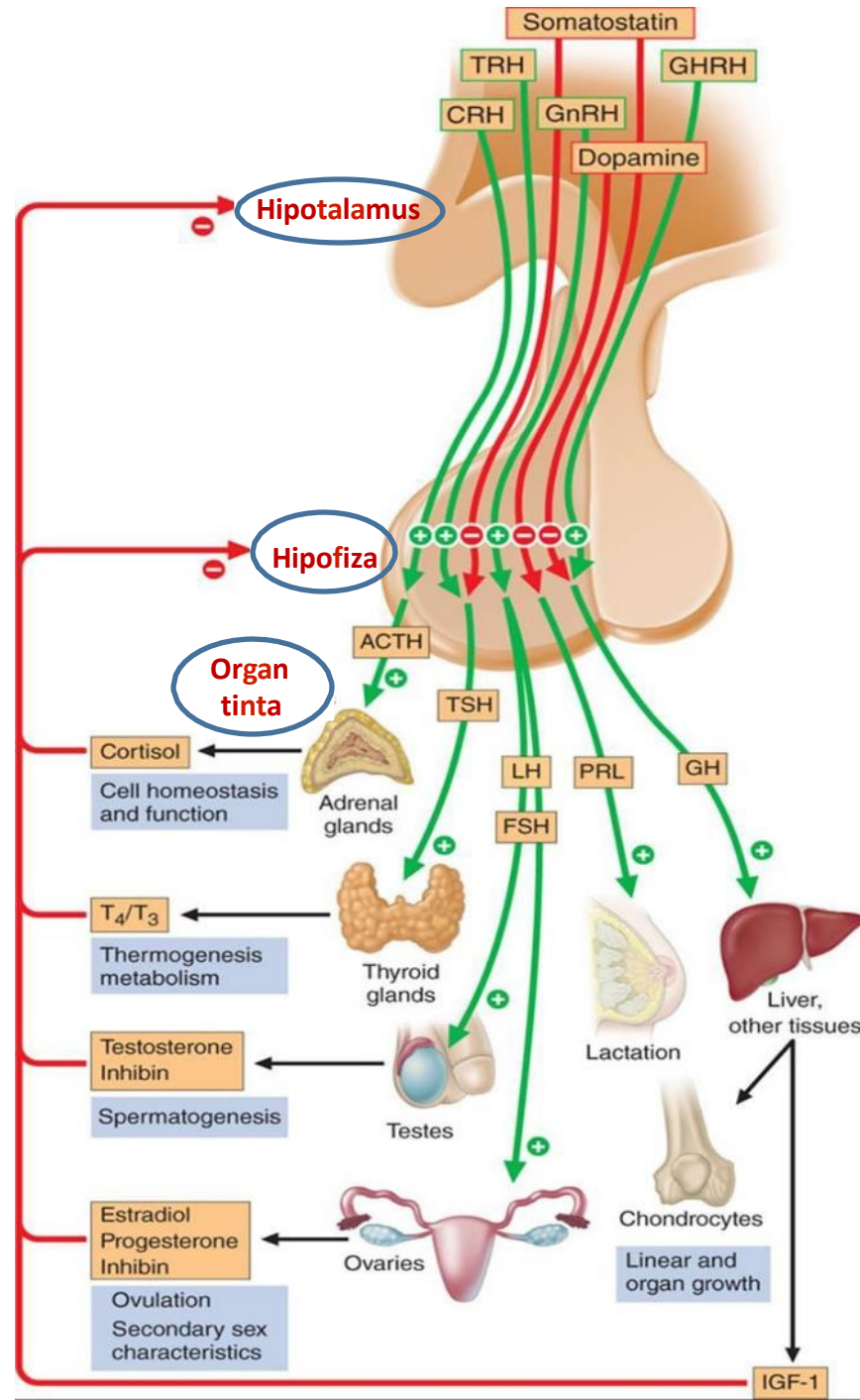
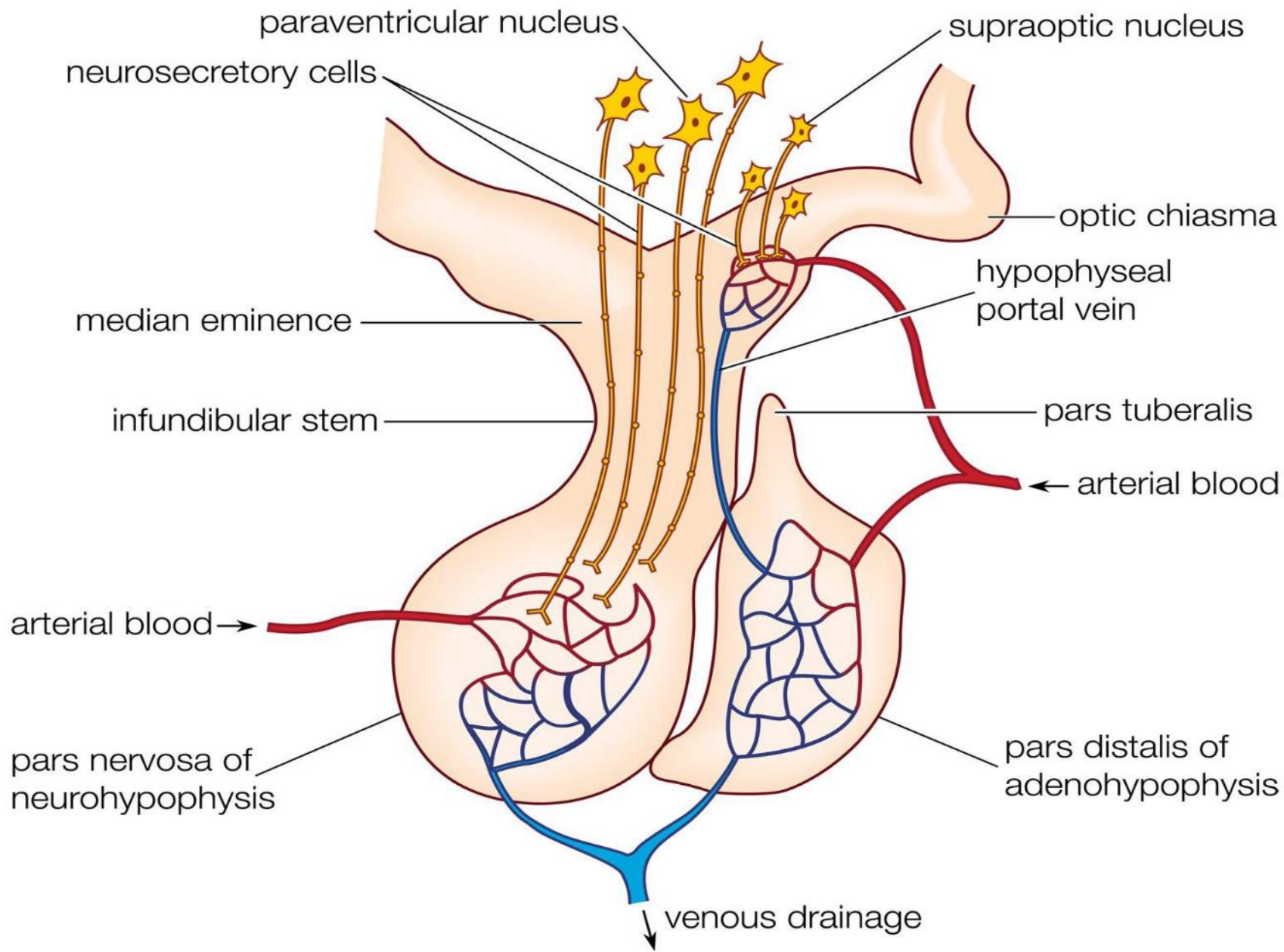


# Endocrinologie

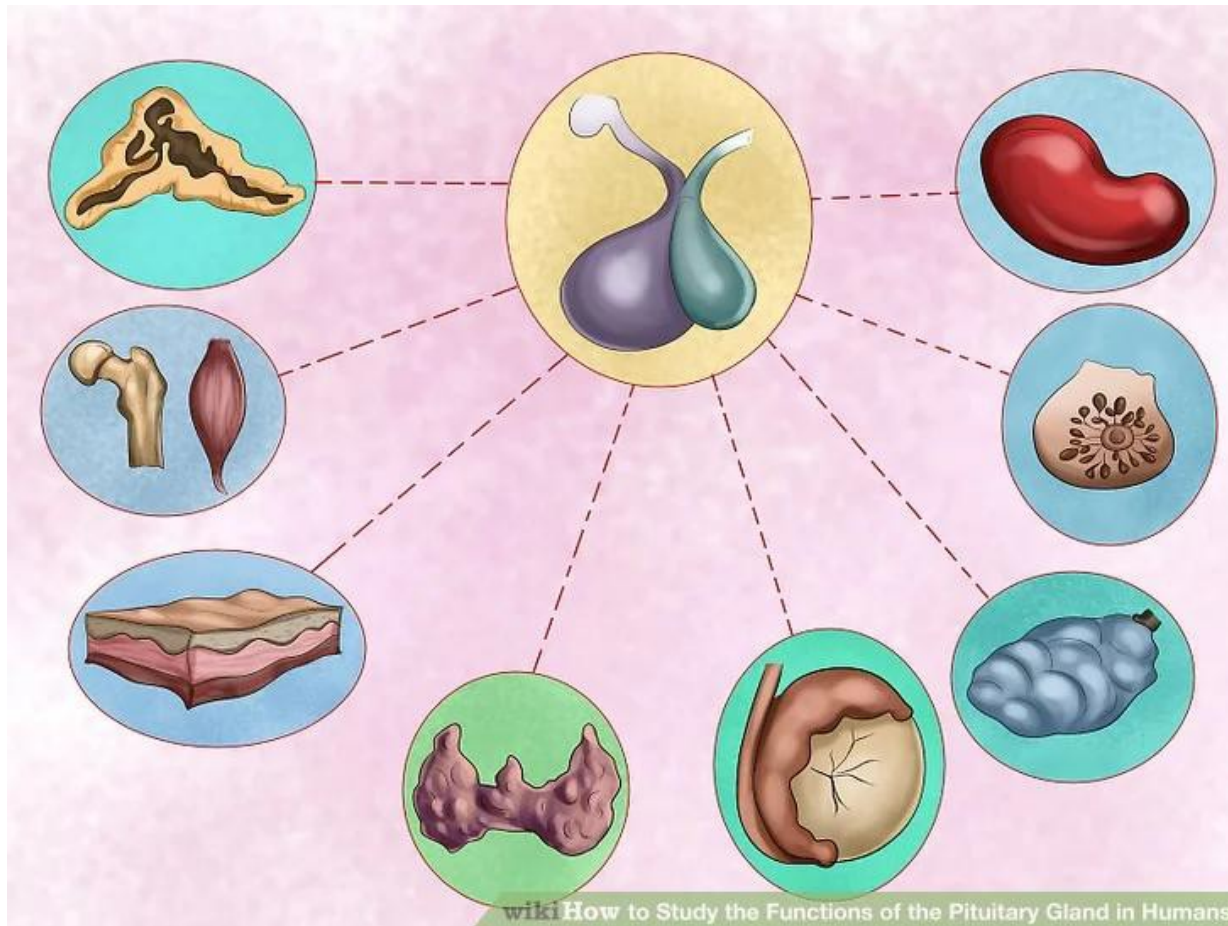
Lucrari practice III

# Reglarea prin feedback a secreției hormonale



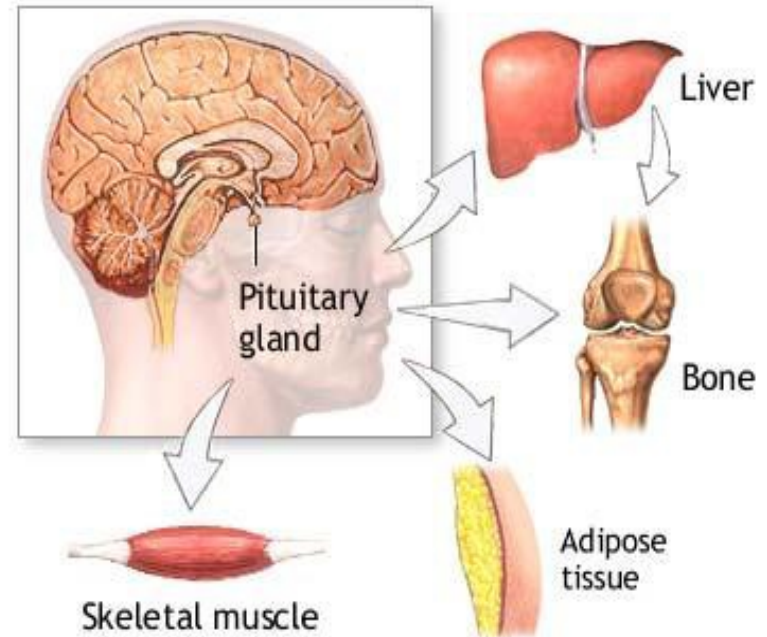


# Hormonii Hipofizei Anterioare



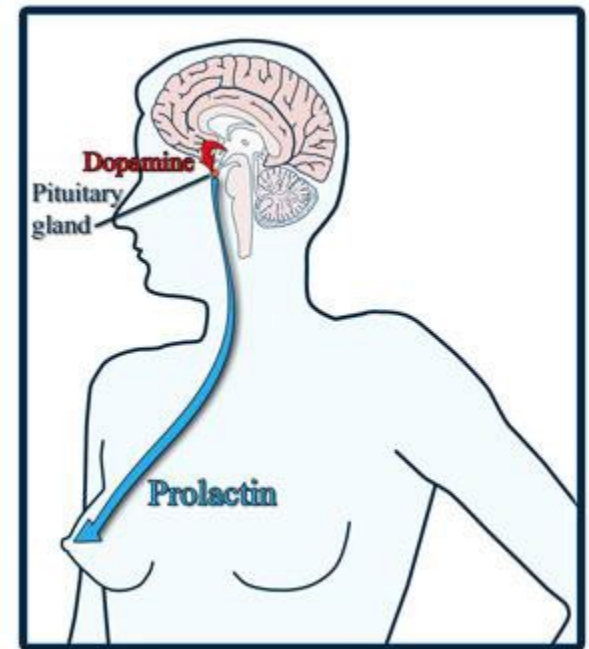
# GH

- Secretie pulsatila (peak-uri)
- ↑ în prima parte a somnului (REM)
- Efecte mediate prin IGF-1 (hepatic)
- (+) creșterea somatică; h. anabolic
- Recoltare: GH, IGF-1
- Test de supresie
- Test de stimulare



# PRL

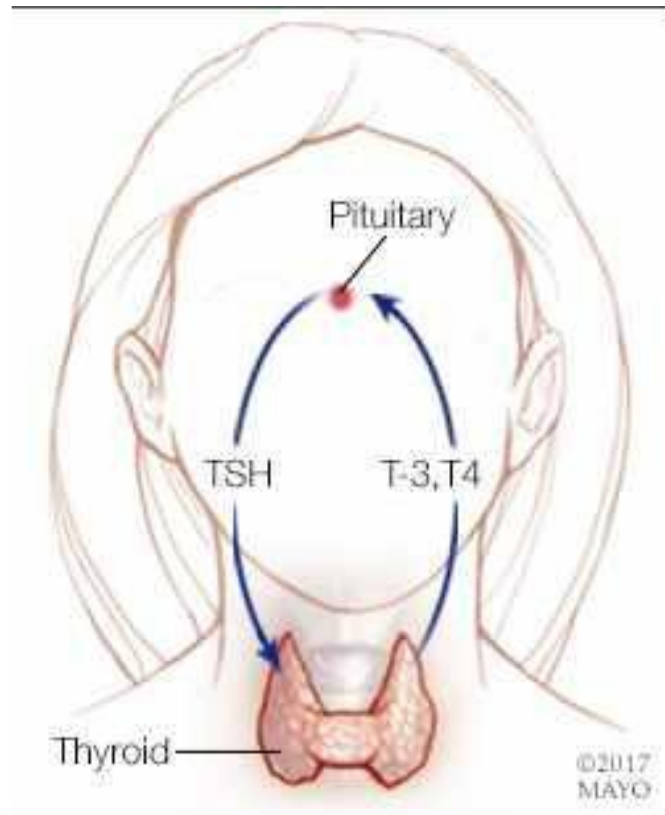
- Dezvoltare san
- initiere lactatie – mentinuta reflex (alaptare)
- **Stress-ul** (+) secretia  
PRL (femei si barbati)
- Control inhibitor: Dopa (ht)





# TSH

- reglează secreția hormonilor tiroidieni
- (-) de Dopa, somatostatina



# FSH, LH

- la bărbați: secreția este continuă, tonica
- la femei: ciclică, cu “vârf “ ovulator
- GnRH pulsatil
- Feedback (+):
  - mijlocul ciclului menstrual
  - Estrogeni  $\uparrow\uparrow$  (+) secreția gonadotropi preovulator
- Feedback (-):
  - Steroizi sexuali (-) secr. gonadotropi



# ACTH

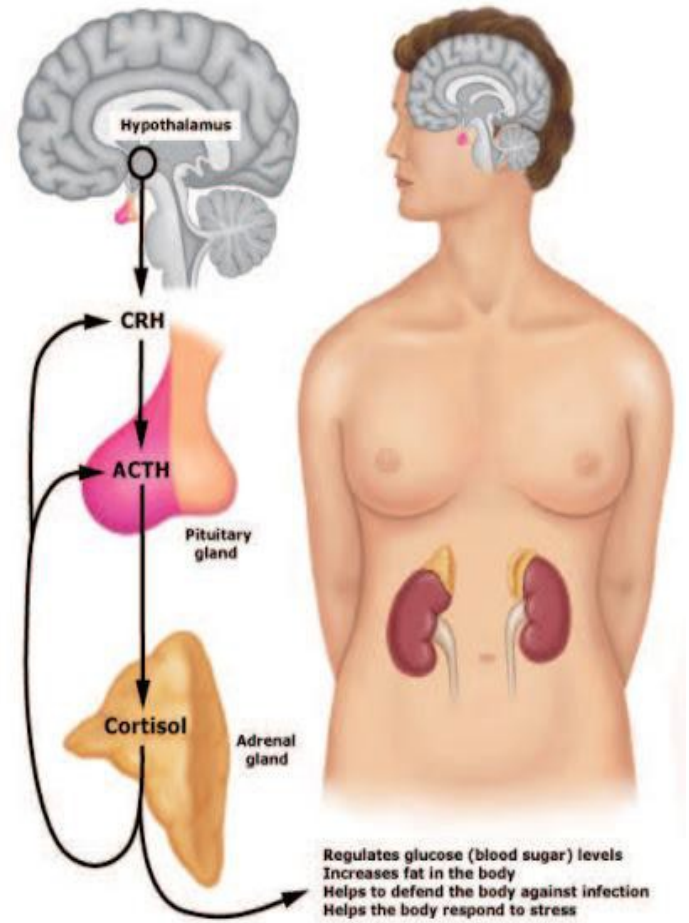
- Provine din POMC
- Controlează cortexul SR (glucocorticoizi, androgeni)
- Ritm de secreție circadian: **maxim dimineața**

- Reglare: 

Feed-back negativ

Stress

Ritm circadian



# I. ADENOAME HIPOFIZARE NON-FUNCTIONALE

- ~ 30%
- Fara secretie hormonală activa

# II. ADENOAME HIPOFIZARE FUNCTIONALE

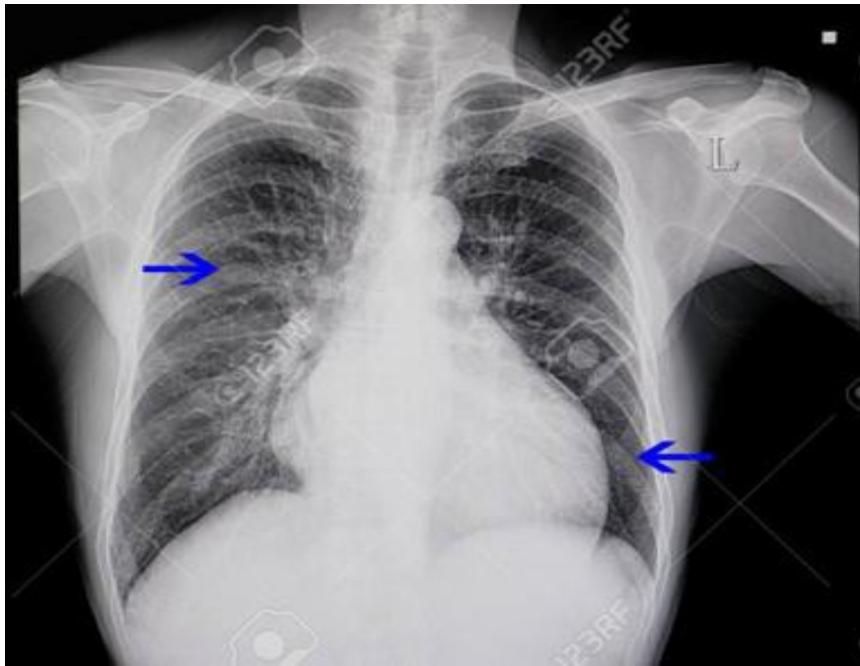
- Hipersecretie hormonală  
Prolactinom (60%)  
Adenom secretant de GH (20%)  
Adenom secretant de ACTH (10%)

# Constanta, 45 ani

- Se prezinta in clinica de chirurgie pentru colecistectomie
- ! Anestezie generala: intubatie dificila (ingrosare epiglota)
- APP: HTA, sd tunel carpian, osteoartrita genunchi,
- Medicatie: amlodipina, hidroclorotiazida, lisinopril, colecalciferol
- Clinic: proeminenta mandibulei (prognatism), macroglosie, distanta tiro-mentoniera > 6 cm => *predictor pt intubatie dificila*

- Anamneza mai amanuntita:
  - Descrie cresterea nr la pantof (38 -> 40)
  - Nu isi mai poate purta verigheta
  - Fatigabilitate marcata
  - Tulburari de dinamica sexuala, istoric infertilitate
  - Suspiciune clinica: acromegalie
  - (tumora hipofizara secretanta de GH)





# Dozari hormonale

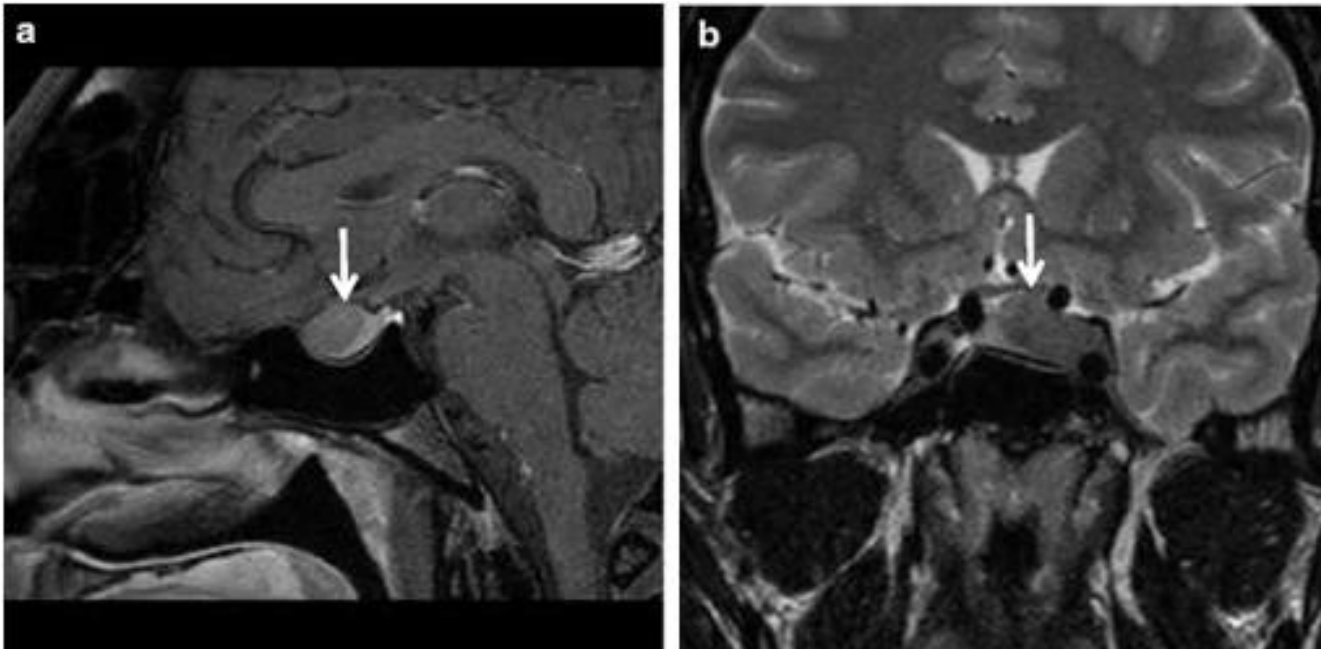
Hormon	Pre-operator	Post-operator (14 zile)	Post-operator (21 zile)	Interval de referinta
PRL	355.5 ng/ml	23.68 ng/ml	5.74 ng/ml	4–15.2 ng/ml
IGF-1	700 ug/ml	366 ug/ml	248 ug/ml	53–331 ug/ml
GH	22.5 ng/ml	0.4 ng/ml	0.6 ng/ml	<10 ng/ml

- Cortizol seric, ACTH, TSH, prolactina, HbA1C, PTH  
FSH, LH, estradiol in limite normale



# Imagistic: RMN hipofizar

- formatiune sellara ( $19 \times 12 \times 20$  mm) cu extensie supraselara, cu compresia chiasmei optice – macroadenom hipofizar



# \*Imagistic

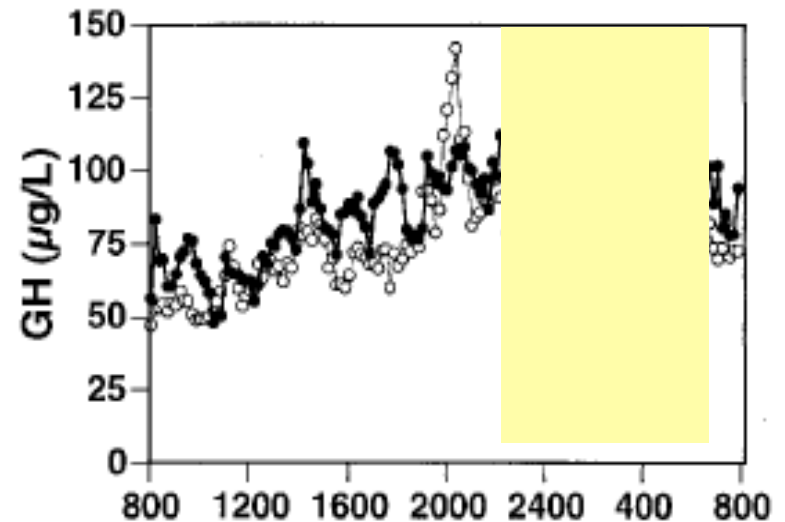
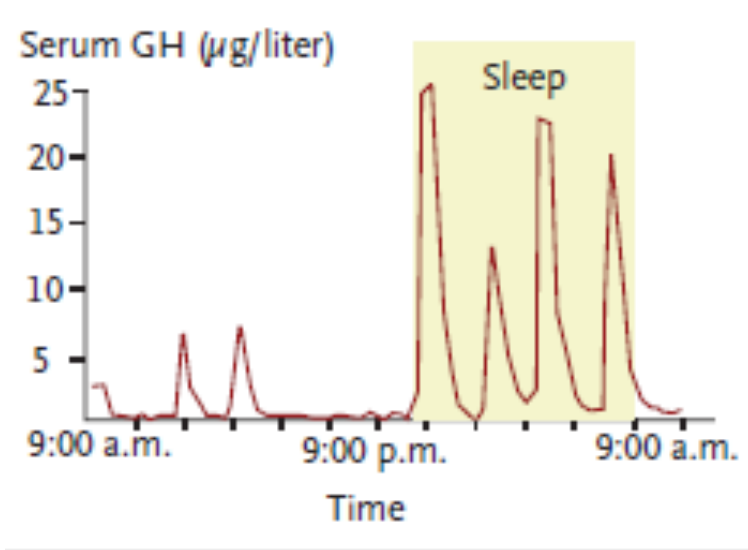
- **RMN** = cel mai sensibil (centrat pe hipofiza)
  - Leziuni > 2mm
  - Sectiuni coronale si sagitale T1
- **CT** = linia 2
  - Sensibilitate ↓; raze X
  - Contraindicatii RMN, leziuni osoase, metastaze, hemoragii.

# Evaluare sd tumoral

- Afirmativ cefalee intermitenta
- Debut retro-orbital – bitemporala
- Nu acuza tulburari de vedere
- Se efectueaza ex. camp vizual – fara modificari

# Acromegalia

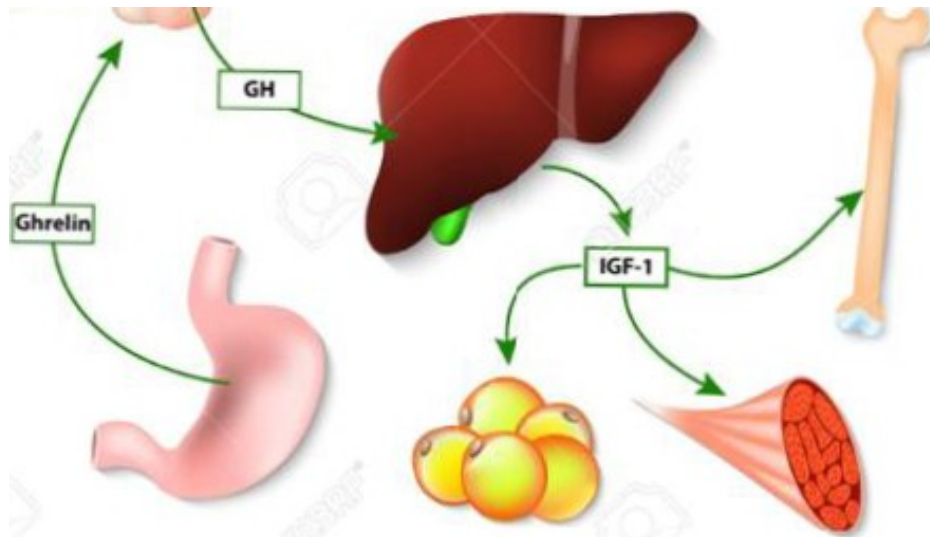
- Afecțiune rară                      Debut insidios – lent progresiv
- Hipersecreție AUTONOMA de GH:  
    ↑ amplitudinea și pulsurile GH







Hipofiza



# Acromegalia

Direct **GH** => ↑glicemie, ↑trigliceridemie, ↑calcemie

- Sinteza anormal ↑**IGF-1** => sinteza proteica

=> Deformarea os, cartilaje, t. moi; visceromegalie

- 1 singura recoltare a GH = neconcludenta
- Teste de inhibitie: raspuns anormal
- Daca apare la copii (cartilaje crestere prezente)=> *GIGANTISM*

(f rar)



# Teste inhibitie

- TTGO (hiperglicemie provocata)

- normal

$\text{GH} < 1 \text{ ng/mL}$

- în acromegalie

$\text{GH la 2 ore după TTGO} > 1 \text{ ng/mL}$

\* La pacienti cu diabet zaharat, in loc de TTGO:  
media/24h a GH bazal

# GH, IGF-1 ↑

(+)

- ✓ Somn (REM) , stres psihic, efort fizic intens
- ✓ Hipoglicemia, consum ↑ proteine
- ✓ GHRH, Grelina
- ✓ Clonidina
- ✓ Traumatisme (soc), boli cronice
- ✓ Inanitie, depletia proteica, anorexia nervoasa

(-)

- ✓ Hiperglicemia, AGL
- ✓ Somatostatin, IGF-1
- ✓ Stimulare  $\beta$ -adrenergica
- ✓ Obezitatea

- Varsta medie dg: 40-50 ani
- Durata simptomatologiei pana la dg: 5-10 ani
  - GH
  - GH + PRL: mixte (15%)

- Complicatii
  - Viscerale
  - Metabolice

# Clinic – sd somatic

- *Tegumente:* Ingrosate, hiperhironza, acantosis nigricans
- *Musculoscheletal:* Artralгии, latirea extremitatilor, malocluzie dentara
- *Respirator:* Apnee de somn
- *Cardiovascular:* HTA, HVS, boala ischemica
- *Digestiv:* macroglosie, hepato-splenomegalie, polipi colonici
- *Renal:* Litiaza renala
- *Reproductiv:* impotentia/amenoree, infertilitate
- *Neurologic:* sd tunel carpian

## Acromegaly

High blood -[Growth Hormone]

Adenom hipofizar  
(CT/RMN)

Hipertrofia gl. sudoripare,  
sebacee, Tegumente ingrosate

Galactoree (PRL)

Cardiomegalie,  
hipertensiune

Disfunctie sexuala

Neuropatie  
periferica

Defecte camp vizual

Arcade proeminente

Hipertrofia mandibulei  
Piramida nazala masiva

TTGO anormal  
Glicozurie/poliurie

Maini, picioare late,  
patrate

Artroze

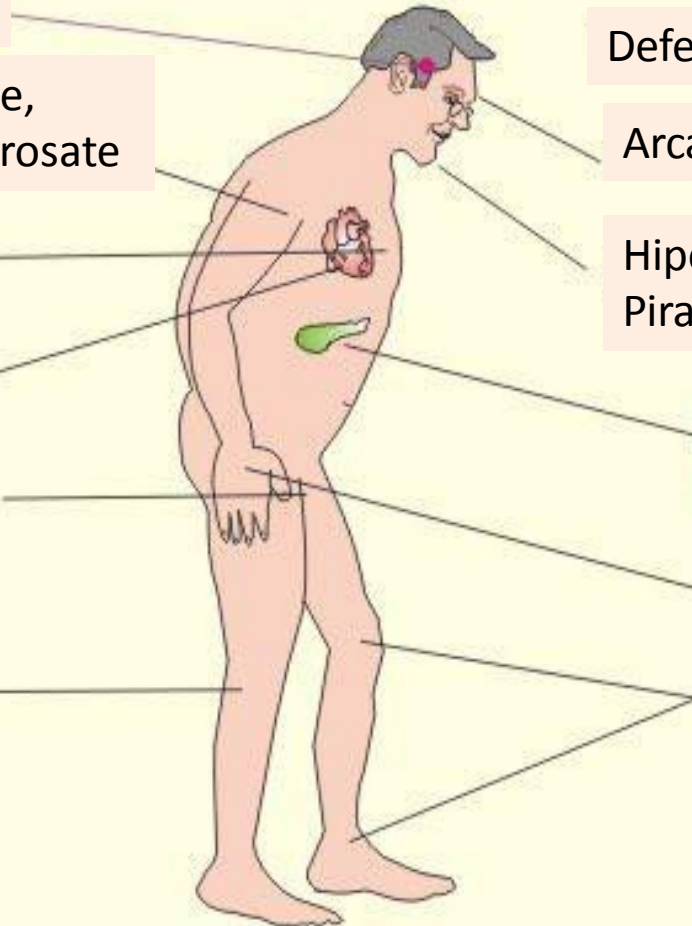


Fig. 30-7

# Sd metabolic

- diabet zaharat, hipertrigliceridemie, hipercalcemie

# Sd endocrin

- gusa, galactoree

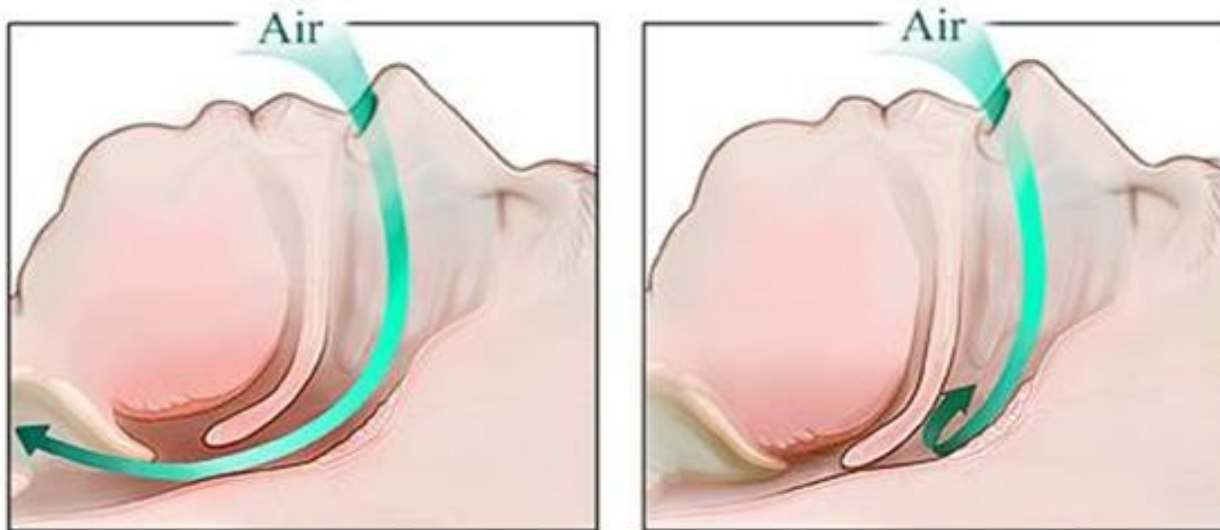
# Sd tumoral

- cefalee
- afectarea campului vizual
- afectare nervi cranieni (III, IV, VI)
- ± hipopituitarism (FSH, LH↓, TSH↓, ACTH↓)



# Sd de apnee in somn

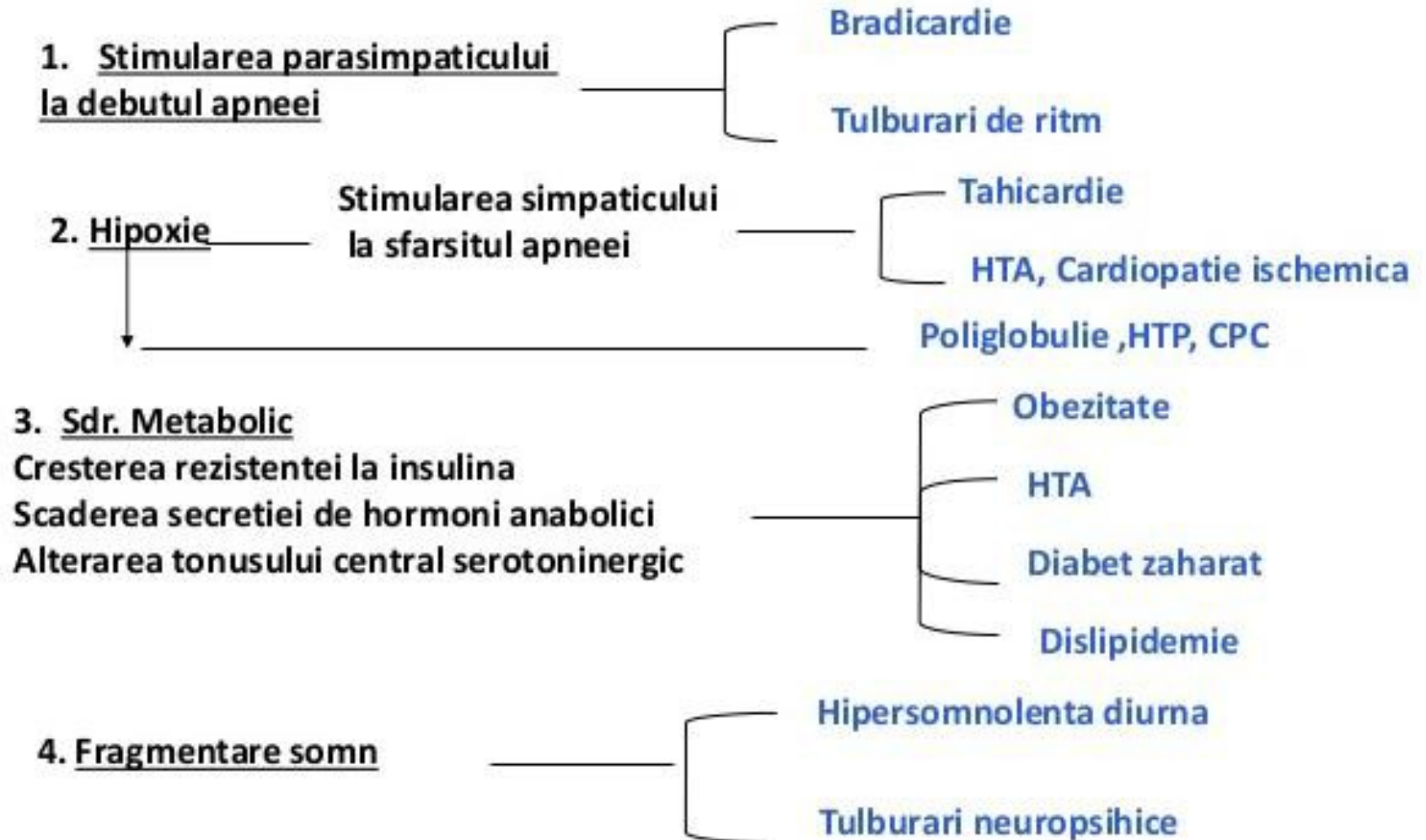
- macroglosie
- hipertrofia mucoasei faringiene
- ± gusa



# polisomnografie



# Consecintele apneei

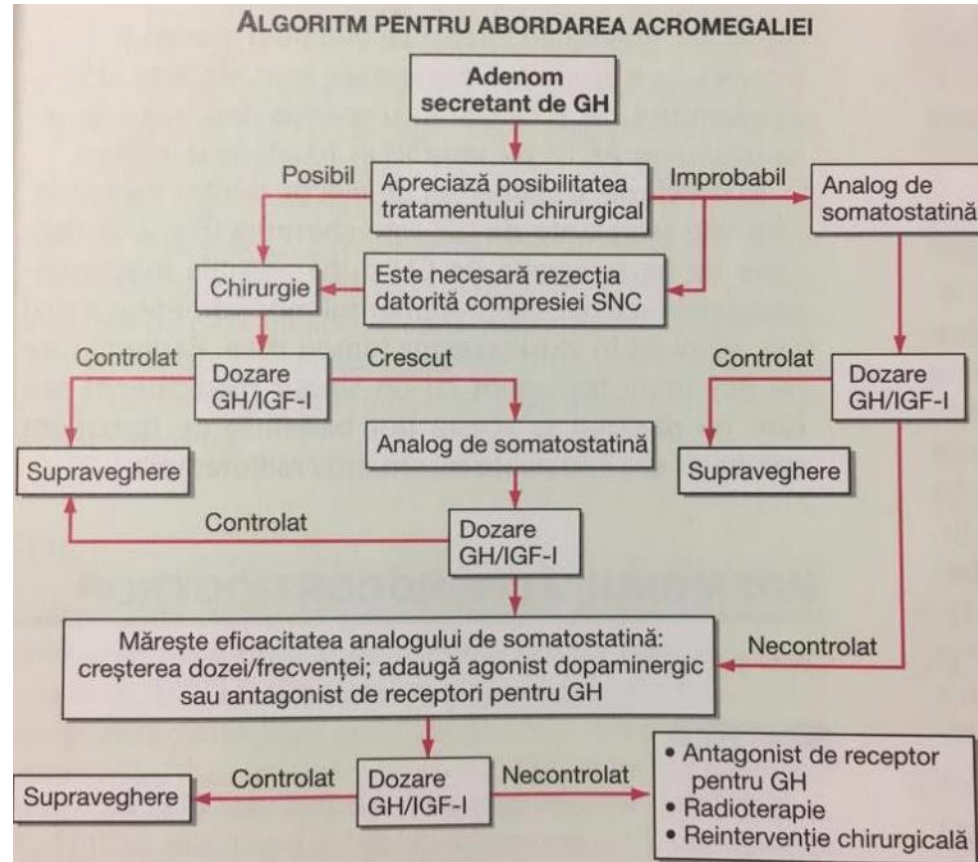


## Mortalitatea crescuta in lipsa tratamentului :

- complicatii cardiovasculare ~ 60%
- respiratorii
- neoplasme (frecvent digestive - colon) urmarire colonoscopica dupa 40 ani

# Tratament

- Linia 1 = chirurgical : transsfenoidal
  - Tumora rezecabila
  - Rata vindecarii: 40-90%; recidiva <5 %
- Medical:
  - Analogi somatostatin
  - Agonisti Dopa
  - Antagonisti receptor GH (pegvisomant)
- Radioterapia



Control : GH < 1 ng/mL

+

!! Corectarea insuficientelor asociate

PRL = N/↑

± alți tropi hipofizari = N/↓ în  
insuficiența totală / parțială

- ! Acromegalia este o boala care poate fi depistata clinic cu usurinta de catre personal medical de orice specialitate