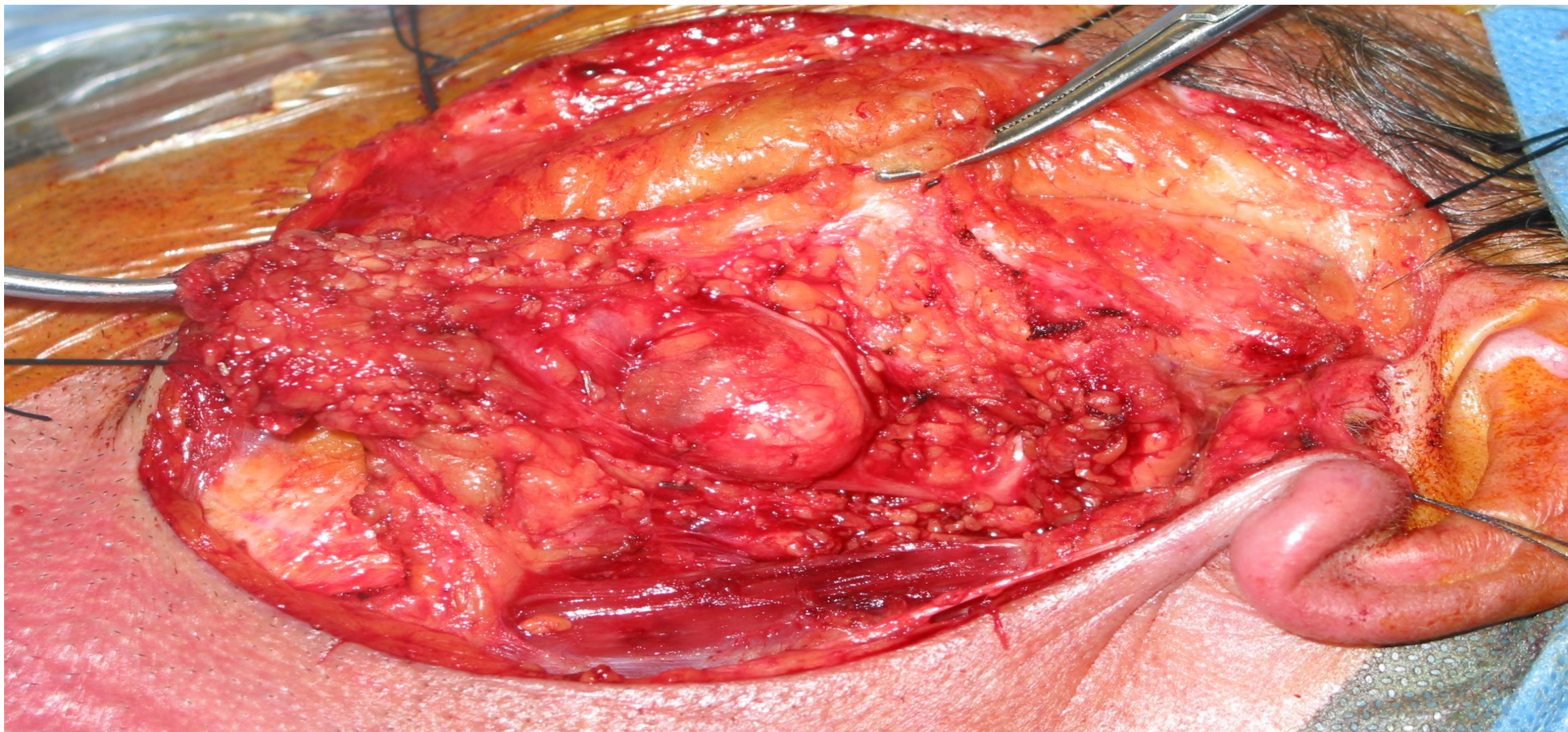












Management of a neck lump

- History

- General
- Specific
 - UADT
 - Pain-Odynophagia
 - Dysphagia
 - Dysphonia
 - Epistaxis nasal obstruction
 - Skin malignancies
 - SCC, Melanoma, Merkel
 - Lymphoma
 - Night sweats/ fevers
 - Weight loss
 - Risk Factors
 - Smoking
 - Oral sex

- Examination

- Site
- Upper aerodigestive
- Skin scalp/face/neck
- Thyroid
- Remainder of neck
- Axilla, groin
- Salivary flow

- Investigations

- FNA
- Endoscopy
- Imaging

FNA

- Result
 - SCC
 - Melanoma
 - Salivary neoplasm
 - Epithelial cyst
 - Thyroid (Bethesda I-VI)
 - Lymphoid
 - Reactive vs lymphoma
 - Granulomatous
 - Non diagnostic
 - Cystic vs solid

Lymphoid FNA

“...Suggest reactive change... cannot exclude monoclonal population”

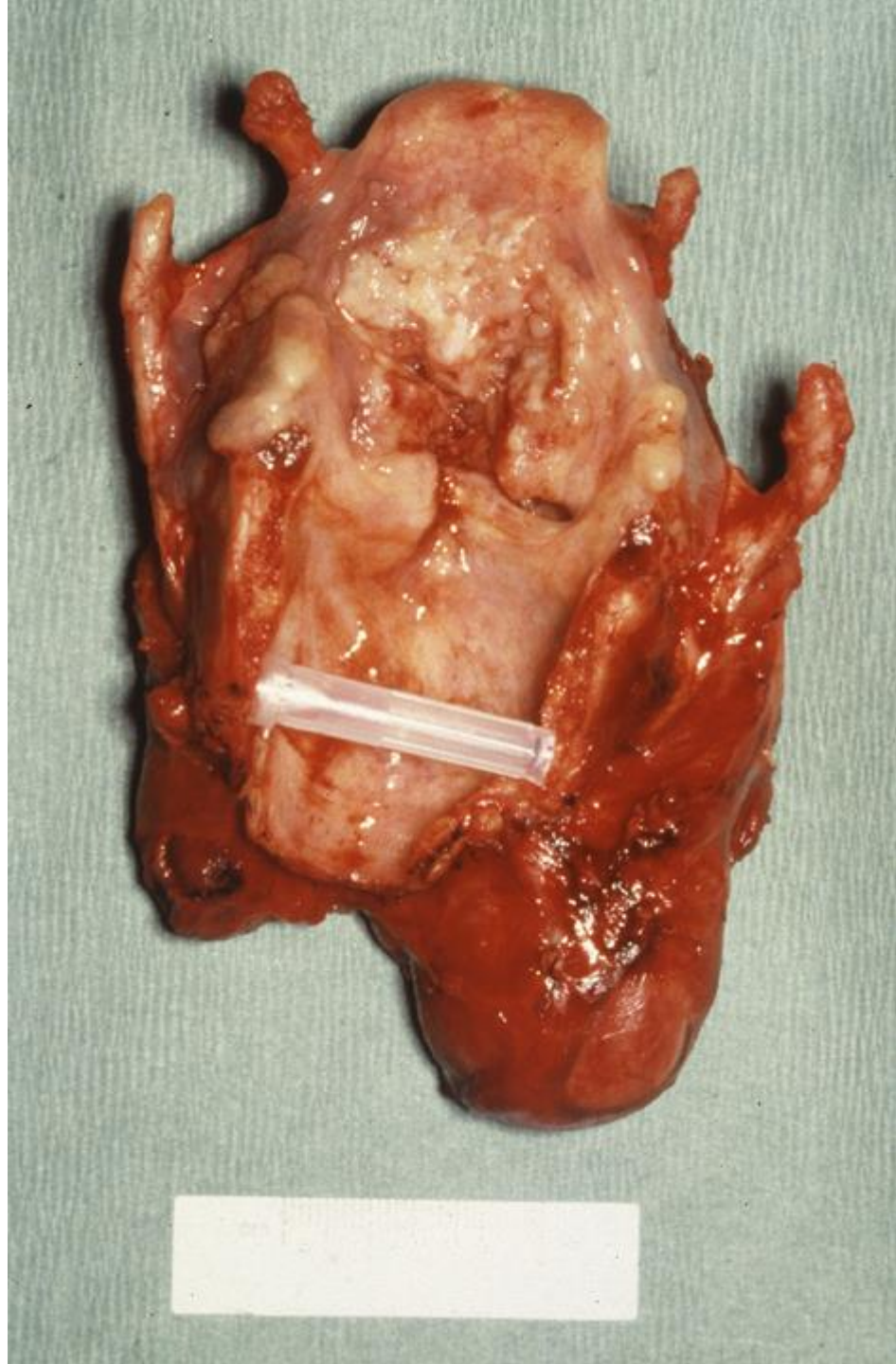
- If obvious source of inflammation- treat and observe
- If node is large (>3cm) remove
- If single site but no obvious source
 - Blood screen: FBC, Toxoplasmosis, EBV, cat scratch disease, HIV
 - Observe over one to two months and remove if still present or larger
 - Continue to observe if smaller

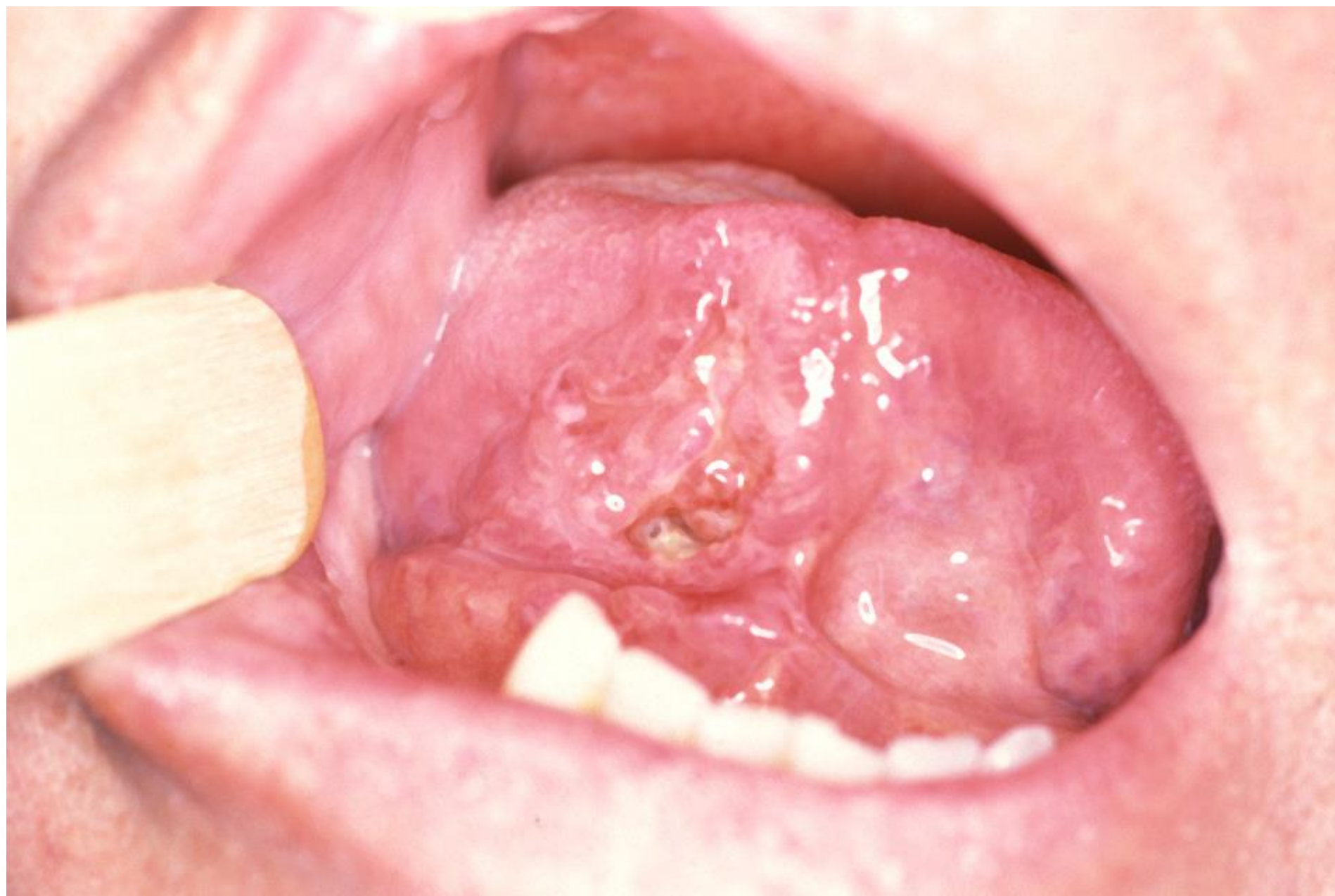
Non Diagnostic FNA

- Particularly if cystic
 - Age, Site, Risk factors
 - If suspicious of malignancy
 - **DO NOT REFER FOR OPEN BIOPSY**
 - Endoscopy biopsy of ipsilateral tonsil/tongue base
 - Repeat under ultrasound guidance
- If Solid
 - Consider neurogenic tumour (partic if FNA painful)



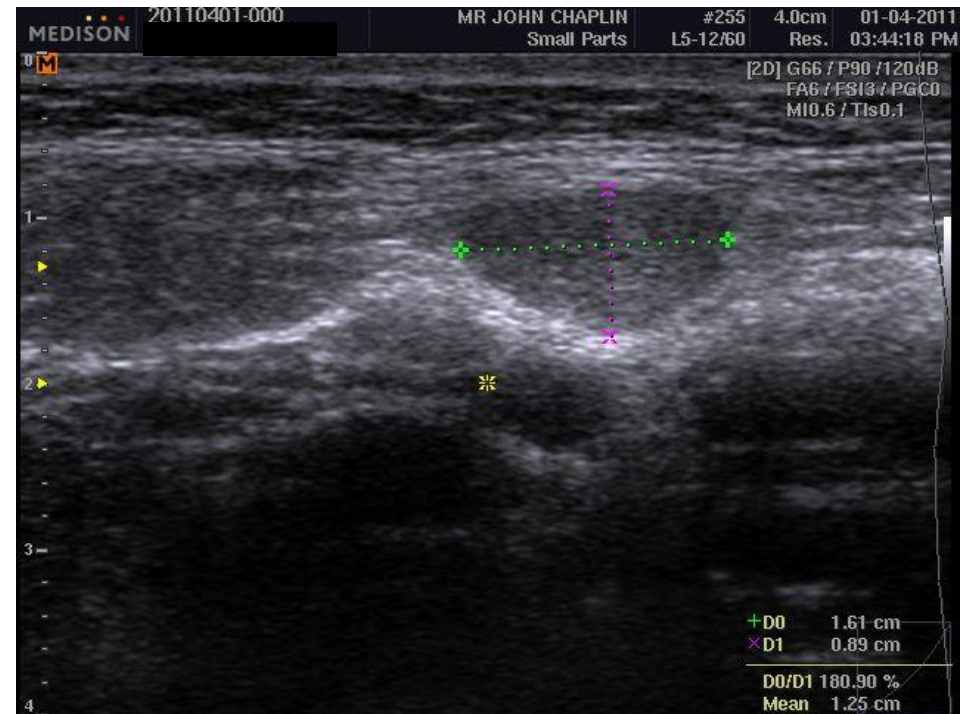






Case 1

- Young man
- 4 weeks 1.6 cm neck mass
- Non tender, no change
- Ultrasound= solid
- FNA = “reactive features but cannot exclude a monoclonal population, assess in clinical context”

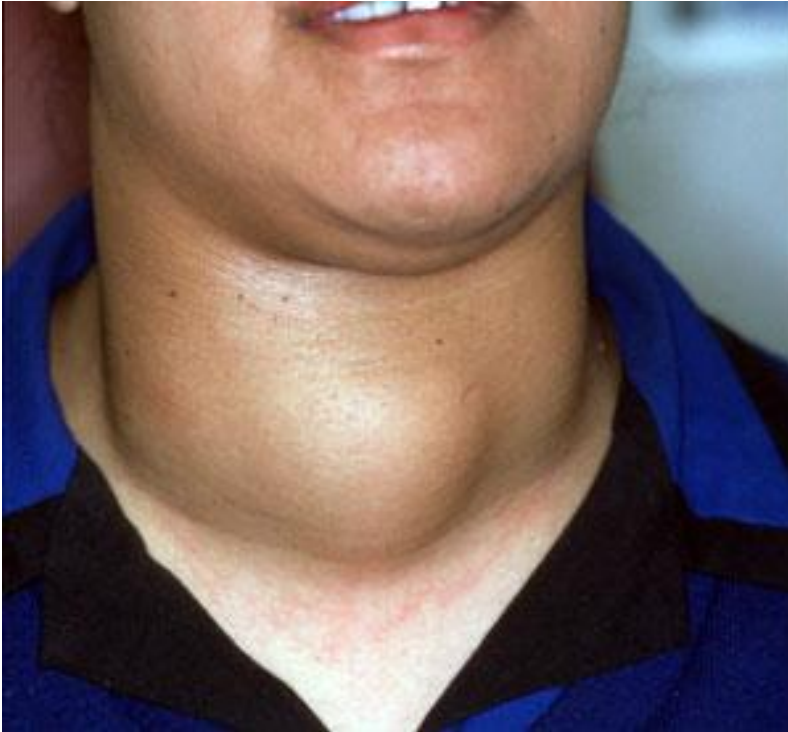


No obvious inflammatory source

- What do you do?
 - a. Refer for excision
 - b. Arrange serology for Toxo, EBV, CMV and observe
 - c. Discharge with no follow up
 - d. Prescribe amoxy-clav

b. serology: Toxo particularly common

Case 2



- 20 yr old woman
- Month history of very sore throat, pain on cough and swallow radiating to ears.
- Very tender and hard right thyroid nodule
- T4 = 32, TSH= 0.002
- ESR =40
- No toxic symptoms or signs

Case 2

Most likely diagnosis

- a. Subacute thyroiditis
- b. Graves disease
- c. Bleed into a thyroid nodule
- d. Hashimotos thyroiditis

Case 2

Most likely diagnosis

- a. Subacute thyroiditis
 - b. Graves disease
 - c. Bleed into a thyroid nodule
 - d. Hashimotos thyroiditis
-
- a. Subacute or de Quervain's or painful thyroiditis

de Quervains subacute thyroiditis

What is best confirming test?

- a. FNA
- b. Ultrasound
- c. Thyroid lobectomy
- d. scintigraphy

de Quervains subacute thyroiditis

What is best confirming test?

- a. FNA
- b. Ultrasound
- c. Thyroid lobectomy
- d. scintigraphy

d. scintigraphy- shows reduced uptake in gland

de Quervains subacute thyroiditis

- Inflammatory condition
 - Thought to be viral origin (occurs in clusters)
 - Can be ipsilateral, bilateral or sequential
 - Ultrasound
 - can show a suspicious, infiltrative pattern
 - FNA
 - Painful, shows inflammatory lymphocytes with giant cells
 - Treatment
 - Responds very well to anti-inflammatory steroids
 - Follow up
 - Repeat thyroid function tests monthly as high risk of developing hypothyroidism

Case 3



- 45 yr old female
- Never smoked
- 3 week history right neck mass
- No pain
- No cutaneous malignancy
- No pharyngeal symptoms

Most approp test

- a. Oral cavity exam
- b. Flexible endoscopy
- c. FNA
- d. skin examination
- e. All of the above

e. All these are appropriate

FNA shows fluid with mild atypical epithelial cells. Pathologist suggests excision of mass.

Do you?

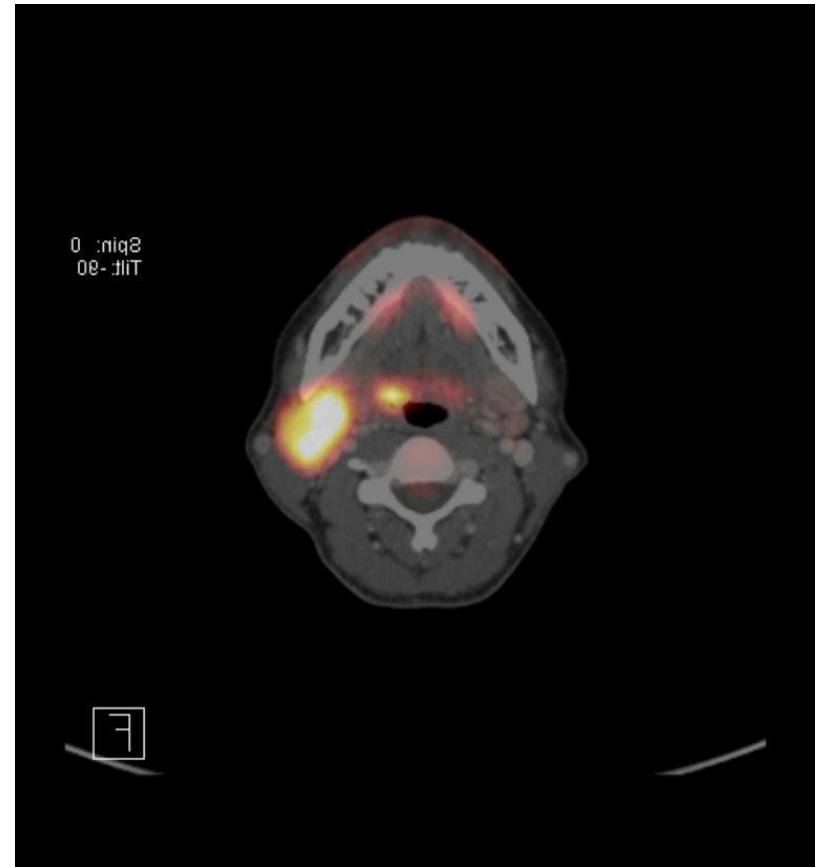
- a. Refer for excision of neck mass
- b. Send to another pathologist for repeat FNA
- c. Send patient away with no follow up
- d. Refer for upper airway exam and biopsy of potential primary sites

d.need to rule out a cystic metastases from upper airway SCC

What is the most likely primary site for this nodal metastases

- a. Tongue tip
- b. Oropharynx (tonsil tongue/base)
- c. parotid gland
- d. larynx

b. oropharynx



Case 7

- 71 yr old man
- Biopsy proven SCC scalp
- Excised March 2016
 - Poorly differentiated SCC
 - Clear margins
 - No LVI or PNI
 - Recommended and had 6 weeks electrons RT



Case 7

- Sept 2016
- Presents with lump right neck
- No other symptoms
- What is most appropriate?
 - A. Excision node
 - .B. FNA +CT Scan neck
 - C. FNA + CT neck and chest
 - D. FNA only



C. FNA CT neck and chest

Case 7

- FNA = malignant cells suggestive of SCC
- CT= multiple level 5a nodes some with cystic change
- Parotids, contralateral neck and chest negative



Case 7

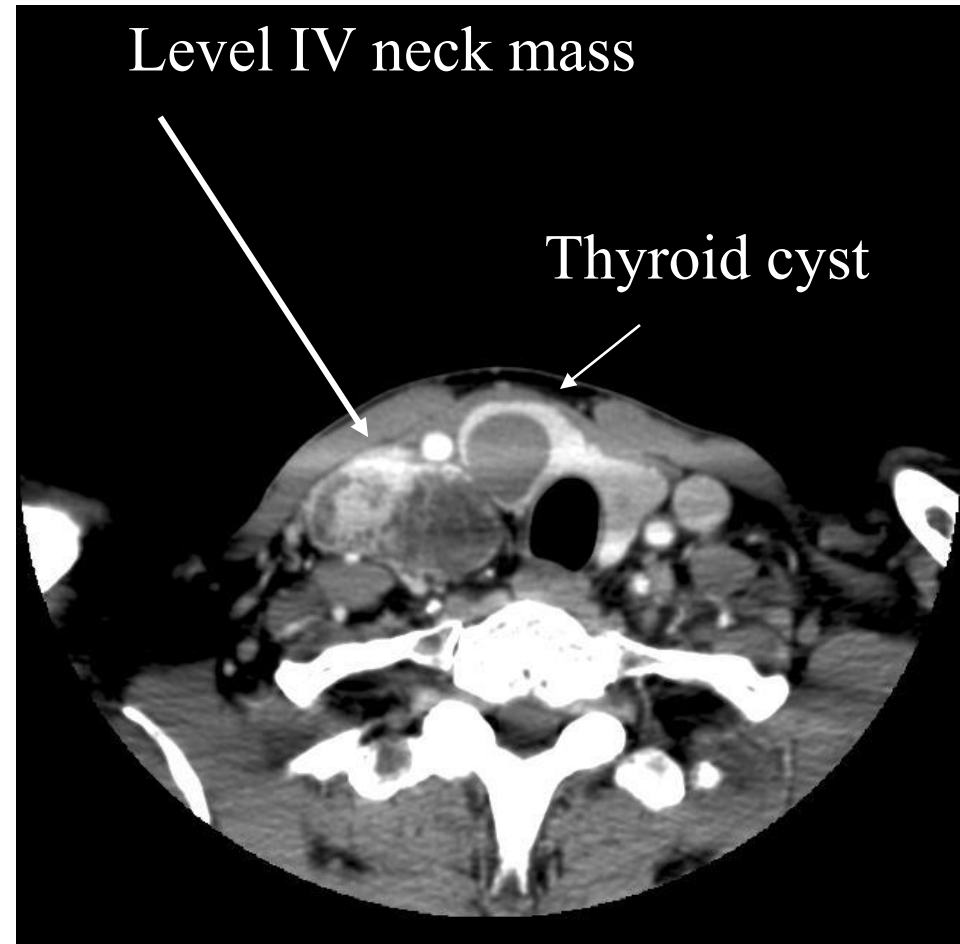
- High risk features?
 - >2cm
 - Poorly difftd/ infiltrative
 - LVI/ PNI
 - Depth >4mm
 - Lip Ear

Case 7

- Histology shows 3 matted neck nodes with extensive ECS and clear margins
- No parotid nodes
- Post op treatment?

Case 3

- 50 yr old man
- Hard mass low right neck
- CT as shown
- FNA mass suggests benign thyroid follicular cells



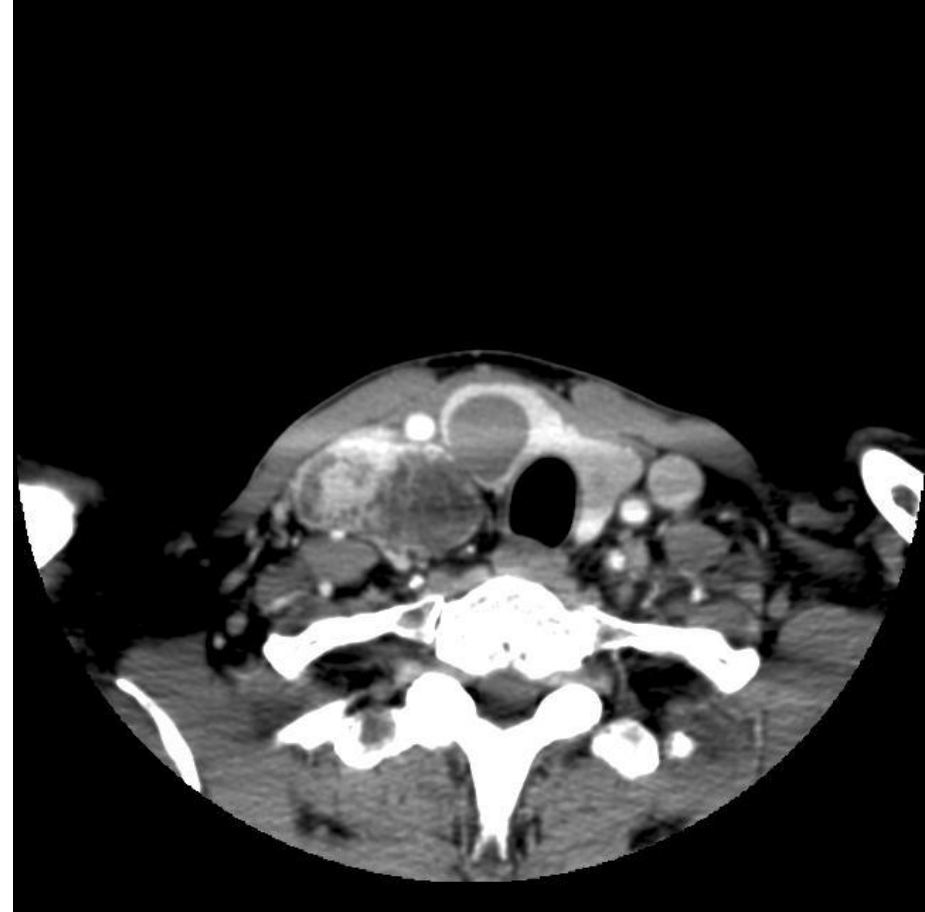
Case 3

- What is this most likely to be.
 - a. metastatic thyroid cancer
 - b. missed biopsy (thyroid cyst)
 - c. lateral aberrant thyroid tissue
 - d. pathologist error

a. Metastatic thyroid cancer

Case 3

- Papillary cancer is well differentiated and cells can look benign.
- Mass wont elevate like thyroid even though in same position
- Can confirm by frozen section intraoperatively



John Chaplin & Nick McIvor