Pituitary Pathology
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The Endocrine System, Ridiculously Oversimplified

The hypothalamus stimulates the pituitary gland, which in turn stimulates the end organ.

The Endocrine System, Ridiculously Oversimplified

Negative feedback pathway
Stimulatory pathway

Endocrine Diseases, Ridiculously Oversimplified

Two clinical problems:
- too much hormone
- too little hormone

Two pathologic problems:
- Problem up here
- Problem down here

Introduction
Hyperpituitarism
Hypopituitarism

Introduction
Hyperpituitarism

- Too much anterior pituitary hormone(s)
- Most common cause: pituitary adenoma
- Pituitary symptoms:
  - Asymptomatic at first
  - Endocrine abnormalities
  - Mass effects
  - Many types
Types of Pituitary Adenoma

Growth Hormone Adenoma

- Gigantism
  - Pre-pubertal adenoma
  - Very tall
  - Very very long arms, legs

- Acromegaly
  - Post-pubertal adenoma
  - Very tall
  - Enlarged bones of face, hands

Tallest man in the world for 2011 Guinness Book

Fezzik, Inigo Montoya, and Vizzini
Andre the Giant

Acromegalic facial features

Introduction

Hyperpituitarism

Hypopituitarism

• Too little anterior pituitary hormone(s)
• Causes
  • Pituitary destruction
  • Ischemic necrosis
  • Pituitary apoplexy
• Symptoms usually insidious
  (hypothyroidism, adrenal insufficiency...)

Acromegaly: development over time
What’s apoplexy?

Apoplexy (Greek apoplexia, to strike down, disable by a stroke): sudden paralysis with loss of consciousness and sensation, caused by the damaging of blood vessels in the brain.