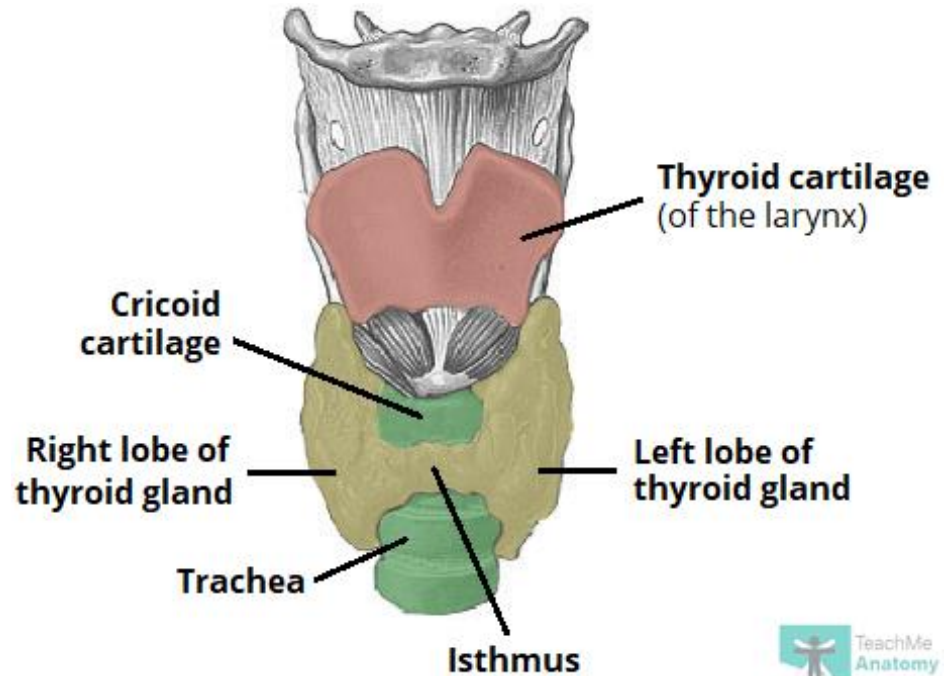


Endocrine system. Thyroid gland pathology-1.

Dr. Eman Krieshan, M.D.

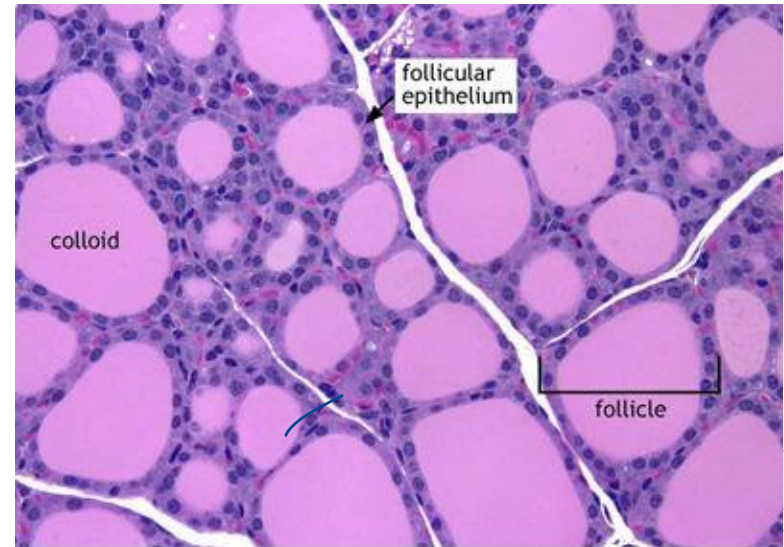
14-5-2024

Thyroid. Anatomy.

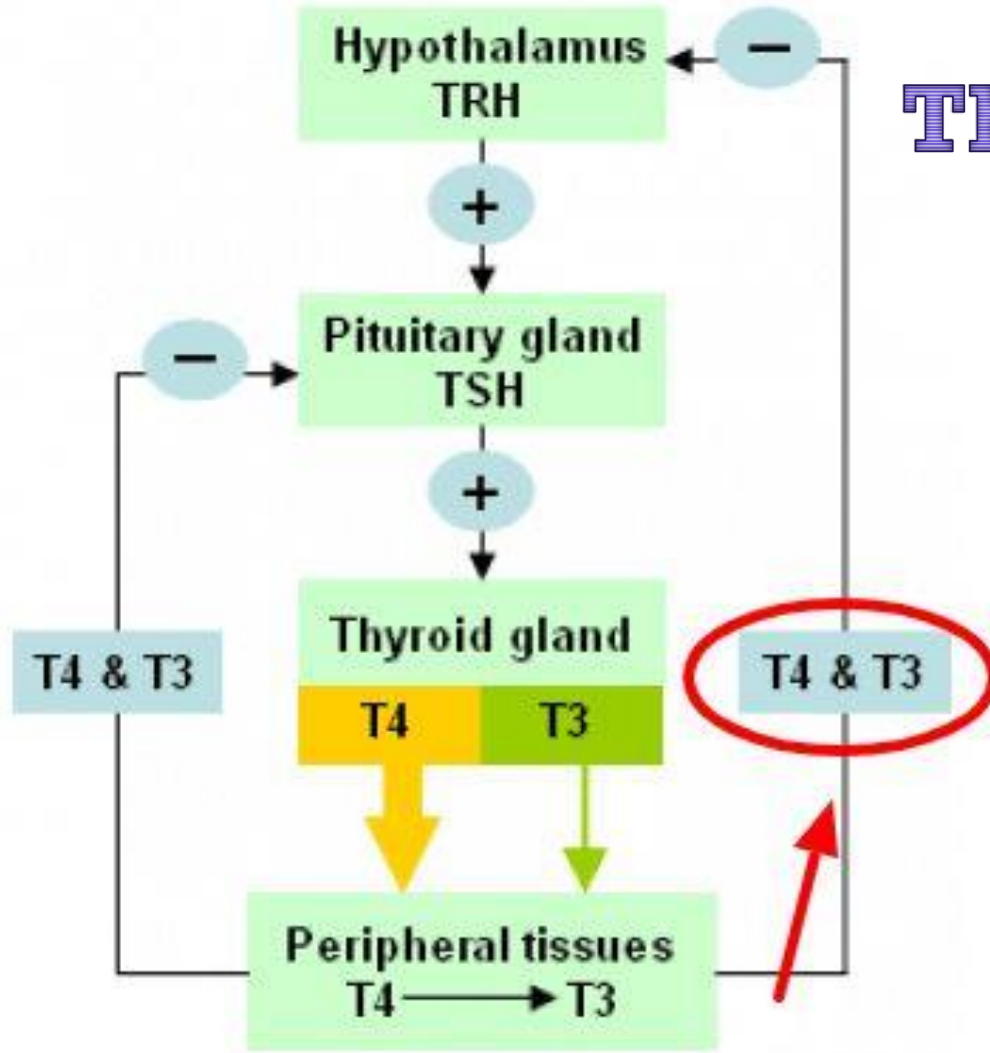


Gross histology

- normal
thyroid gland
- symmetrical
 - smooth surface



Thyroid function test



اولی و سومی

TSH

T3

T4

Diseases of thyroid gland

❖ Non-neoplastic:

- Hyperthyroidism.
- Hypothyroidism.
- Autoimmune Thyroid Disease
 - ✓ Hashimoto Thyroiditis . ✓
 - ✓ de Quervain Thyroiditis. ✓
 - ✓ Subacute Lymphocytic Thyroiditis ✓
 - ✓ Graves Disease.
- Diffuse and Multinodular Goiter

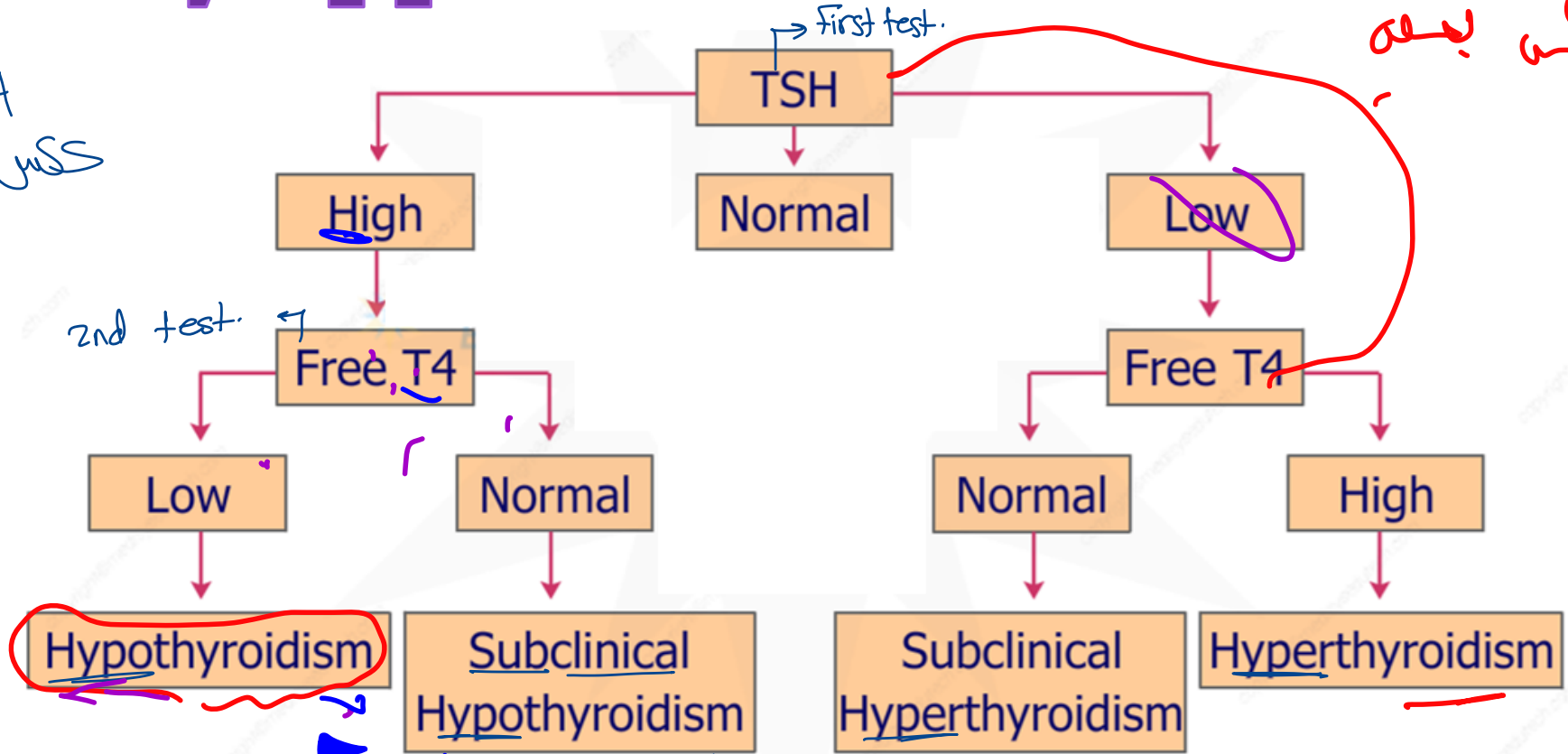
❖ Neoplastic.



My approach

TSH
T4 الـ TSS

في البداية



no sign & symptoms.

بإذاعة يتم علاجها
سوف يصبح
(بإزالة المرفق)

hyperthyroidism linked with

(self-limiting)



والتفريغ في الغدة الدرقية
والغدة الدرقية

due to
viral infection
transient & self-limiting





→ neck mass
deviated on midline
انحراف

Goiter

Diagnosis????

* Neck swelling

* يتحرك مع البلع

Related to
thyroid



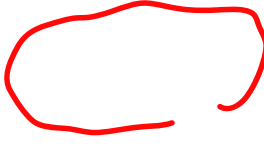
Exophthalmos



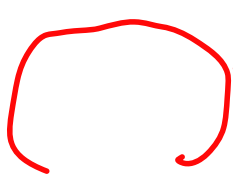
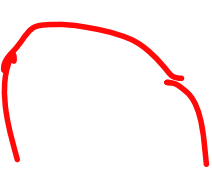
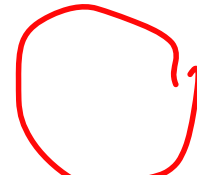
$\downarrow T_3, T_4$
 $\uparrow TSH$

$\downarrow T_3, T_4$
 $\downarrow TSH$
 $\downarrow TRH$

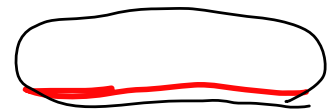
—

...  



1



2

3

retinism ~ 1.1.1.



- 2

— 3

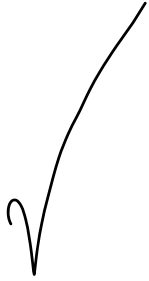
1





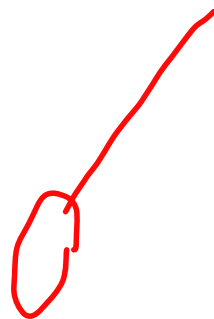


hyper 1



uprat cell
 N, m_{cc}

1



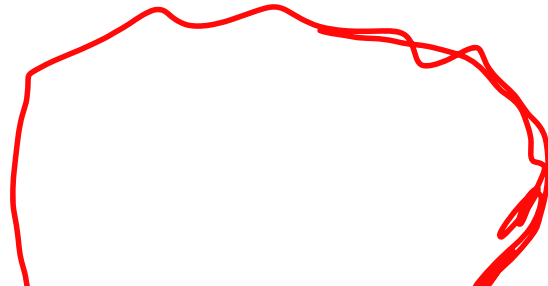
.

بعد الولادة

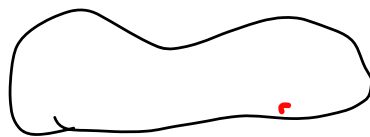
3. subacute lymphocytic thyroiditis : (silent) → abundant lymphocyte.

- Middle aged females & post partum patients
- Probably autoimmune with circulating AB.
- May recur in subsequent pregnancies
- May progress to hypothyroidism

لا تتغير إلى ور



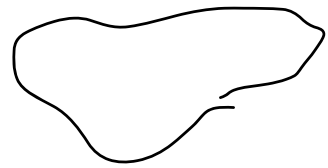
~~Handwritten red text, possibly a title or header, which has been crossed out.~~



Handwritten red text, possibly a label or description, located below the first shape.

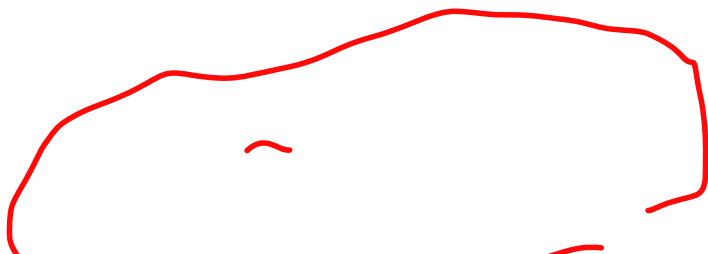


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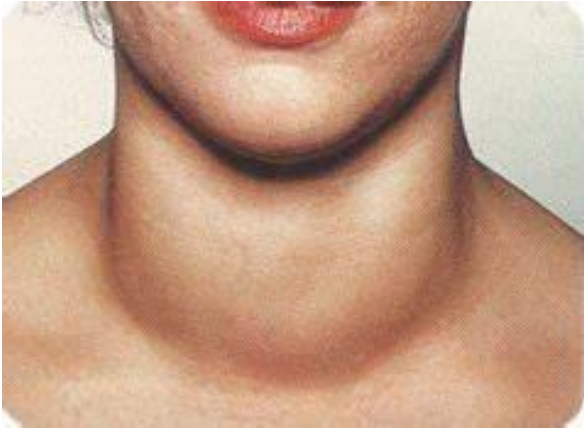




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—
—

goiter



exophthalmos.

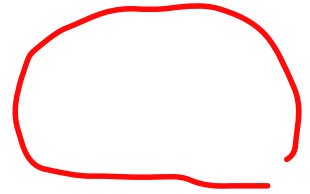


pretibial myxedema



clubbing of fingers





Pathogenesis

- Exact cause is unclear.
- It is believed to involve a combination:
 - ❖ Genetic (Caused by B and T cell mediated immune responses leading to production of autoantibodies to thyrotropin / TSH receptor).
 - ❖ environmental factors (Onset of disease may be triggered by stress, infection or giving birth).

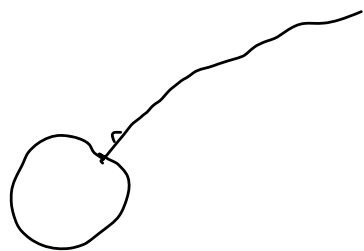
- May exist with other similar diseases e.g. SLE, Pernicious anemia, Diabetes type I, Addison's disease.

يمكن ان ينجي ب type 1 DM
و مع الوقت نكتشف عنده
↓
Grav's
SLE
...

↓ B12 due to dysfunction of
the gastric cell

systemic lupus erythematosus

autoimmune disease
يجو مع بعض .



تكون الشوا ابيضين امام
الطلاب

١٠٠٠

بَعِثْنَا عَنْ الْبَحْرِ

DIFFUSE & MULTINODULAR GOITRE

- 90% of those affected are women (F > > > M)
- Variable age; develops more frequently during adolescence and pregnancy.
- Increase in TSH secretion is the main cause in iodine deficiency related goiter.
- ❖ Endemic: 10% of population have goiter
- ❖ Sporadic : 1- Physiological demand ↗ pregnant
↘ اكل طحال! اي بنصر
2- Dietary intake of excessive calcium & cabbages.
3- Hereditary enzyme defects

Clinical features

- neck mass
- Majority asymptomatic and euthyroid.
normal thyroid function test
- Pressure symptoms due to compression of trachea and esophagus → *Dysphagia*
فقران، بلع

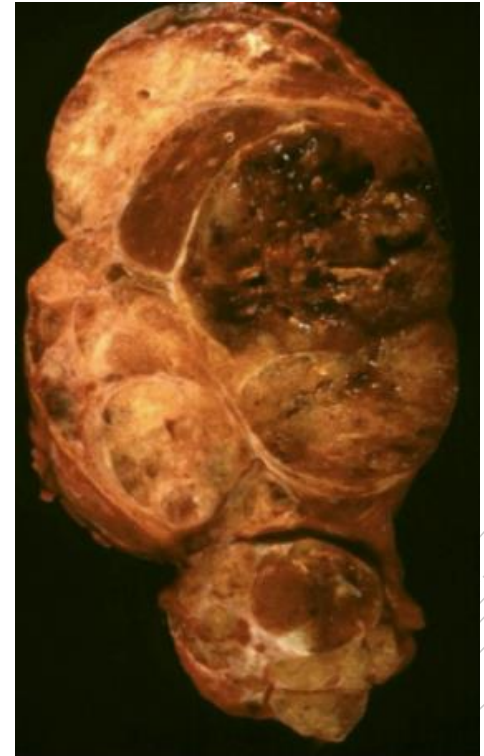
Diagnosis

- Clinical examination
- Thyroid function tests: TSH, T3, T4
euthyroid.
(Usually normal T3 / T4, TSH, normal radioactive iodine uptake)
- Thyroid ultrasound
- CT or MRI to evaluate extent of goiter

Morphology

* Multinodular goiters are asymmetric, large
Nodular, bumpy outer surface and variegated cut
surface

که منطقه بتفرق
عن ای جنبها



Histology

- Variable sized dilated follicles with flattened to hyperplastic epithelium.
- Nodules may be present.

no hyperplastic follicle

Multiple nodules.

