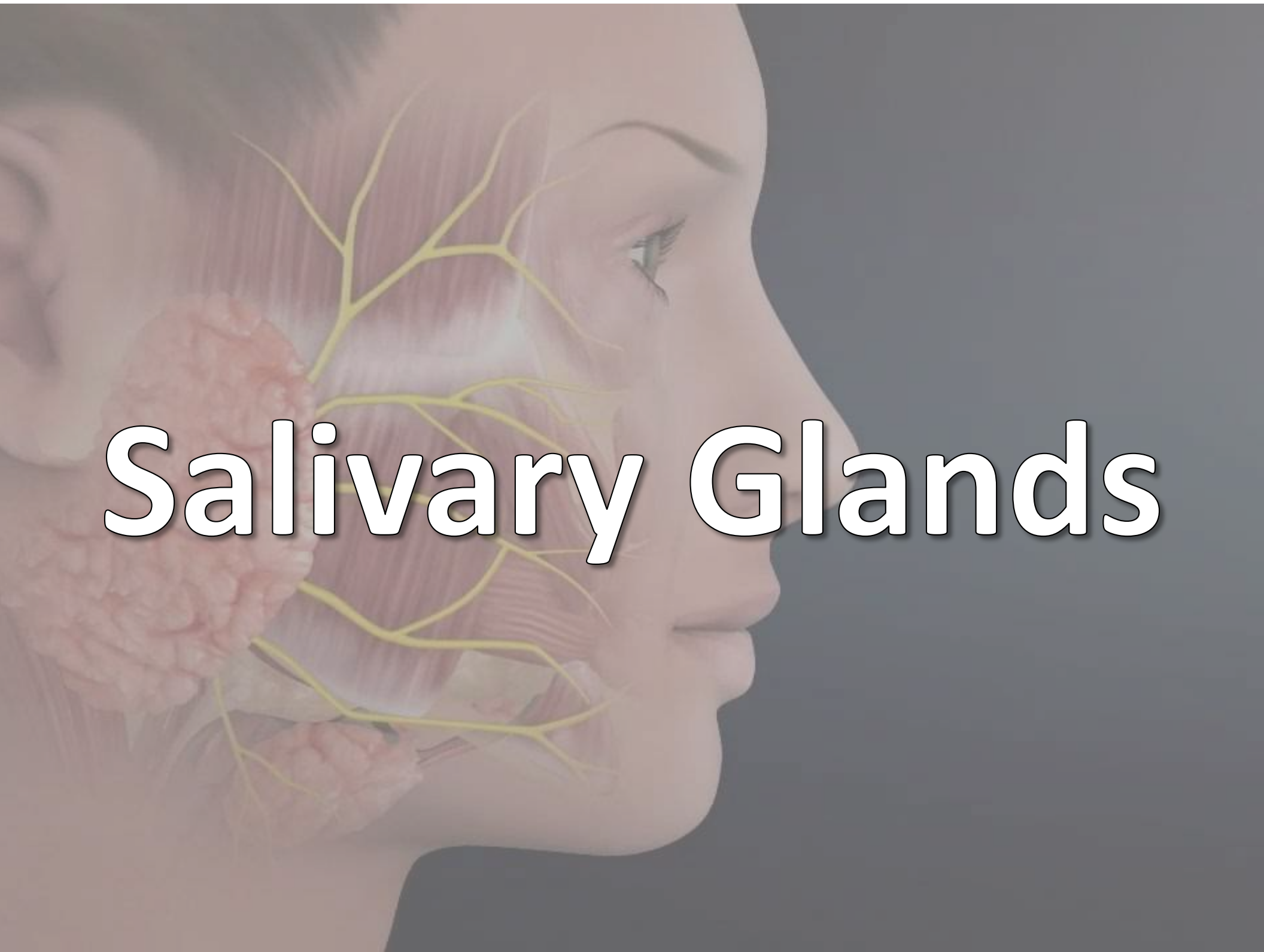
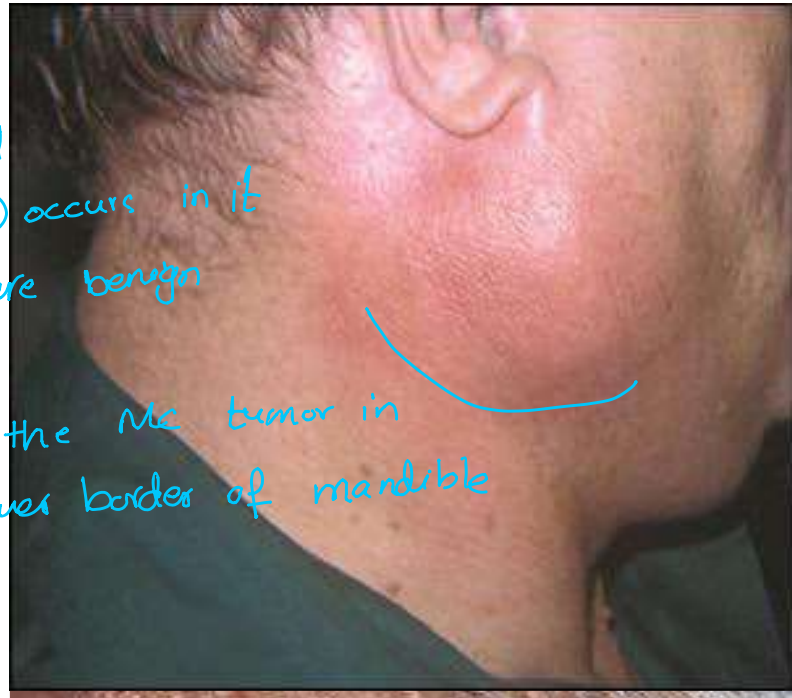

Salivary Glands

Q1: What is the organ affected?

- Parotid gland → major salivary gland
  ↳ most tumors (80%) occurs in it
  ↳ most of them are benign

Q2: What is the most likely Dx?

- Parotid Pleomorphic Adenoma → as it's the Mc tumor in Parotid gland + lies at lower border of mandible



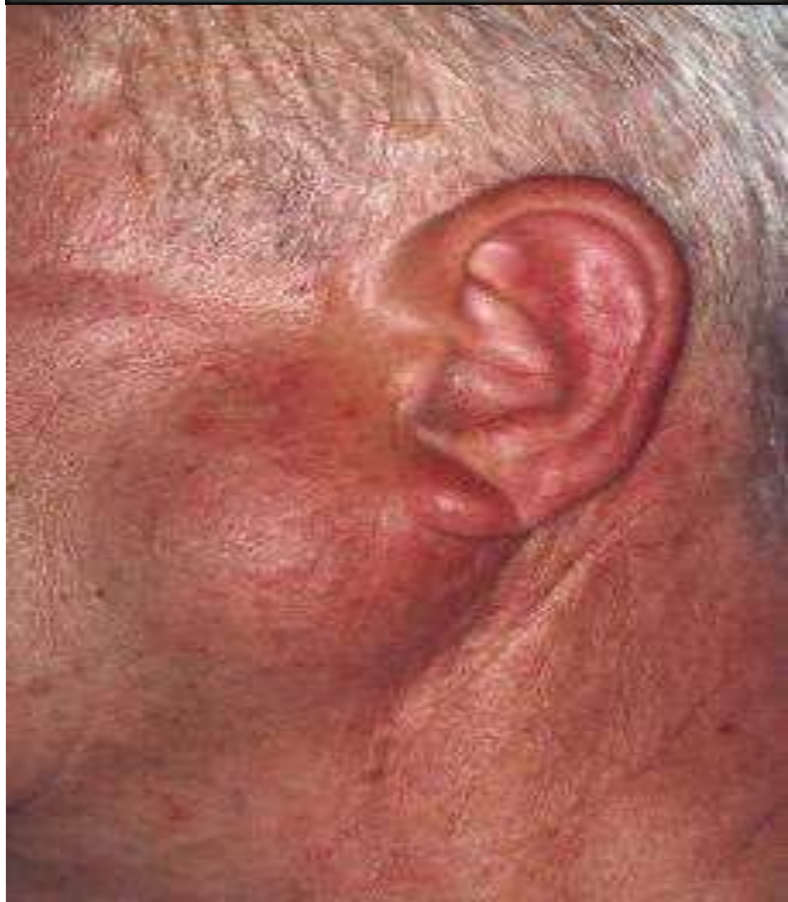
Q3: What is the most common subtype?

- Myoxoid (not sure)

subtypes are:
① myoxoid (stroma-rich)
② cellular
③ mixed

Q4: What is 1 sign that will confirm your Dx?

- Rubbery-hard (①), does not fluctuate (②) and of limited mobility (③) on physical examination

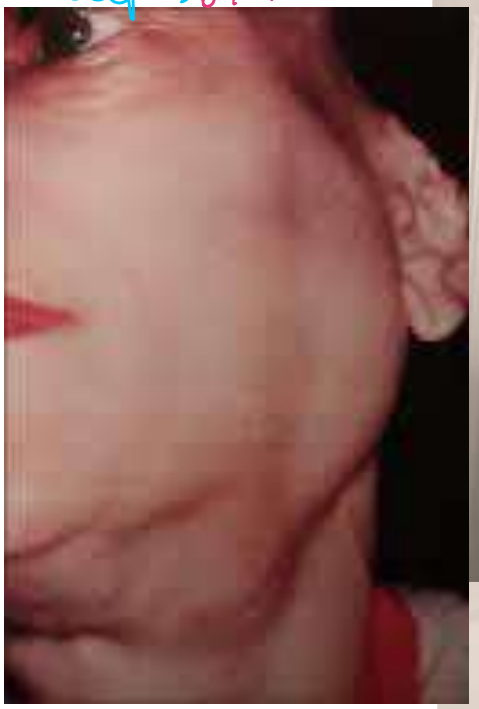


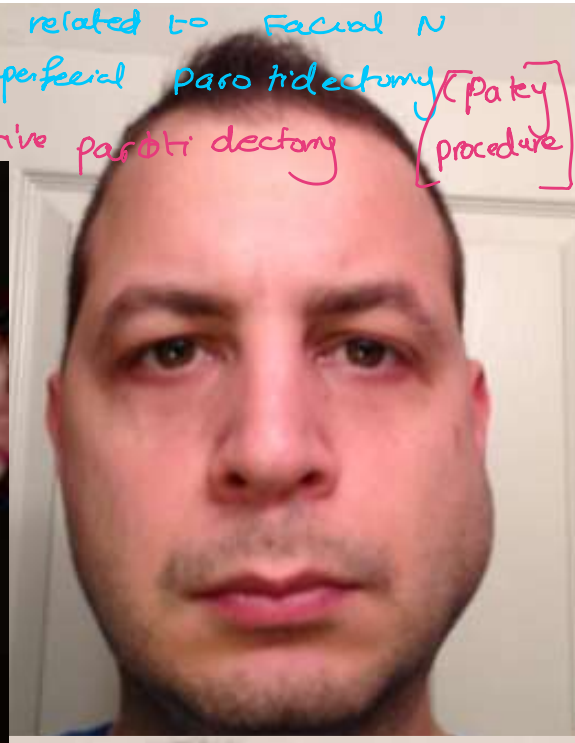
- **Benign** salivary gland tumor.
- The most common salivary gland tumor.
- Usual location : parotid gland.
- single firm, mobile, well- circumscribed mass.
- **Painless.**
- Slow growing.

Q5: How do we treat this pt?

- Superficial parotidectomy, some said total parotidectomy

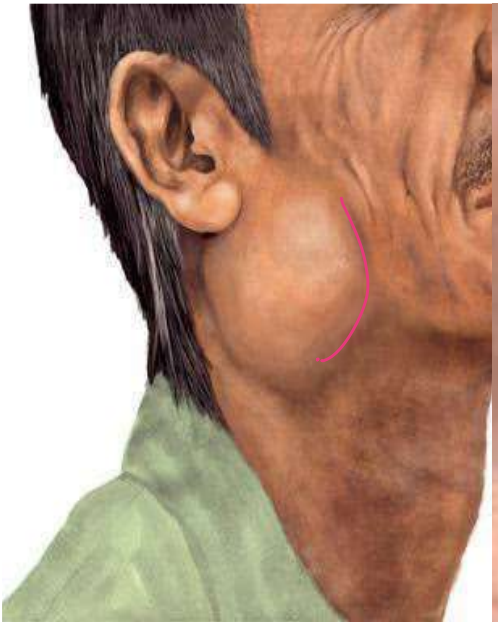
→ according to its location in related to Facial N
① If it's superficial to it → superficial Paro tidectomy (Pakey procedure)
② If it's deep → total conservative parotidectomy

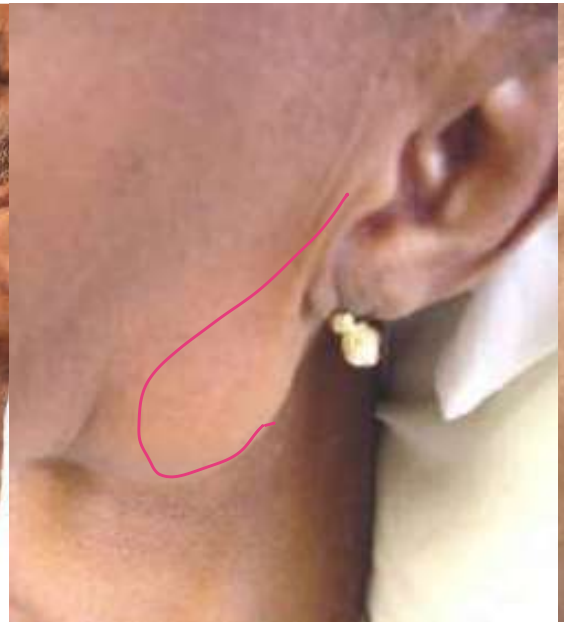


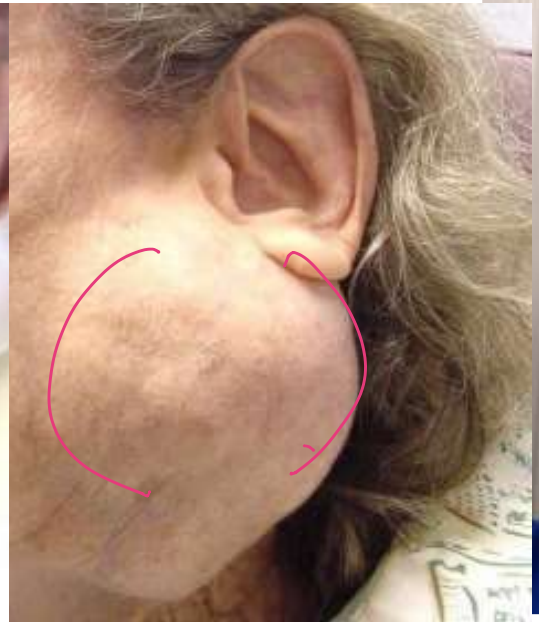


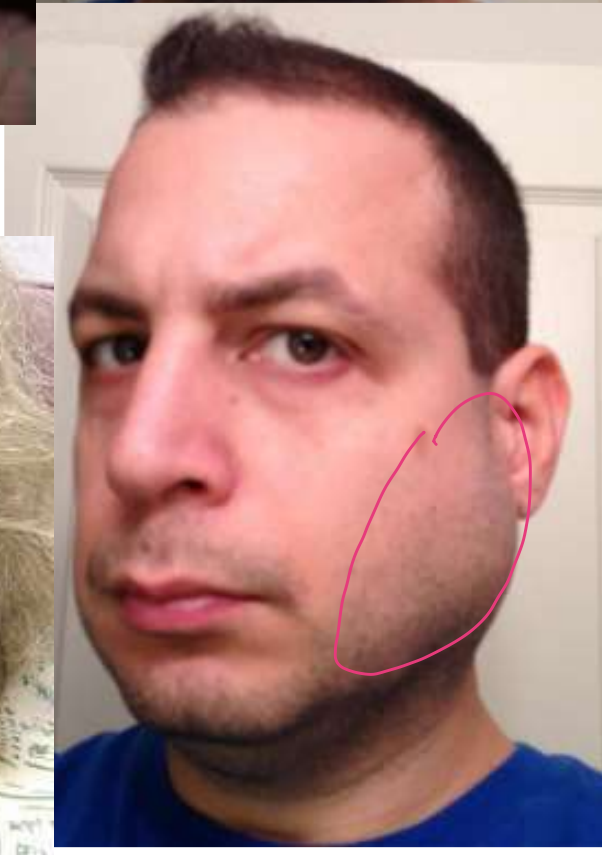
Q6: Histology?

1. Epithelial
2. Myoepithelial
3. Stroma
4. Pseudopods
5. No true capsule





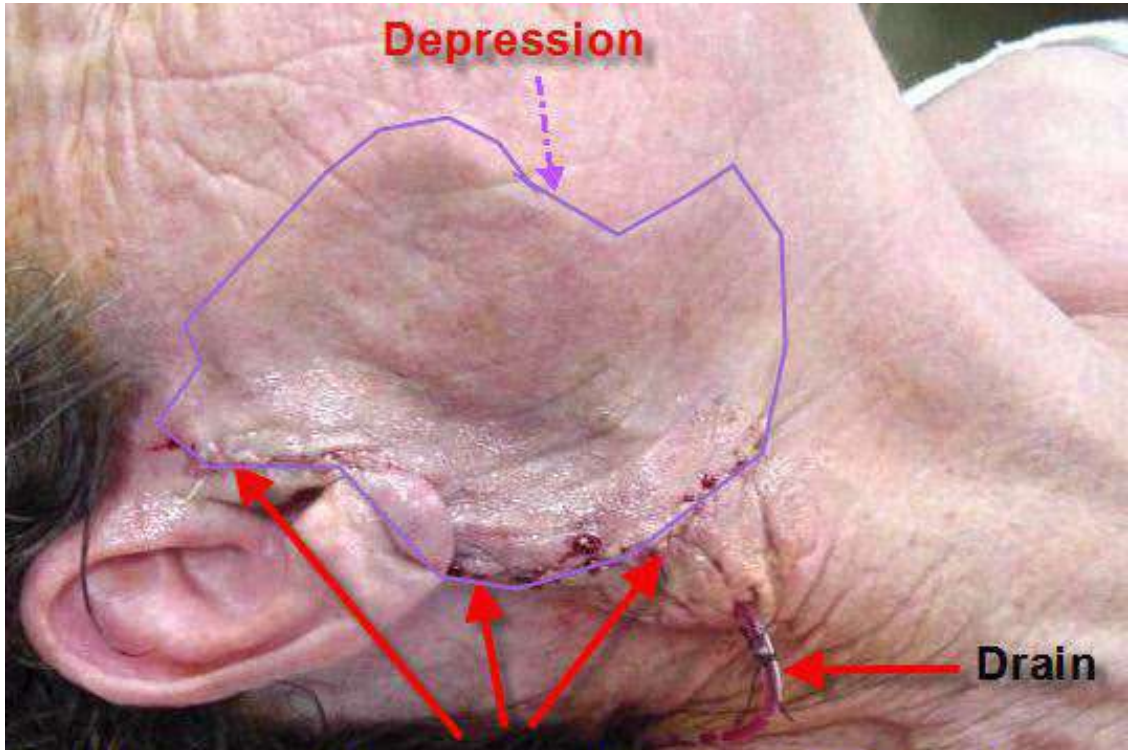




Q: a patient had a superficial parotidectomy:

Q1: What is the most likely indication?

- Parotid gland tumor (most likely pleomorphic adenoma)



Q2: What is the nerve in risk of being damaged?

- Facial nerve

Some said: great auricular nerve

Both are at risk but the NC is great auricular N

Q: 50 yo pt presented with bilateral neck swelling:

10% bilateral

>50 yrs

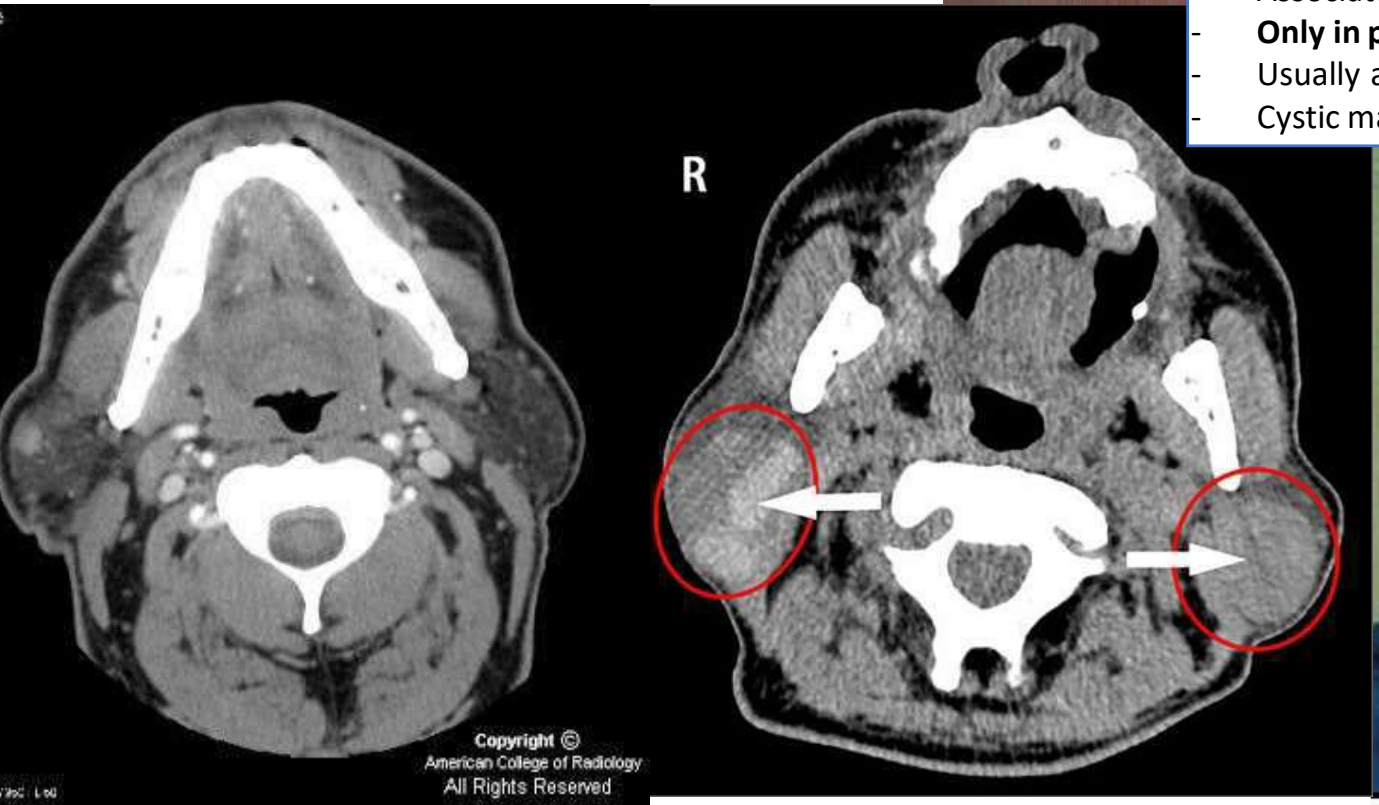
Q1: What is the Dx?

- Warthin's tumor

Q2: What is the malignancy risk?

- 0.3%

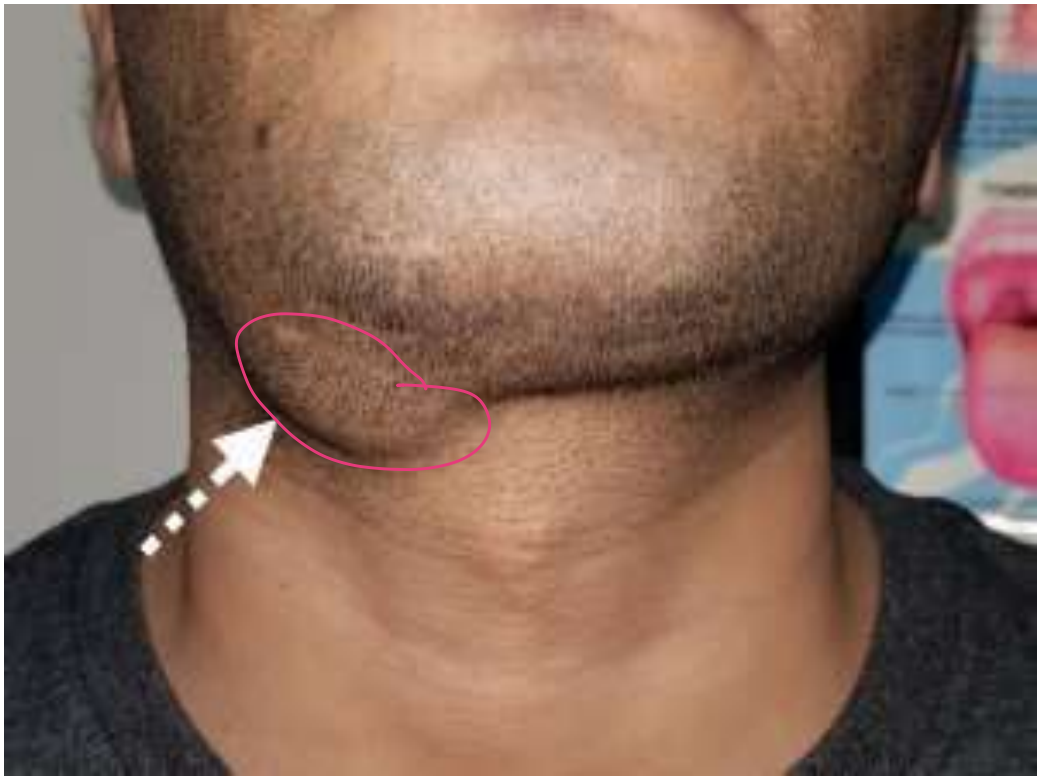
- is the 2nd mc benign salivary gland tumor.
- More in males. but in last decades
- Associated with smoking. ↑ in Females
- **Only in parotid.**
- Usually at parotid tail. still lower than male
- Cystic mass.



pleomorphic adenoma		warthar in
in lower border of mandible	location	inferior pole of superficial lobe (parotid tail
male / young middle age	epidemology	≥50 , ↑ Female because of smoking
asymptomatic , painless , limited mobality, Hard - Rubbery, not fluctuated , well circumscribed	grossly	- Soft, fluctuant, painless - large cystic spaces - multifocal
—	bilateral	~10
same the answer above	Histo	mix of epithelial & lymphatic tissue + Fibrouse capsule
same the answer above	ttt	↱ sup lobe → patey ↳ deep lobe → total conservative Parotidectomy
≤ 5%.	Risk of malignancy	0,3%.

Q1: if a surgery was done what is the nerve at risk to be injured?

- Marginal Mandibular Nerve



Q2: What is the risk of malignancy?

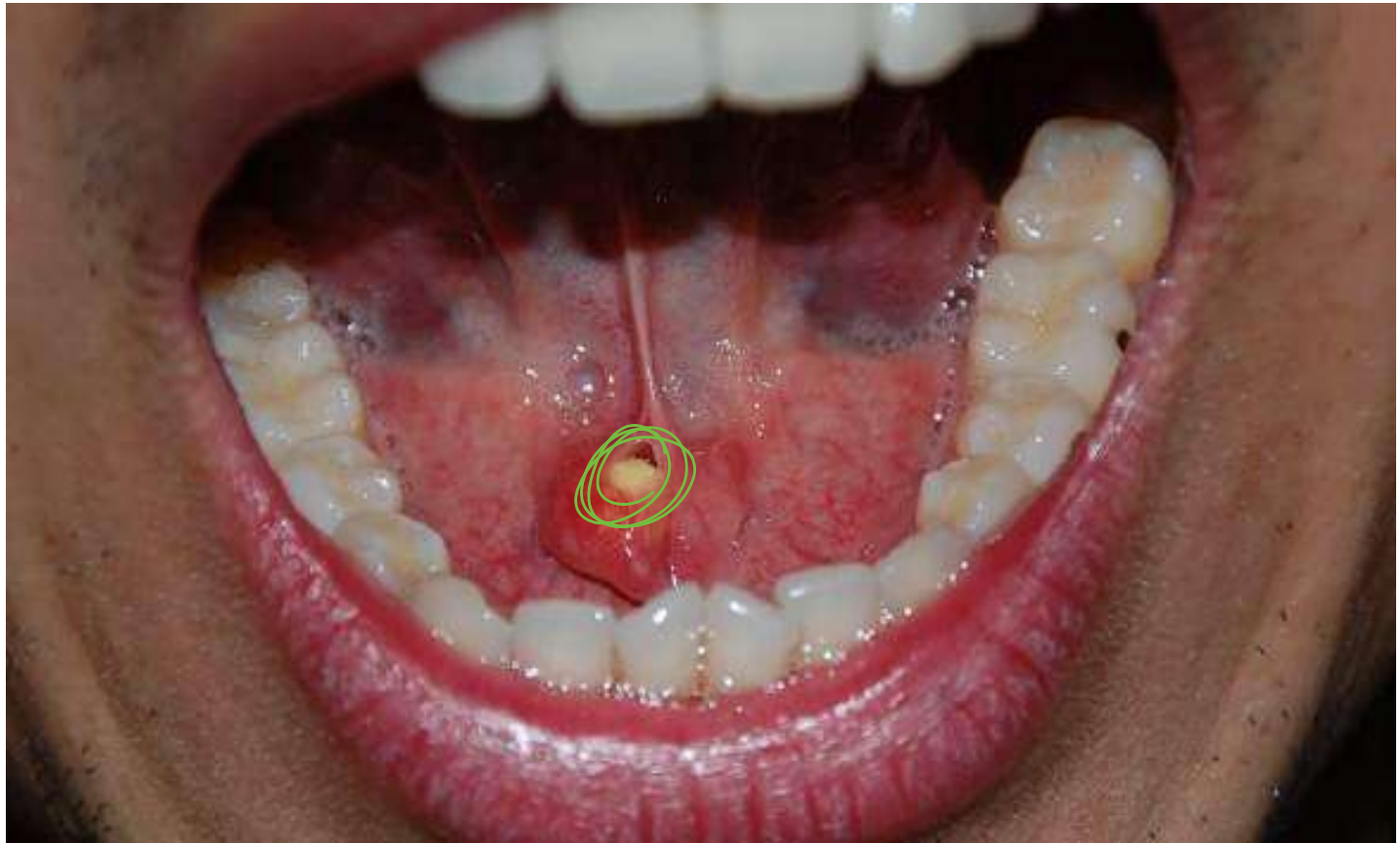
-50%

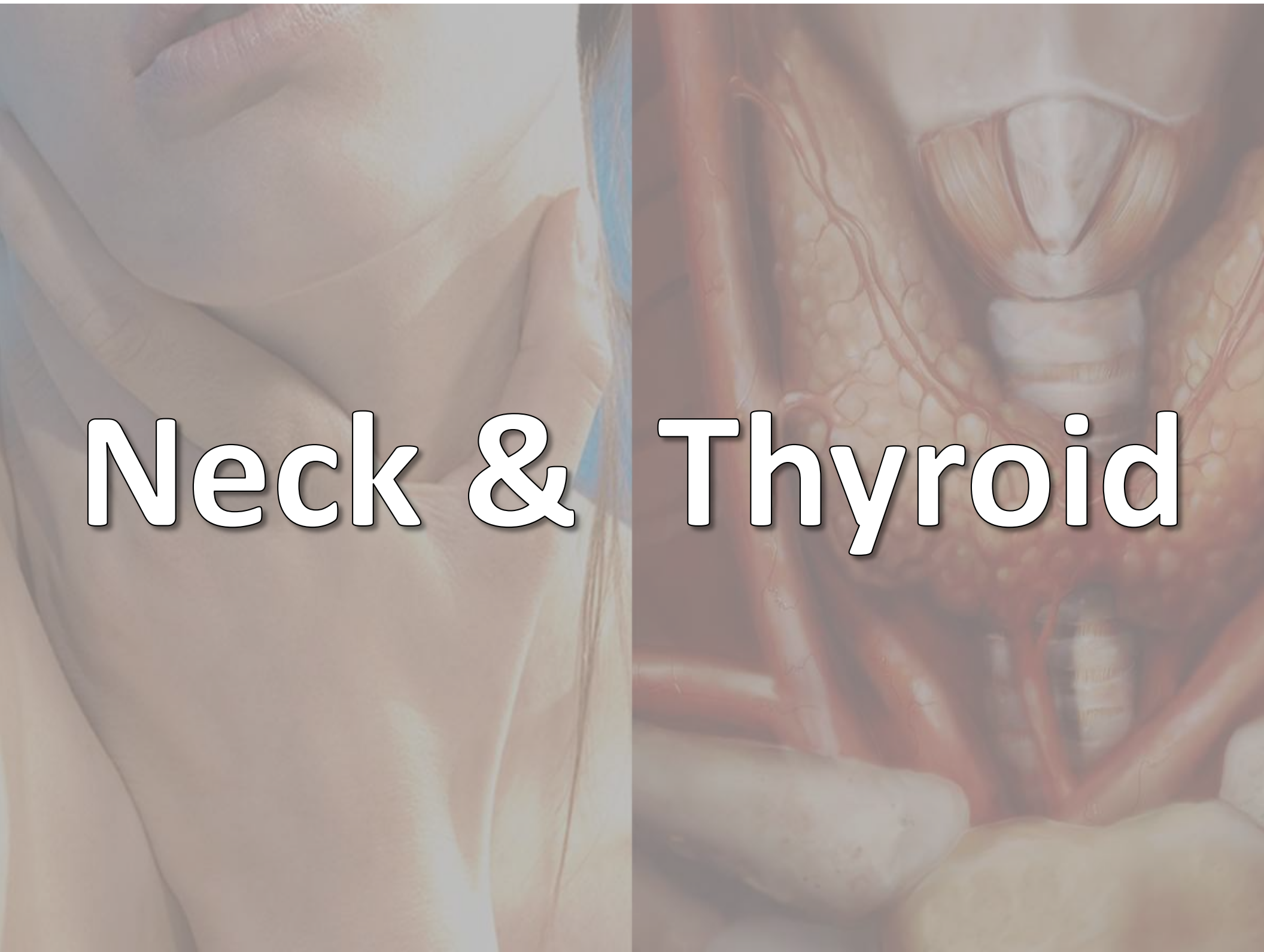
Salivary Gland	Malignancy Rate	Incidence of Tumor
Parotid	20%	80%
Submandibular	50%	15%
Sublingual & Minor	70%	5%

Sialolithiasis = salivary stones

Submandibular salivary gland stone

- The stone is located in the Wharton's duct (most common site) : in the floor of the mouth near the frenulum of the tongue.




Neck & Thyroid

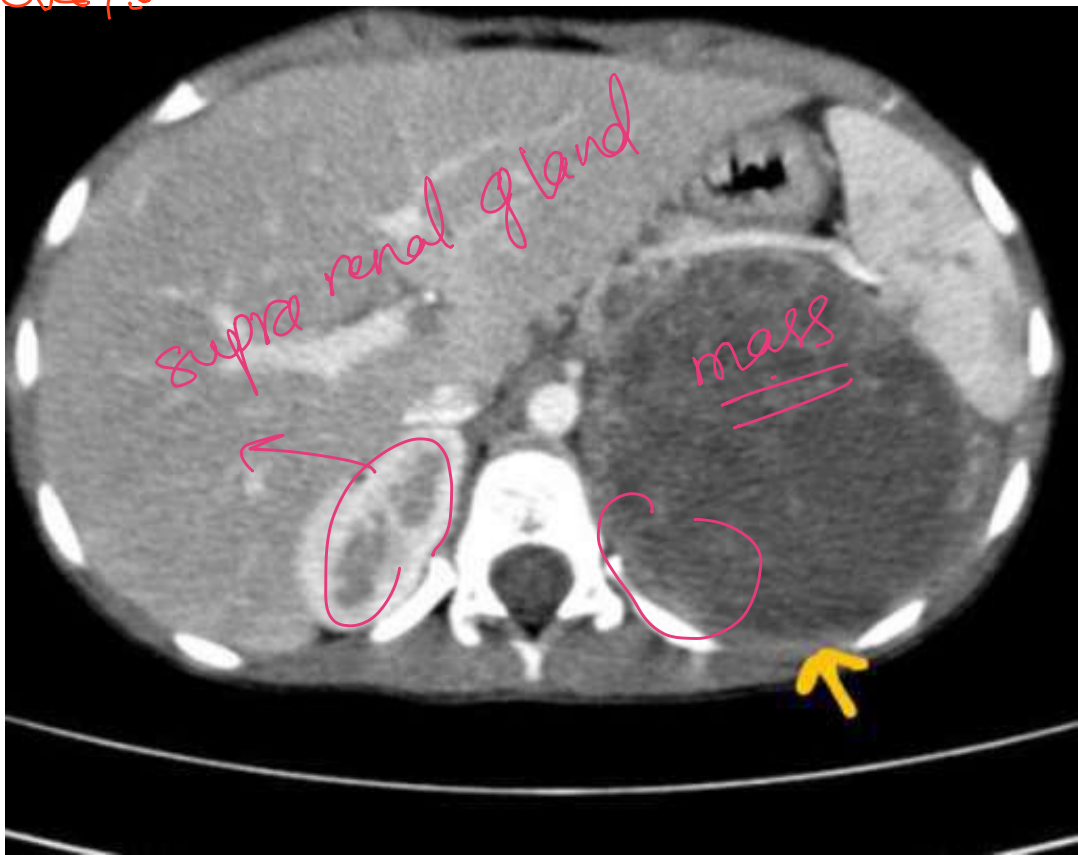
Q: a patient with thyroid medullary cancer, & a CT was done:

Q1: What is your next step? (not sure what the dr. meant so here is the possibilities):

- Assess the functionality of the adrenal tumor by hx, physical ex and ordering lab tests: KFT (Na, K, Creatinine, Urea) / Aldosterone levels/ cortisol/ metanephrine / noremetanephrine / vanillyl mandelic acid (VMA)
- pheochromocytoma
- 24h urine analysis for catecholamine metabolites (VMA/Meta)

Q2: If the patient has no genetic abnormality and the lesion is not functioning what will you do next?

- Because it is very large > surgery adrenalectomy, the dr said : If it was more than 4 cm then you have to remove it immediately



any adrenal mass → the 1st thing you should do is to assess the Function, why?

- 73% incidentaloma → 25% malignant if its size ≥ 4 cm
- 7% cushing adenoma
- 4% pheochromocytoma
- 4% adrenocortical adenoma
- 2% myalipoma
- 1% conn's adenoma

(could be malignant)

do Biochemical profile:

Aldosterone, renin, serum Na & K → conn's
morning cortisol, 1mg dexa suppression test → cushing
serum NVE & meta nephrin → pheochromocytoma

If everything is normal, then cheack for size:

< 4 cm → Follow up after 6 months (≥ 1 cm growth Rate? Remove)
(< 1 cm ? Follow up yearly)

≥ 4 cm → Remove it

Q: a patient presented with episodic sweating and hypertension:

Q1: What is the Dx?

- Pheochromocytoma

Q2: What is the 1st thing to do?

- Check if functional or not by checking cortisol, renin, angiotensin and VMA,… etc

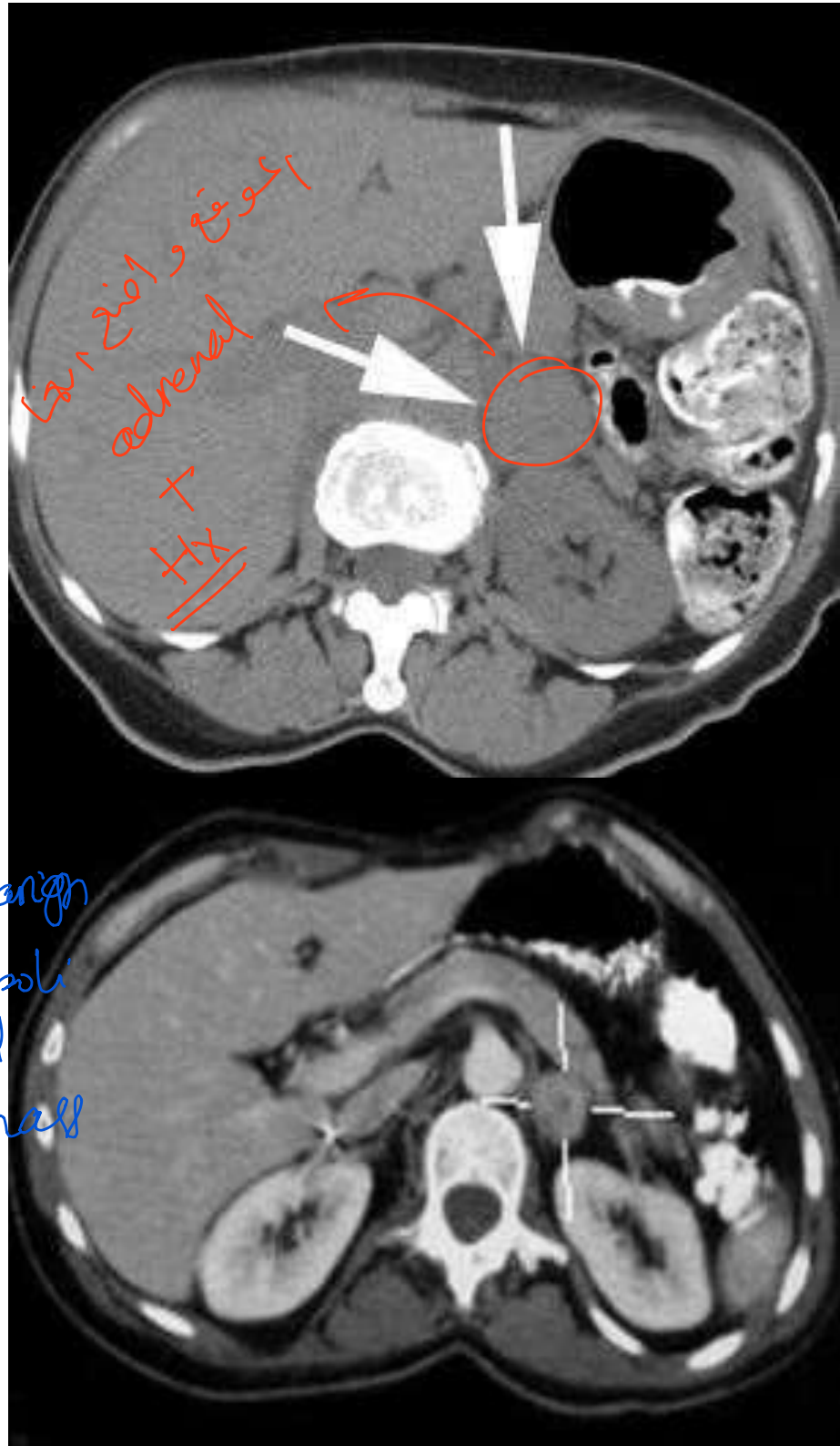
Q3: What raise the possibility of malignancy?

- >4 cm
- necrosis
- hemorrhage
  - Heterogenus

- irregular margin
- venous emboli in proximal vein to mass

Q2: What is the size that would be considered an indication for surgery?

- ≥4 cm



Q: Lab investigations show high aldosterone level and high ratio of PAC to PRA:

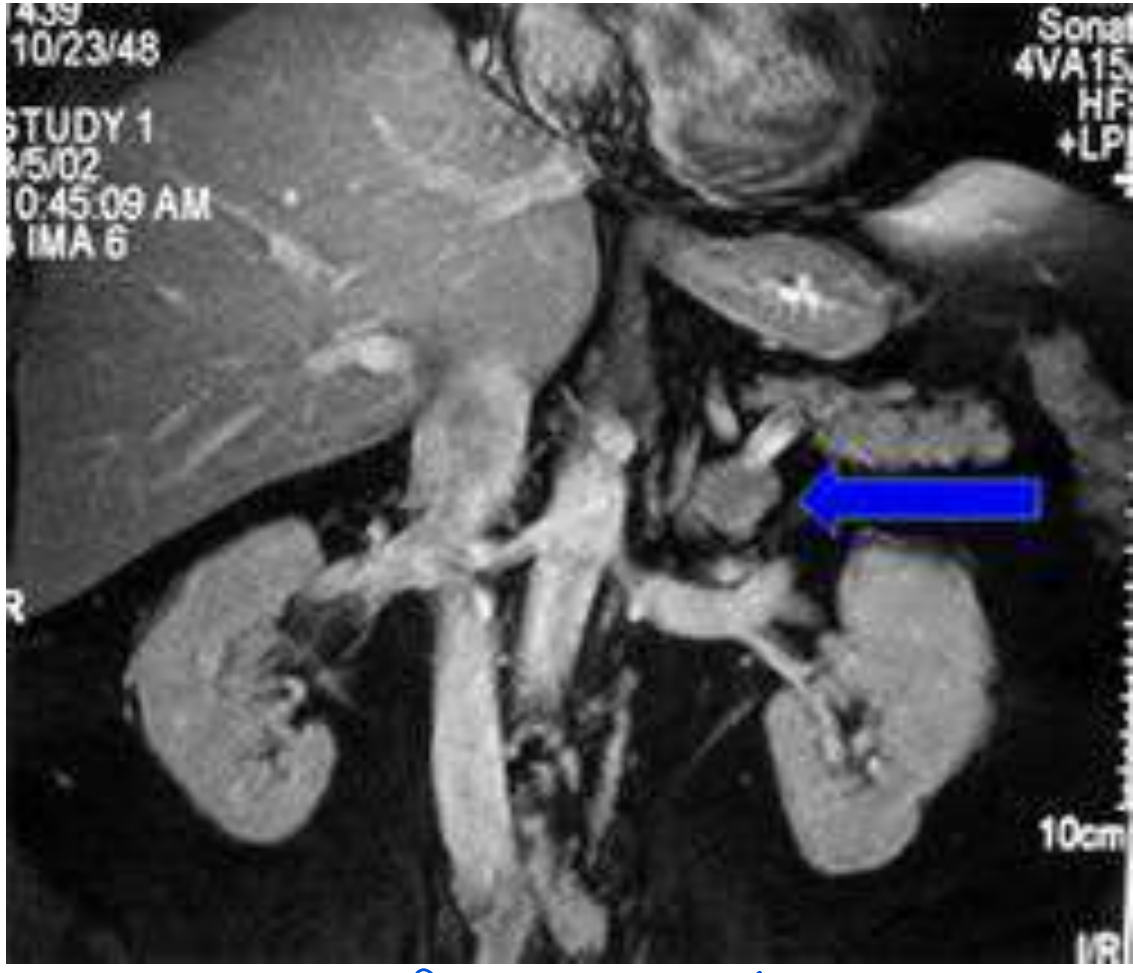
endo

Q1: What is your Dx?

- Conn's tumor

Q2: Mention a common presentation for this patient?

- Hypertension as ↑ reabsorption of Na & water
  ↑ excretion of K & H



DDx of neck lumps

	Midline	Lateral
Neoplastic	Thyroid Parathyroid Pharyngeal/Laryngeal	Most tumors (lymphoma, carotid…)
Congenital	Thyroglossal duct cyst Laryngocele	Cystic Hygroma Branchial cleft cyst
Infectious	Ludwig's Angina	Most infections (cat-scratch, mononucleosis, sialadenitis…)
Inflammatory	Submental reactive lymphadenopathy Thyroiditis	Most reactive lymphadenopathy

Q1: What is the Dx?

- Lacerated neck wound

Q2: What zone?

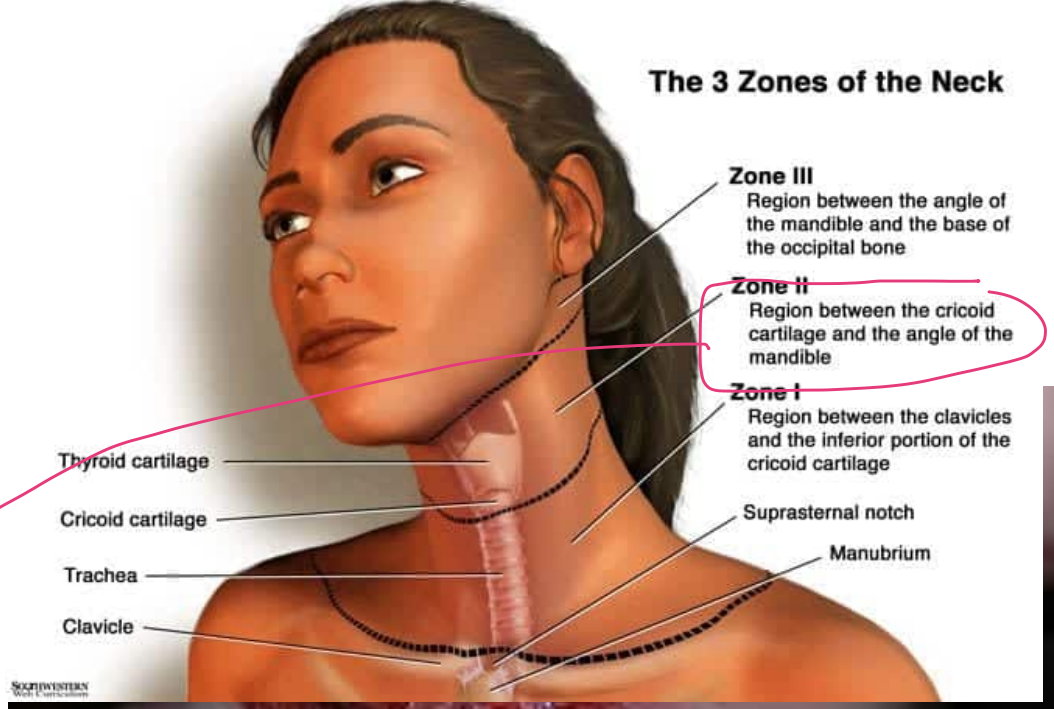
- Zone 2

Q3: Name the borders for it?

- From the angle of the mandible to the cricoid cartilage

Q4: When to intubate the patient?

1) Expanding hematoma
2) Obstructive complication
3) Cervical vertebrae injury



PENETRATING NECK INJURIES

What depth of neck injury must be further evaluated?

Penetrating injury through the platysma

Define the anatomy of the neck by trauma zones:

Zone III

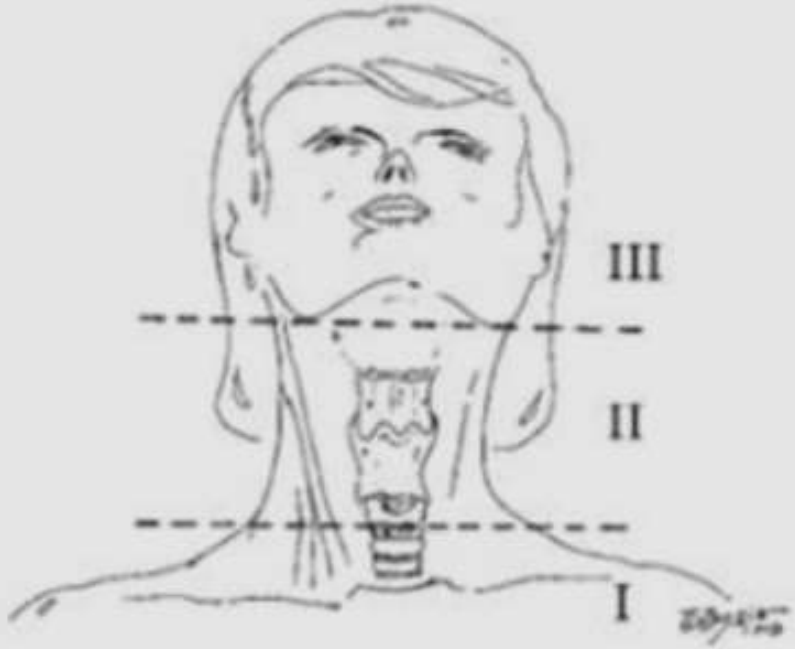
Angle of the mandible and up

Zone II

Angle of the mandible to the cricoid cartilage

Zone I

Below the cricoid cartilage



How do most surgeons treat penetrating neck injuries (those that penetrate the platysma) by neck zone:	
Zone III	Selective exploration
Zone II	Surgical exploration vs. selective exploration
Zone I	Selective exploration
What is selective exploration?	Selective exploration is based on diagnostic studies that include A-gram or CT A-gram, bronchoscopy, esophagoscopy
What are the indications for surgical exploration in all penetrating neck wounds (Zones I, II, III)?	"**Hard** signs" of significant neck damage: **shock,** exsanguinating hemorrhage, expanding hematoma, pulsatile hematoma, neurologic injury, subQ

VERY COMMON QUESTION!

Bethesda diagnostic category			Risk of malignancy	Usual management
I	Nondiagnostic or unsatisfactory	Cyst fluid only Virtually acellular specimen Other (obscuring blood, clotting artifact, etc.)	1% to 4%	Repeat FNA with ultrasound guidance
II	Benign	Consistent with a benign follicular nodule (includes adenomatoid nodule, colloid nodule, etc.) Consistent with lymphocytic (Hashimoto) thyroiditis in the proper clinical context Consistent with granulomatous (subacute) thyroiditis Other	0% to 3%	Clinical follow-up
III	Atypia of undetermined significance or follicular lesion of undetermined significance		5% to 15%	Repeat FNA
IV	Follicular neoplasm or suspicious for a follicular neoplasm	Specify if Hurthle cell (oncocytic) type	15% to 30%	Surgical lobectomy
V	Suspicious for malignancy	Suspicious for papillary carcinoma Suspicious for medullary carcinoma Suspicious for metastatic carcinoma Suspicious for lymphoma Other	60% to 75%	Near-total thyroidectomy or surgical lobectomy
VI	Malignant	Papillary thyroid carcinoma Poorly differentiated carcinoma Medullary thyroid carcinoma Undifferentiated (anaplastic) carcinoma Squamous cell carcinoma Carcinoma with mixed features (specify) Metastatic carcinoma Non-Hodgkin lymphoma Other	97% to 99%	Near-total thyroidectomy

Q1: What is the Dx?

- Thyroglossal duct cyst

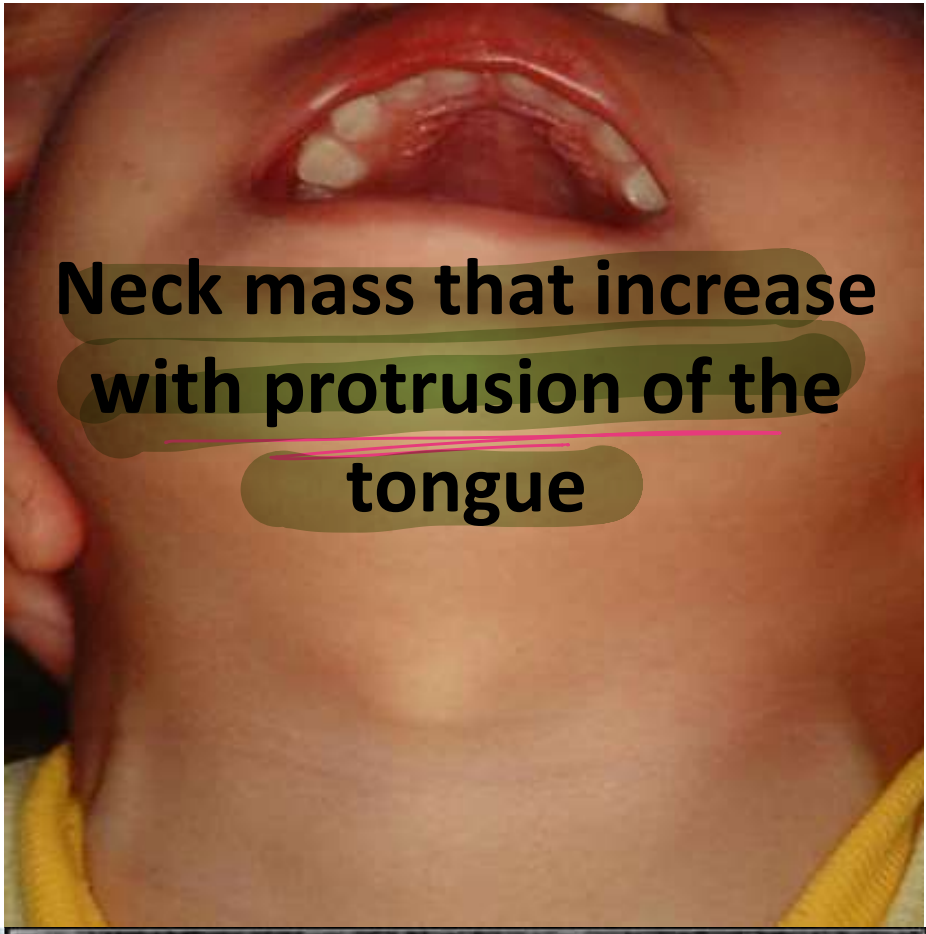
Q2: What is the structure on U/S (involved bone)?

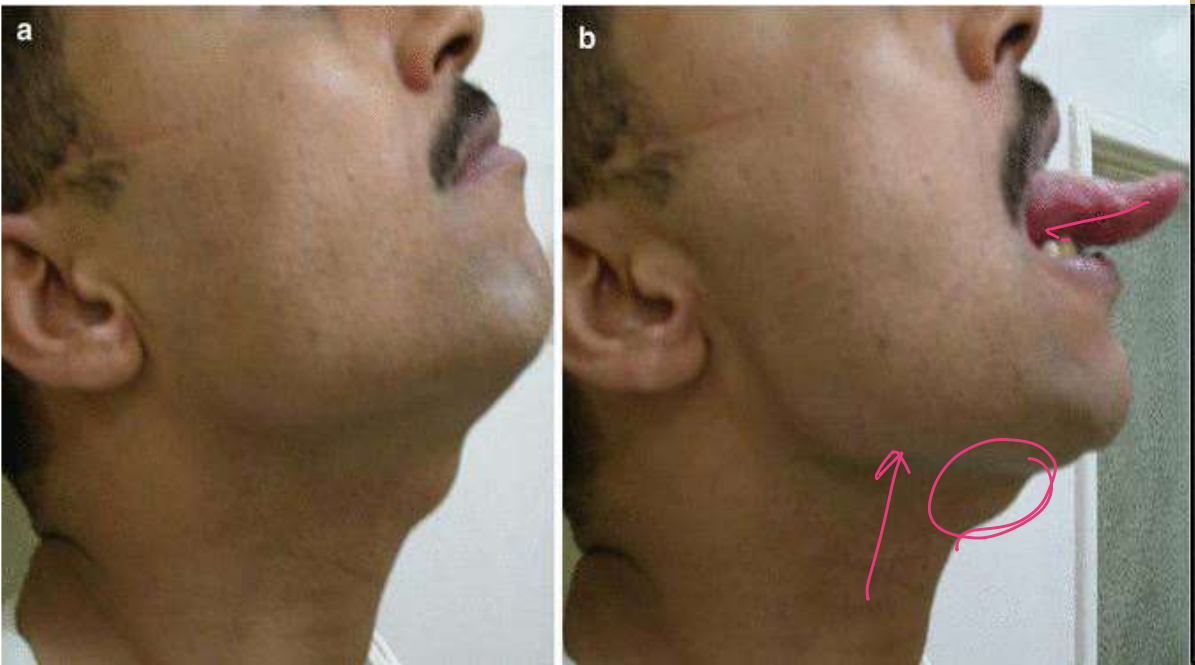
- Hyoid bone

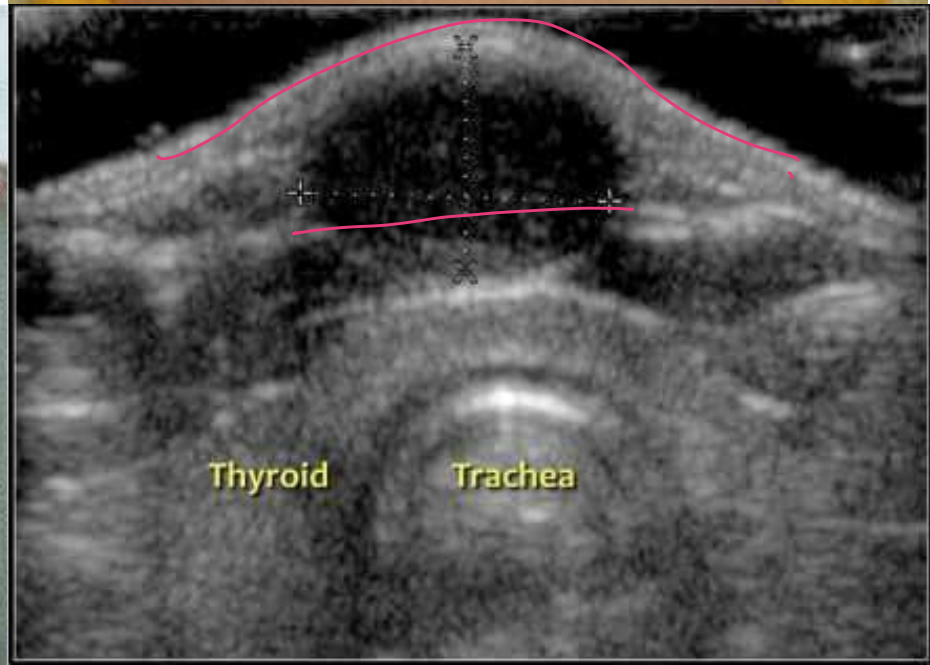
Q3: What is the Mx?

- Sistrunk's procedure

(if the hyoid bone not removed the recurrence rate is > 50-60%)







Q4: What is the malignancy risk?

- 2%

MC is papillary then SCC

Q5: Name the malignancy that does not occur here?

- ~~Medullary Ca~~ → not seen also in pyramidal lobe & isthmus

neural crest

Q6: Complications?

(1) (2)

- Infection, malignant risk

(3) Sinus Formation due to ruptured cyst

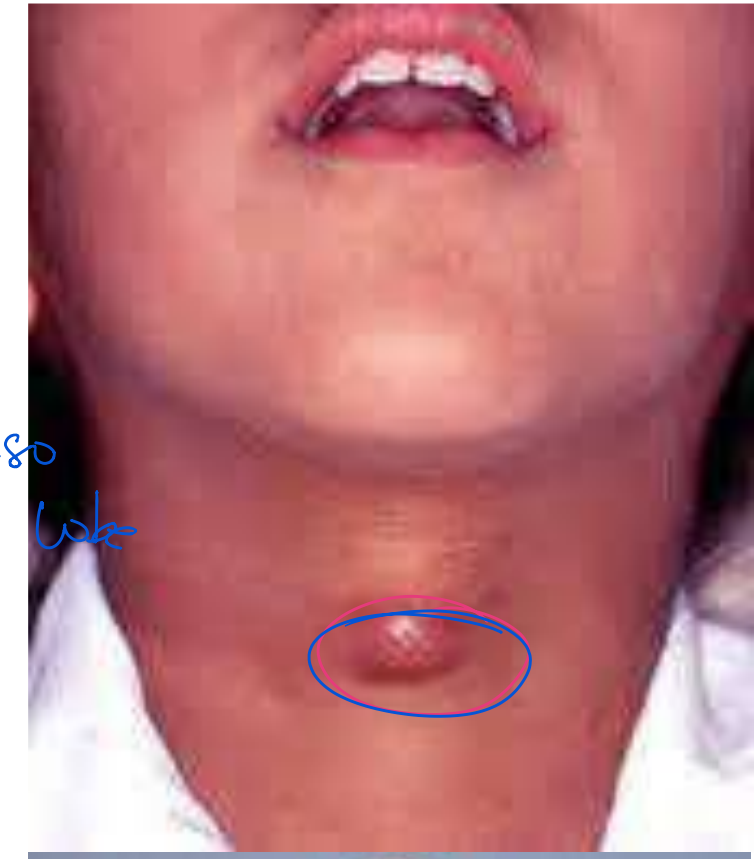
Q7: Sign to confirm your Dx?

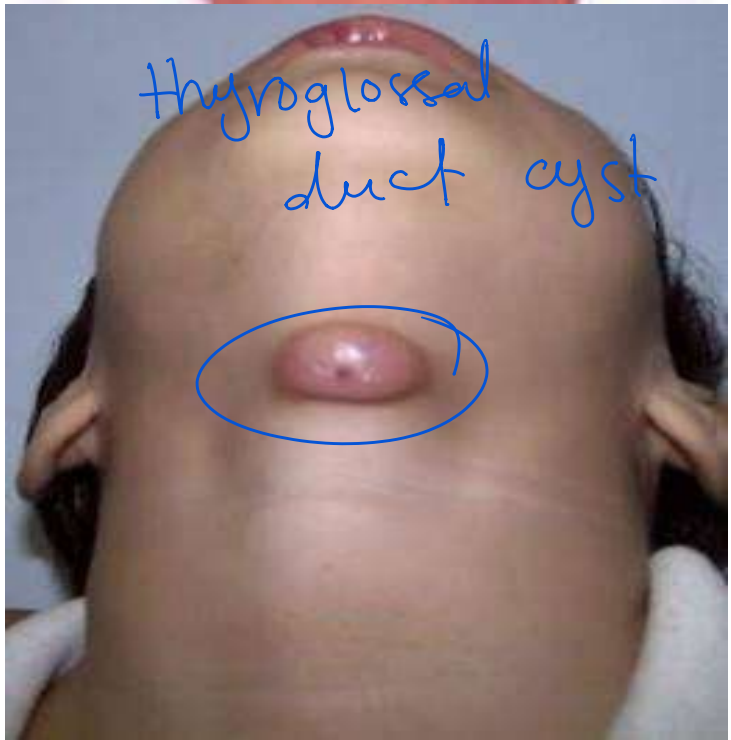
- Movement with tongue protrusion

by inspection or palpation

Q8: What is the risk of recurrence?

- Sistrunk procedure reduces the recurrence risk from 60% to < 10%

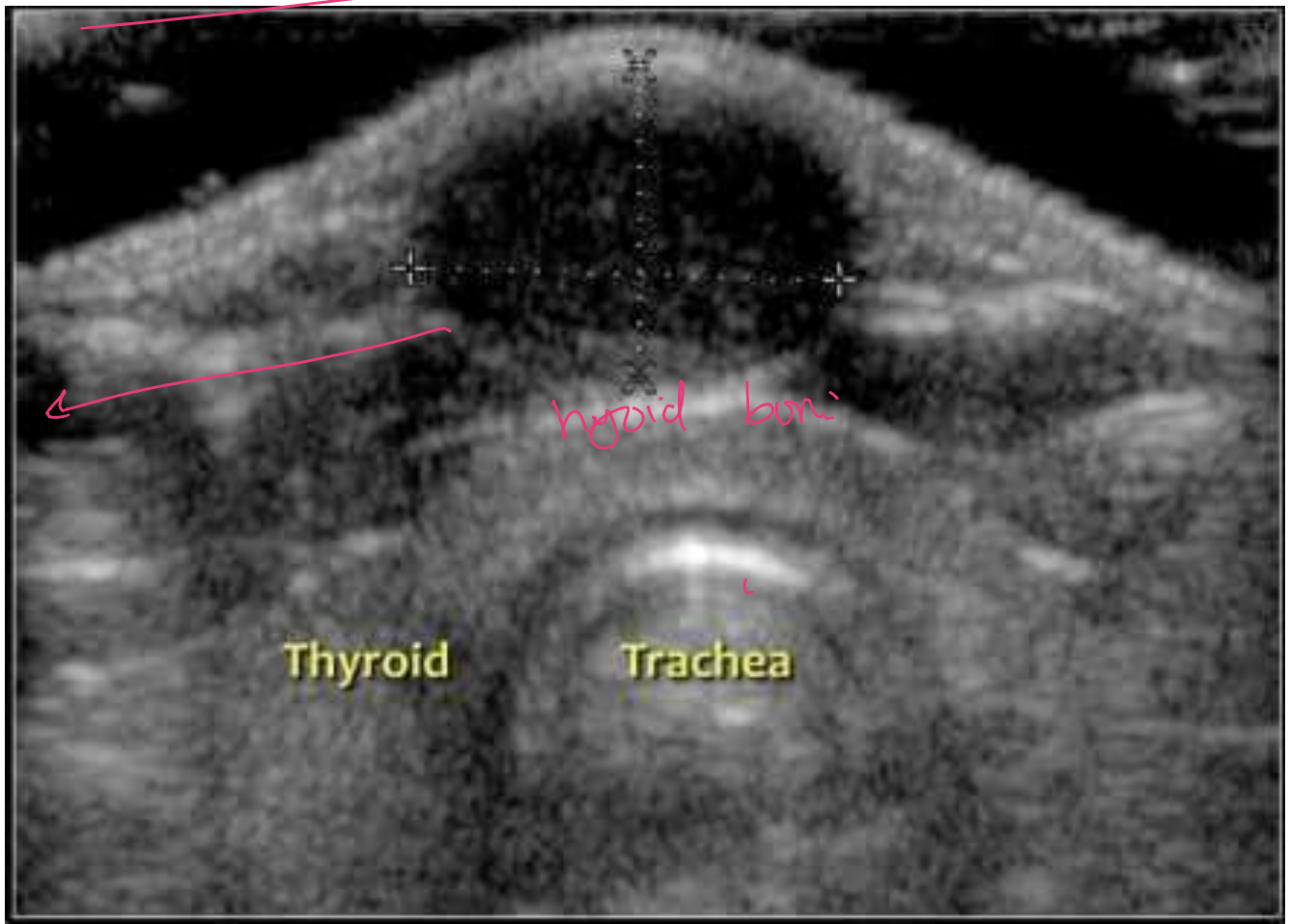




Q: This is the US of a 20 yo male with a neck lump.

1. What is the next step in approaching his condition? FNAC → US داخل سن to exclude malignancy

2. What is the most likely Dx? Thyroglossal Duct Cyst

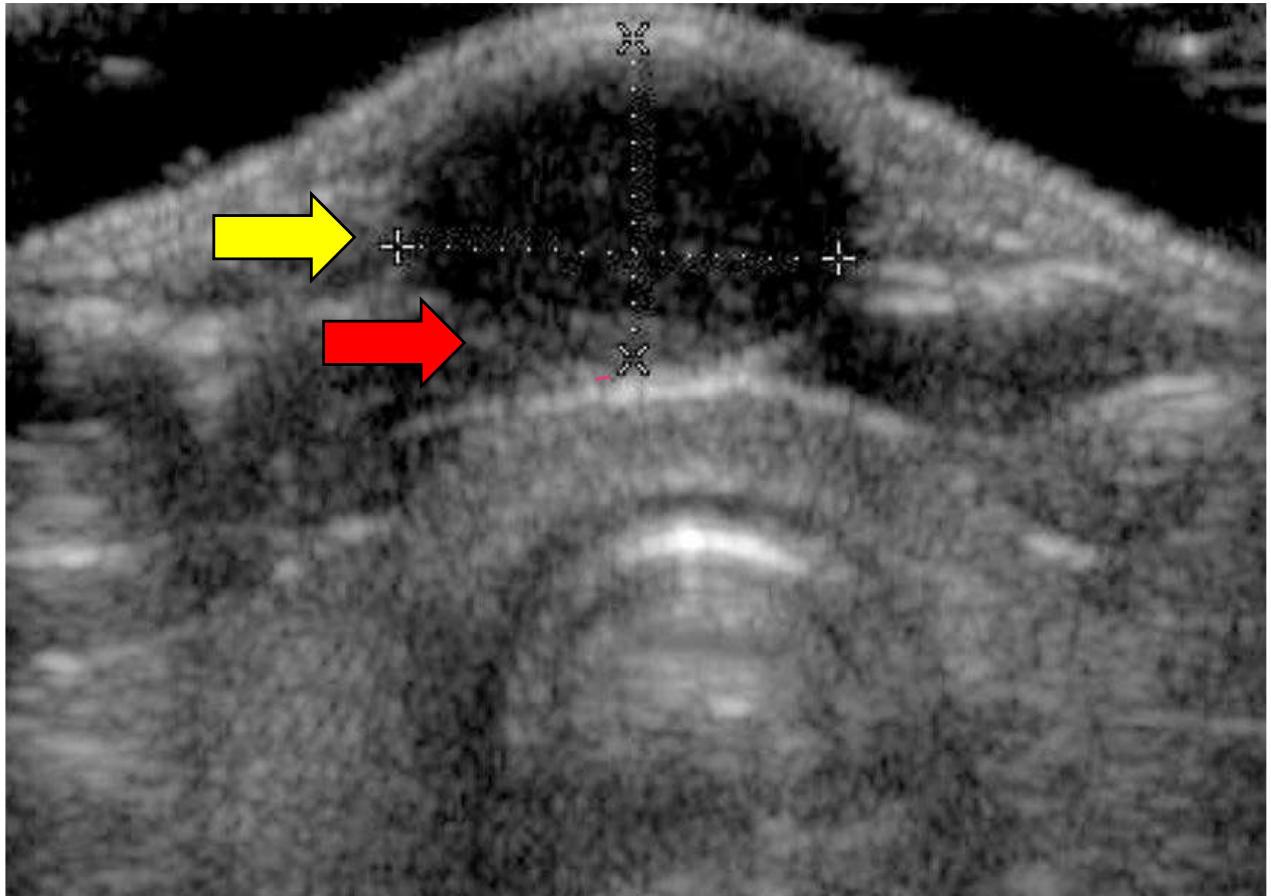


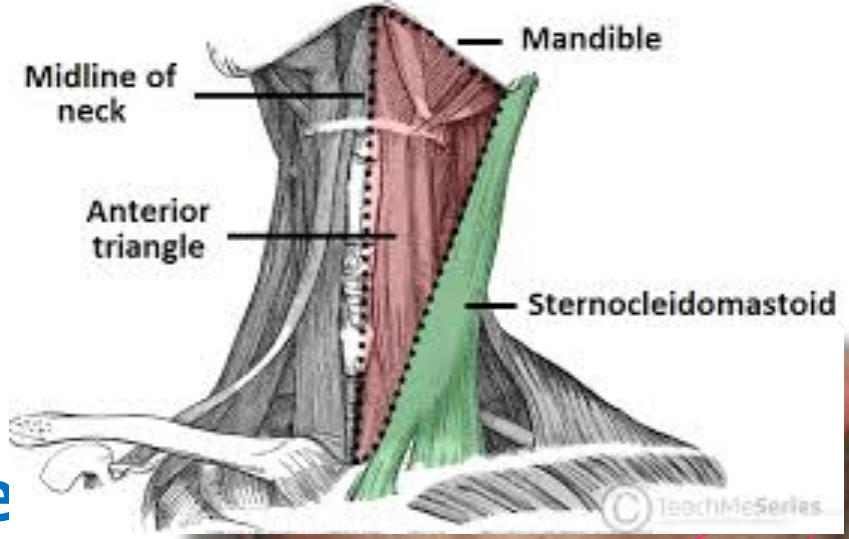
سبب توقعها عوفنا انها thyroglossal duct cyst

Q: This patient underwent surgery for the pathology depicted by the yellow arrow. Histology reported a malignancy of non-thyroid origin.

What is the most likely malignancy? SCC

What structure does the red arrow point to? Hyoid bone





Q1: Name the triangle of the neck in which the lesion is situated:

anterior triangle.

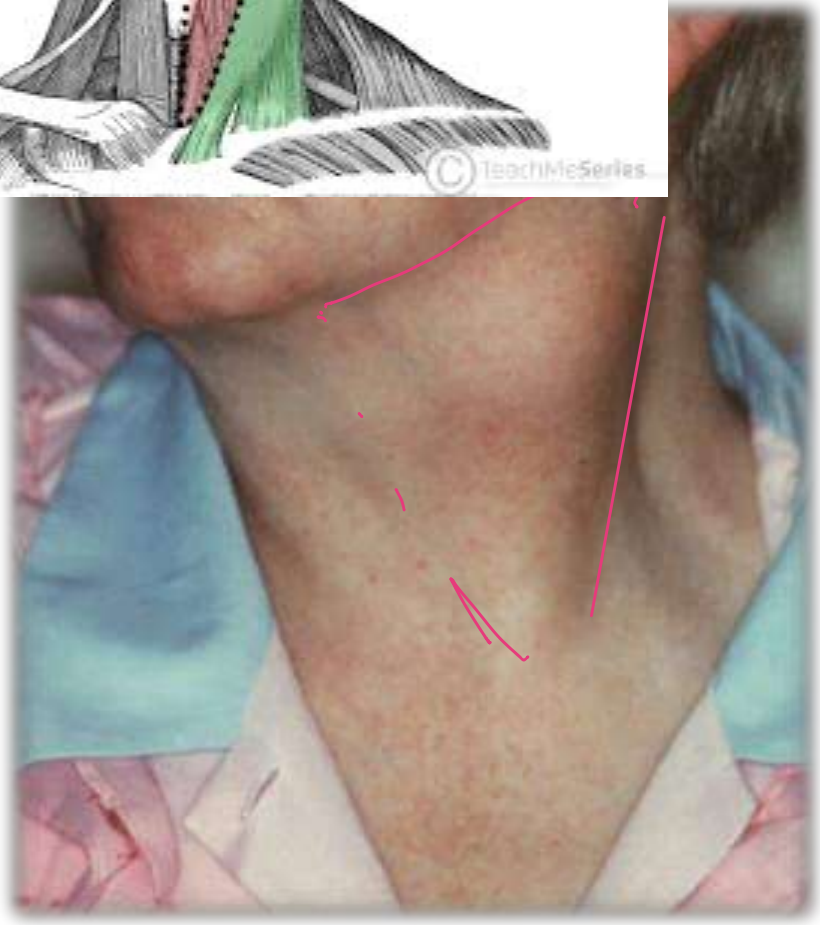
salivary gland infection

Q2: Give 2 DDx for the lump:

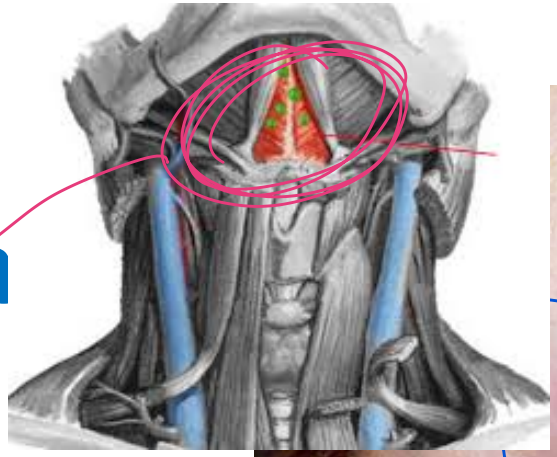
1 sialodenitis/ 2 lipoma.

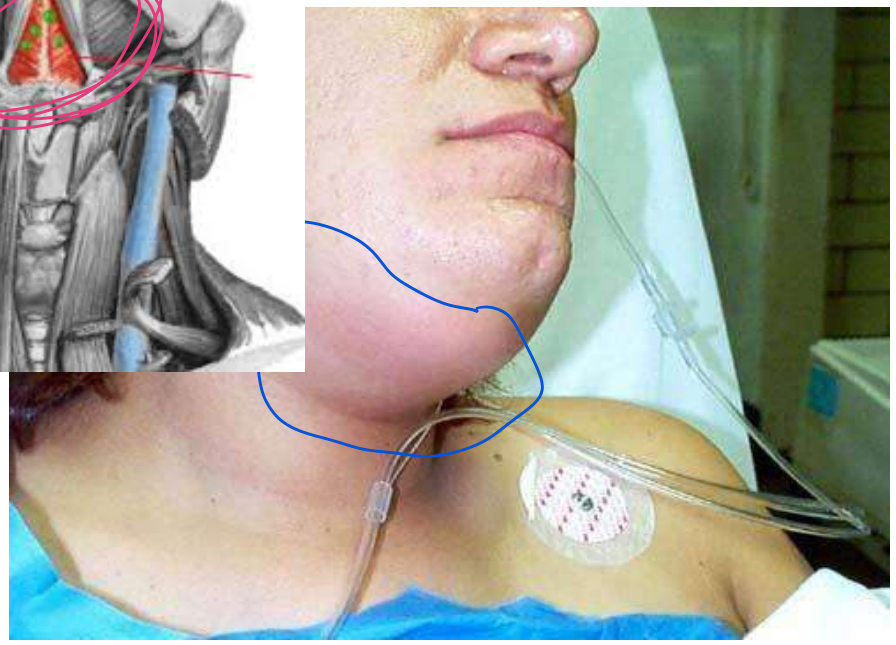
3 epidermoid cyst

4 lymphodenitis

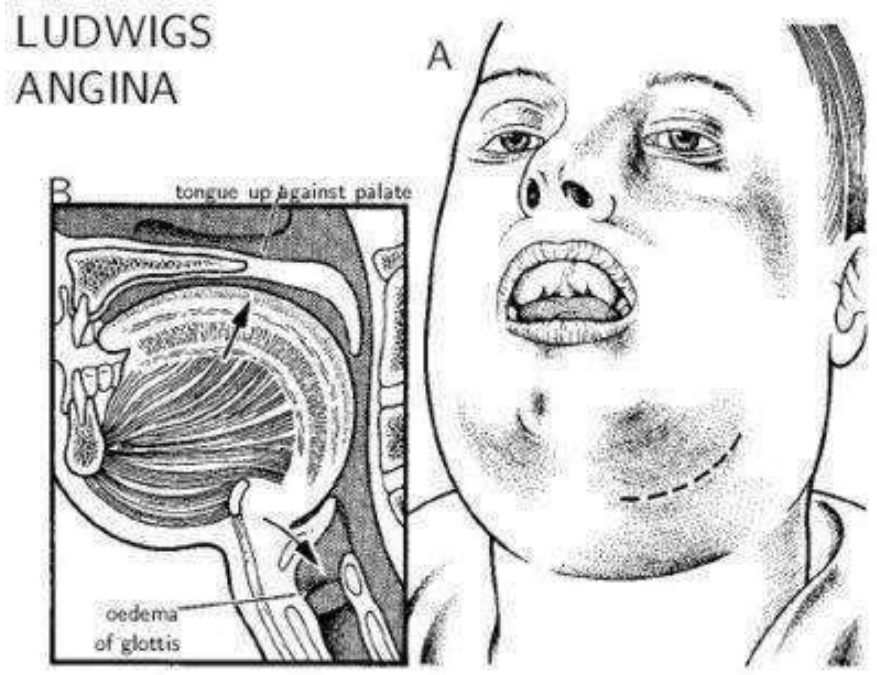


Ludwig angina

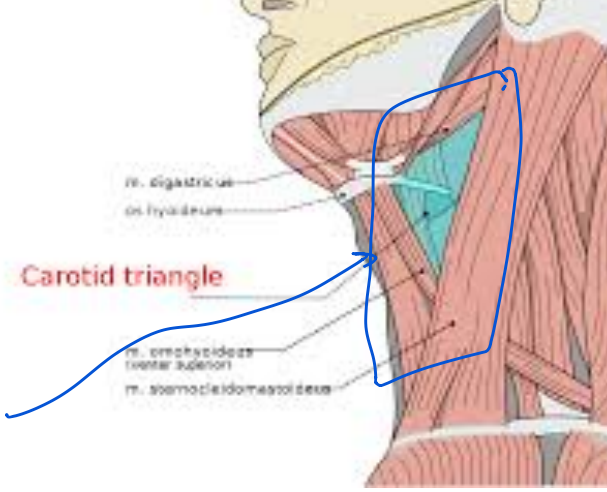




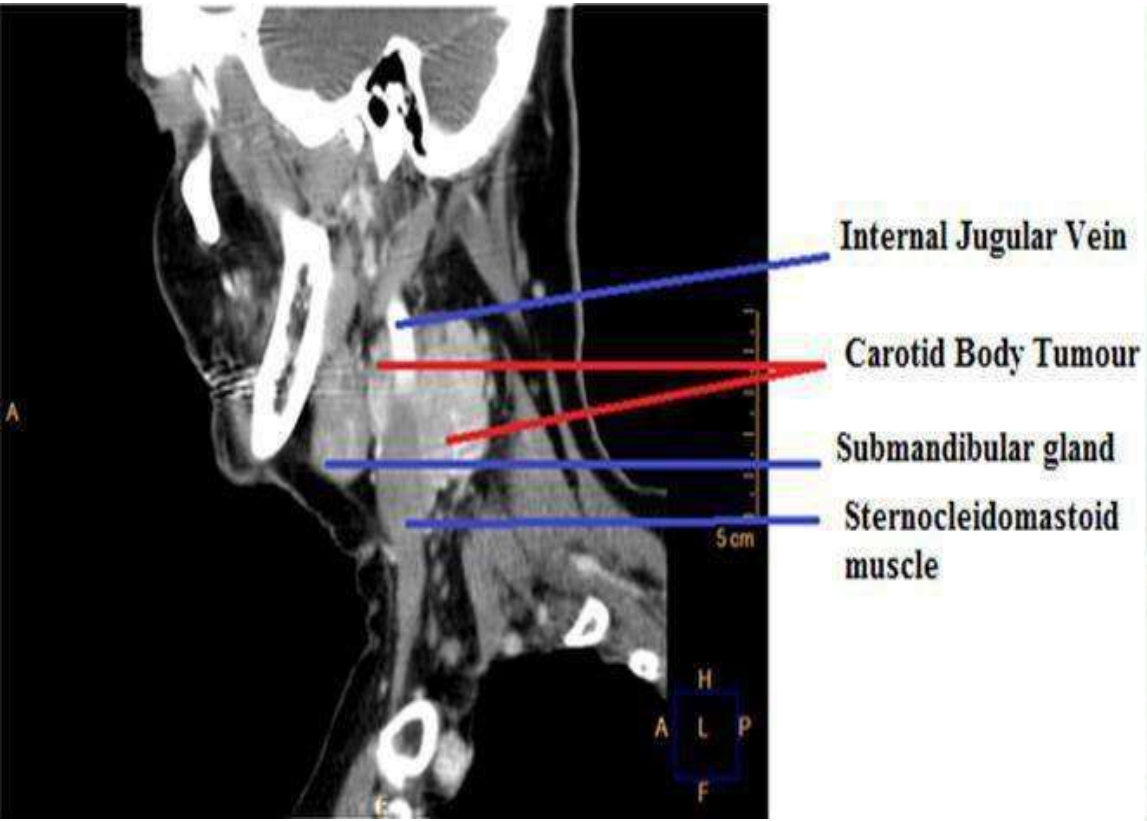
pus accumulation in the **submental triangle.**
causes pressure on the larynx and epiglottis and suffocation.
treated surgically by opening the submental area and draining the pus.

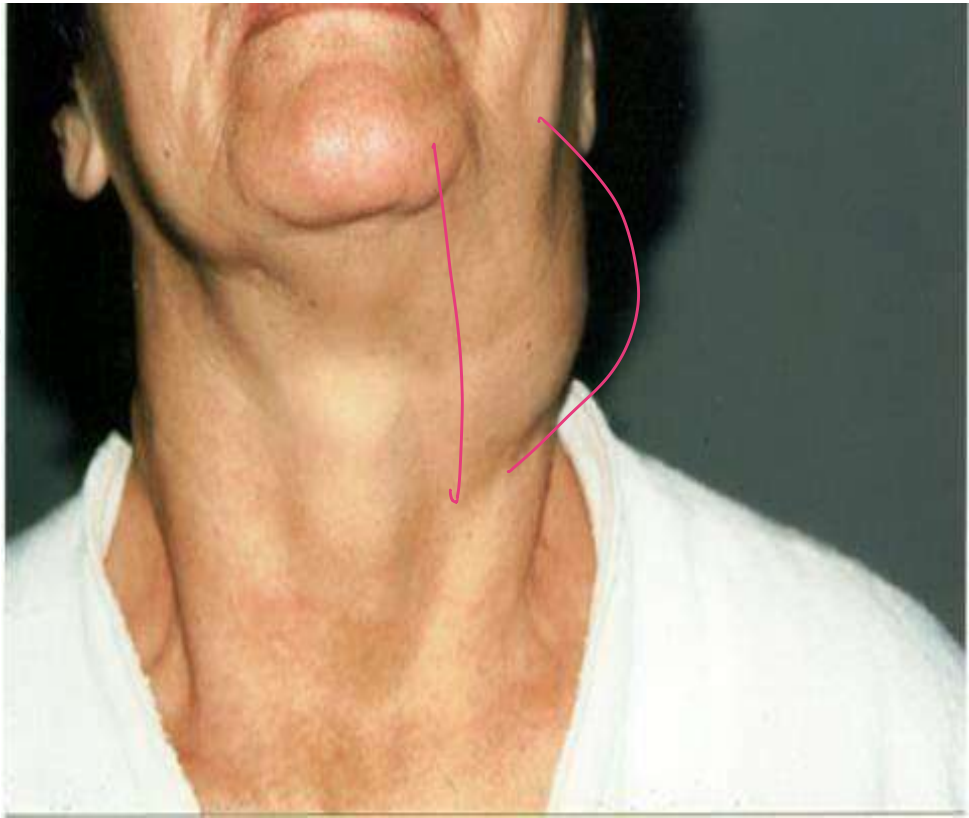


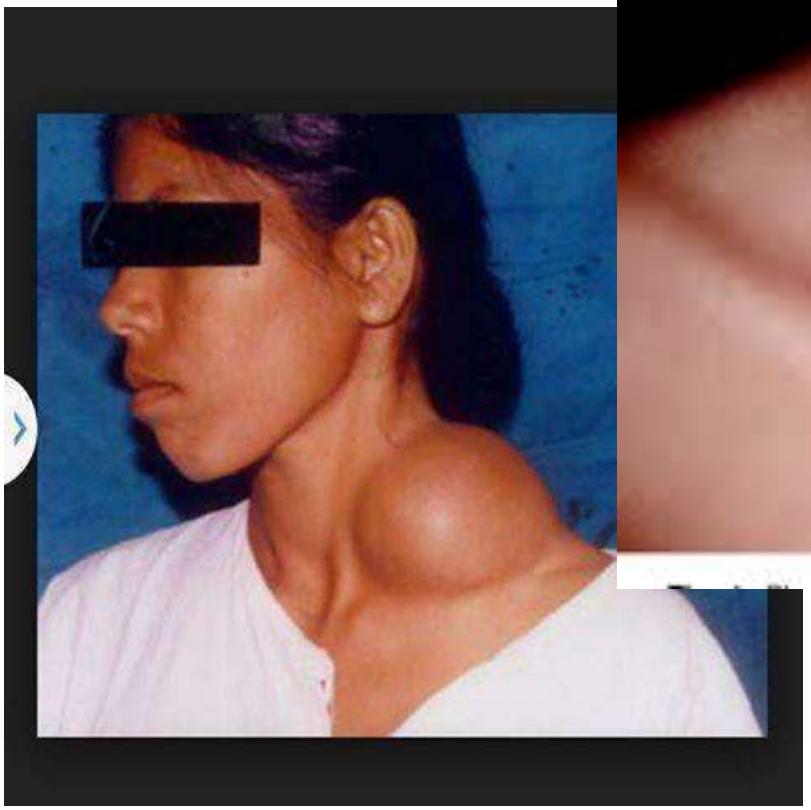
Carotid body tumor : in carotid triangle

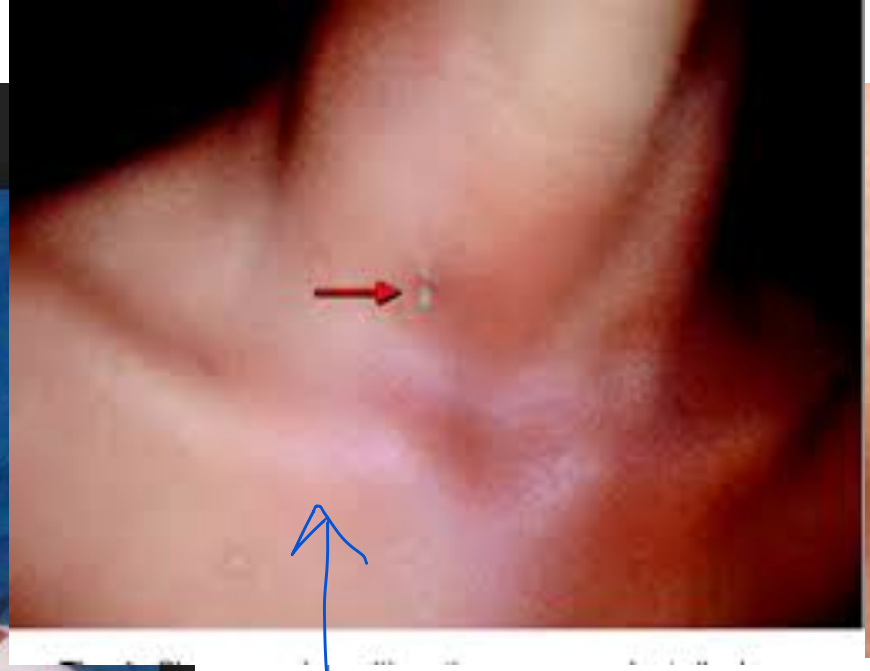


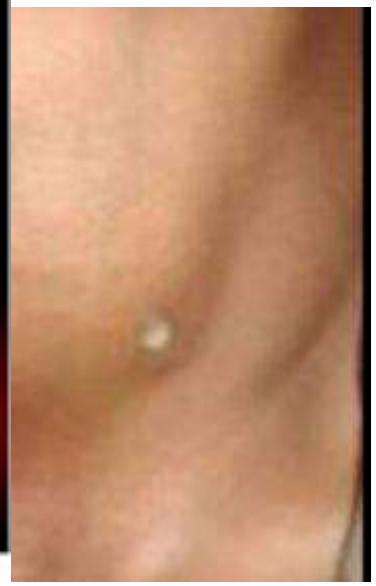
- moves side by side.
- Dx: carotid angiogram.
- Surgical excision and preoperative embolization.
- Lateral mass.









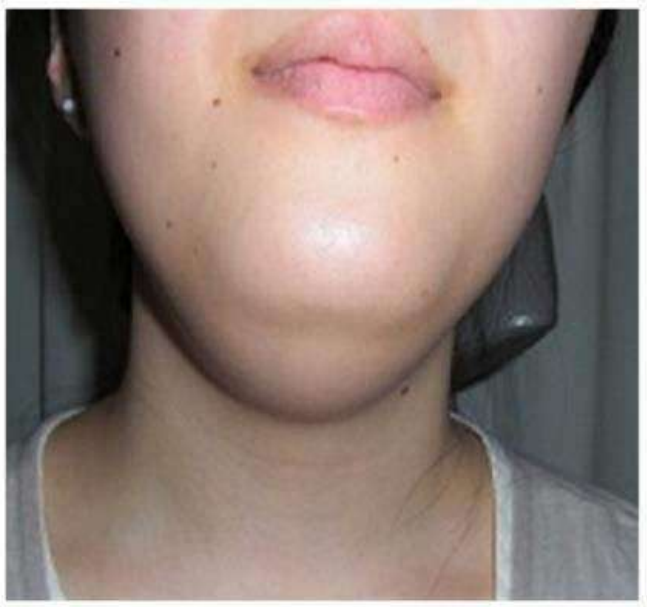


Branchial cyst

- Smooth surface and globular.
- At the level of junction between upper and middle 1/3 of SCM.

Branchial fistula

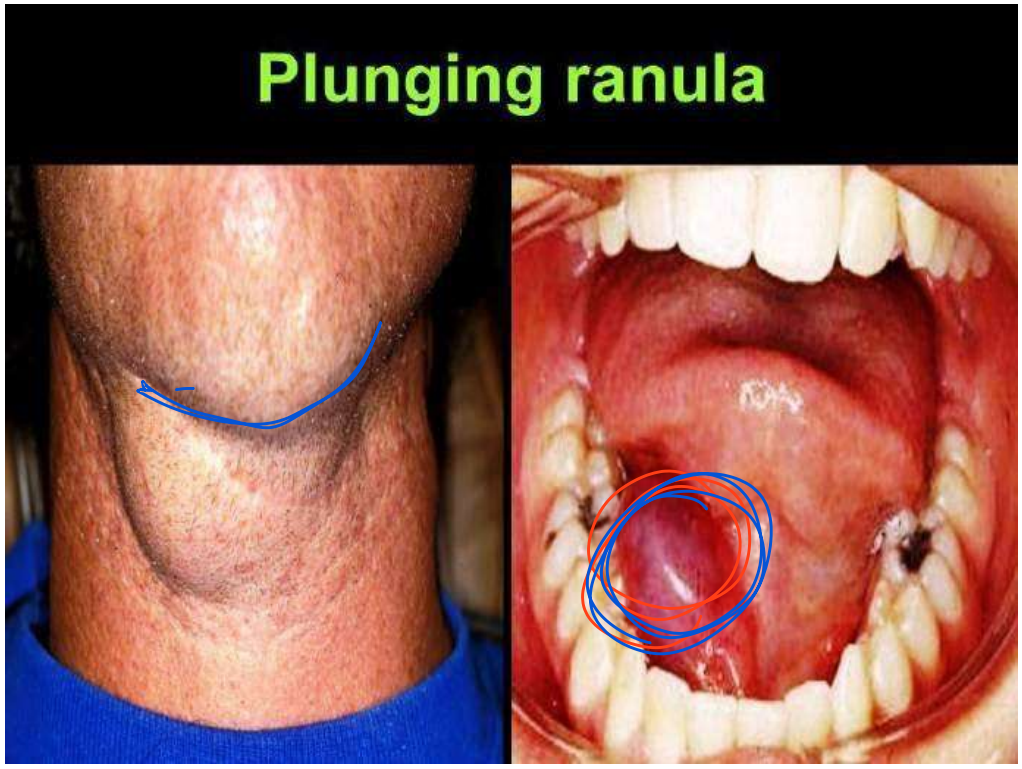
- formed by the 2nd branchial cleft and pouch.
- lined by ciliated columnar epithelium.
- Discharge : mucus or muco-pus.
- in anterior triangle.
- at junction between middle and lower third of SCM.
- congenital.
- surgery (excision).



Sublingual dermoid cyst

- Medline congenital mass.
- Contents : hair follicles/ sebaceous cyst/ sweat glands.

- painless swelling
- dysphagia
- dysphonia
- SOB



Ranula : cystic mucosa extravasation from sublingual salivary gland.

Plunging : if extended through myelohyoid muscle.

Treatment : excision.

Q: Hx that suggest a thyroid nodule:

MC of all nodules

Q1: What is the Dx?

- Multi-nodular goiter

Q2: How to approach the patient with this Dx?

- TFT → hyperthyroidism (↑T4 & T3 & ↓ TSH)
- US
  - ② thyroid scan (I^{123}, Tc^{99})
  - + FNA in cold nodules

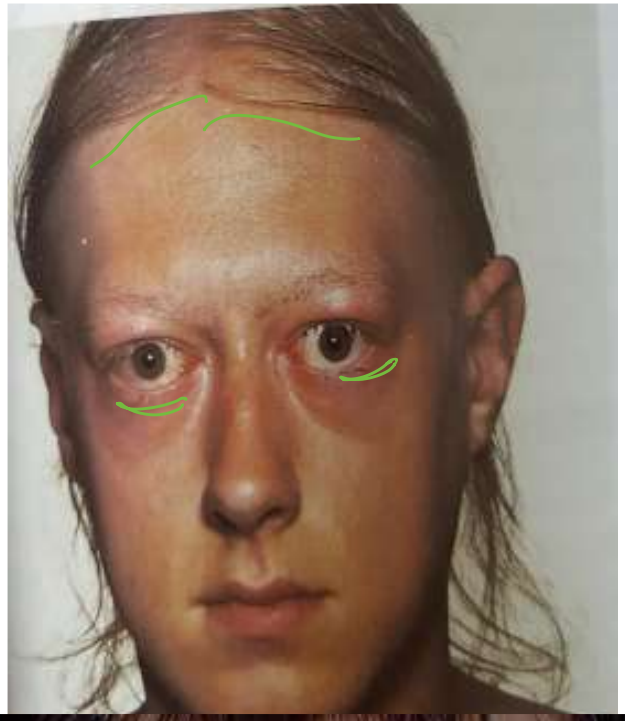
معظمها بالعادة benign

Q1: What is the Dx?

- Graves disease

Q2: Mention 2 signs that you can see?

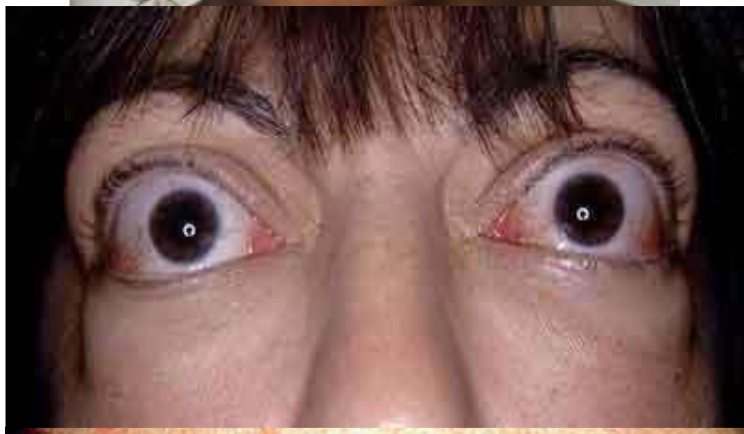
- Exophthalmos
- Significant hair loss
- Lid retraction

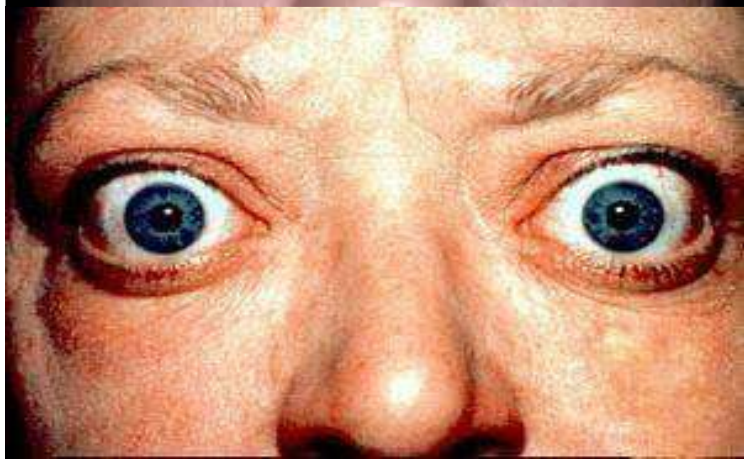


Q3: What is the 1st Sx patient will develop if she develops opthalmoplagia?

- ~~Diplopia~~ or Proptosis (~~not sure~~)

bulging eye





Q4: What is a drug you can give this patient before getting into surgery?

- PTU (Propyl thiouracil), propanlol

or carbimazol or methimazole

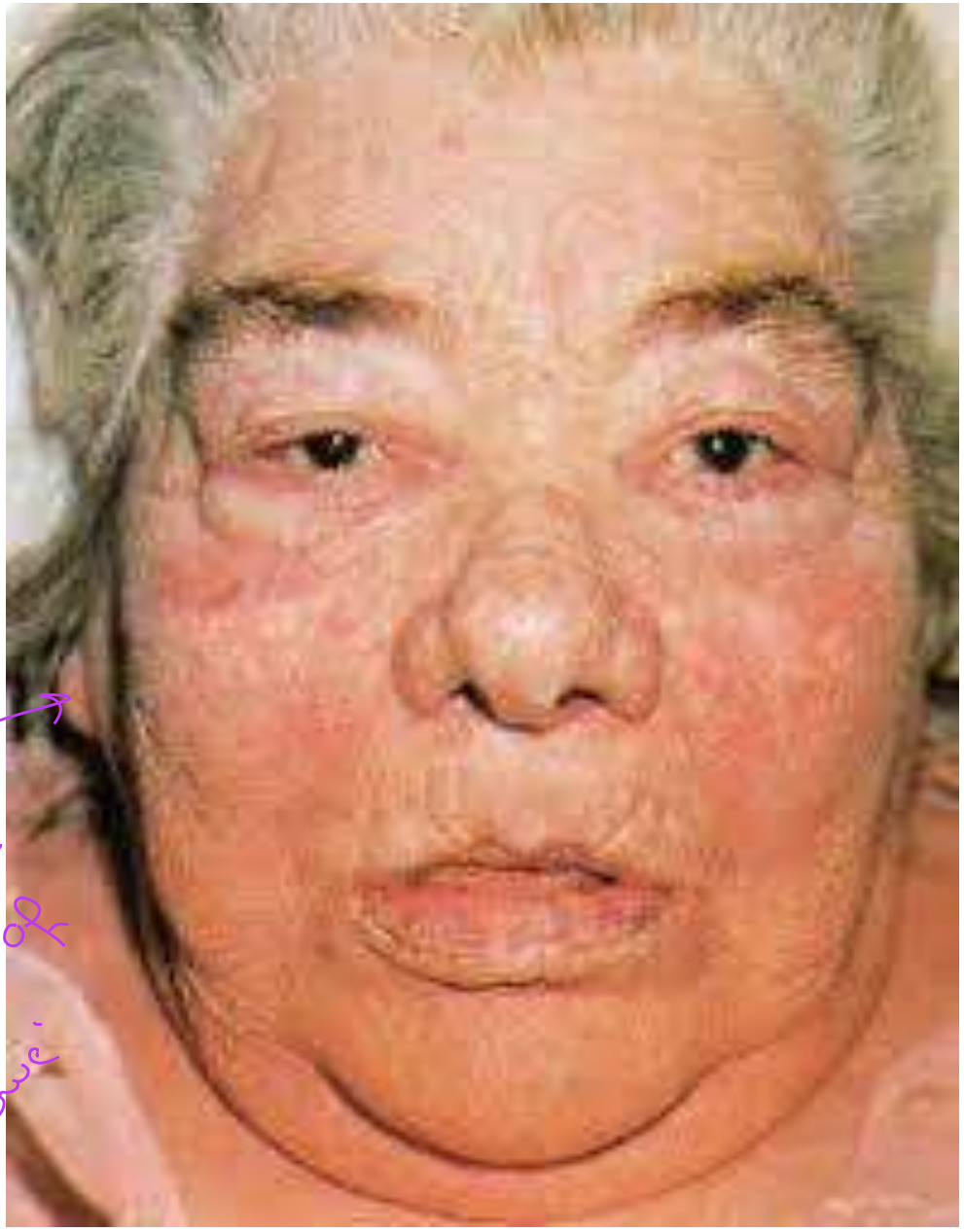
Q: 50 year old female patient present with hypothermia:

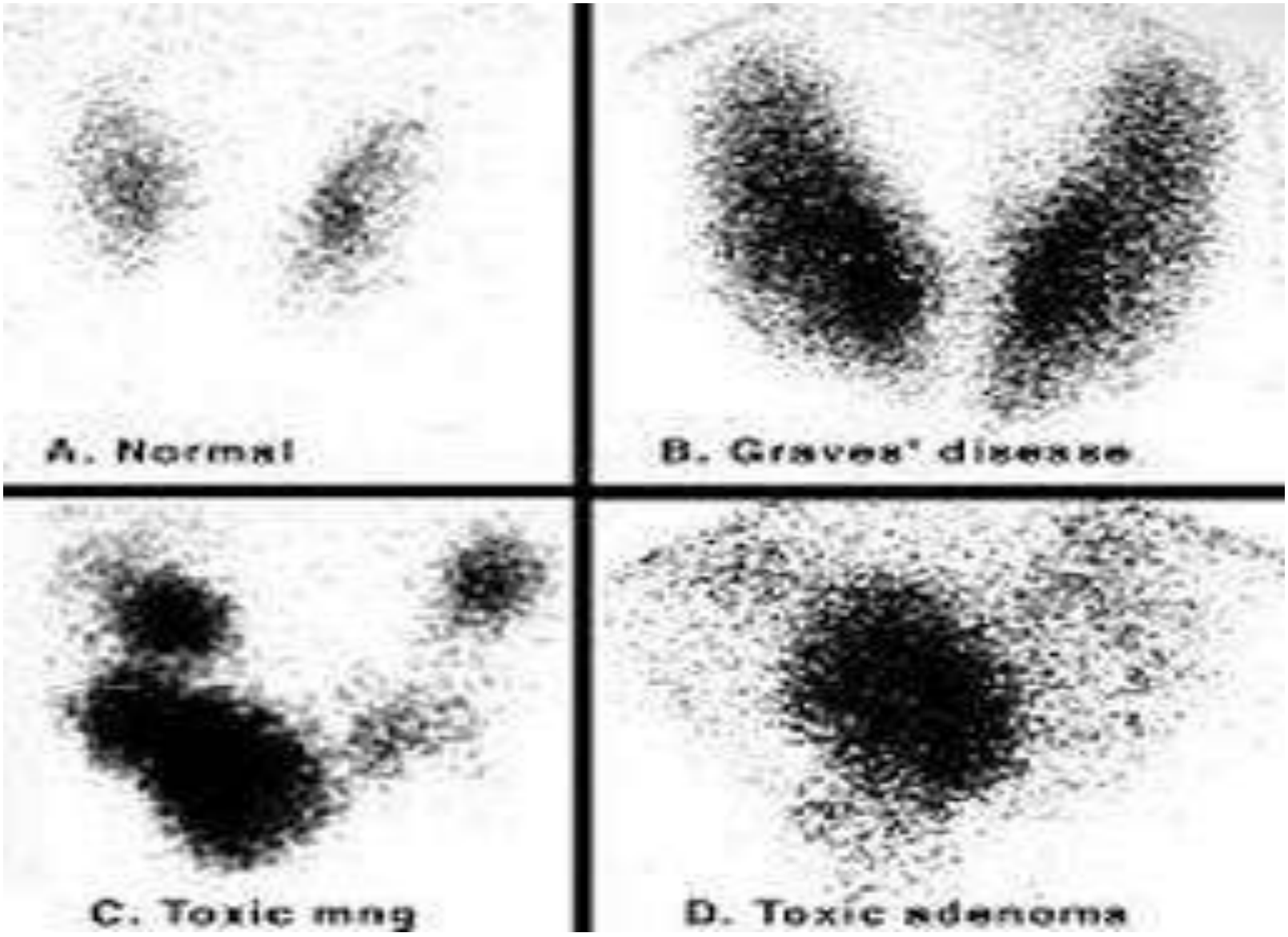
Q1: What is the endocrine disorder?

- Hypothyroidism

Q2: Mention 3 signs on face?

1) Puffy face
2) Periorbital edema
3) Coarse hair




A. Normal
B. Graves' disease
C. Toxic mng
D. Toxic adenoma

Q: Patient with hyper diffuse functioning thyroid:

Q1: What is the Dx?

- Graves Disease

Q2: What is the serological marker?

- TSI (thyroid stimulating immunoglobulin)

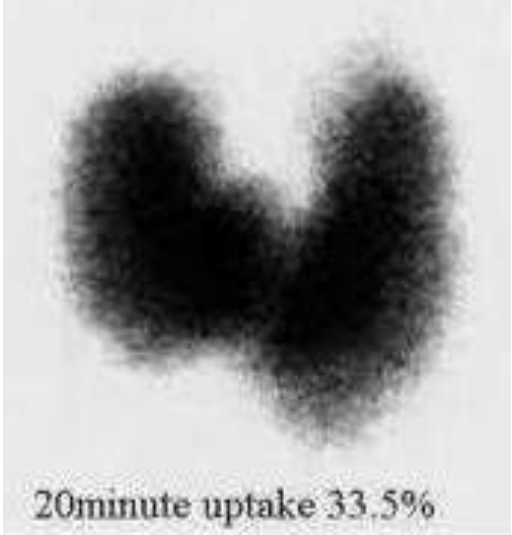
Q3: Mention 3 lines of Mx?

1) Anti-thyroid drugs (carbimazole) + β-blockers

2) Radio-iodine

3) Surgery

** All 3 are considered 1st line Mx



Q1: What is the pathology?

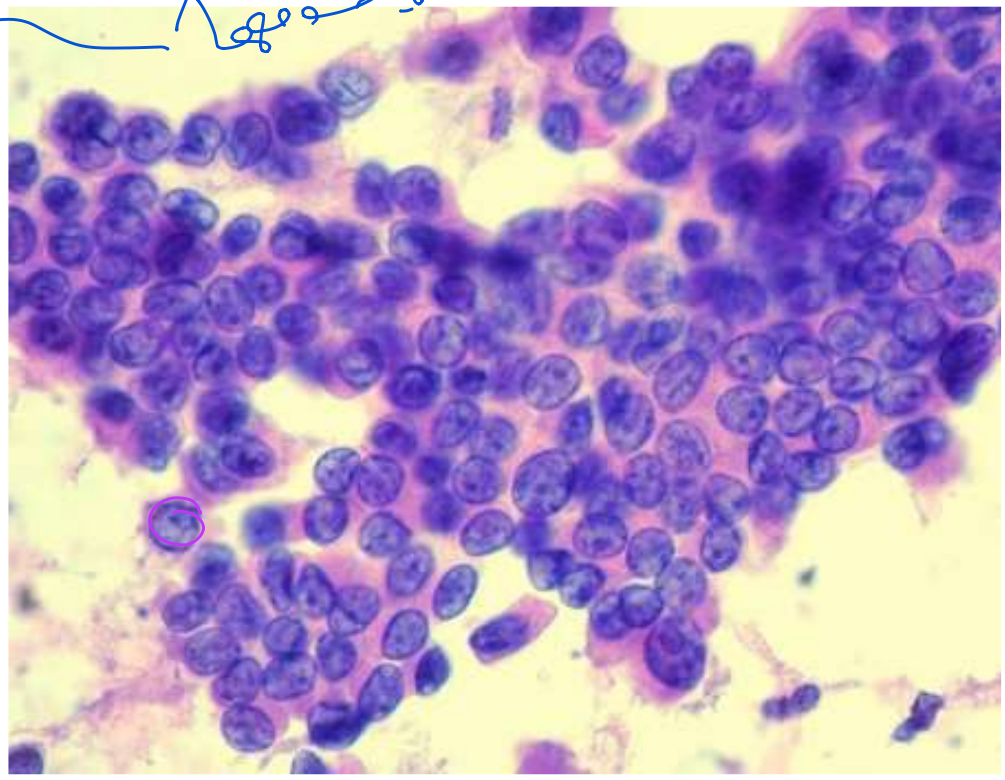
- Papillary Thyroid Carcinoma

Q2: What is the rate of the malignancy?

- 97-99%

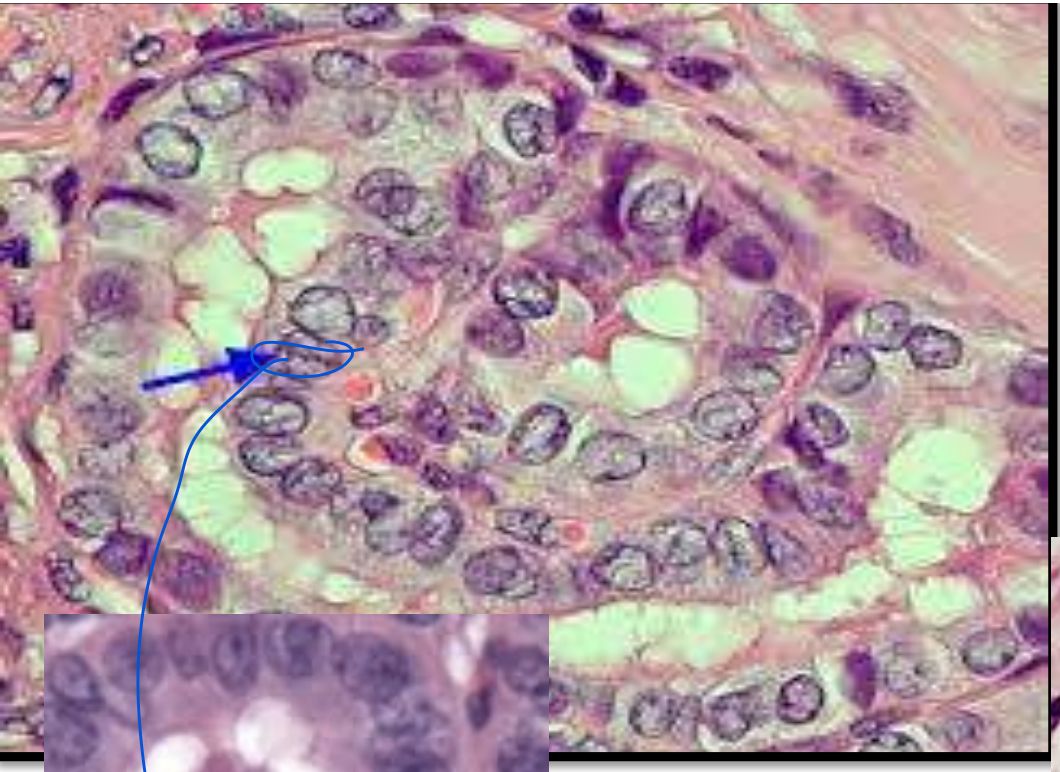
Q3: Mention 2 features seen in the picture?

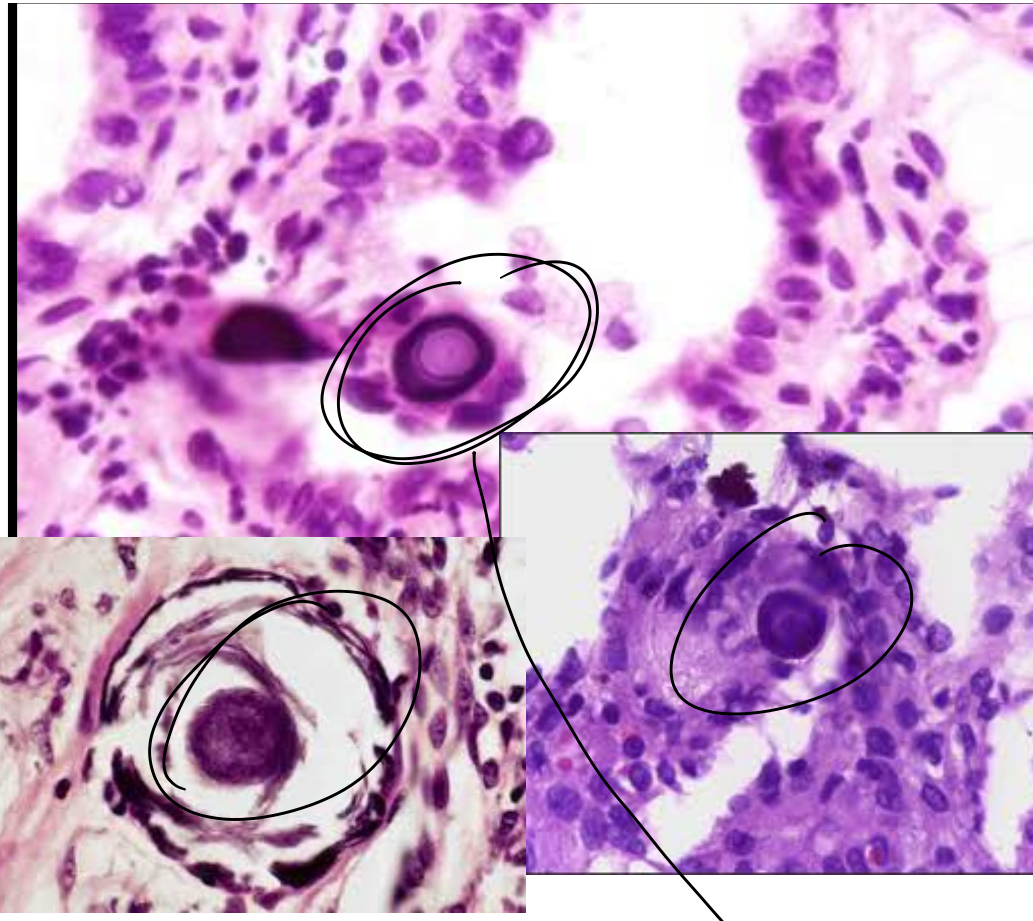
1) Nuclear Crowding
2) Orphan Annie Nuclei

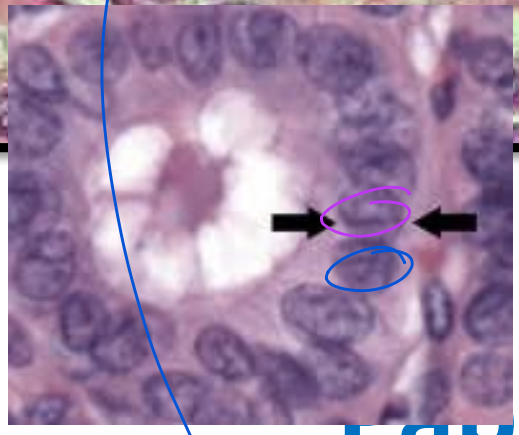


من تواضع الأنوية وتجمعها مع بعض نعرف انه هاي orphan anni اللي نشوفها

optical clear nuclei



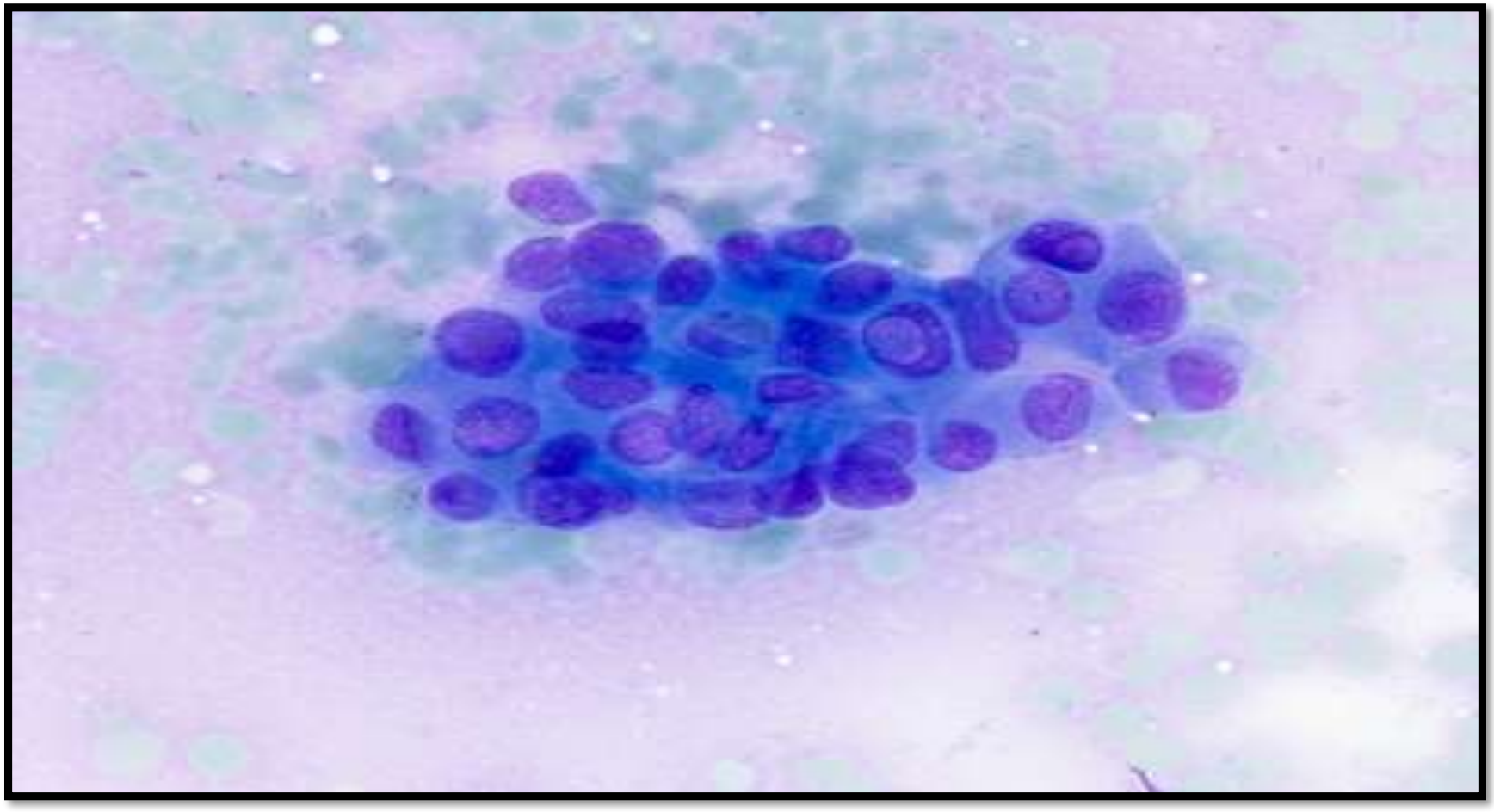




Papillary thyroid carcinoma:

a. Nuclear groove (blue arrow).

b. Psammoma body.

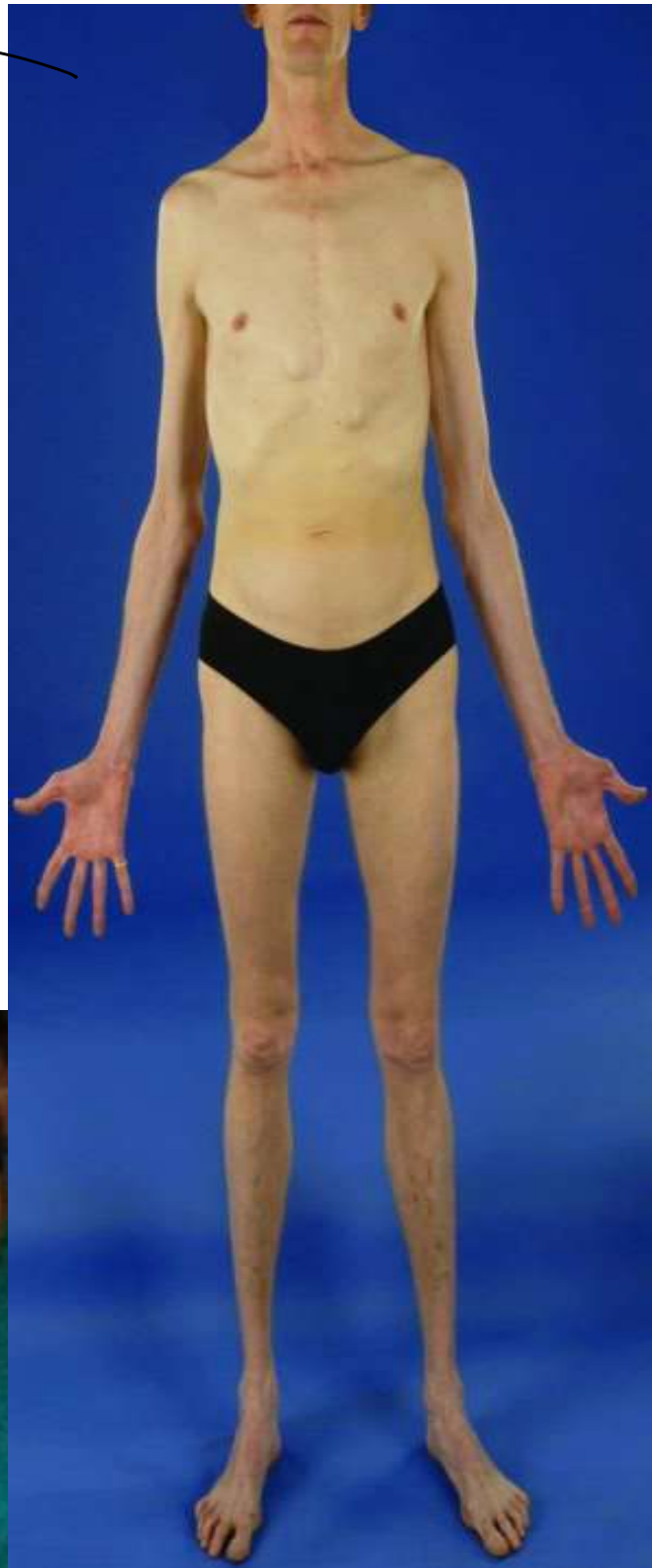


Papillary thyroid carcinoma:

(Intranuclear cytoplasmic inclusions)

spider fingers
(Marfanoid habitus)

+ wt loss



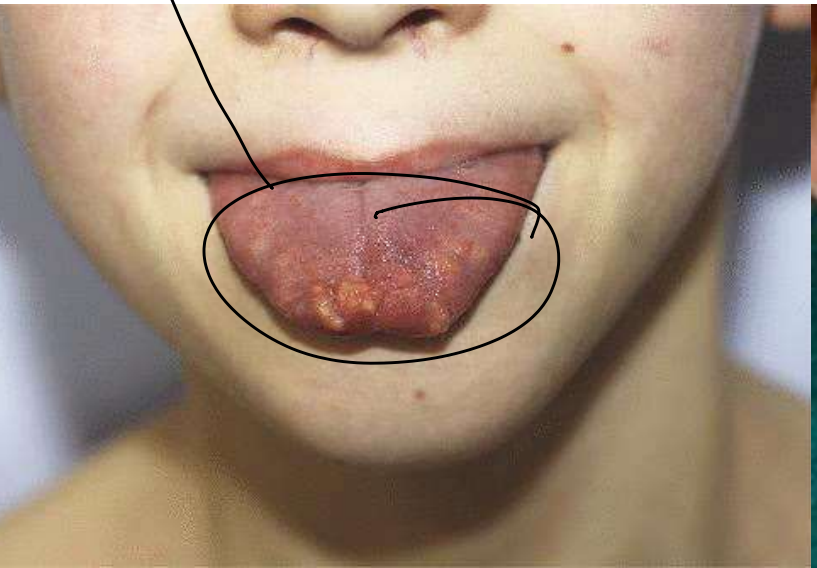
Q1: What type of thyroid cancer do you expect to see in this patient?

- Medullary

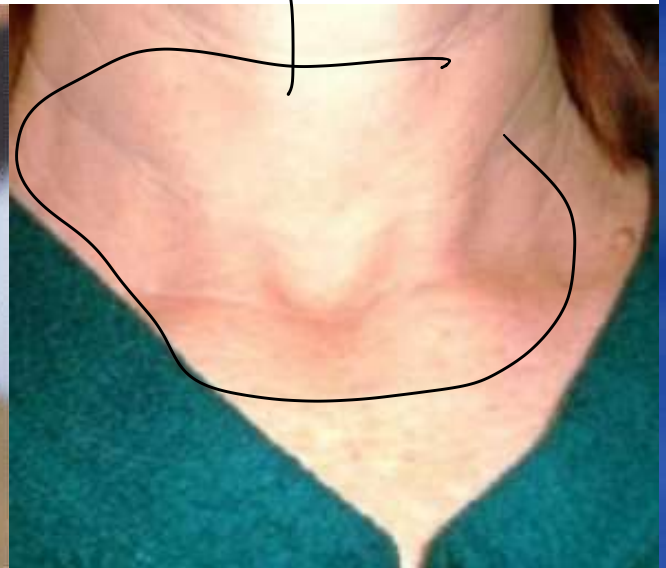
Q2: What's the marker?

- Calcitonin & CEA

neuromas of the tounge



lump



Q1: What type of thyroid cancer do you expect to see in this patient?

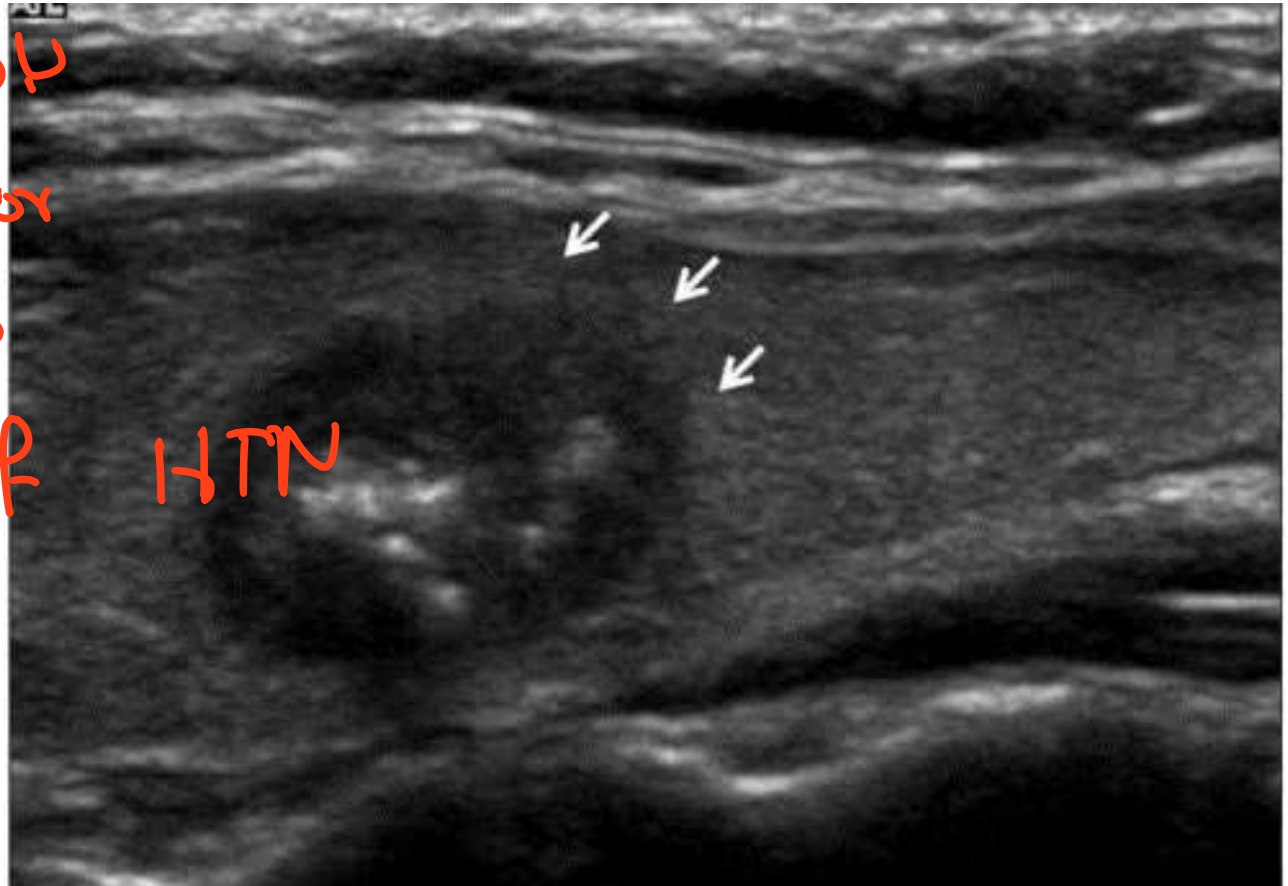
- Medullary cancer

بسبب its site

Q2: Before surgery what type you must exclude?

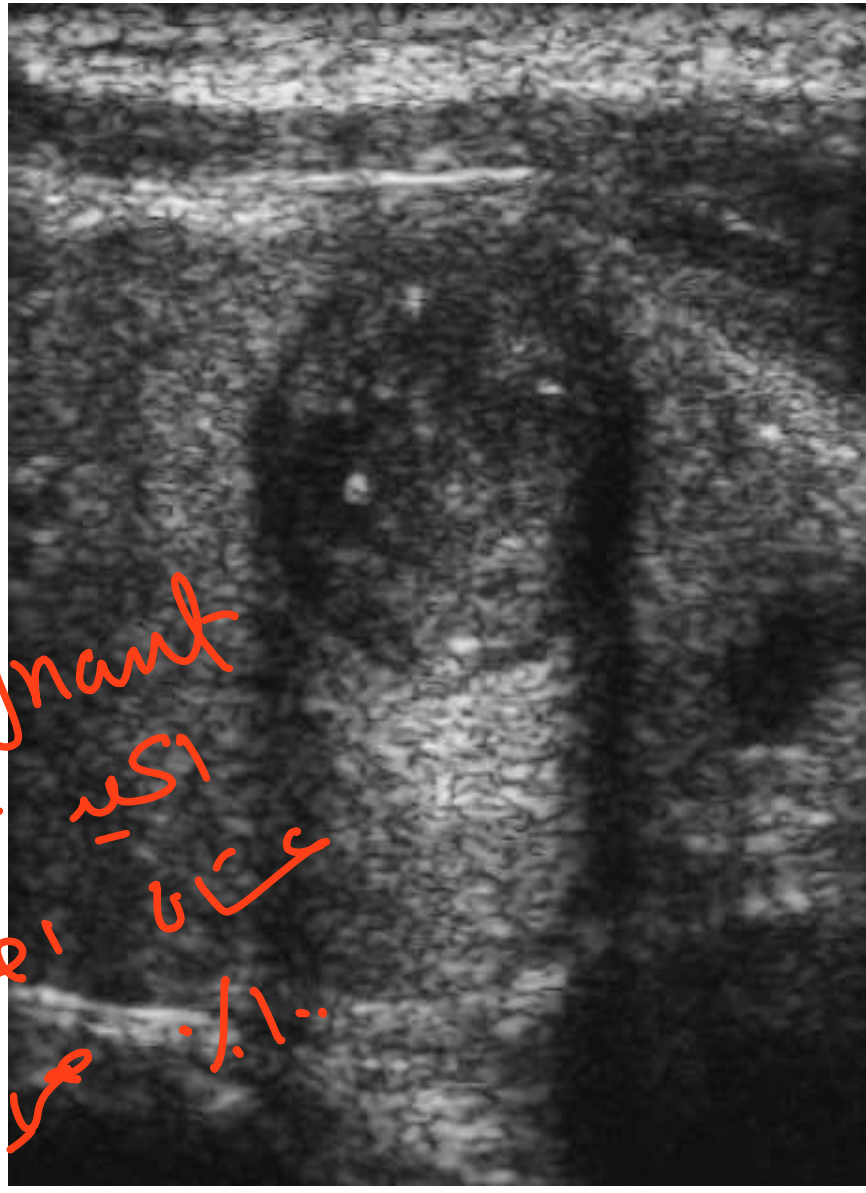
- MEN 2 (Pheochromocytoma)

لازم نستبعدهم لانه علاجهم قبل الاول



tumor هو اللي of HTN

Q: Hx of thyroid nodule, US showing: micro-calcifications, investigation of blood vessels and reactive LN:



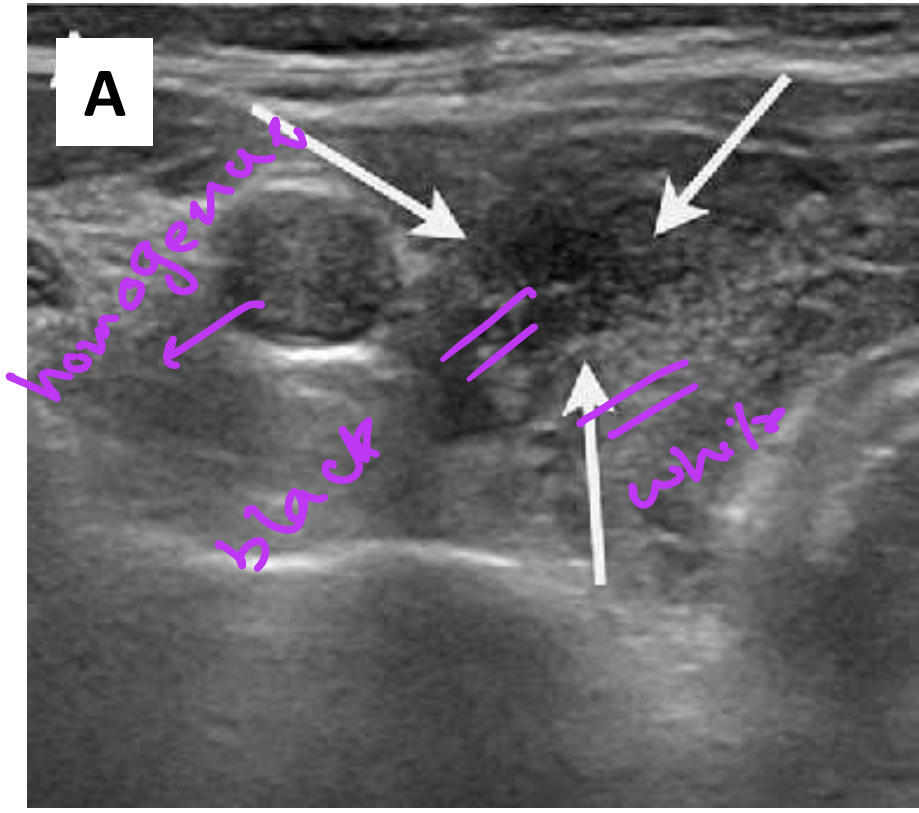
Q1: Bethesda Grade?

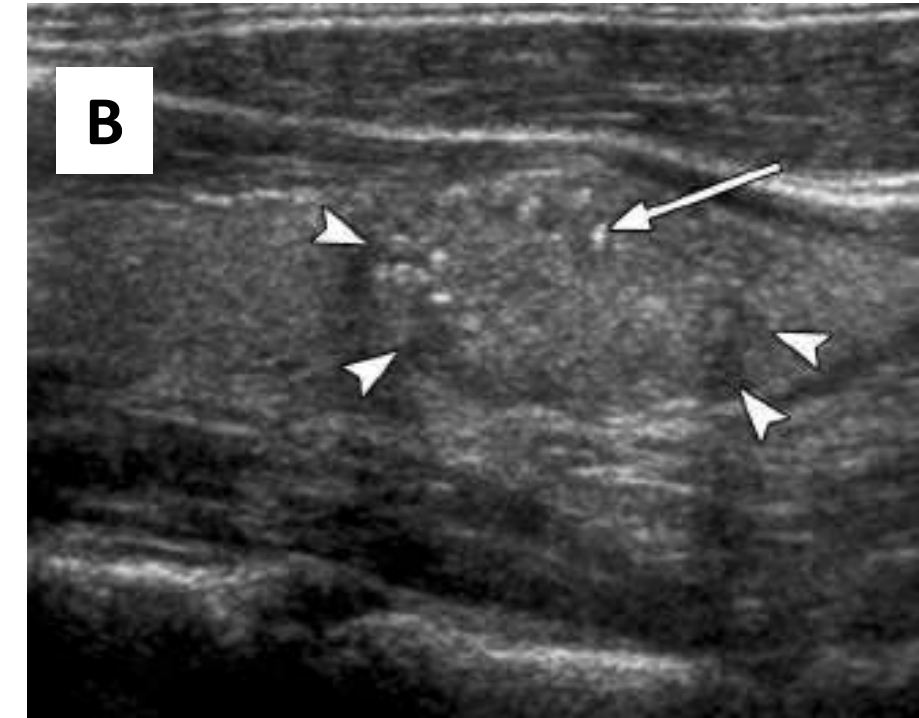
- Bethesda 5

Q2: What is your Mx?

- Total Thyroidectomy

Q: Images A & B demonstrate thyroid nodules that are considered sonographically suspicious for malignancy. Name the feature labelling each nodule suspicious.





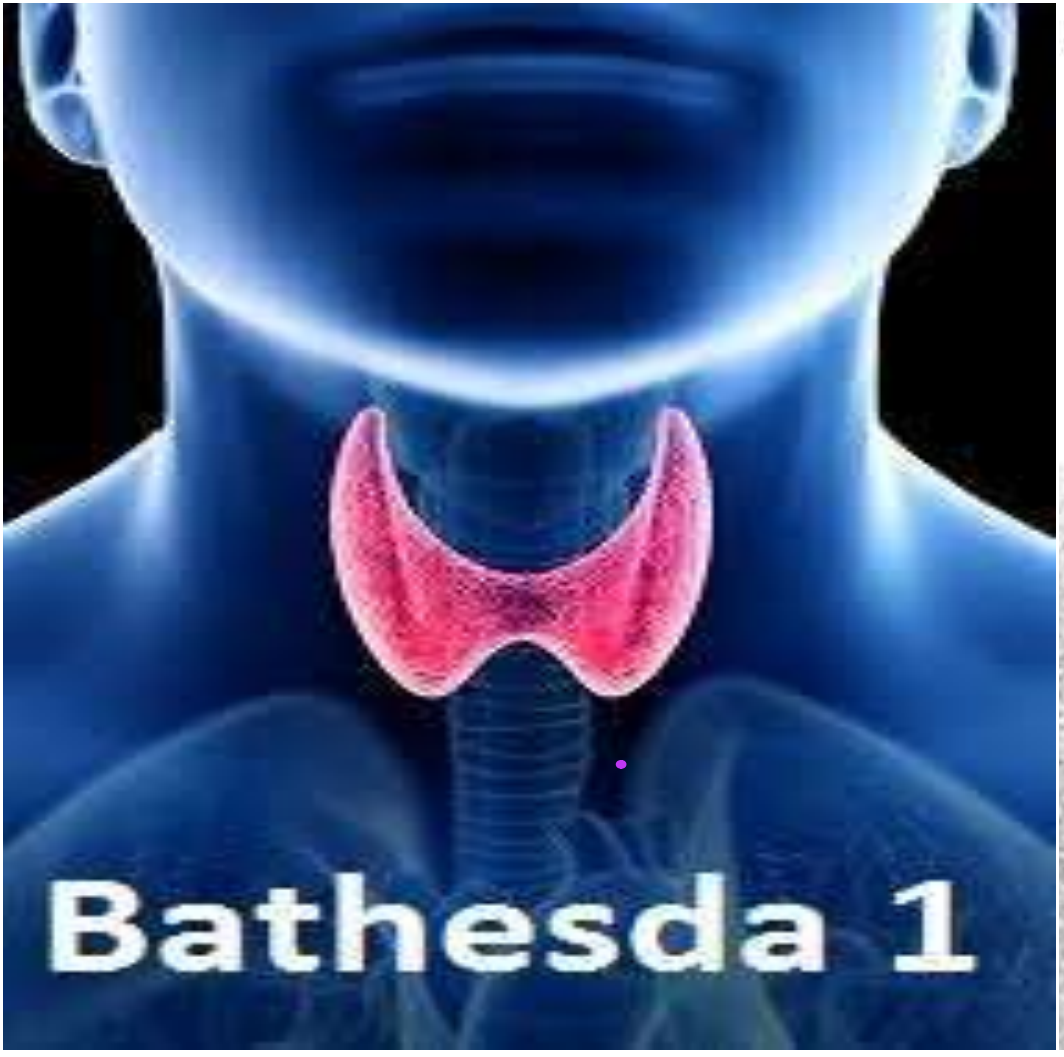
A > Heterogeneous

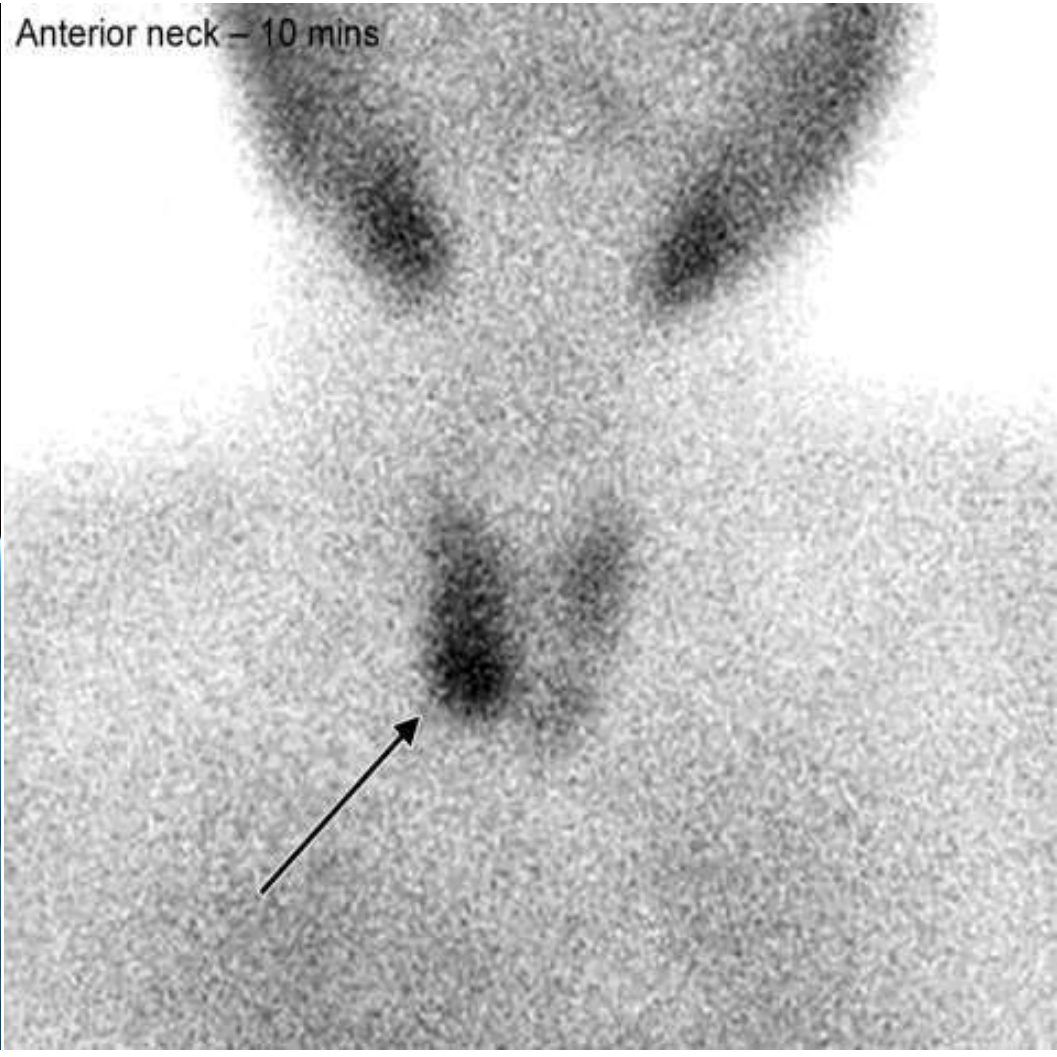
B > Calcification

Q: What shall you do in the following cases ?

A. Thyroid → repeat cytology

B. Parathyroid → removal (parathyroid adenoma)





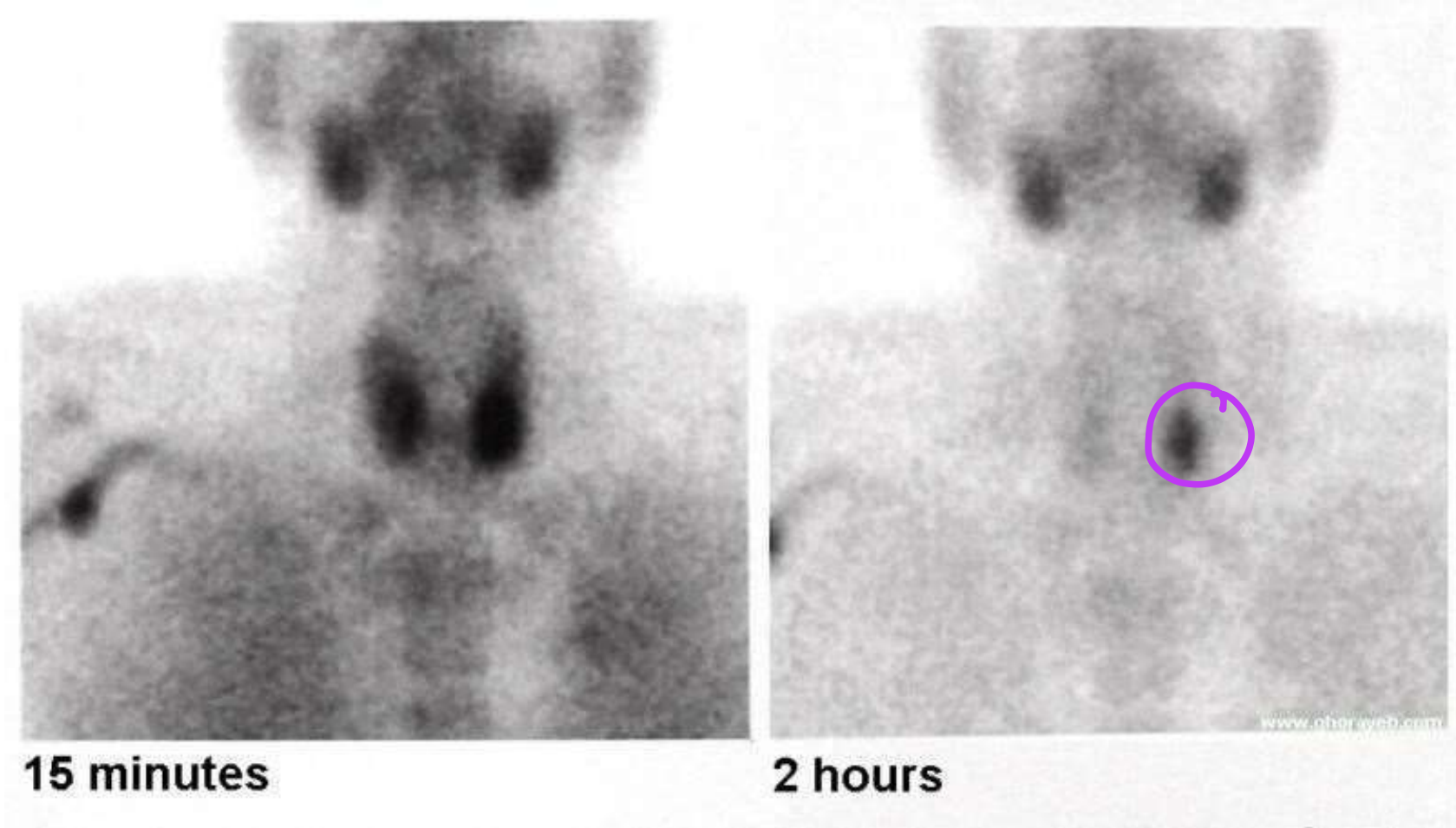
Q1: Name the study?

- Sestamibi scan of parathyroid ✓

Q2: What is the most common cause of the condition?

- Adenoma ✓ 90% in one gland

5-10% in 2



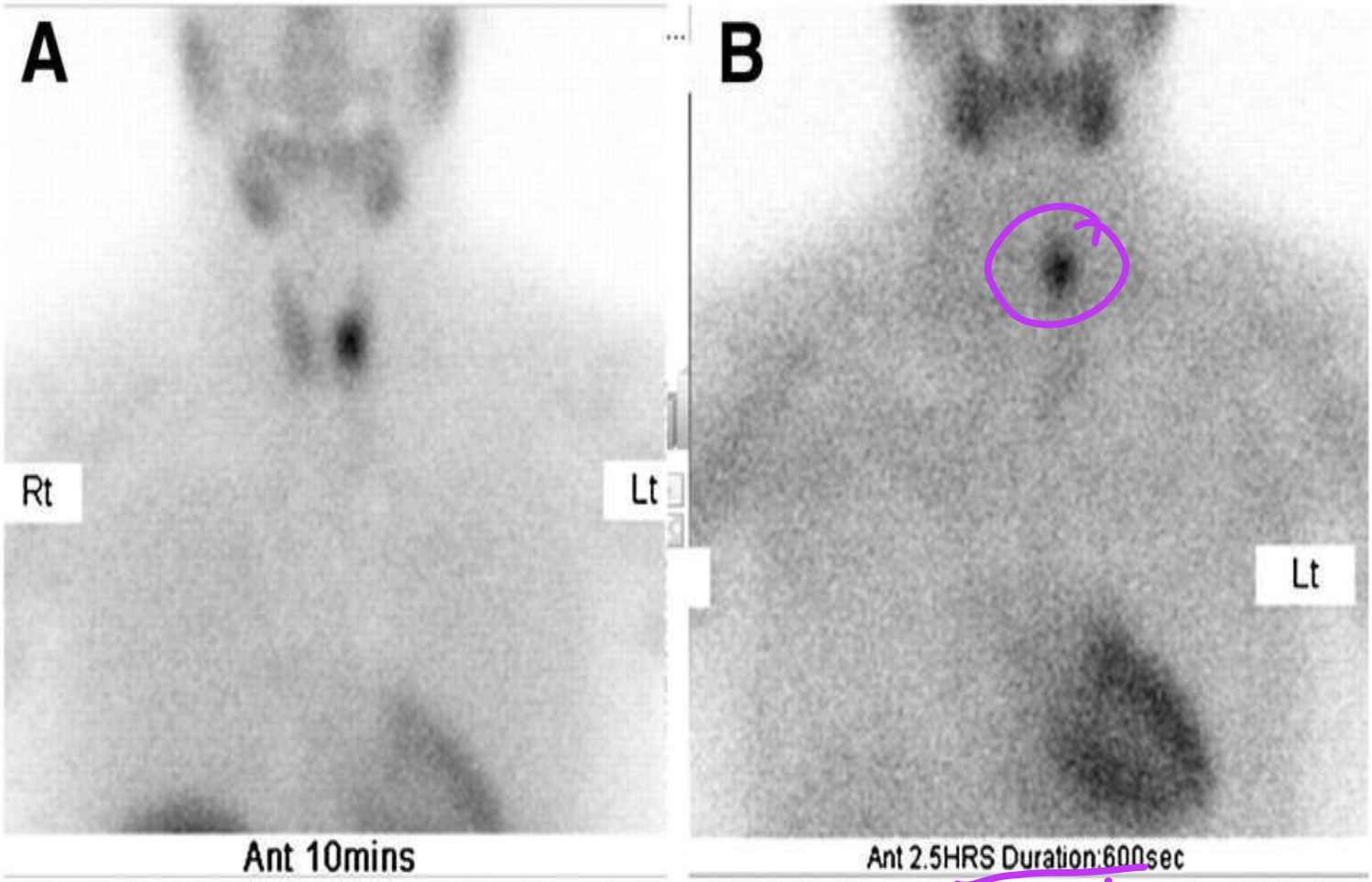
Q1: Name the study?

- Sestamibi scan

mc due to adenoma

Q2: What is the pathology you see?

- Hyperfunctioning parathyroid glands



Q1: Risk of disease to be from single nodule?

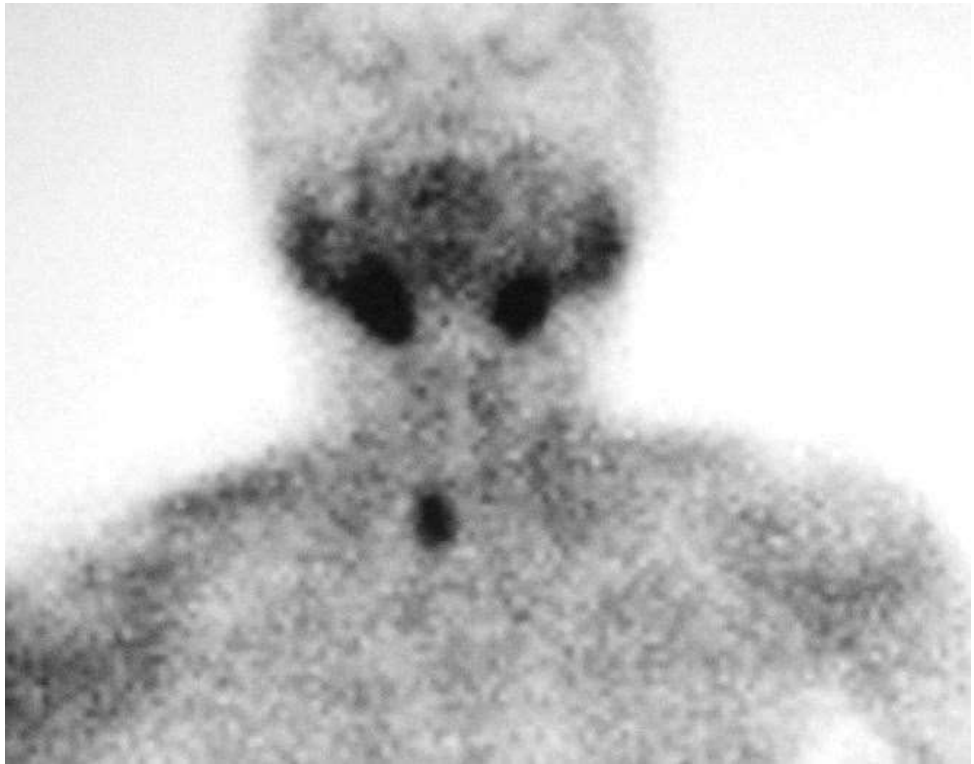
- 85-90% Adenoma

Q2: What is your Dx?

- Single parathyroid gland adenoma

Q3: What is your Mx?

- Removal



Q1: What is the Dx?

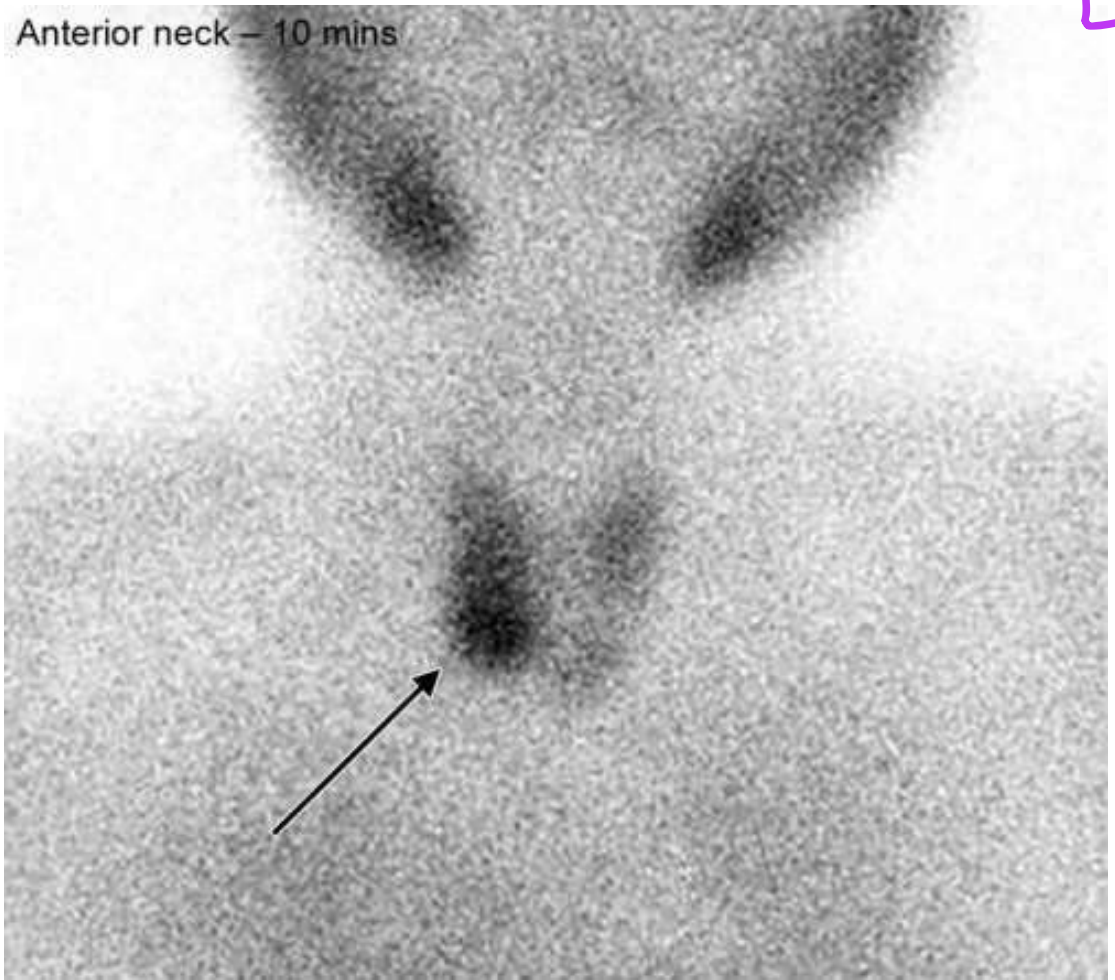
- Parathyroid adenoma (1ry hyperparathyroidism)

Q2: The 1st Sx to develop if the patient had high PTH & Calcium?

- Bone pain (Since it's Hyper)

if Hypo: Peri-oral numbness, carpal spasm

circumoral numbness



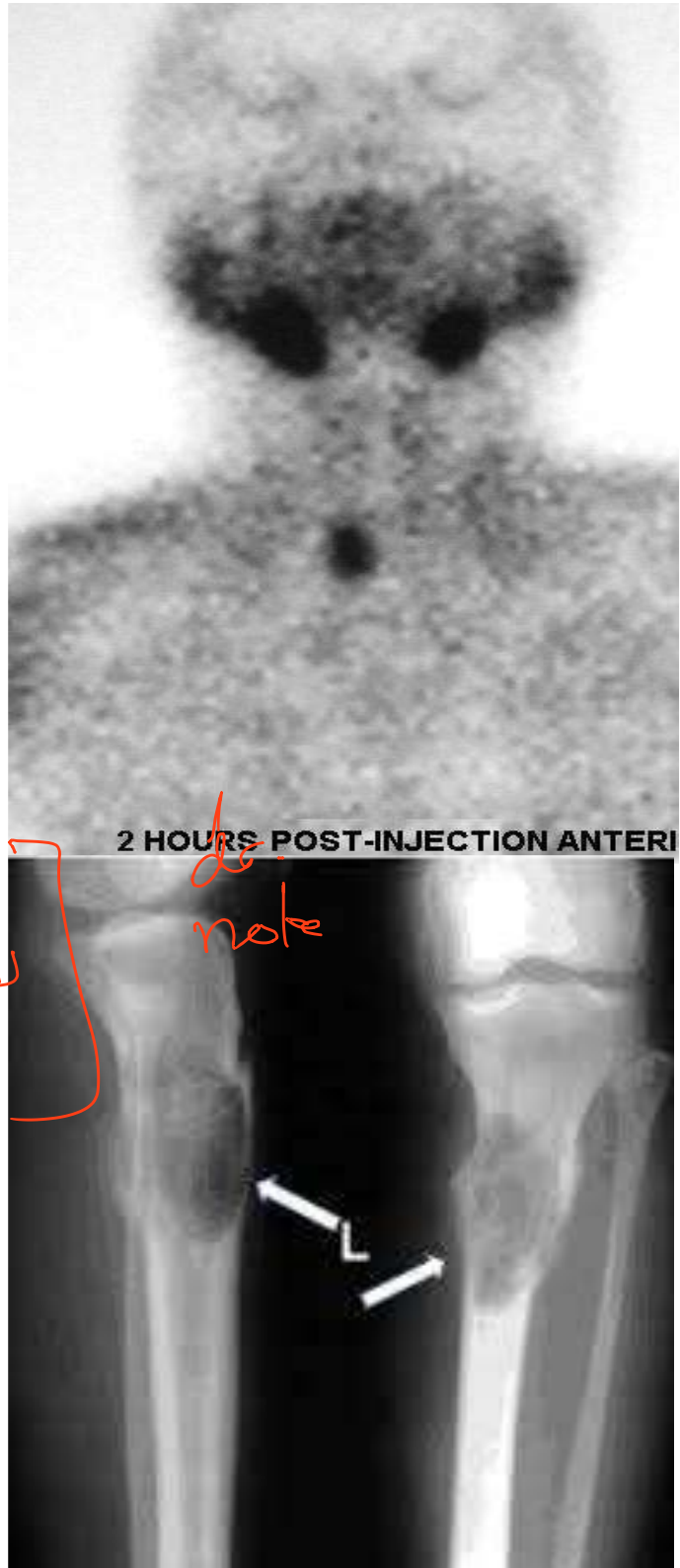
Q: A 60-years old female complains of pain in her bones. She presents with a palpable central neck lump below the cricoid cartilage that moves upward upon swallowing.

1. What does the lump mostly represent?

Parathyroid Carcinoma

2. What is the bone condition called?

Osteitis Fibrosia Cystica



Q1: Name the Dx?

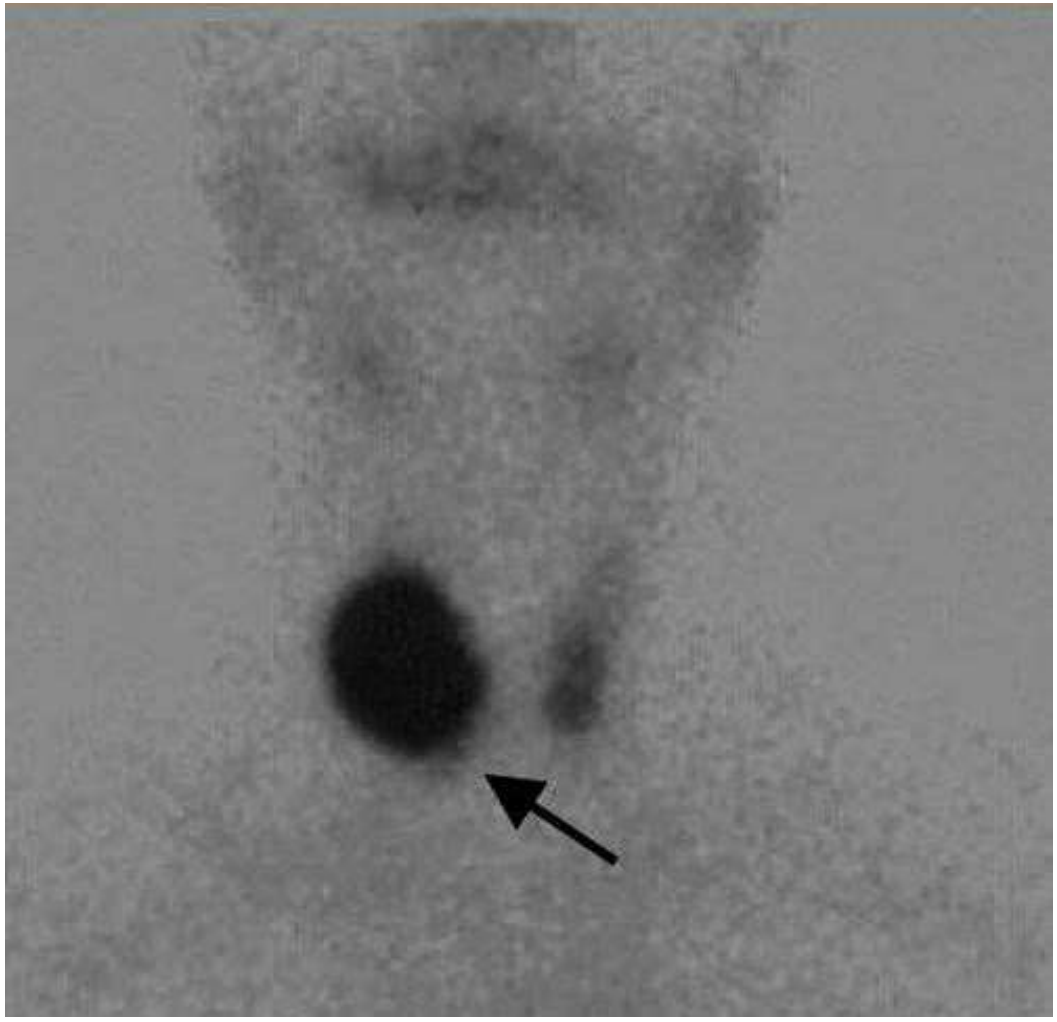
- Parathyroid hot nodule

Q2: Name the Rx?

- Surgery (Lobectomy)

Q3: Risk of malignancy?

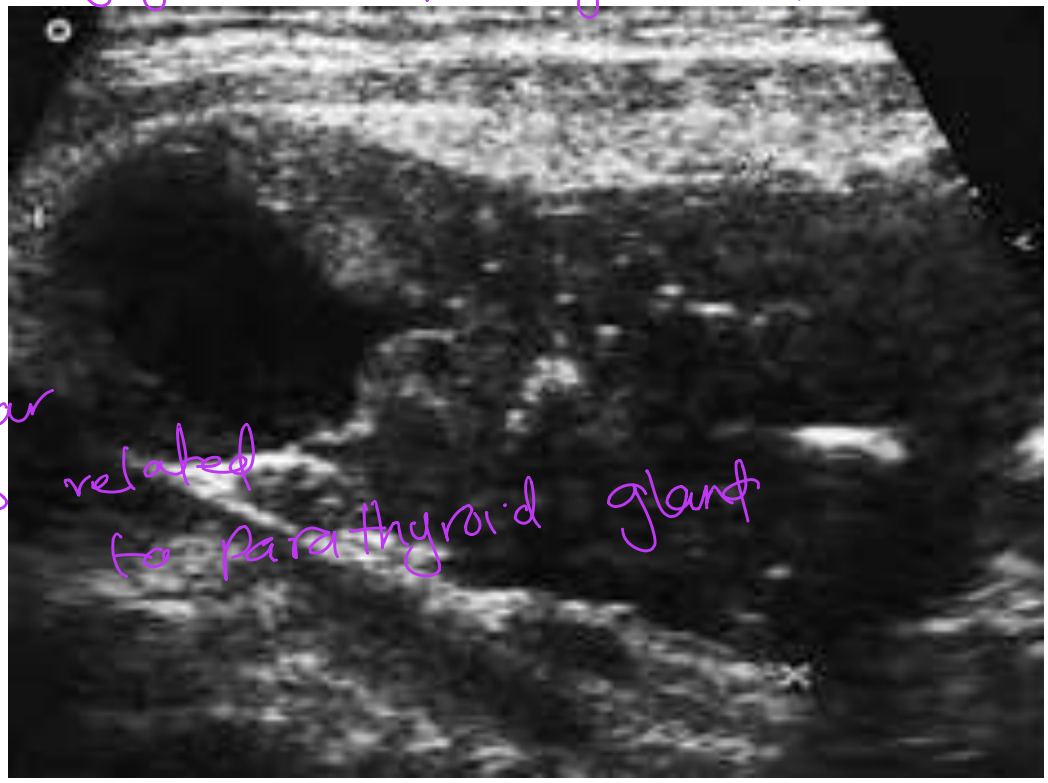
- Low risk (<3-5%)



① thyroid nodule ② LN ③ anneyrysm ④ parathyroid ca
⑤ tracheal sarcoma

Q: Hx of palpable neck mass, recurrent renal stone, high level of calcium and parathyroid hormone:

clear it's related to parathyroid gland



Q1: Name the Dx?

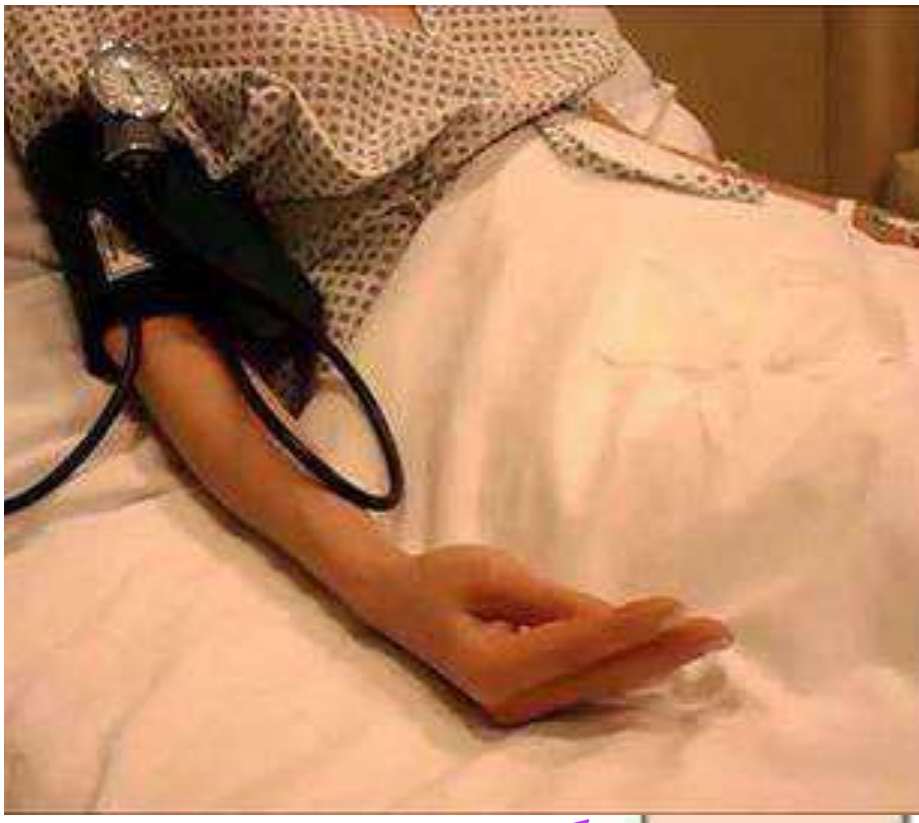
- Parathyroid carcinoma

Q2: What is the minimal Mx to be done?

- Parathyroidectomy or en-bloc resection of the parathyroid mass and any adjacent tissues that have been invaded by tumor . (from uptodate)

*** Note: En-bloc resection could include the ipsilateral thyroid lobe, paratracheal alveolar and lymphatic tissue, the thymus or some of the neck muscles, and in some instances, the recurrent laryngeal nerve

Q: The morning post-total thyroidectomy the patient developed the sign seen in this figure:



Q1: Name of he sign?

- Trousseau Sign

Q2: What is the cause?

- Hypocalcemia after removal of parathyroid glands

Trousseau's sign : Carpal spasm after occlusion of blood to the forearm with a BP cuff in pt with **hypocalcaemia.**

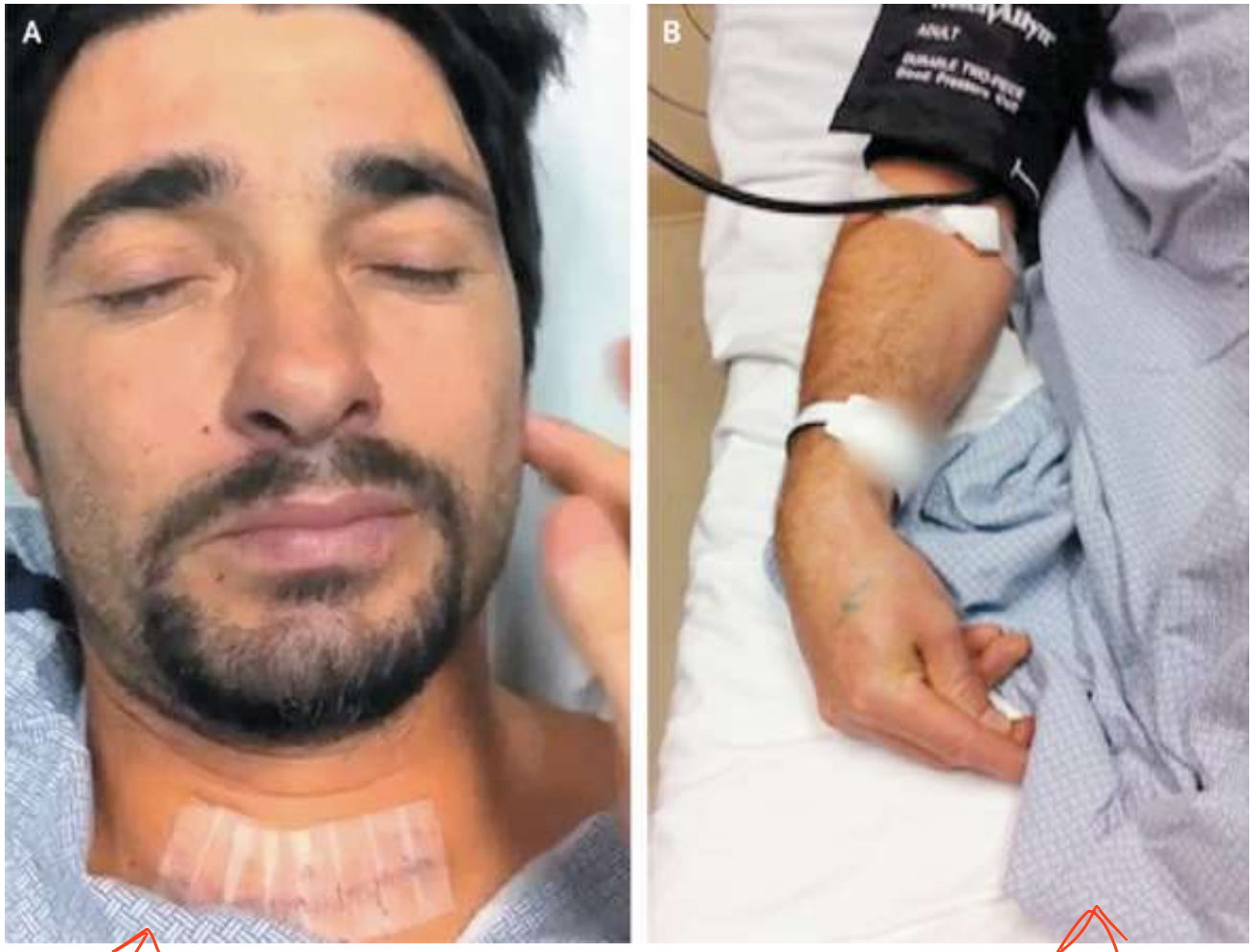
cut- off inferior thyroid A من نتيجة يكون in thyrodectomy

Q3: What is the most likely cause of hypoparathyroidism?

- Ischemic Injury

less common

or [trauma (thermal or mechanical)



Q1: What are the signs?

- Chvostek and Trousseau signs

Q2: What is the cation that influx and cause this sign?

- Na+ Sodium

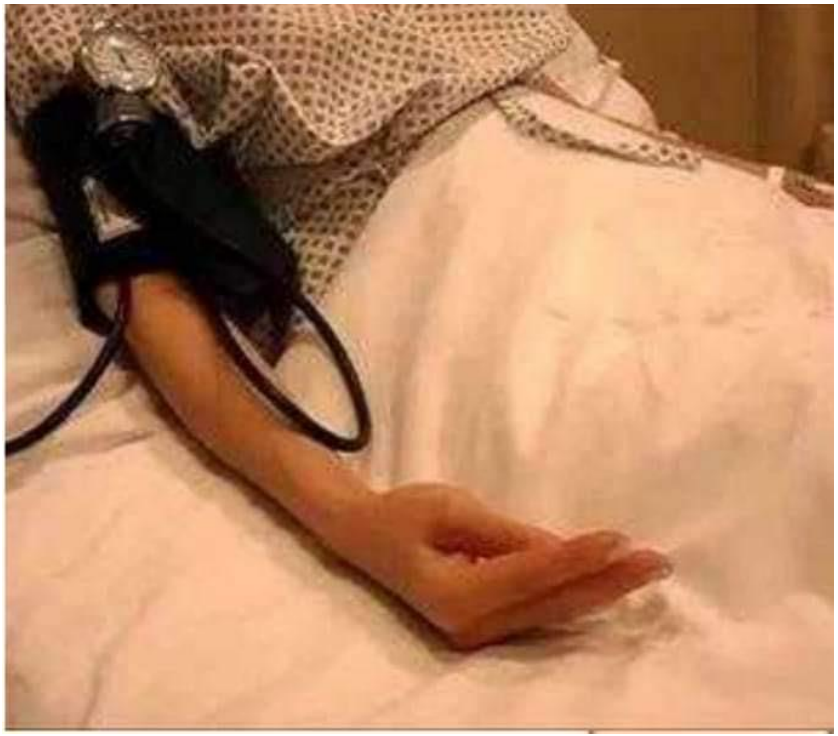
NECK, THYROID & SALIVARY GLANDS

Hashemite University
H · U · M
Medical School Committee

QUESTION

Yaqeen 2025

1. Name this sign.
2. First symptom to develop
3. What is the cause?



Hashemite University
H · U · M
Medical School Committee

ANSWER

1.Trousseau Sign

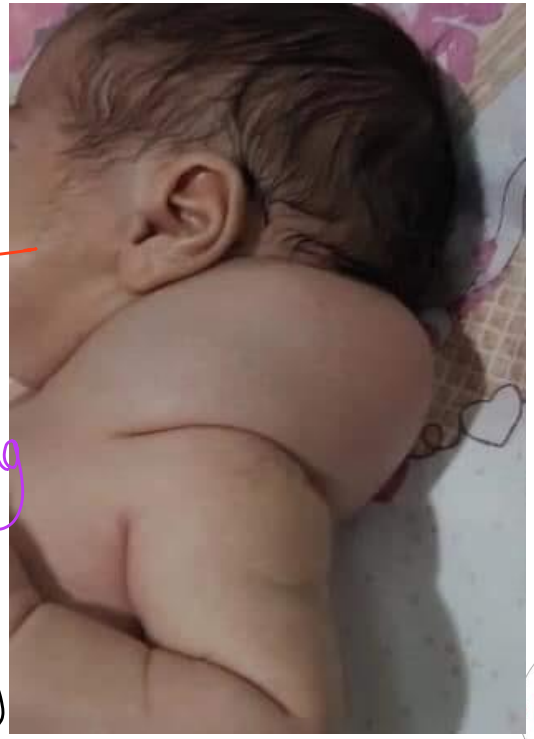
2. Ischemic injurie

3.Hypocalcemia after removal of parathyroid glands

QUESTION

Yaqeen 2025

1. What is the diagnosis?
2. What is the most common second location?



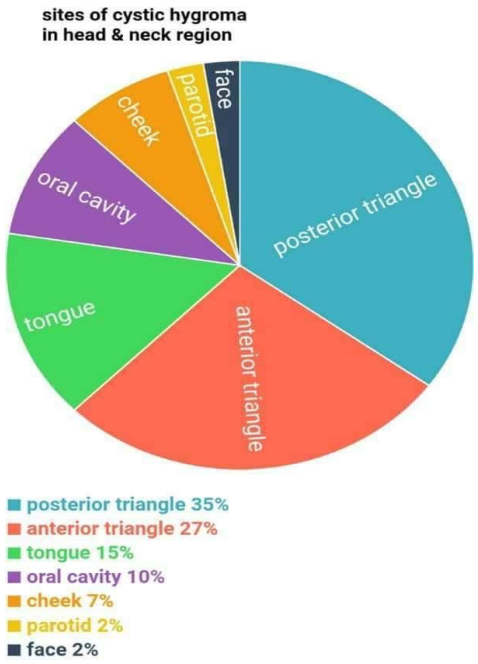
caused by environmental factors:

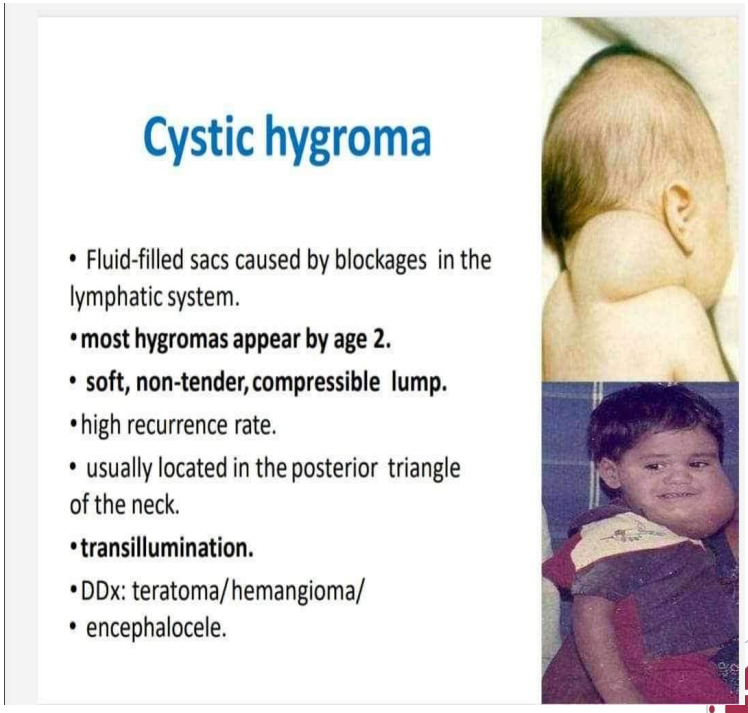
① smoking, alcohol during pregnancy

Most serious complication is Fetal hydrops

ANSWER

1. Cystic hygroma
2. Anterior triangle



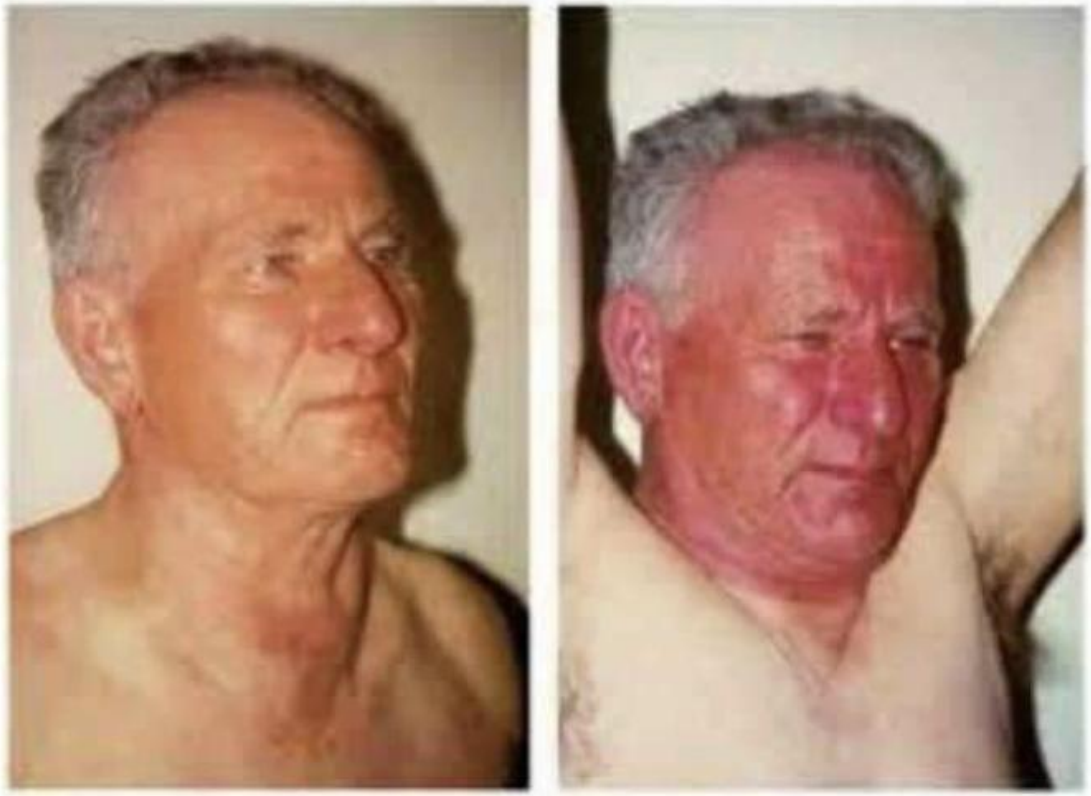


Hashemite University
H · U · M
Medical School Committee

• QUESTION

Yaqeen 2025

A. Name the sign.
B. Give the cause



Hashemite University
H • U • M
Medical School Committee

ANSWER

A. pemberton sign
B. common manifestation of retrosternal goiter but may also occur with lung carcinoma, lymphoma, thymoma, or aortic aneurysms ,occurs when the thoracic inlet becomes obstructed during positional changes, resulting in compression of the jugular veins. (retrosternal goiter تكفي للاجابه)

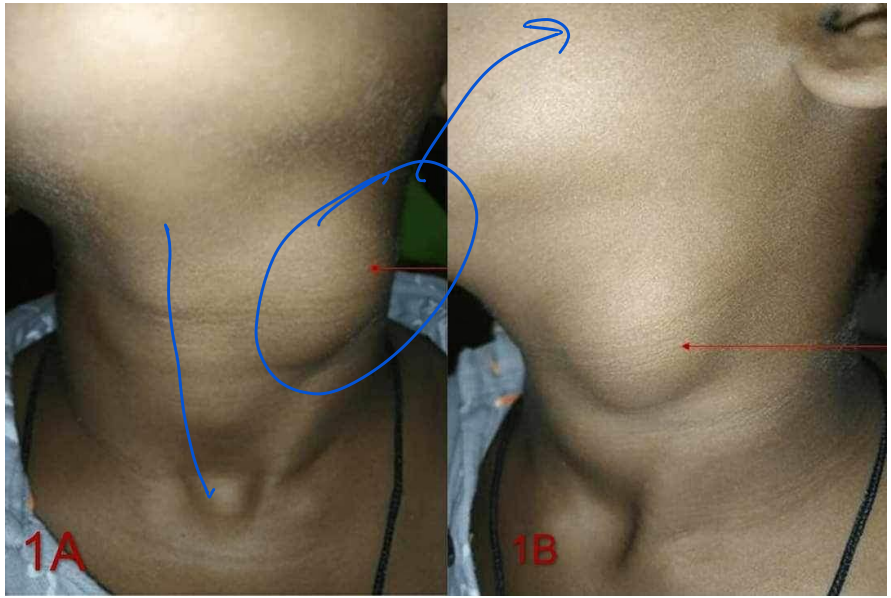
Hashemite University
H · U · M
Medical School Committee

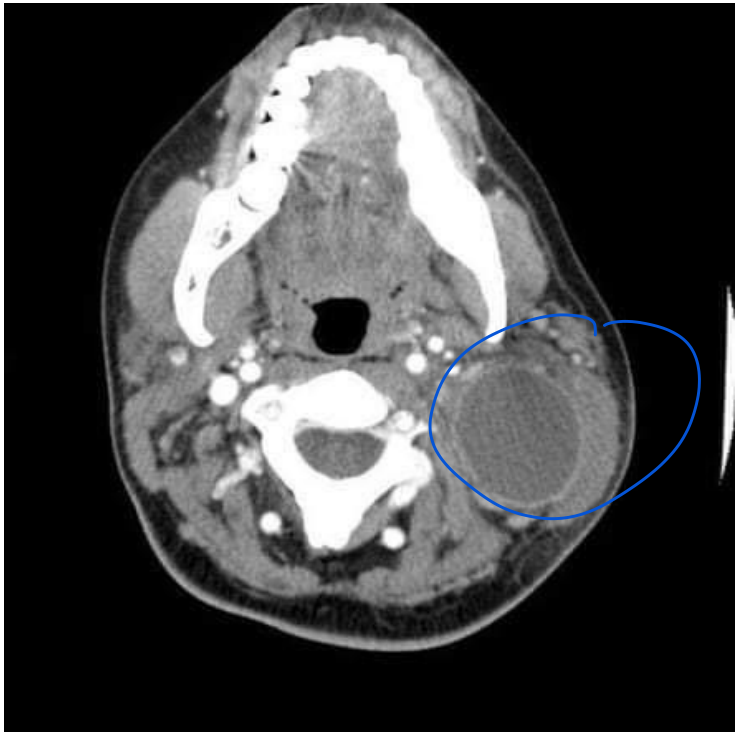
• QUESTION

Yaqeen 2025

1.Name the lesion :

2. It's origin:





ANSWER

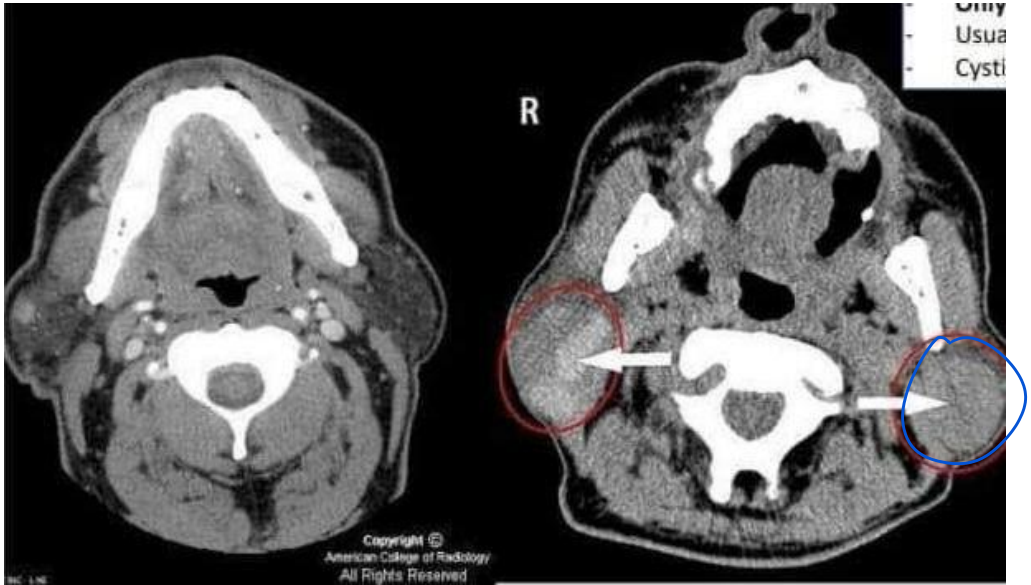
1.branchial cyst

2.originate from : 2nd pharyngeal pouch

• QUESTION

Yaqeen 2025

1. What is the diagnosis?
2. What is the most common site?
3. Describe the consistency of the mass :



Hashemite University
H · U · M
Medical School Committee

ANSWER

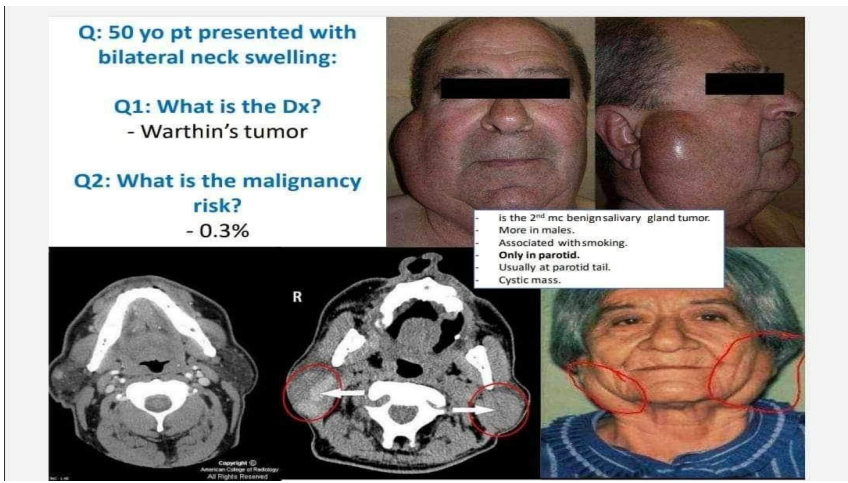
1. Warthin's tumor

1. Parotid tail (inferior pole of superficial lobe)

1. ~~Not sure~~

soft fluctuant painless mass

hard



Hashemite University
H · U · M
Medical School Committee

• QUESTION

Hope 2024

This lady underwent resection of a submandibular gland for a mass

1.What nerve injury resulted from her surgery?

2.What is the likelihood of malignancy in general for a submandibular gland mass?

Hashemite University
H • U • M
Medical School Committee

• ANSWER

1.facial nerven(LMN) Left side

2. 50%

Salivary Gland	Malignancy Rate	Incidence of Tumor
Parotid	20%	80%
Submandibular	50%	15%
Sublingual & Minor	70%	5%

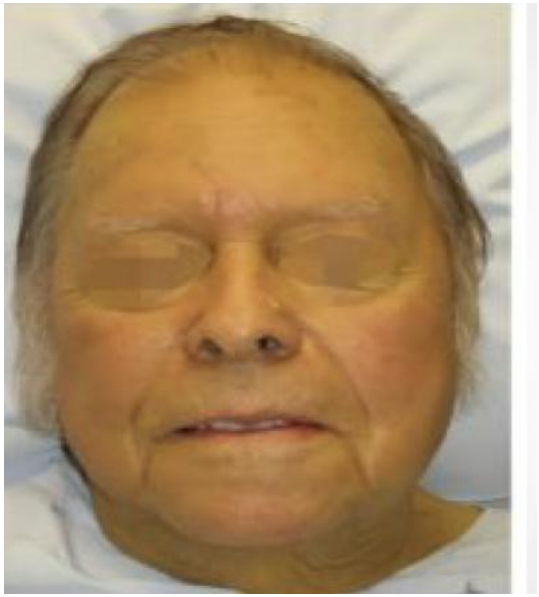
Hashemite University
H · U · M
Medical School Committee

• QUESTION

Hope 2024

A. What is the general diagnosis of this case?

B. Name the tumor marker for the thyroid lesion in this case ?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

A. Jaundice mostly occurs with thyrotoxicosis

B. TSH

• QUESTION

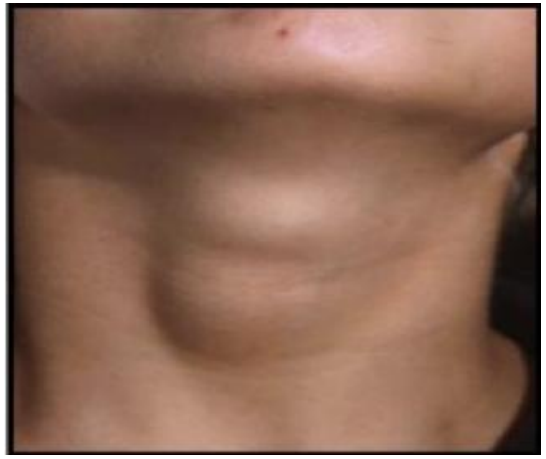
محمود ابراهيم

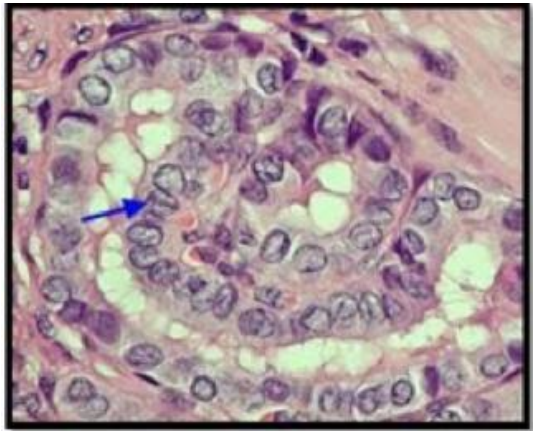
Wateen 2023

A 36-year-old female underwent FNAC for a thyroid lump. This was reported as Bethesda VI.

1. What is the risk of a false positive result ?

2. Name the nuclear feature pointed to by the blue arrow that supported the diagnosis





Hashemite University
H · U · M
Medical School Committee

ANSWER

A. 1-3%

B. Nuclear groove

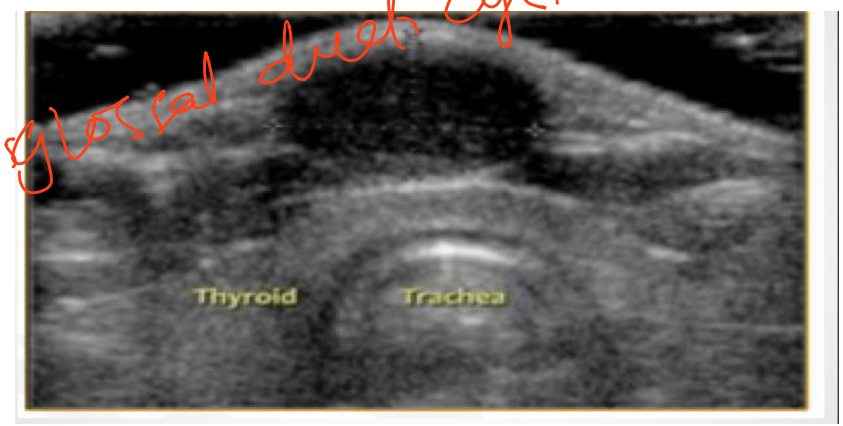
• QUESTION

Wateen 2023

A 20-year-old male presented with an anterior neck lump above the level of the thyroid gland. The figure represents the ultrasound findings of this Lesion

1. What is the characteristic physical examination finding for this lesion?

2. Following surgery the histopathology examination reported a malignant lesion; what is the most likely malignancy



Hashemite University
H · U · M
Medical School Committee

ANSWER

A. Cyst move deglutition

B. Papillary thyroid carcinoma

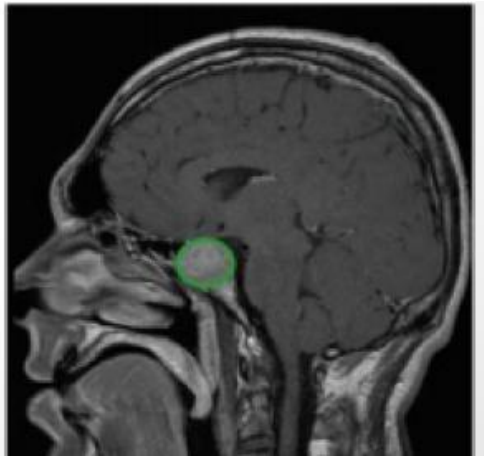
• QUESTION

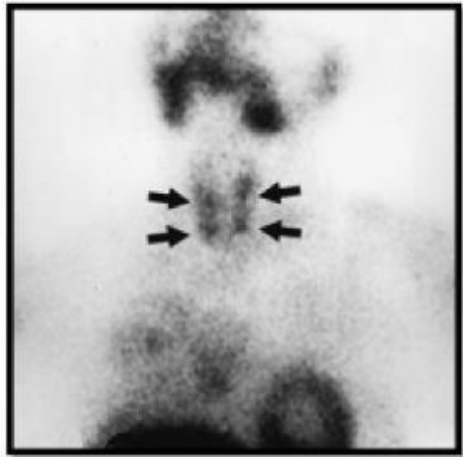
Wateen 2023

A 35-year-old female was found to biochemical primary hyperparathyroidism. A MIBI-scan and a pituitary MRI were performed

. A) What is the most likely clinical manifestation that lead to performing a pituitary MRI?

B) What additional imaging study would you perform for this patient ?





Hashemite University
H • U • M
Medical School Committee

• ANSWER

in Parathyroid tumor: ↑ expression of Prolactin Receptors → ↑ Prolactin

A. Hyperprolactinemia - Bone pain

B. Pancreatic CT scan - Bone x-ray

ممكن يكون عنده Pancreatitis او ↑↑ بالكالسيوم

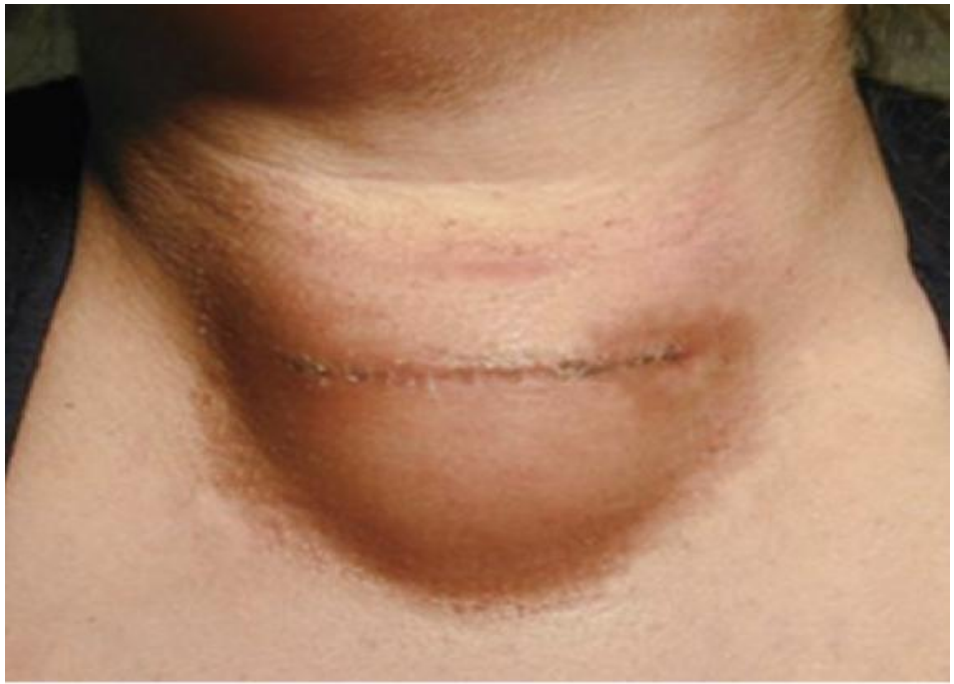
• QUESTION

Wateen 2023

2 hours following thyroidectomy, this patient developed neck swelling and shortness of breath.

1.What is your diagnosis

2.Next step in management



Hashemite University
H • U • M
Medical School Committee

ANSWER

A. Hematoma post operation

B. Intubation

• QUESTION

Harmony 2022

3. 30 year old presented with hyper functional diffuse enlargement of her thyroid gland ,What is the most sensitive serologic marker of this condition

a. T_3/T_4 Ratio

b. TSH LEVEL

c. Free T_3

d. Anti TSH Receptor antibody

Answer: D

Image not found

Graves

Hashemite University
H • U • M
Medical School Committee

• QUESTION

4. What is your diagnosis ?

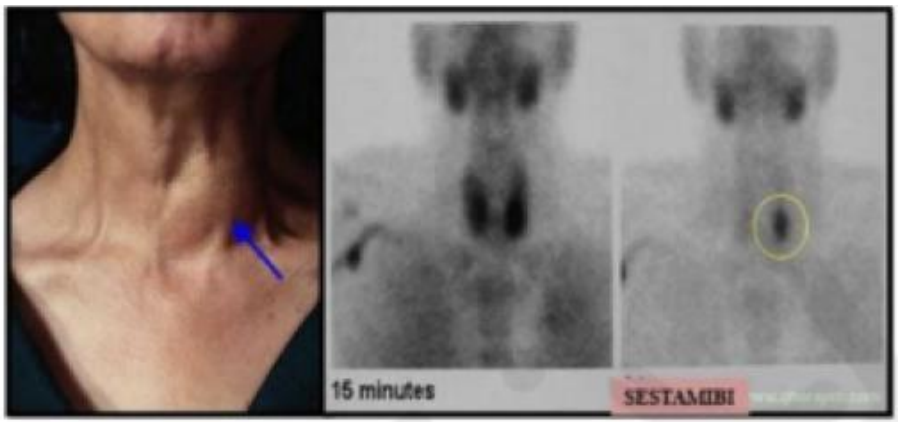
a. Parathyroid cancer

b. Parathyroid hyperplasia

c. Thyroid cancer

d. Reactionary Inflamed lymph node

Answer: A

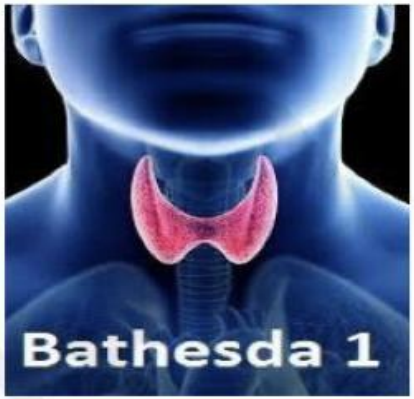


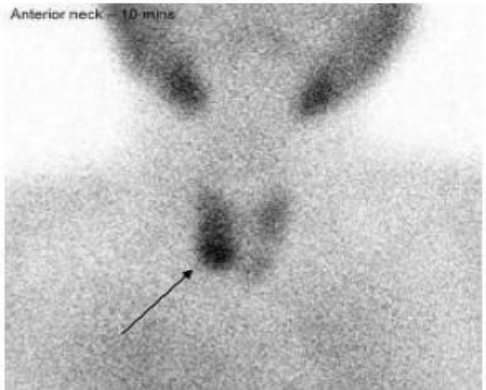
Hashemite University
H • U • M
Medical School Committee

• QUESTION

Harmony 2022

What shall you do in the following cases ?





Hashemite University
H • U • M
Medical School Committee

• ANSWER

Thyroid → repeat cytology

Parathyroid → remove

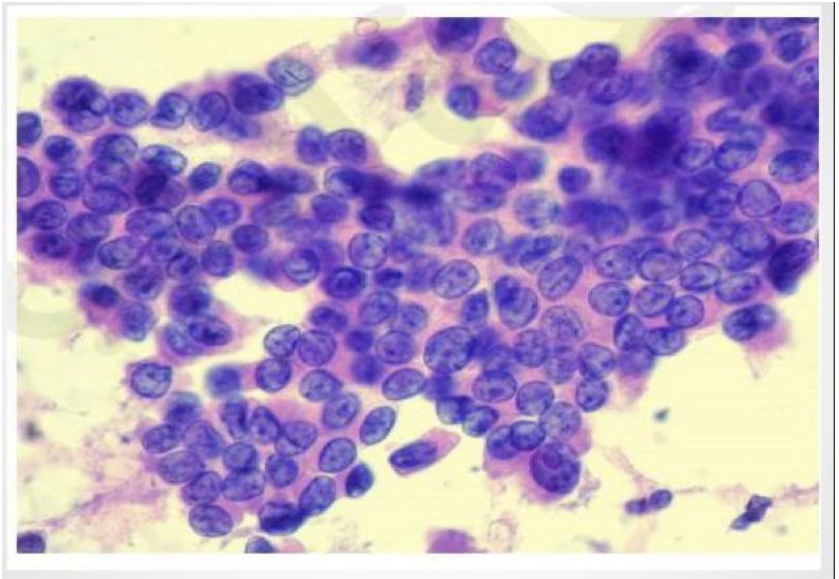
• QUESTION

Harmony 2022

1-What is the type of cancer seen in this histology ?

2. What is the rate of the malignancy?

3.Mention 2 features seen in the picture?



Hashemite University
H • U • M
Medical School Committee

ANSWER

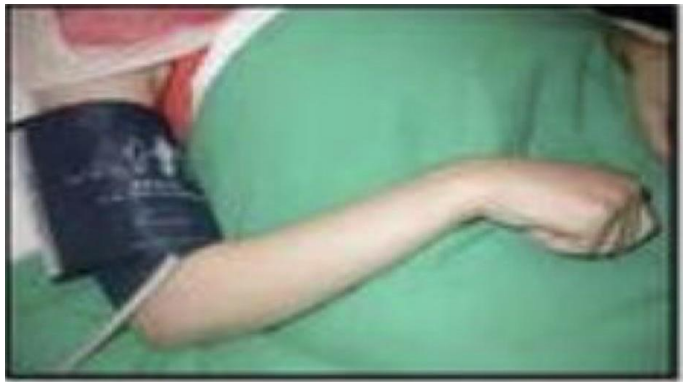
1. Papillary thyroid carcinoma
2. 97-99%
3. Nuclear Crowding ,Orphan Annie Nuclei

QUESTION

SOUL 2021

The morning following total thyroidectomy:

1. Name the sign you see?
2. Mention a Name of other sign can be seen in this pt ?



Hashemite University
H · U · M
Medical School Committee

ANSWER

1.Trousseau's sign

2 .Chvostek sign

INCOMPLETED QUESTIONS OR WITH NO PICTURE:

SOUL 2021

Q1.

A question about

1.most common site of thyroglossal duct cyst ?

2.Characteristic feature on physical exam :

Hashemite University
H · U · M
Medical School Committee

ANSWER

midline in or below hyoid bone

1.Infra hyoid bone

2.movement with toung protrusion

QUESTION

SOUL 2021

Case about Bathesda VI scoring:

1. Percentage of malignancy ?

2.Most common cancer in this patient ?

Hashemite University
H · U · M
Medical School Committee

ANSWER

1. 97-99%
2. Papillary thyroid carcinoma

QUESTION

SOUL 2021

question about warthin tumor: -

1.Describe the consistency of the lesion?

2.Most important Risk factor?

Hashemite University
H · U · M
Medical School Committee

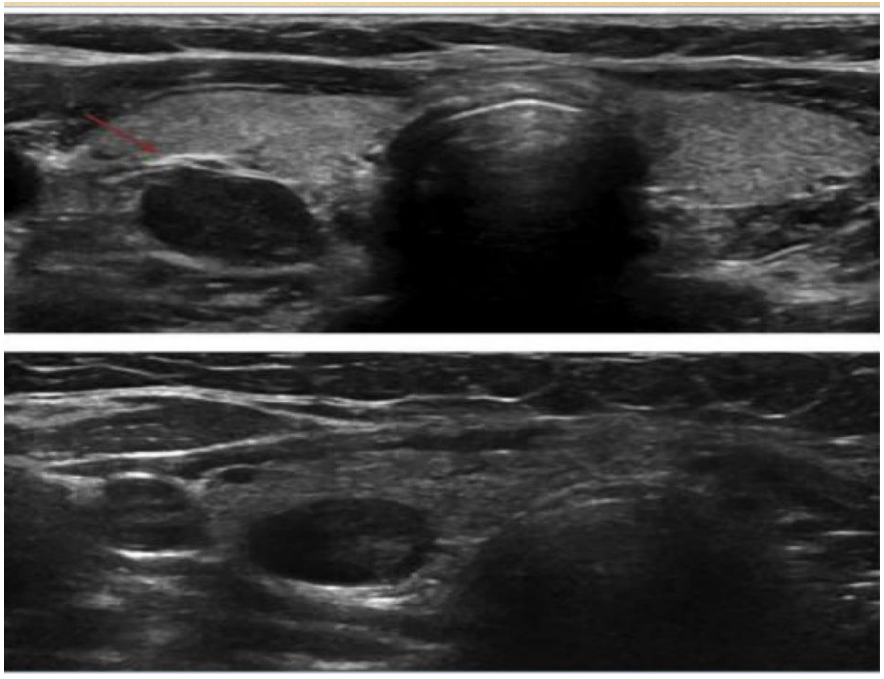
ANSWER

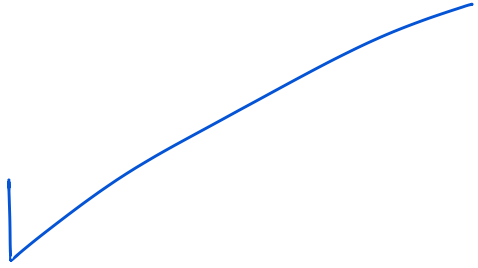
1. Soft , flfluctuate
2. Smoking

• QUESTION

SOUL 2021

Name 2 sonographic features that are suggestive of malignancy





Hashemite University
H • U • M
Medical School Committee

• ANSWER

Micro-calcification

Taller than wide shape

Irregular margins •

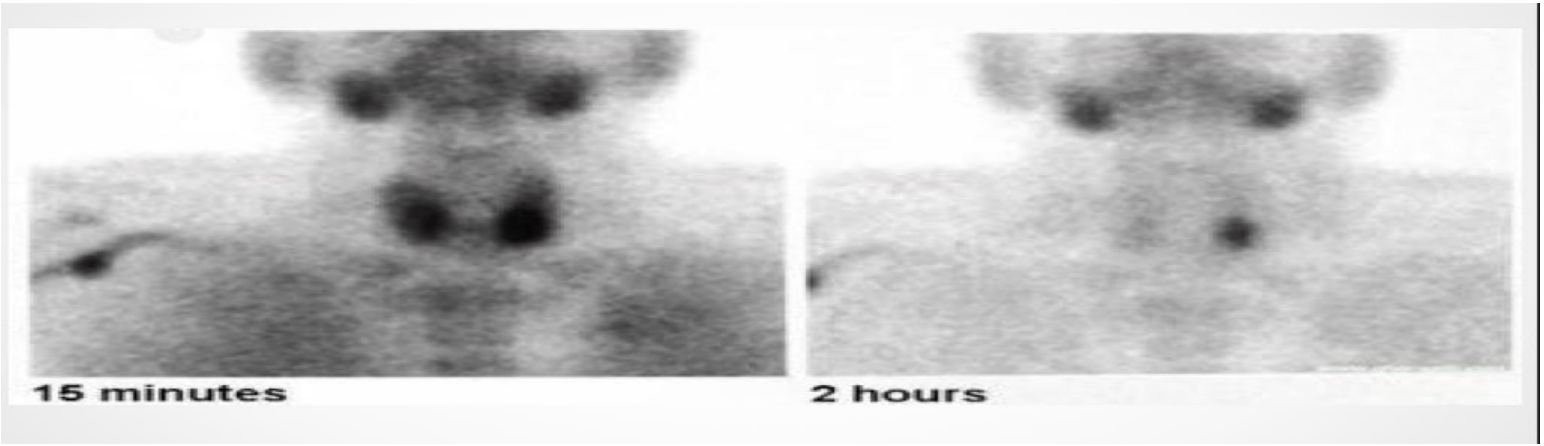
• QUESTION

SOUL 2021

This image was obtained from 54 yrs old female complaining of repeated attacks of renal colic ,

A) What does the study reveal?

B) What is the likelihood that the lesion detected is malignant?



Hashemite University
H • U • M
Medical School Committee

ANSWER

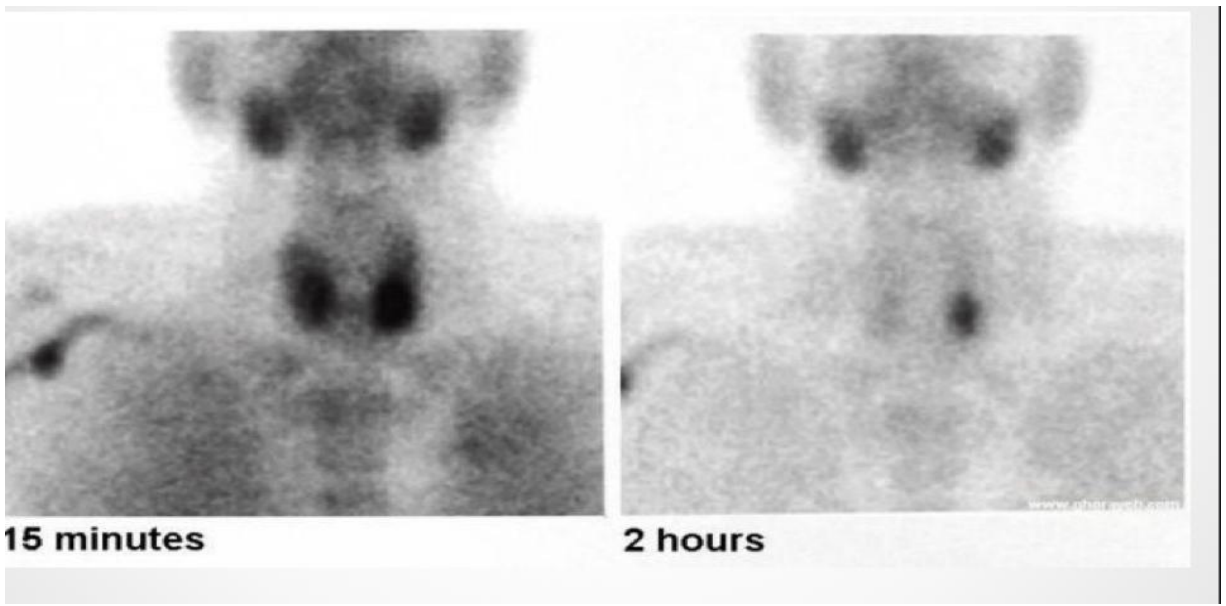
A. parathyroid adenoma

B. 1%

• QUESTION

SOUL 2021

Name the study and mention the most common cause of the condition?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Sestamibi scan of Parathyroid

2. Adenoma

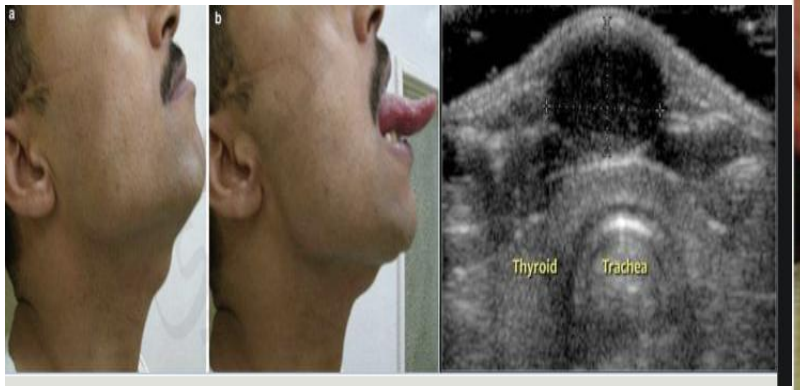
• QUESTION

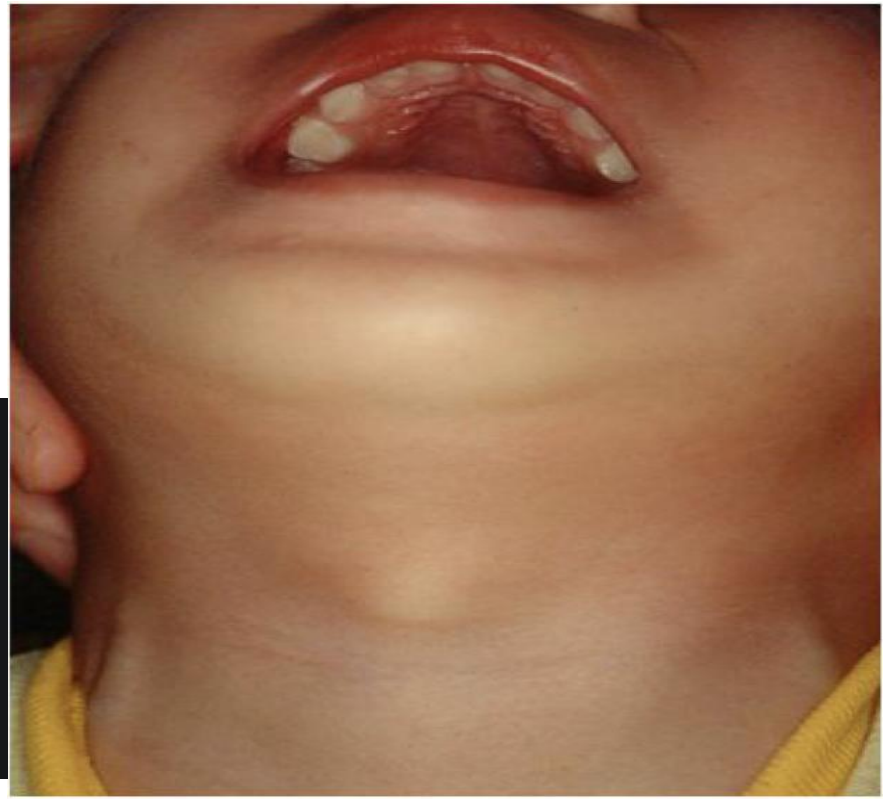
SOUL 2021

1. Diagnosis?

2.What is the structure on U/S?

3.What is the management?





Hashemite University
H • U • M
Medical School Committee

• ANSWER

1.Thyroglossal duct cyst

2. Hyoid bone

3.Sistrunk's procedure

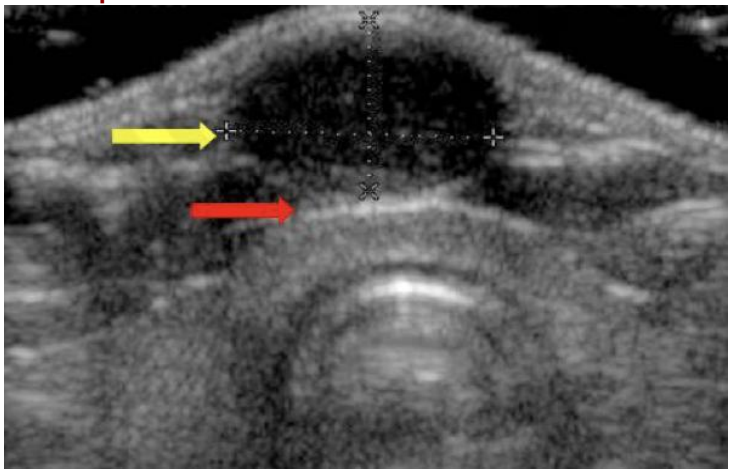
• QUESTION

IHSAN 2020

This patient underwent surgery for the pathology depicted by the yellow arrow. Histology reported a malignancy of non-thyroid origin.

1. What is the most likely malignancy?

2. What structure does the red arrow point to?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Squamous cell carcinoma

2.Hyoid bone

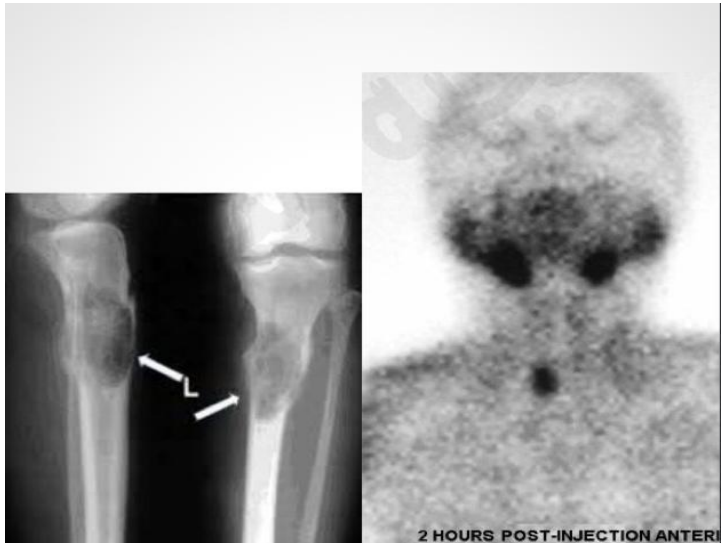
• QUESTION

IHSAN 2020

A 60-years old female complains of pain in her bones. She presents with a palpable central neck lump below the cricoid cartilage that moves upward upon swallowing.

1. What does the lump mostly represent

2. What is the bone .condition called



Hashemite University
H • U • M
Medical School Committee

• ANSWER

1.Parathyroid carcinoma

2.Osteitis fibrosa cystica

• QUESTION

IHSAN 2020

I. what is the Dx

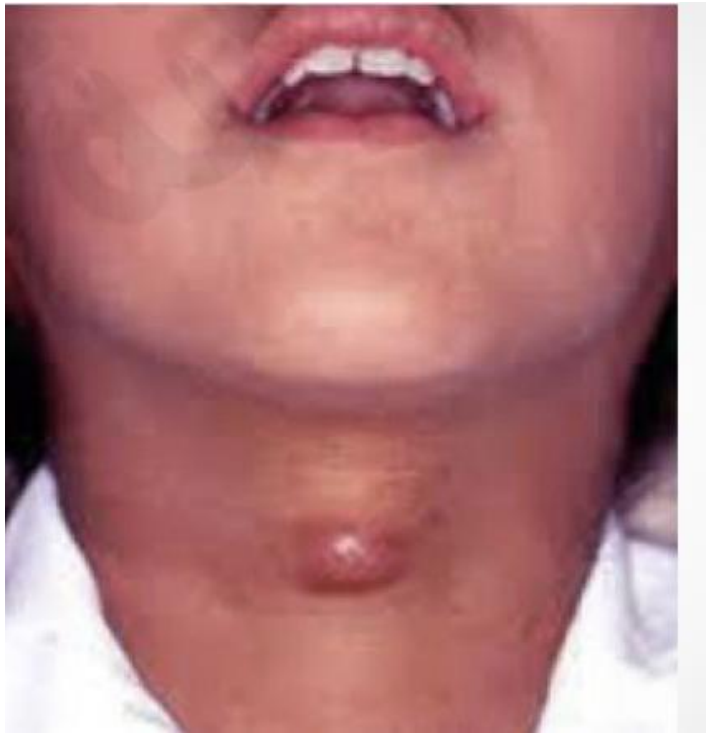
II. What is the definitive Mx?

III. What is the risk of recurrence ?

4.What is the malignancy risk?

5. Name the malignancy that does not occur here?

6.Complications?



Hashemite University
H • U • M
Medical School Committee

• ANSWER.

I. Thyroglossal duct cyst

II. Sistrunk procedure

III. Sistrunk procedure reduces the recurrence risk from

60% to < 10%

4.2%

5.Medullary Ca

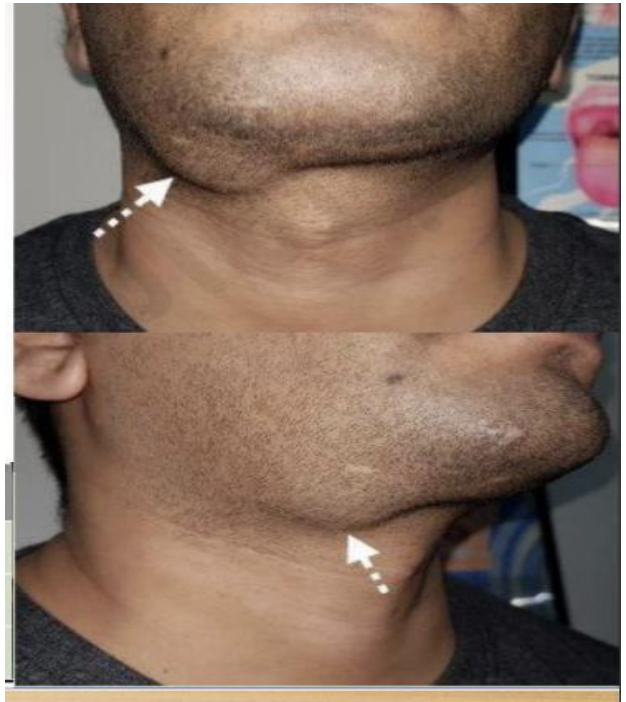
6. Infection, malignant risk

• QUESTION

IHSAN 2020

I: if a surgery was done what is the nerve at risk to be injured?

II: What is the risk of malignancy?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

I. Marginal Mandibular Nerve

II. -50%

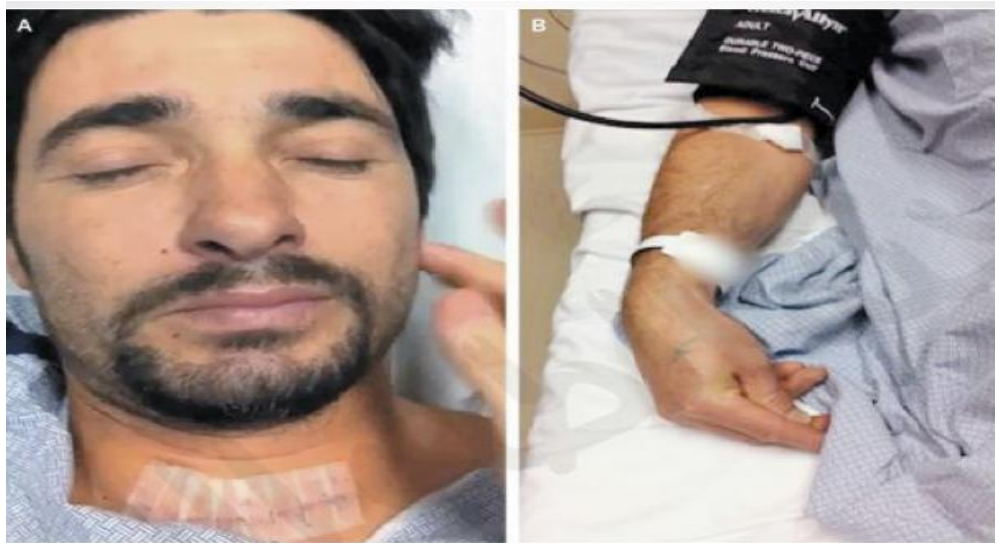
Salivary Gland	Malignancy Rate	Incidence of Tumor
Parotid	20%	80%
Submandibular	50%	15%
Sublingual & Minor	70%	5%

• QUESTION

IHSAN 2020

1: What are the signs?

2: What is the cation that influx and cause this sign?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

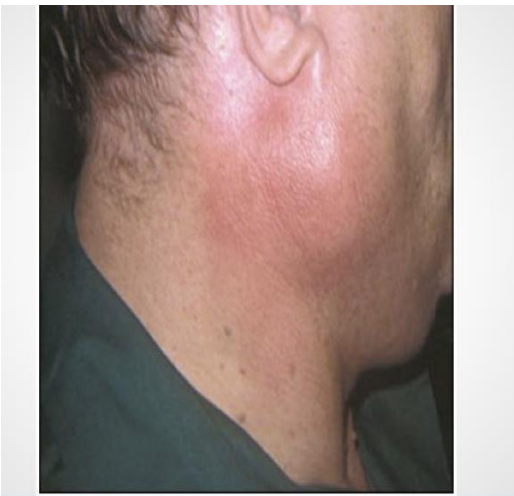
I. Chvostek and Trousseau signs

II. Na+ Sodium

• QUESTION

2019 – Before

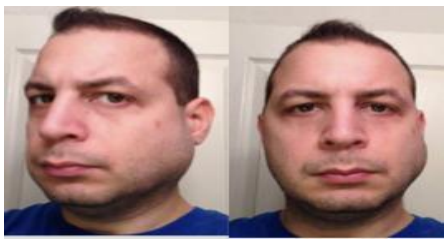
1.What is the most likely diagnosis?



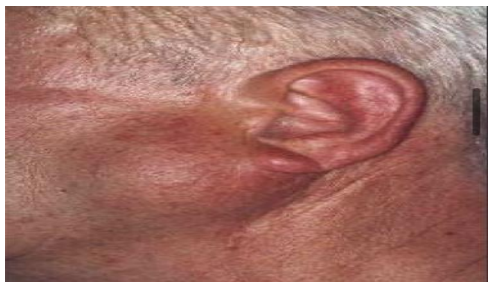
2• What is the most common subtype?

3•What is one sign that confirms your diagnosis?

4• How do we treat this ?patient



5.Histology?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Parotid Pleomorphic Adenoma

2. myxoid(I ~~am not sure~~)

3.Rubbery-hard, does not fluctuate and of limited mobility on physical examination

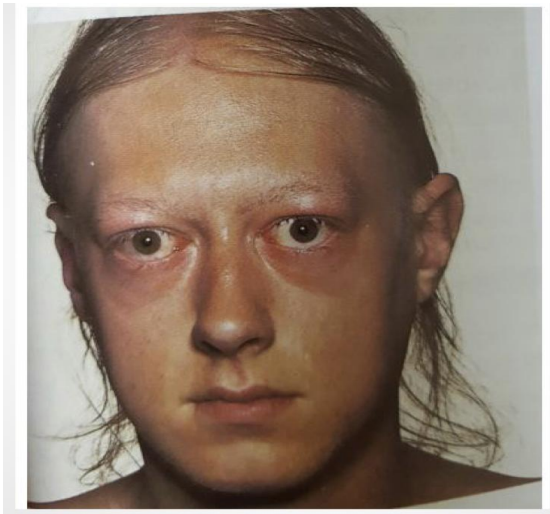
4. Superficial Parotidectomy ,some said total parotidectomy

5.Epithelialcells mixed with myxoid mucoid and condrial element and surrounded by fibrous capsule and has projections (Histology of pleomorphic adenoma: Mixture of epithelial, chondroid and pseudopoid projections)

Hashemite University
H • U • M
Medical School Committee

• QUESTION

2019 – Before



1.What is the most likely diagnosis?

2• Mention 2 signs that you can see?

3• What is the first symptom patient will develop if she develops opthalmoplegia?

4• What is a drug you can give this patient before getting into surgery ?

Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Graves disease

2.

1.exopthalamus 2.)Significant hair loss

3. Double vision or ptosis ~~(not sure)~~

4.PTU

• QUESTION

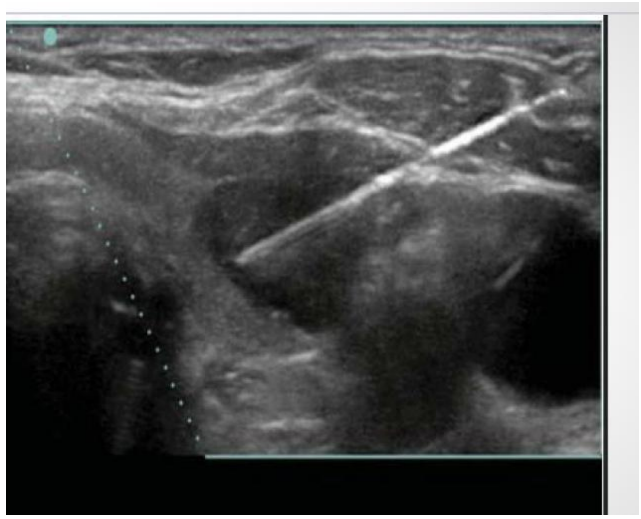
2019 – Before

A 45-year-old euthyroid patient presented underwent fine needle aspiration for a palpable left-sided thyroid nodule. This was reported as a follicular neoplasm.

1. Which Bethesda category does this represent?

2. What is the implied risk of malignancy?

3.What is the recommended treatment



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Bethesda 4(not sure)
2. 15-30
3. depend on FNA result , follow up or radiation therapy or thyrodectomy (not sure)

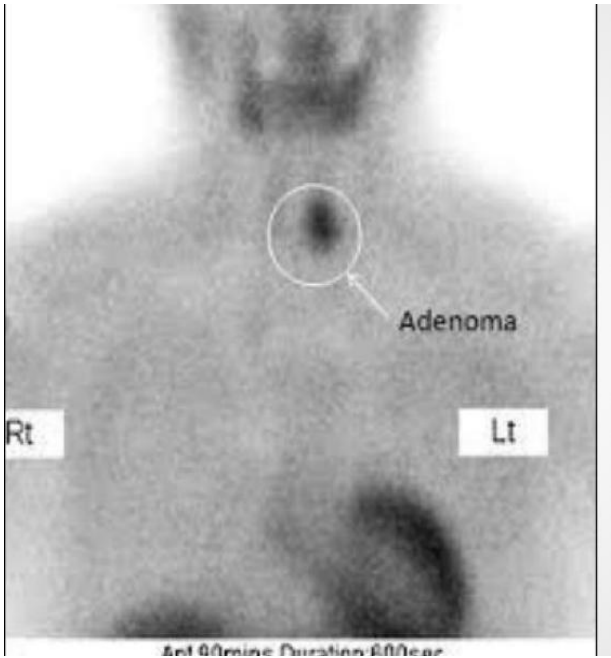
For IV → lobectomy is done

• QUESTION

2019 – Before

This 53-year-old female has a serum calcium level of 11.8 mg/dl and a PTH level of 209 pg/ml.

1. Name the imaging study used (localization) here:
2. What is the embryologic origin of the inferior parathyroid Gland
3. What is the likelihood that the patient's condition is due to single gland disease?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Sestamibi scan

2.endoderm of the third and fourth pharyngeal pouches.

3. ~~Not sure~~ 90% ..

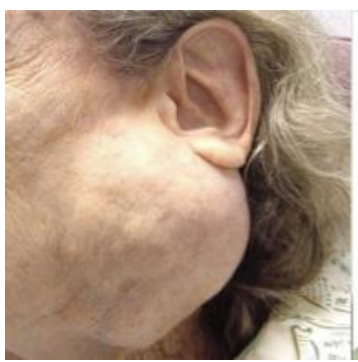
5-10% if 2

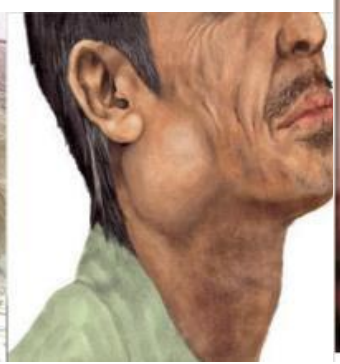
• QUESTION

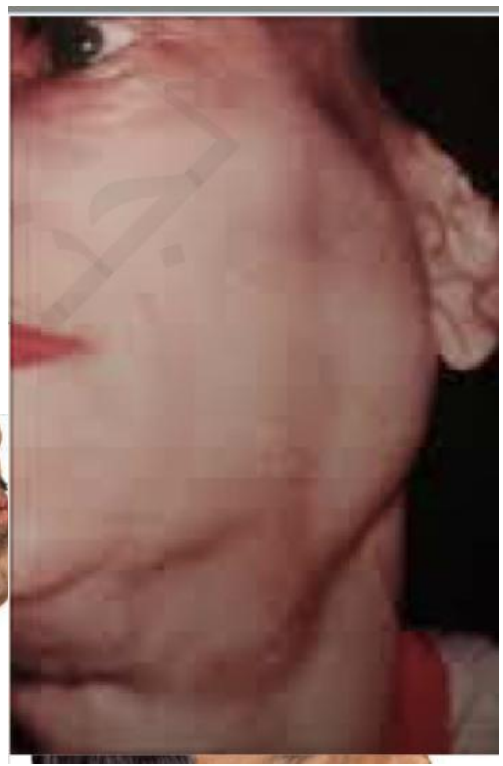
2019 – Before

1.Most affected organ?

2.Most common cause / most likely diagnosis?







ANSWER

1. Parotid gland

2.Pleomorphic adenoma

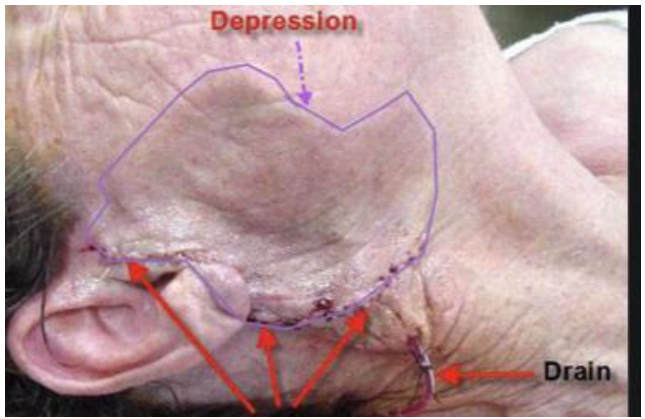
• QUESTION

2019 – Before

patient had a superficial parotidectomy:

1.What is the most likely indication?

2.What is the nerve in risk of being damaged?



Hashemite University
H • U • M
Medical School Committee

ANSWER

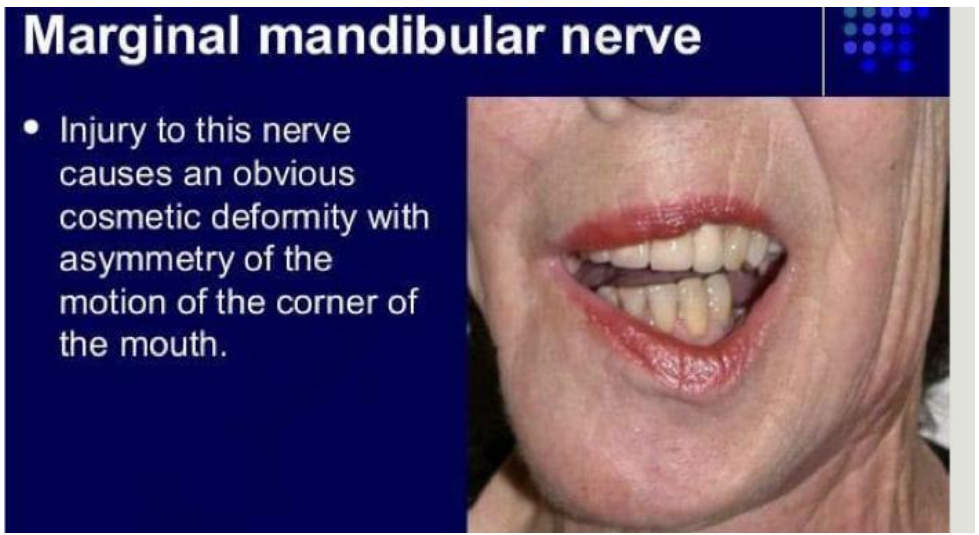
1.Parotid gland tumor (most likely pleomorphic adenoma)

2.Facial Nerve

• QUESTION 2019 – Before

1.What is the nerve affected?

2.What is the malignancy risk?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Marginal mandibular nerve

2.50%

• QUESTION

2019 – Before

history that suggests a thyroid nodule:

1.diagnosis

2. How to approach a patient with this diagnosis?

Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Multi nodular goiter (MNG)

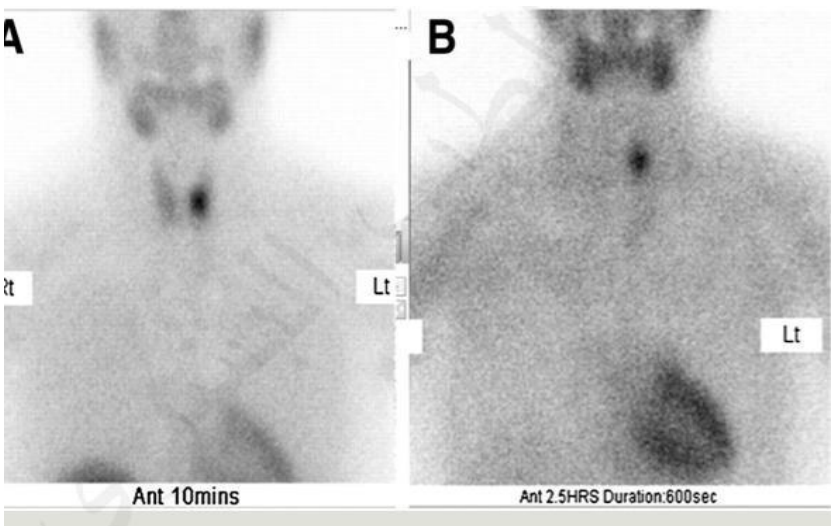
2.TFT Thyroid function test), initially; if hyperthyroidism we will do a thyroid scan, if hypothyroidism we will do an US

Hashemite University
H · U · M
Medical School Committee

• QUESTION

2019 – Before

1. What is the pathology you see?
2. Name the study?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

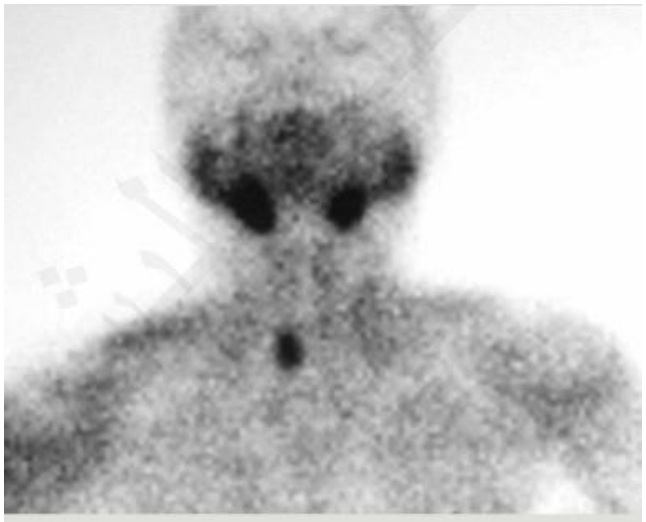
1.Hyperfunctioning parathyroid glands (adenoma)

2.Sestamibi scan

• QUESTION 2019 – Before

1.Risk of disease to be from single nodule?

2.What is your diagnosis?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. 85-90% Adenoma

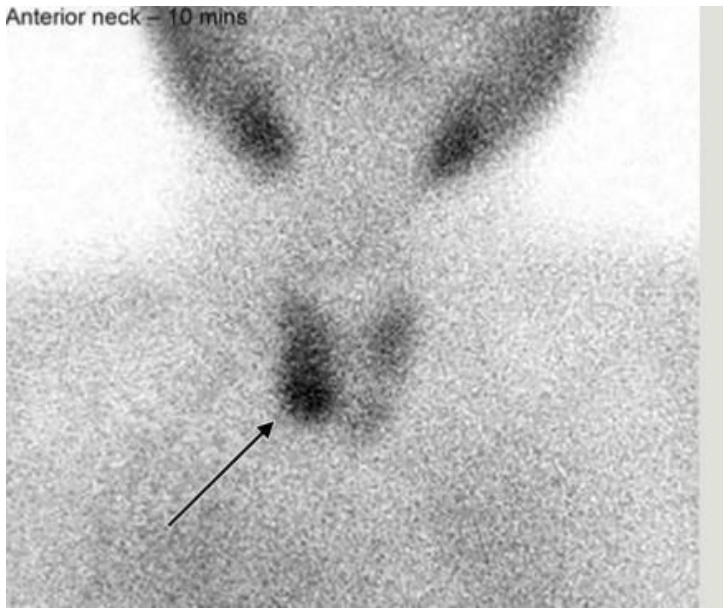
2.Single parathyroid gland adenoma

• QUESTION

23 سؤال

2019 – Before

1. What is the diagnosis?
2. The first symptom to develop if the patient had high PTH & Calcium?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

1 Parathyroid adenoma (1ry hyperparathyroidism

2.Bone pain

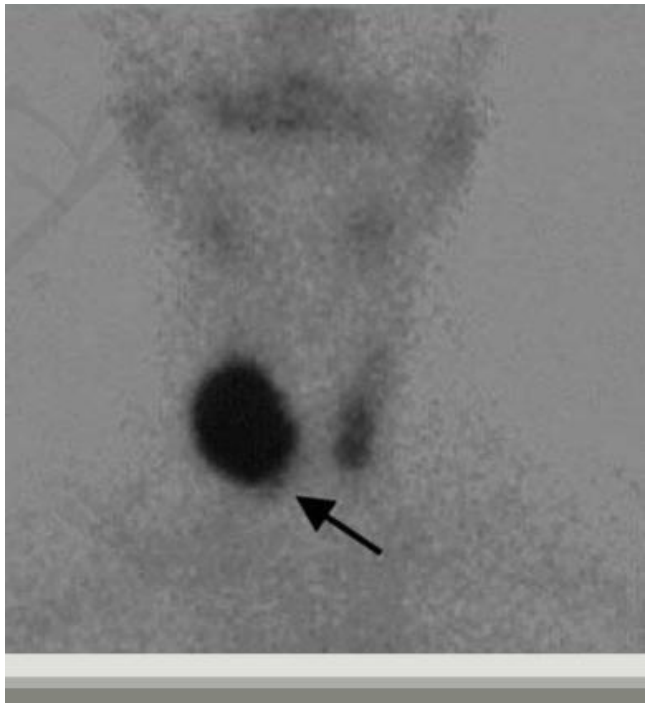
• QUESTION 24 مرة

2019 – Before

1. diagnosis

2.management

3.Risk of malignancy?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

1.Thyroid hot nodule

2.Surgery (Lobectomy)

3.Low risk (<3-5%)

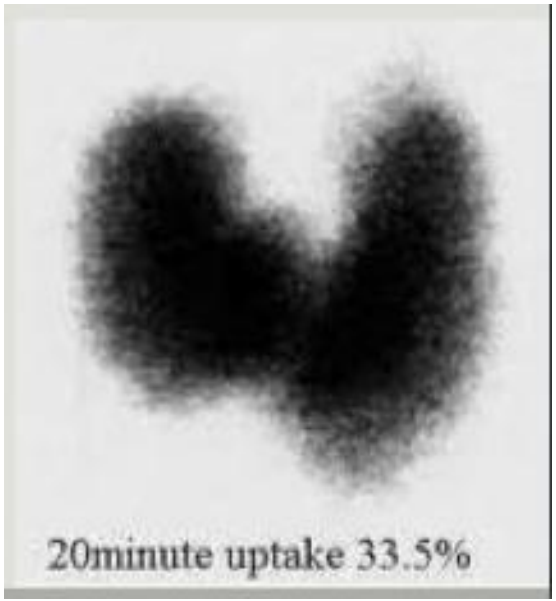
• QUESTION

2019 – Before

1.What is the diagnosis?

2.What is the serological marker?

3.Mention 3 lines of management.



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Graves Disease

2.TSI thyroid stimulating immunoglobulin

3.1)Antithyroid drugs (carbimazole) + β-blockers

2) Radio-iodine

3) Surgery ** All 3 are considered 1st line Mx

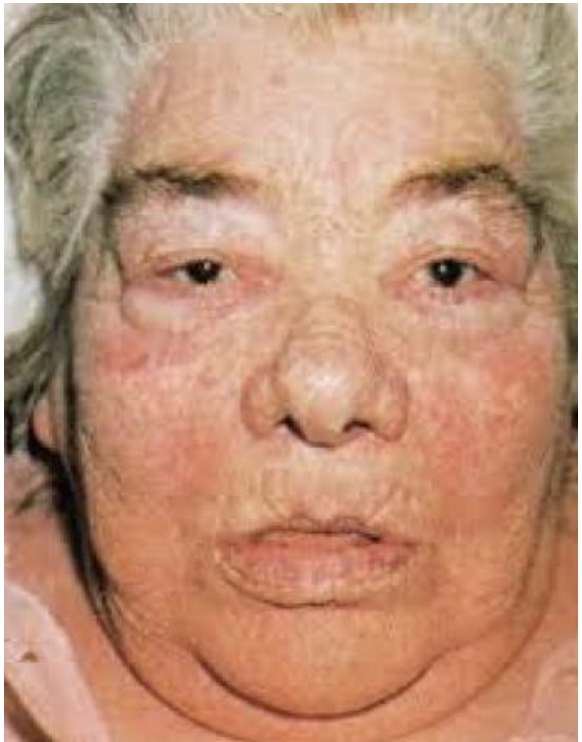
• QUESTION

2019 – Before

A 50-year-old female patient present with hypothermia:

1.What is the endocrine disorder?

2.Mention 3 signs on face?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1.Hypothyroidism

2.

1) Puffy face

2) Periorbital edema

3) Coarse hair

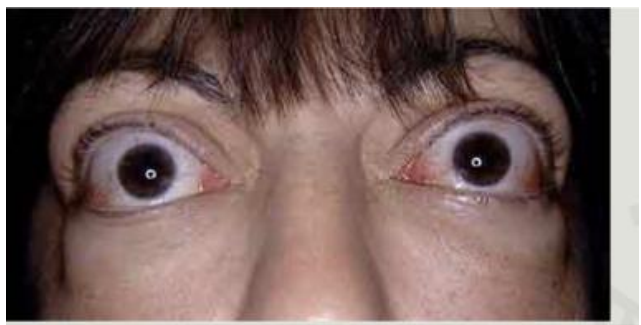
• QUESTION

26 Nov 2019 – Before

1. Name the diagnosis.

2.Mention 2 signs.

3.What is the treatment used for surgery preparation?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

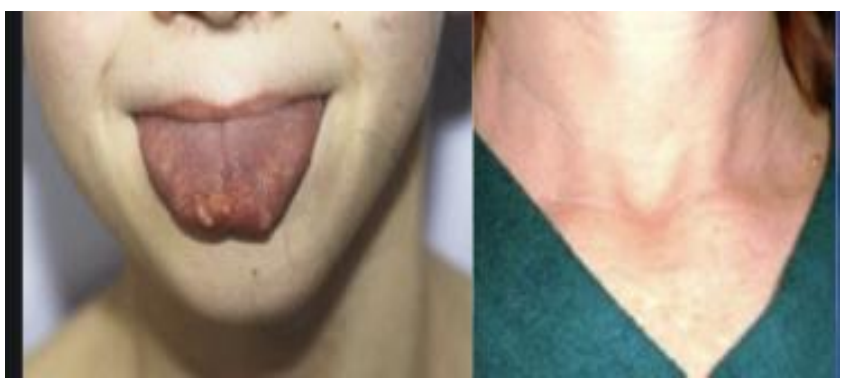
1.Gravis disease

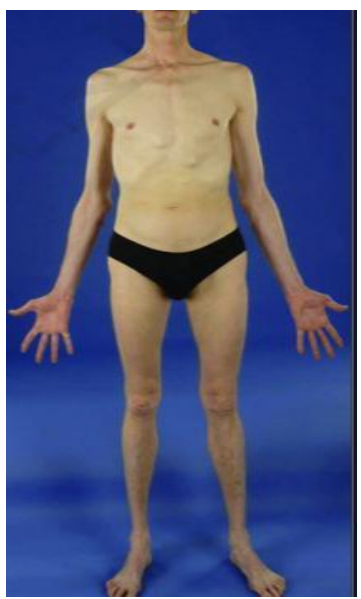
2.Exophthalmos, lid retraction

3.Propyl thiouracil, propranolol

• QUESTION 27 2019 – Before

1. What type of thyroid cancer do you expect to see in this patient?
2. What's the marker?





Hashemite University
H • U • M
Medical School Committee

• ANSWER

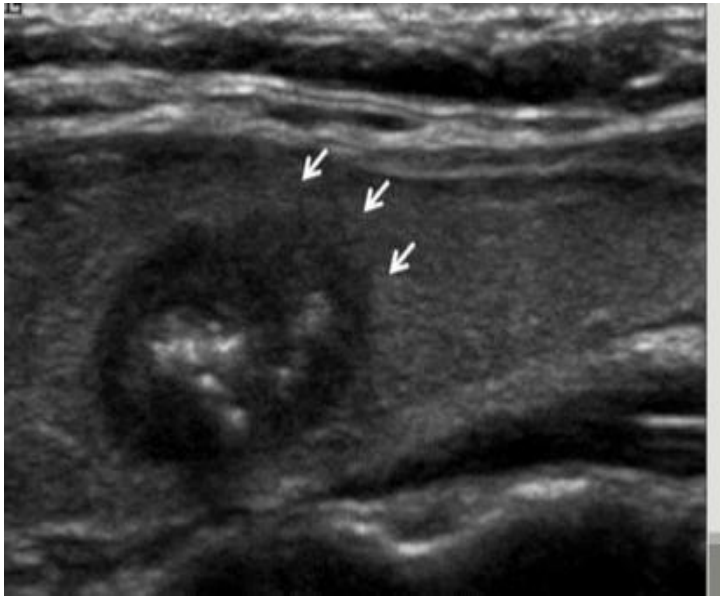
1.Medullary

2.Calcitonin

• QUESTION

2019 – Before

1. What type of thyroid cancer do you expect to see in this patient?
2. Before surgery, what type must you exclude?



Hashemite University
H • U • M
Medical School Committee

• ANSWER

1.Medullary cancer

2.MEN 2 (Pheochromocytoma)

• QUESTION

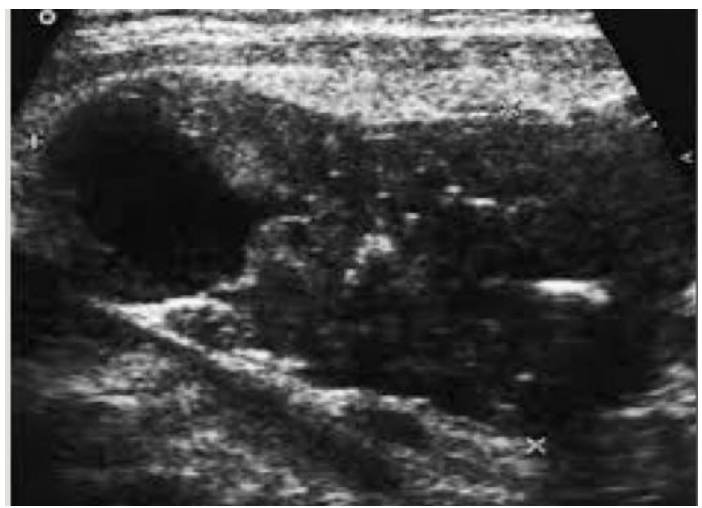
29 من 15

2019 – Before

History of palpable neck mass, recurrent renal stone, high level of calcium and parathyroid hormone.

1.Name the diagnosis.

2.What is the minimal management to be done?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Parathyroid carcinoma

2.Parathyroidectomy or en-bloc resection of the parathyroid mass and any adjacent tissues that have been invaded by tumor. (from UpToDate)

Note: En-bloc resection could include the ipsilateral thyroid lobe, paratracheal alveolar and lymphatic tissue, the thymus or some of the neck muscles, and in some instances, the recurrent laryngeal nerve.**

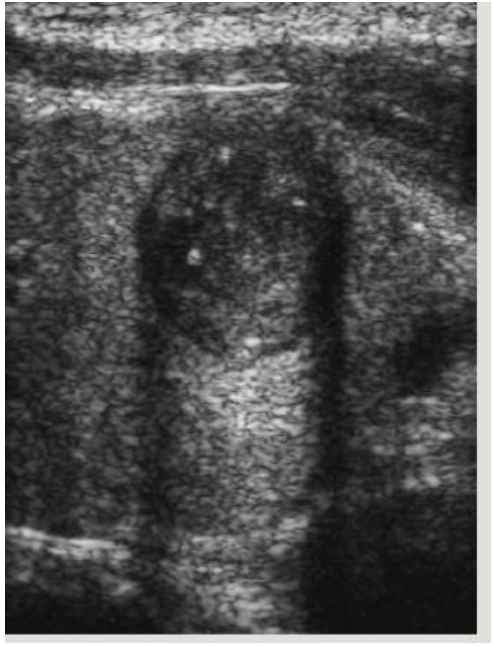
• QUESTION

2019 – Before

History of thyroid nodule, US shows micro-calcifications, investigation of blood vessels and reactive LN:

1.Bethesda Grade?

2.What is your Mx?



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Bethesda 5

2.Total Thyroidectomy

• NOTE

Features like micro-calcifications, vascularization and reactive LNs are highly suspicious for malignancy, and warrant a fine needle aspiration to confirm the malignancy and determine the type.

Bethesda grade 5 is "highly suspicious for malignancy", which is the case here.

Bethesda grade 6 is "confirmed malignancy", which cannot be confirmed without histological proof (you can't have grade 6 without FNA).

The management is the same for grade 5 and 6. However, grade 6 needs cytology (عشان تقدر تحلف عليها)

لازم يكون عندك fna عشان تقدر تحكي إنها malignant بنسبة 100% وتحكي grade 6, غير هيك بتضلها suspicious إللي هي grade 5

- NOTE

FNAC (Breast)
C1: Unsatisfactory
C2: Benign
C3: Atypical cells
C4: Suspicious cells
C5: Malignant

• NOTE

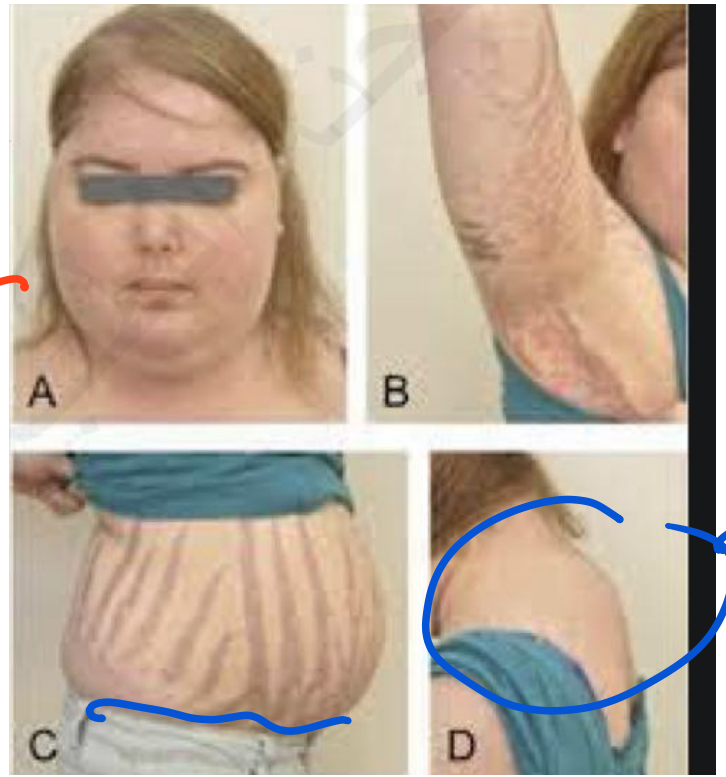
Bethesda diagnostic category		VERY COMMON QUESTION!	Risk of malignancy	Usual management
I	Nondiagnostic or unsatisfactory	Cyst fluid only Virtually acellular specimen Other (obscuring blood, clotting artifact, etc.)	1% to 4%	Repeat FNA with ultrasound guidance
II	Benign	Consistent with a benign follicular nodule (includes adenomatoid nodule, colloid nodule, etc.) Consistent with lymphocytic (Hashimoto) thyroiditis in the proper clinical context Consistent with granulomatous (subacute) thyroiditis Other	0% to 3%	Clinical follow-up
III	Atypia of undetermined significance or follicular lesion of undetermined significance		5% to 15%	Repeat FNA
IV	Follicular neoplasm or suspicious for a follicular neoplasm	Specify if Hurthle cell (oncocytic) type	15% to 30%	Surgical lobectomy
V	Suspicious for malignancy	Suspicious for papillary carcinoma Suspicious for medullary carcinoma Suspicious for metastatic carcinoma Suspicious for lymphoma Other	60% to 75%	Near-total thyroidectomy or surgical lobectomy
VI	Malignant	Papillary thyroid carcinoma Poorly differentiated carcinoma Medullary thyroid carcinoma Undifferentiated (anaplastic) carcinoma Squamous cell carcinoma Carcinoma with mixed features (specify) Metastatic carcinoma Non-Hodgkin lymphoma Other	97% to 99%	Near-total thyroidectomy

• QUESTION

2019 – Before

1. What is the diagnosis?

2.causes?



puffy face

fatty hump

Hashemite University
H · U · M
Medical School Committee

ANSWER

1. Cushing Syndrome

1. Iatrogenic cortisol administration) - Pituitary Adenoma

Note** Not to be confused with Cushing triad of increased ICP, which is: 1) Irregular, decreased respirations 2) Bradycardia 3) Systolic hypertension

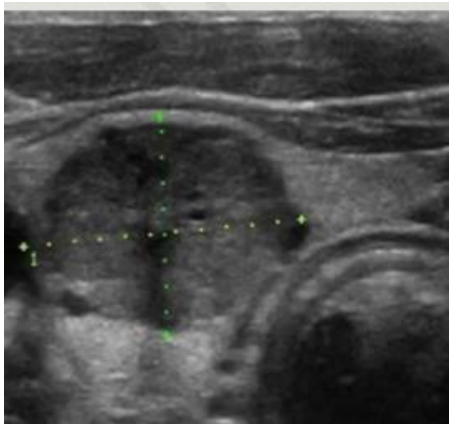
• QUESTION

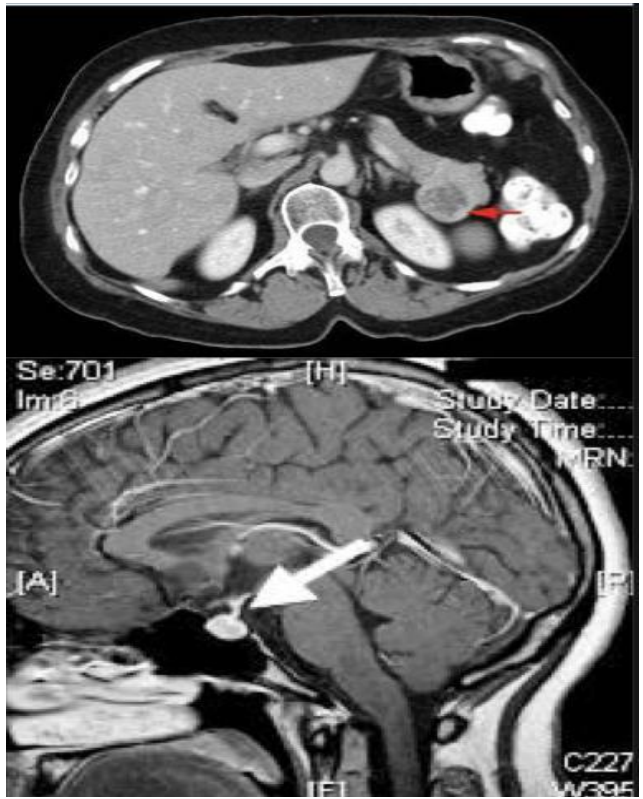
2019 – Before

1.White arrow?

2.Syndrome name?

3.The most important thing surgically to do for this patient?





Hashemite University
H • U • M
Medical School Committee

ANSWER

1. Pituitary Adenoma
2. MEN
3. Pancreatic tumor "not sure"

pituitary adenoma is associated with MEN1 syndrome :-

- Parathyroid hyperplasia
- Pancreatic tumor

← cushing ال ممكن associated يكون

But IdK which one is the most important

• QUESTION

SOUL 2021

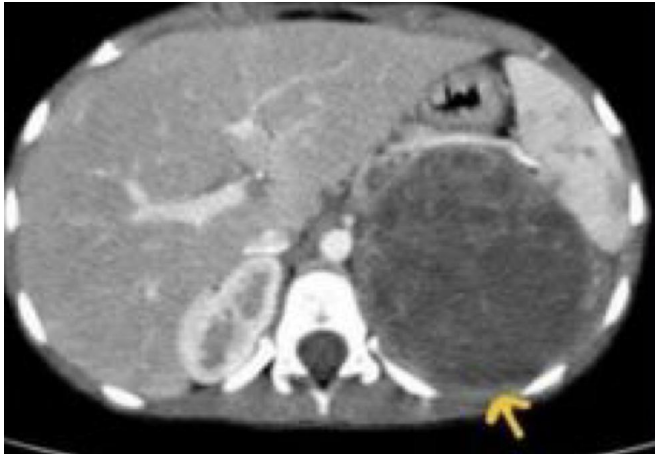
patient with thyroid medullary cancer & a CT was done:

Q1: What is your next step?

Q2: If the patient has no genetic abnormality and the lesion is not functioning what will you do next?

Q3: What disease you have to rule out?

Q4: cut off size to remove?



Hashemite University
H · U · M
Medical School Committee

ANSWER

1. (not sure what the dr. meant so here are the possibilities):

Assess the functionality of the adrenal tumor by hx, physical ex and ordering lab tests: KFT (Na, K, Creatinine, Urea) / Aldosterone levels/ cortisol/ metanephrine/normetanephrine/vanillylmandelic acid (VMA)// pheochromocytoma// 24h urine analvsis forcatecholamine metabolites

2. Because it is very large > surgery adrenalectomy, the dr said : If it was

more than 4 cm then you have to remove it immediately

3. Pheochromocytoma

4. more than 4 cm

Hashemite University
H · U · M
Medical School Committee

• QUESTION

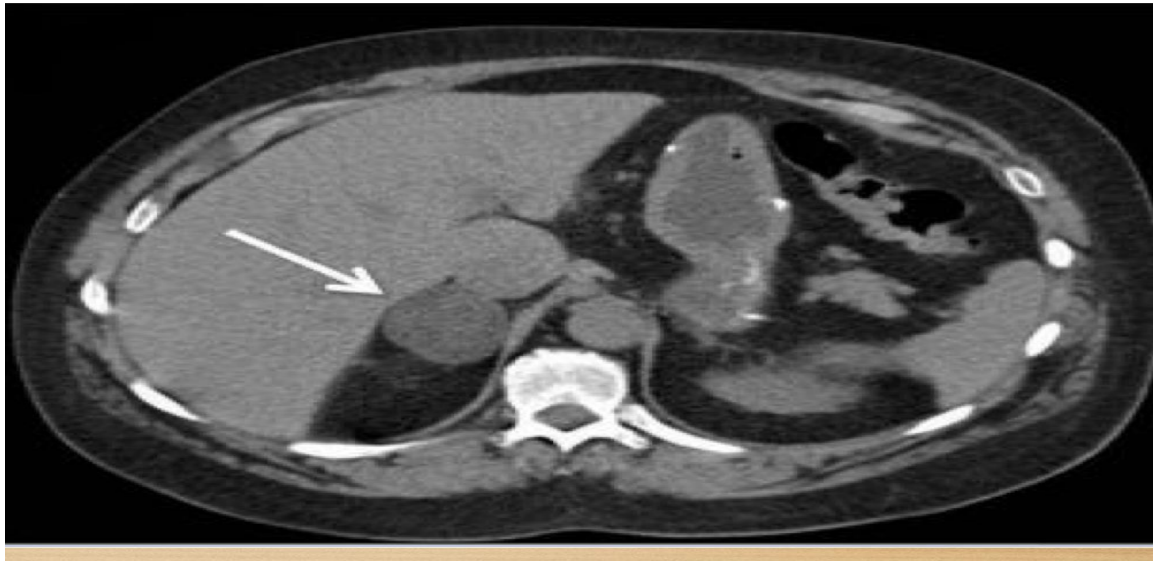
endo

SOUL 2021

ع ر
37

This is an MRI of 37 years old patient complains of uncontrolled hypertension,

A) List 2 possible causes



Hashemite University
H • U • M
Medical School Committee

ANSWER

1. pheochromocytoma
2. Cushing's disease

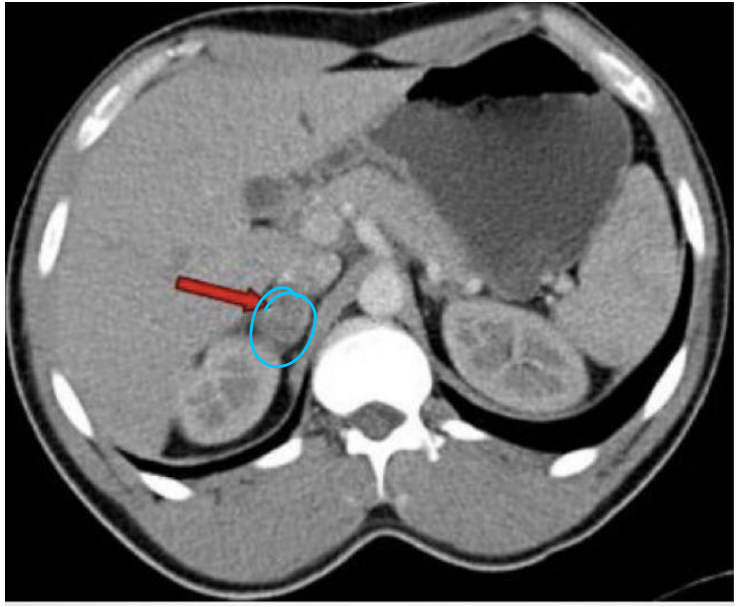
• QUESTION

2019 – Before

This lesion was detected incidentally on CT of the abdomen.

1. The next step in evaluating the patient is

2. Name 2 indications for surgery



Hashemite University
H • U • M
Medical School Committee

ANSWER

Not sure about the answer but I think it's adrenal mass so the answer would be

1.cortisol blood test

2.>4cm , functional,CT density>20 → 3 features of malignancy

① heterogenus

② necrosis

③ irregular margin

④ venous emboli

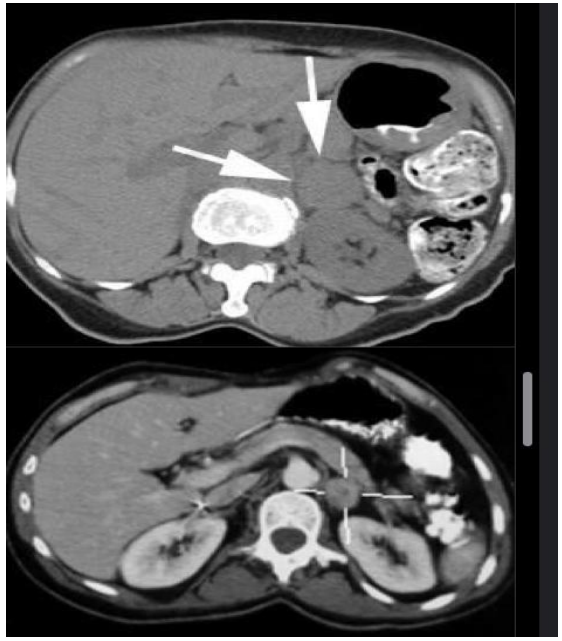
• QUESTION

endo

2019 – Before

Apatient presented with episodic sweating and hypertension:

1. What is the diagnosis?
2. What is the 1st thing to do?
3. What raise the possibility of malignancy?
4. What is the size that would be considered
5. an indication for surgery?



Hashemite University
H • U • M
Medical School Committee

- ANSWER

incidentaloma

اسئلة ٪76 ص

مش انه ما اقدر احلف عليها الا بالابهام

وانا ما عملت

1.Incidentaloma (Dr. Sohail's answer)

2.Check if functional or not by checking cortisol, renin, angiotensin and VMA,… etc.

3.>4 cm - Rapid growth

- Necrosis - Family history - Hemorrhage - Calcifications

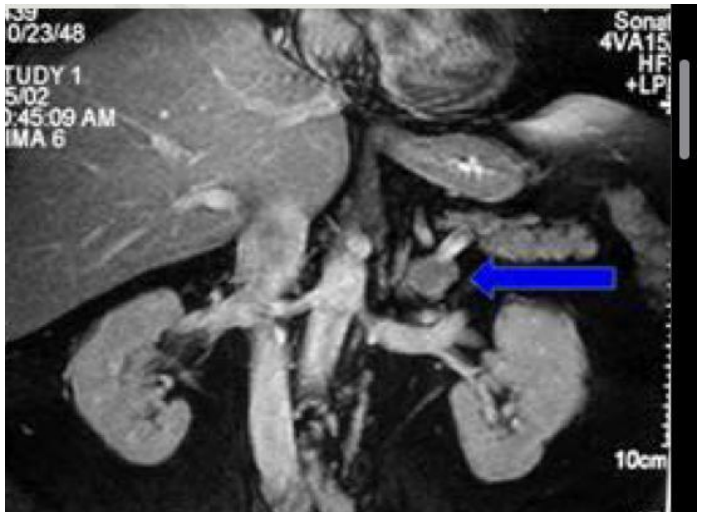
4.>=4cm

• QUESTION 2019 – Before

Lab investigations show high aldosterone level and high ratio of PAC to PRA

1.What is your Dx?

2.Mention a common presentation for this patient



• ANSWER

1.Conns disease

2.Hypertension

• NOTE

Functional adrenal tumors can cause several problems depending on the hormone released. These problems include:

1. Cushing's Syndrome:

This condition occurs when the tumor leads to excessive secretion of cortisol. While most cases of Cushing's Syndrome are caused by tumors in the pituitary gland in the brain, some happen because of adrenal tumors. Symptoms of this disorder include diabetes, high blood pressure, obesity and sexual dysfunction.

2. Conn's Disease:

This condition occurs when the tumor leads to excessive secretion of aldosterone. Symptoms include personality changes, excessive urination, high blood pressure, constipation and weakness.

3. Pheochromocytoma:

This condition occurs when the tumor leads to excessive secretion of adrenaline and noradrenaline. Symptoms include sweating, high blood pressure, headache, anxiety, weakness and weight loss.