

Endocrine photograph- Disorders of Thyroid hormones

-Hitali Mali

Hyperthyroidism

A. Toxic Goiter/Thyrotoxicosis/Graves' Disease

- Hypertrophy & hyperplasia of gland
- Autoimmune disease, TSI present
- T3, T4 raised
- TSH decreased

B. Thyroid Adenoma

clinical features

1. a high state of excitability,
2. intolerance to heat,
3. increased sweating,
4. mild to extreme weight loss
5. varying degrees of diarrhea,
6. muscle weakness,
7. nervousness or other psychic disorders,
8. extreme fatigue but inability to sleep
9. tremor of the hands.



Exophthalmus

- cause of the protruding eyes is edematous swelling of the retro-orbital tissues and degenerative changes in the extraocular muscles
- Immunoglobulins react with eye muscles

Diagnostic Tests

- TSH low
- T3, T4 raised
- BMR ↑
- TSI found in graves disease but not in adenoma

Treatment

- Surgical removal
- Radioactive iodine

Antithyroid substances

DRUGS	INHIBITING STEP
Thiocyanate ions, perchlorate and nitrate ions	Iodide trapping
Propylthiouracil	Oxidation of iodide ion
Methimazole, Carbimazole	Organification & coupling
Iodides	Release of T3 & T4

Hypothyroidism-

1. Hashimoto's thyroiditis- autoimmunity that destroys thyroid gland
2. Endemic Colloid Goiter Caused by Dietary Iodide Deficiency.
3. Idiopathic Nontoxic Colloid Goiter.
4. Irradiation
5. Surgical removal

Clinical features

1. fatigue and extreme somnolence
2. extreme muscular sluggishness,
3. slowed heart rate, decreased cardiac output,
4. decreased blood volume,
5. sometimes increased body weight,
6. constipation,
7. mental sluggishness,
8. failure of many trophic functions in the body
9. development of a froglike husky voice,
10. development of an edematous appearance throughout the body called myxedema.

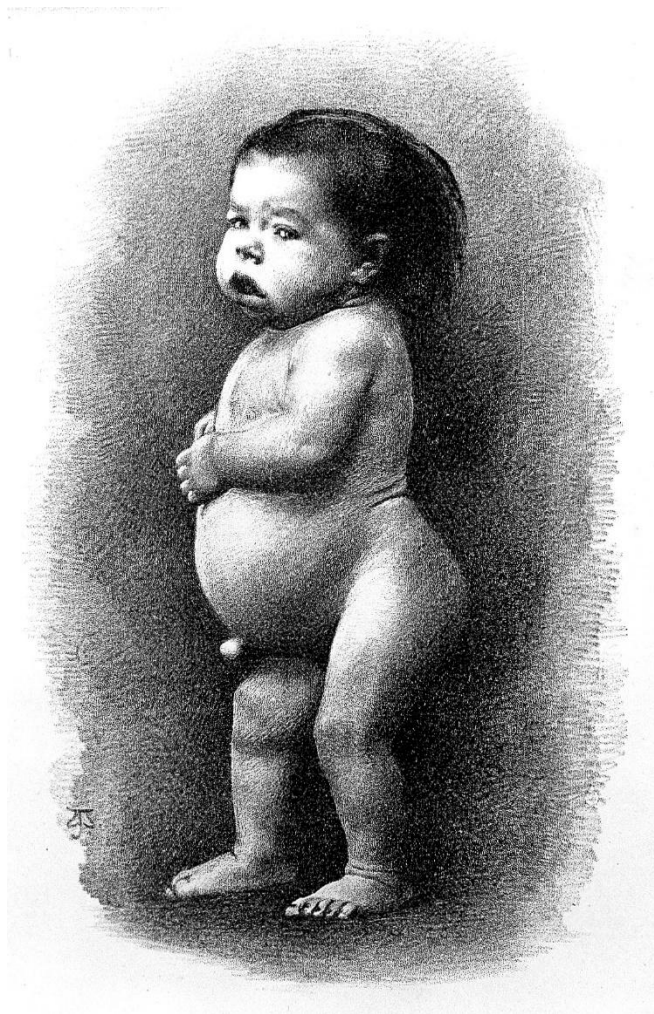


Diagnostic tests

- BMR decreased
 - TSH raised
 - T3,T4 decreased
-
- Treatment- Thyroxine tablets

Cretinism

- hypothyroidism during fetal life, infancy, or childhood.
- Congenital and endemic
- C/F:
- failure of body growth, mental retardation.
- obese, stocky, and short appearance
- tongue becomes large





Thank you