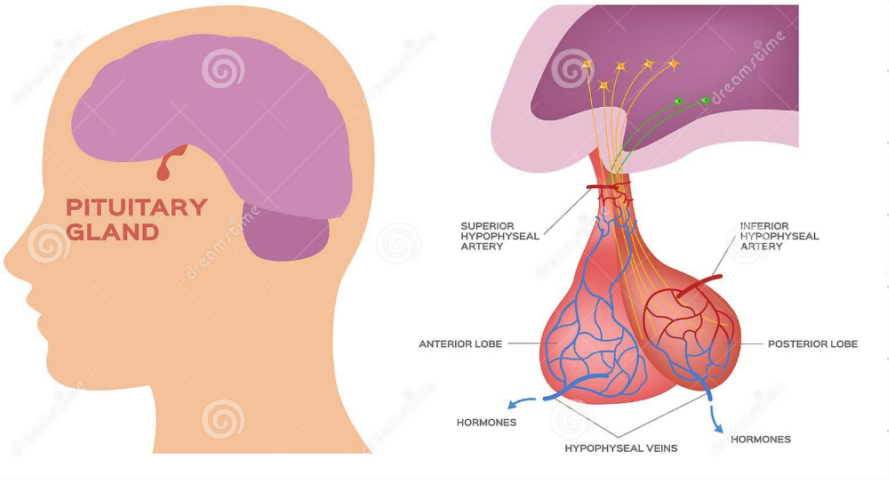
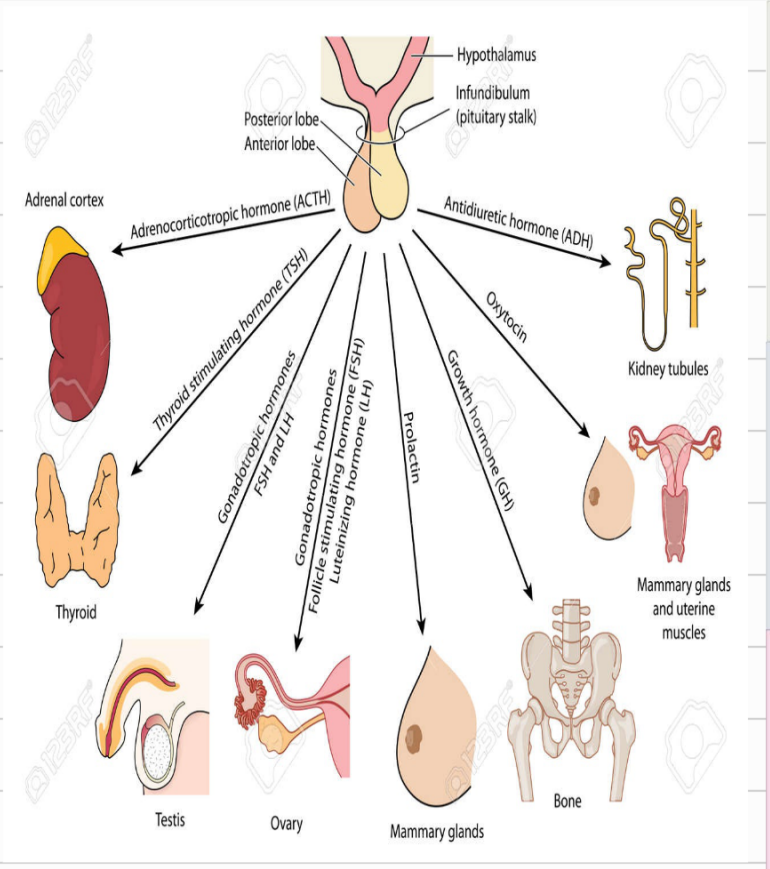
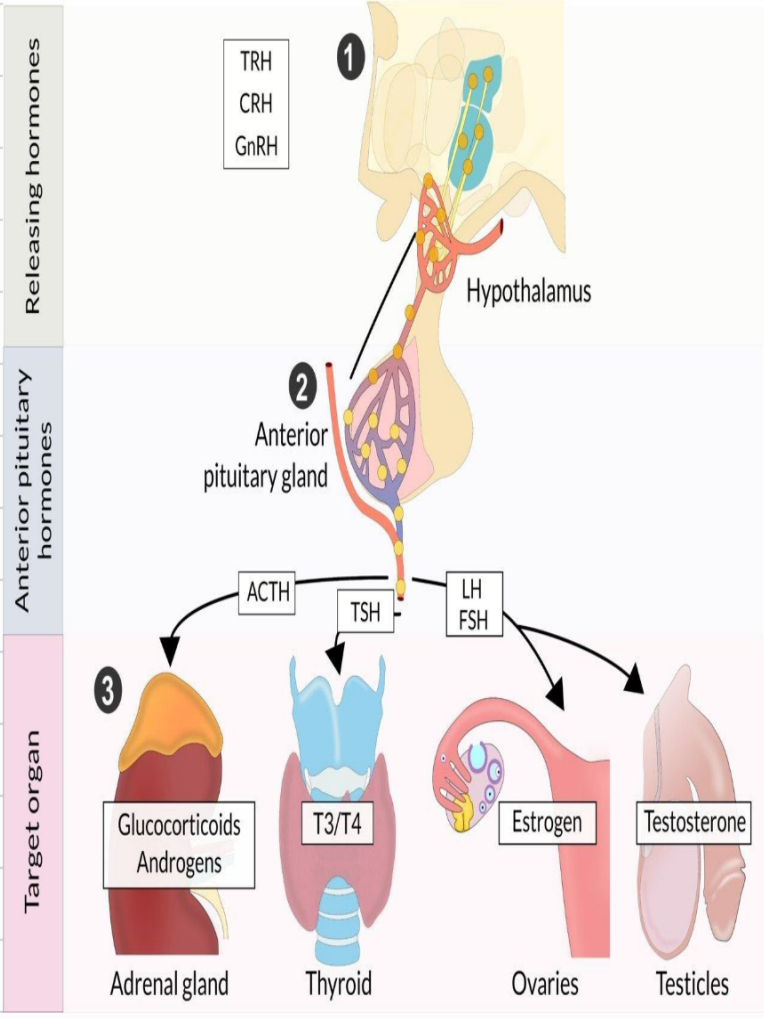
Diseases of the Pituitary Gland :-







(1) * Pituitary adenomas :-

- 10% of intracranial neoplasms
- almost all are benign.

micro ≤ 10 mm macro > 10 mm

* Clinical features :-

→ 1) Hormonal :-

- Prolactin → hyperprolactinemia
- GH → Acromegaly or gigantism.
- ACTH → Cushing disease
- TSH → hyperthyroidism.

→ 2) hypopituitarism → Compression of hypothalamic-pituitary stalk (hypogonadotropic, hypogonadism)

→ 3) mass effect → headache
Visual defects - Bitemporal hemianopia

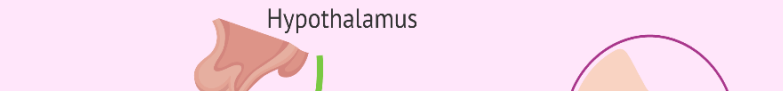
* Diagnosis:-
- MRI study of choice
- pituitary hormones level.

* treatment:-
1) transphenoidal surgery → indicated in most pts except pts with prolactinomas

2) Radiation & medical therapy adjuncts in most pts.

(2) → hyperprolactinemia

* Causes:-
- Prolactinoma → M.C.C
most common type of pituitary adenoma
- drugs → Psychatric medications, H_2 blockers, estrogen verapamil, metoclopramide
- pregnancy.

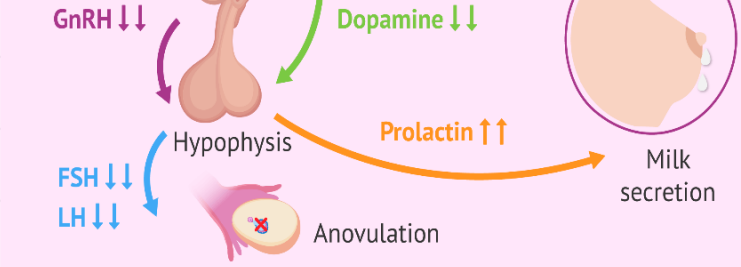


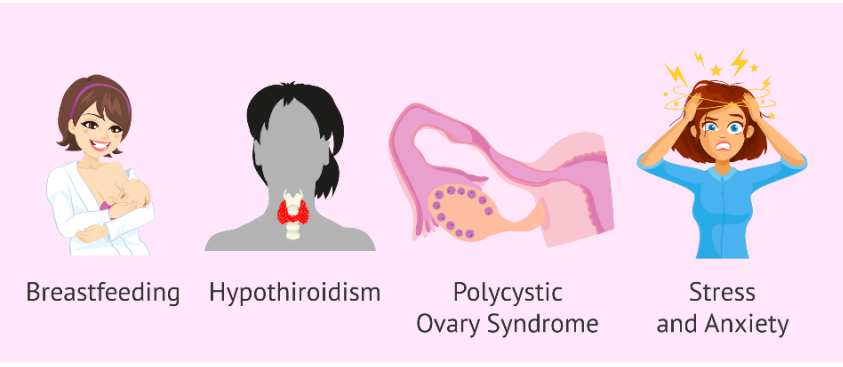
- Renal failure

- Suprasellar mass lesions

- hypothyroidism

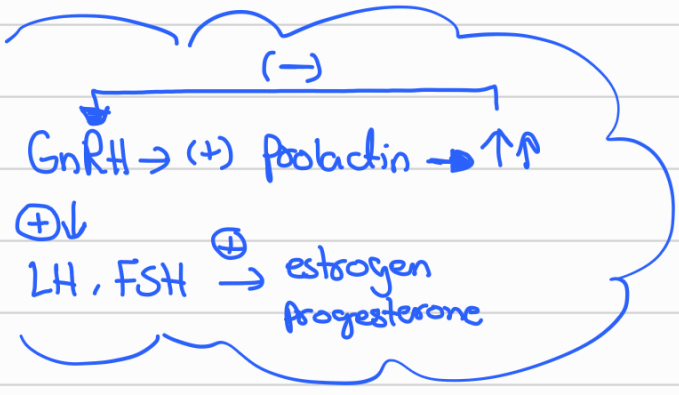
- Idiopathic.





* Clinical features :-

- prolactin → ♀ Premenopasnal → menstrual irregularities
  oligomenorrhea or amenorrhea
  anovulation
  infertility
  ↓ libido
  Vaginal dryness
  risk of osteoporosis
  dyspareunia



Postmenopasnal →
Parasellar signs & symptoms
"visual field defects & headache"

→ ♂ - hypogonadism , ↓ libido , infertility
impotence.
- galactorrhea or gynecomastia "uncommon"

* diagnosis :-

* ↑ serum prolactin
* order pregnancy test , TSH level
* CT , MRI to any mass lesions.

→ treatment :-

- treat the underlying cause

- if prolactinoma → symptomatic → dopamine agonist
  "Cabergoline, bromocriptine"
  → surgical intervention if symptoms progress despited appropriate medical treatment.

(3) * Acromegaly :-

- broading of the skeleton
- GH-secreting adenoma 10%

* Clinical features:

→ Growth promotion

- Soft tissue & skeleton overgrowth
- coarsening of facial features
- abnormally large hand & foot size
- Organomegaly
- hypertrophic cardiomyopathy ⇒ M.cc of death.
- Arthralgia
- enlarged jaw

→ metabolic disturbances
hyperhidrosis
Glucose intolerance & DM in 26% of pt.

→ Parasellar manifestations.
- headache

Superior → bitemporal hemianopia

lateral → Cavernous sinus compression

inferior → sphenoid sinus invasion

HTN , sleep apnea.

Diagnosis

→ IGF-1 / Somatomedin C ↑

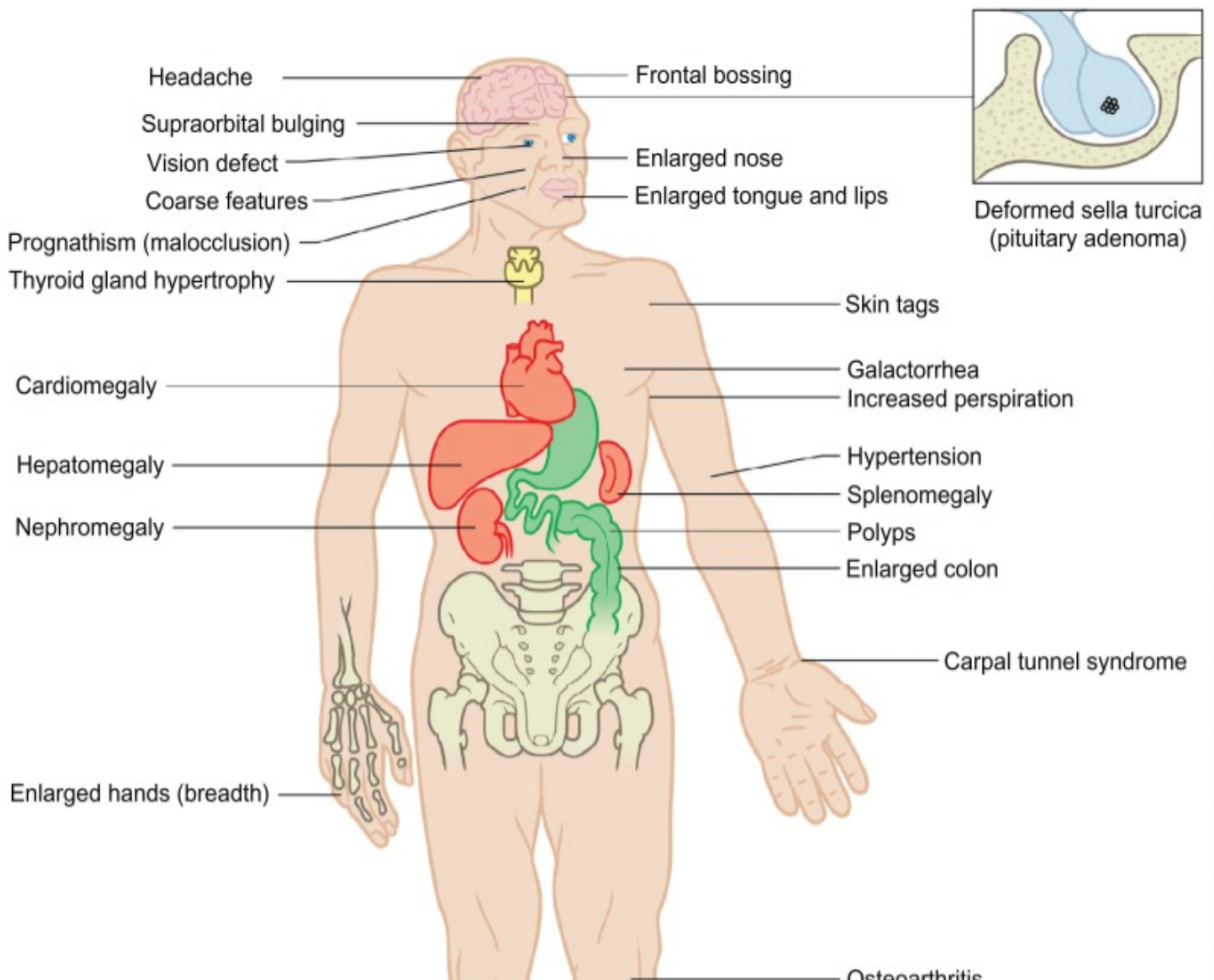
→ oral glucose suppression test → Still ↑GH

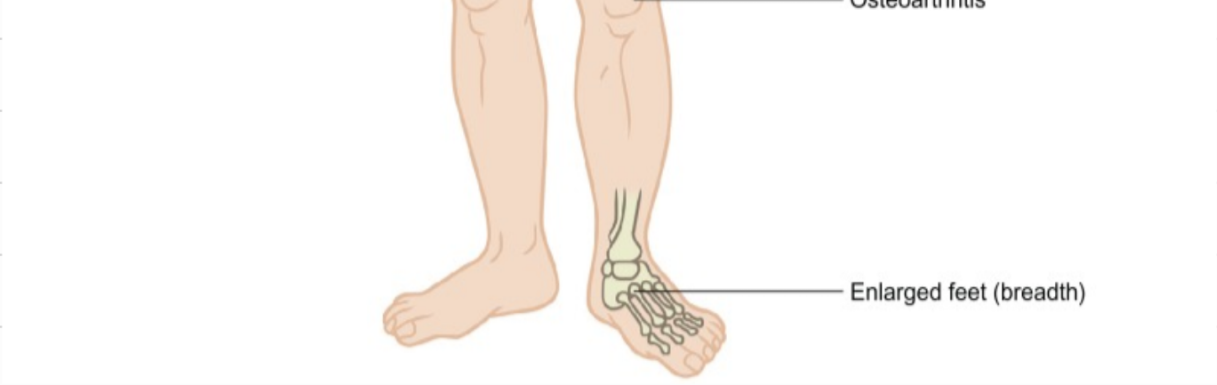
→ MRI of the pituitary → elevation in serum glucose, triglycerides, phosphate levels.

treatment:-

- transsphenoidal resection of pituitary adenoma

. Radiation therapy if IGF-1 elevated after surgery





(9) Hypopituitarism :-

↓ or absent all hormones of Antorior pituitary
or some

↓ first in LH, FSH, GH before ACTH, TSH

* Causes :-

- hypothalamic or pituitary tumor
- Radiation therapy
- head trauma
- Surgery
- infiltrative process
  ∴ Sarcoidosis, hemochromatosis
- Cavernous sinus thrombosis

* Clinical features :-

↓ GH → growth failure, ↑ LDL, ↑ Risk for ♡ disease

↓ Prolactin → failure to lactate.

↓ ACTH → adrenal insufficiency

↓ TSH → hypothyroidism.

↓ LH, FSH → infertility, amenorrhea, loss of secondary sex
↓ libido

↓ ADH → diabetes insipidus

↓ MSH → ↓ skin & hair pigmentation

*diagnosis → low levels of traget hormones
MRI of the brain

* treatment → Replacement of hormones